

**Towards a Steadily Evolving Framework for Strengthening Food Safety Governance:
A Holistic, Government-Led Socio-Legal Approach to Preventing Food Adulteration in
Bangladesh**

A Thesis Submitted for the Degree of Doctor of Philosophy

By

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Abstract

This thesis investigates the issue of food adulteration in Bangladesh through the lens of systemic governance, with a focus on its profound socio-economic and public health ramifications. It critically examines how the historical evolution of governance mechanisms, fragmented legal frameworks, overlapping institutional mandates, and ineffective enforcement mechanisms have perpetuated food adulteration. This thesis contends that addressing this problem necessitates a preventive, governance-oriented strategy rather than reactionary enforcement approaches. The strengthening and optimisation of existing regulatory frameworks is key to tackling systemic inefficiencies and reducing consumer vulnerabilities. Additionally, preventive regulation, multi-stakeholder collaboration, and gradual improvements are identified as foundational pillars for meaningful progress. Technological advancements and consumer empowerment are pointed out as important drivers of long-term regulatory effectiveness.

In emphasising the interconnected roles of the law, government and society, this thesis integrates socio-legal methodology with doctrinal analysis, historical inquiry, and comparative insights. This desk-based research critiques the deficiencies of Bangladesh's existing food safety governance structures by drawing on international best practices, particularly those recommended by the Codex Alimentarius and United Nations. It synthesises legal analysis with policy-driven insights by drawing from case law, legislation, academic publications, regulatory reports, media sources, and legal commentaries across various jurisdictions to develop a governance blueprint tailored to Bangladesh's institutional and socio-economic context.

This thesis concludes that reorganising internal governance, forming collaborative partnerships with industry, and actively empowering consumers are the three areas where the government must take the lead to effectuate change. However, regulatory systems must be continuously adjusted and improved, as complete eradication of food adulteration remains an unrealistic goal. A preferable approach could be to adopt modest adjustments through open communication rather than attempting to achieve perfection all at once. The safety of Bangladesh's food supply and the overall health of the population depend on this collaborative and preventative model.

Declaration

I hereby declare that the thesis is based on my original work, except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Brunel University or other institutions.

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Abbreviations

ADR	Alternative Dispute Resolution (ADR)
AOI	Area of Intervention (AOI)
ACCC	Australian Competition and Consumer Commission (Australia)
BARC	Bangladesh Agricultural Research Council (Bangladesh)
BBS	Bangladesh Bureau of Statistics (Bangladesh)
BCSIR	Bangladesh Council of Scientific and Industrial Research (Bangladesh)
BELA	Bangladesh Environmental Lawyers Association (Bangladesh)
BFSA	Bangladesh Food Safety Authority (Bangladesh)
BFSN	Bangladesh Food Safety Network (Bangladesh)
BLAST	Bangladesh Legal Aid and Services Trust (Bangladesh)
BSFF	Bangladesh Shrimp and Fish Foundation (Bangladesh)
BSTI	Bangladesh Standards and Testing Institution (Bangladesh)
BDT	Bangladeshi Taka (Bangladesh)
BSE	Bovine Spongiform Encephalopathy
B2B	Business-to-Business
CPFA 1966	Cantonments Pure Food Act (1966) (Bangladesh)
CPC 1908	Civil Procedure Code (1908) (Bangladesh)
CRO	Civil Rules and Orders (Bangladesh)
CCFL	Codex Committee on Food Labelling (International (FAO/WHO)
CAB	Consumer Association of Bangladesh (Bangladesh)
CRPA 2009	Consumer Rights Protection Act (2009) (Bangladesh)
DAE	Department of Agricultural Extension (Bangladesh)
DDT	Dichloro-diphenyl-trichloroethane
DG	Director General (Bangladesh)
DNCRP	Directorate of National Consumer Rights Protection (Bangladesh)
DLT	Distributed Ledger Technologies
EEC	European Economic Community (Europe)
EU	European Union (Europe)
FAO	Food and Agricultural Organisation (United Nations)
FBO	Food Business Operators
FCA 2015	Formalin Control Act (2015)(Bangladesh)
FDA	US Food and Drug Administration (USA)
FPMU	Food Planning and Monitoring Unit (Bangladesh)
FSA 2013	Food Safety Act (2013) (Bangladesh)

FSSA 2006	Food Safety and Standards Act (2006) (India)
FDCA 1938	Food, Drug, and Cosmetic Act (1938) (USA)
FSSC	Foundation Food Safety System Certification (International)
GMOs	Genetically Modified Organisms
GFSI	Global Food Safety Initiative (International)
GoB	Government of Bangladesh (Bangladesh)
HOL	House of Lords United Kingdom
IPH	Institute of Public Health (Bangladesh)
JICA	Japan International Cooperation Agency (Japan)
MAPA	Brazil's Ministry of Agriculture, Livestock, and Food Supply (Brazil)
MIA	Medically Important Antimicrobials
MOA	Ministry of Agriculture (Bangladesh)
MOF	Ministry of Food (Bangladesh)
MOFL	Ministry of Fisheries and Livestock) (Bangladesh)
MOHFW	Ministry of Health and Family Welfare (Bangladesh)
NFNSP	National Food and Nutrition Security Policy (Bangladesh)
NFSMAC	National Food Safety Management Advisory Council (Bangladesh)
ppm	Parts Per Million
PTSD	Post-Traumatic Stress Disorder
PIL	Public Interest Litigation
PFO 1959	Pure Food Ordinance (1959) (Bangladesh)
QUID	Quantitative Ingredient Declarations
SLAPPs	Strategic Lawsuits Against Public Participation
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development (United Nations)
UNIDO	United Nations Industrial Development Organisation (United Nations)
WHO	World Health Organisation (United Nations)

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Chapter 1: Introduction

Food safety is a fundamental aspect of public health and societal wellbeing worldwide. Yet, ensuring consistent food safety continues to be an elusive goal, particularly in developing countries.¹ Each day, millions of people unknowingly consume adulterated food which poses serious threats to public health.² This research examines the evolving role of governmental leadership in enhancing food safety governance, with a focus on Bangladesh. It explores how comprehensive regulatory frameworks, effective enforcement, and targeted legislative reforms can contribute to minimising public health risks associated with food adulteration. The aim is not to promise a complete transformation, but rather to identify and evaluate incremental yet meaningful improvements in the food safety governance framework. The risk posed by complacency in this area is too substantial to ignore.

1.1. Problem Statement

The central issue addressed in this thesis is the ongoing prevalence of food adulteration in Bangladesh, despite the establishment of the Bangladesh Food Safety Authority (BFSA) in 2015 under the Food Safety Act (FSA 2013).³ Even with this national food safety watchdog, food adulteration remains a major public health crisis,⁴ which indicates that the underlying structural causes of this persistence are yet to be fully addressed and understood. In response to this challenge, this thesis investigates how the Government of Bangladesh (GoB) can strengthen its food safety governance framework, with an emphasis on preventive and collaborative measures to curb food adulteration.

1.1.1. Understanding ‘Food Safety’

In order to grasp the urgency of the issue, it is first necessary to situate food adulteration within the broader context of food safety. The World Health Organisation (WHO) defines food safety as:

Assurance that food will not cause adverse health effects to the consumer when it is prepared and/or eaten according to its intended use.⁵

¹ Laurian Unnevehr, ‘Addressing Food Safety Challenges in Rapidly Developing Food Systems’ (2022) 53 *Agricultural Economics* 529.

² Varongsiri Kemsawasd, Vijay Jayasena and Weeraya Karnpanit, ‘Incidents and Potential Adverse Health Effects of Serious Food Fraud Cases Originated in Asia’ (2023) 12 *Foods* 1; Barbara Sienicka, ‘Crimes Against Food: Characteristics, Health Risk, and Regulations’ (2024) 13 *Food and Energy Security* 1, 2. Wisdom Sawyer and Sylvester Izah, ‘Unmasking Food Adulteration: Public Health Challenges, Impacts and Mitigation Strategies’ [2024] *ES General* 1, 5.

³ Food Safety Act 2013 s 5.

⁴ Ismat Tamanna, ‘Food Adulteration and Inadequate Hygiene Practices Endangering Public Health in Bangladesh’ (2024) 4 *Discover Food* 1.

⁵ Codex Alimentarius Commission, ‘General Principles of Food Hygiene’ (Food and Agriculture Organisation of the United Nations/World Health Organisation (FAO/WHO) 1969) CXC 1-1969 5.

Food safety encompasses the conditions and practices that preserve the quality of food to prevent contamination and foodborne illnesses.⁶ It is a major concern for public health, as it involves ensuring that food consumed by the public is safe and will not lead to harm. The WHO emphasises the integral connection between food safety, nutrition, and food security, which are essential for the prosperity and health of populations worldwide.⁷

The significance of food safety is reflected in the numbers reported by the WHO. Nearly 600 million people become ill annually from consuming contaminated food, with approximately 420,000 deaths, including a disproportionate number of children under five years of age.⁸ These incidents impact public health and the economy, costing low and middle-income countries US\$ 110 billion in lost productivity and medical expenses.⁹ Bangladesh, a part of this region, likely faces similar challenges, though specific local data is not readily available.¹⁰

1.1.2. Scope of the Problem: Defining Food Adulteration and Food Fraud

With this understanding of food safety as a vital public health goal, it now becomes important to define food adulteration which is the specific form of food safety violation this thesis focuses on, and to explain its link to the broader concept of food fraud. Essentially, food adulteration refers to the deliberate act of altering food products through practices such as enhancing product volume, substituting inferior or unauthorised ingredients, or concealing the use of substandard materials, all primarily motivated by economic gain.¹¹ This type of deceptive practice has become increasingly common across international food supply chains, largely because it is relatively easy to get away with and carries a low risk of detection.¹² More broadly, food adulteration is often categorised under the expansive and elastic term 'food fraud', which encompasses various deceptive practices including

⁶ Timothy Lytton, *Outbreak: Foodborne Illness and the Struggle for Food Safety* (University of Chicago Press 2019) 384; Diana Winters, *Outbreak: Foodborne Illness and the Struggle for Food Safety* (2019) 39(4) *Journal of Legal Medicine* 443.

⁷ Food and Agriculture Organisation, *The State of Food Security and Nutrition in the World 2019: Safeguarding against Economic Slowdowns and Downturns* (Food & Agriculture Org 2019) IX.

⁸ World Health Organisation, 'Food Safety: Key Facts' (WHO, 2022) <<https://www.who.int/news-room/fact-sheets/detail/food-safety>> accessed 28 December 2023.

⁹ *ibid.*

¹⁰ Department of Livestock Services (DLS, 'Food Safety and Food Hygiene: Bangladesh and Global Context' (2023) 1. Rakia Ishra, Rasheda Khanam and Jeffrey Soar, 'Influence of Food Safety Concerns on Safe Food Purchasing at Rural and Urban Consumers in Bangladesh' (2022) 179(1) *Appetite* 1, 2.

¹¹ Louise Manning and Jan Soon, 'Food Safety, Food Fraud, and Food Defense: A Fast Evolving Literature' (2016) 81(4) *Journal of food science* 823; Markus Lipp, 'A Closer Look at Chemical Contamination' [2011] *Food Safety Magazine* <<https://www.food-safety.com/articles/3759-a-closer-look-at-chemical-contamination>> accessed 2 January 2024.

¹² Louise Manning and JM Soon, *A Handbook of Food Crime: Immoral and Illegal Practices in the Food Industry and What to Do About Them* (1st edn, Bristol University Press 2019) 129.

substitution, addition, tampering, illegal processing, document fraud, misrepresentation of food or its packaging - all of which are often designed to mislead consumers.¹³

Regarding its practical relevance, it is worth noting that an internationally agreed-upon definition of 'food fraud' does not exist as yet. Scholars, regulators, and international organisations are still debating the precise contours of the term which also obscures the fight against it.¹⁴ The individual involved in fraudulent activities may be characterised by the evolving sophistication of their actions which ranges from recreational and occasional to occupational and ultimately professional, or by their specific role within the criminal enterprise.¹⁵ Nevertheless, in the literature, the terms 'food adulteration' and 'food fraud' are often used interchangeably.¹⁶ This thesis will follow that convention except where specified otherwise. The overlap occurs because both terms involve practices that intentionally deceive consumers for financial benefit.¹⁷

At the same time, not all food adulteration is intentional. It is important to recognise that there is an element to food adulteration that can be unintentional, caused by carelessness, negligence, or lack of proper hygiene and handling practices during production, storage, transportation, or distribution. The latter type may not meet the threshold for fraud because they lack deliberate intent and are instead governed by frameworks which address negligence or gross negligence. As such, this thesis confines its analysis to the deliberate, economically motivated subset of food adulteration, i.e., food fraud in its narrowest and most typical sense. The necessity of distinct regulatory and operational responses to deliberate versus incidental violations has been the focus of recent research in the field of food crime prevention. As such, the analytical lucidity is consistent with this ring-fencing.

¹³ John Spink and Douglas Moyer, 'Defining the Public Health Threat of Food Fraud' (2011) 76(9) *Journal of Food Science* R157, R162.

¹⁴ MT Roberts, T Viinikainen and C Bullon, 'International and National Regulatory Strategies to Counter Food Fraud' (FAO and UCLA 2022) 1, 6–7. KE Gussow and A Mariët, 'The Scope of Food Fraud Revisited' 78 *Crime, Law and Social Change* 621, 624; Carissa Cruse, 'Food Fraud and the Food, Drug, and Cosmetic Act: Bridging a Disconnect' (2019) 74(2) *Food and Drug Law Journal* 322; John Spink and others, 'International Survey of Food Fraud and Related Terminology: Preliminary Results and Discussion' (2019) 84(10) *Food Science* 2705, 2718; Aline Wisniewski and Anja Buschulte, 'How to Tackle Food Fraud in Official Food Control Authorities in Germany' (2019) 14(4) *Journal of Consumer Protection and Food Safety* 319, 328.

¹⁵ John Spink and others, 'Food Fraud Prevention: Policy, Strategy, and Decision-Making – Implementation Steps for a Government Agency or Industry' (2016) 70(5) *International Journal for Chemistry* 320, 322.

¹⁶ Louise Manning and others, 'Dietary Supplements, Harm Associated with Synthetic Adulterants and Potential Governance Solutions' (2022) 78 *Crime, Law and Social Change* 507, 523; Kelsey Robson and others, 'A Comprehensive Review of Food Fraud Terminologies and Food Fraud Mitigation Guides' (2021) 120 *Food Control* 1, 2; Spink and others (n 8) 2715; Sébastien Rioux, 'Capitalist Food Production and the Rise of Legal Adulteration: Regulating Food Standards in 19th-century Britain' (2019) 19(1) *Journal of Agrarian Change* 64, 65; For a contrasting view on the interchangeable use of the terms, see: Cruse (n 14) 340–341.

¹⁷ Graham Dutfield and Uma Suthersanen, 'Responding to the Global Food Fraud Crisis: What Is the Role of Intellectual Property and Trade Law?' in Giuliana Ziccardi Capaldo, *The Global Community Yearbook of International Law and Jurisprudence* (Oxford University Press 2021) 11.

1.1.3 Colonial influences on Bangladeshi Law

Now that the concept of food adulteration and its place under the umbrella of food fraud has been clarified, the next step is to examine how Bangladesh's legal and regulatory framework has evolved to address, or at times overlook this problem. Because its legal system is rooted in English common law, Bangladesh offers a useful case study of how colonial legal traditions shape modern food regulation.¹⁸ The historical context is key to grasping the country's current challenges and progress in food law.

The historical trajectory of Bangladesh's legal and regulatory development has been largely influenced by British colonial rule. Before British rule, from 1201 to 1757 AD, the region now known as Bangladesh was governed by Muslim rulers, including Turkish and Mughal dynasties.¹⁹ The British established dominance following the Battle of Plassey in 1757 which marked the end of Muslim rule.²⁰ The colonial rule persisted until the partition of the Indian subcontinent in 1947, which resulted in the creation of India and Pakistan.²¹ The area now known as Bangladesh became East Pakistan during this partition.²²

Following years of political struggle, Bangladesh was proclaimed an independent nation on December 16, 1971, becoming the People's Republic of Bangladesh.²³ Today, Bangladesh operates under a parliamentary democracy.²⁴ The President acts as the ceremonial head of state, as stated in Article 48(2) of the nation's Constitution, whilst the Prime Minister is vested with executive power as per Article 55(2) and 55(4).²⁵ The country has eight administrative divisions: Dhaka, Chittagong, Sylhet, Barishal, Rajshahi, Rangpur, Mymensingh, and Khulna. Each division is named after its administrative capital, a major city. The divisions are divided into 64 second-order administrative districts, 500 sub-districts, and unions.

The Bangladeshi judiciary is another relic of British colonial rule as it functions within the common law tradition. At its apex is the Supreme Court, divided into the Appellate and High

¹⁸ Mindy Chen-Wishart, Alexander Loke and Ong, *Studies in the Contract Laws of Asia I: Remedies for Breach of Contract*, vol I (Oxford University Press 2016) 402.

¹⁹ Al Ahmed, 'Islam, Neoliberalism and Social Inequality in Bangladesh: A Social Policy Perspective' in Ali Akbar Tajmazinani (ed), *Social Policy in the Islamic World* (1st edn, Springer 2021) 284.

²⁰ Craig Baxter, *Bangladesh: From A Nation To A State* (Taylor & Francis 2018) 27.

²¹ Ahmed, 'Islam, Neoliberalism and Social Inequality in Bangladesh' (n 19) 284–288.

²² Feroz Ahmed, 'The Struggle in Bangladesh' (1972) 4(1) *Bulletin of Concerned Asian Scholars* 2, 1–2.

²³ Ian Talbot, 'Bangladesh Since Independence', *A History of Modern South Asia* (1st edn, Yale University Press 2016) ch 13.

²⁴ Rounaq Jahan, 'The Parliament of Bangladesh: Representation and Accountability' (2015) 21(2) *The Journal of Legislative Studies* 250.

²⁵ The Constitution of the People's Republic of Bangladesh 1972 art 48(2) and 55.

Court Divisions under Article 94(1) of the Constitution.²⁶ The Appellate Division hears appeals against decisions of the High Court Division, which has the authority for original jurisdiction in certain cases, as well as appellate jurisdiction over the lower district courts.²⁷ District courts, split into civil and criminal benches, are headed by District and Sessions Judges.²⁸ Hence, the judicial structure displays the lasting impact of British colonialism on Bangladesh's legal and administrative systems.²⁹

The trajectory of food safety regulation in Bangladesh similarly reflects its colonial history, particularly under British rule. The British administration in the Indian subcontinent was instrumental in introducing regulatory frameworks that would later influence post-colonial legal systems. Notably, legislative measures such as 'A Bill for Preventing the Adulteration of Articles of Food and Drink' purportedly enacted in 1860,³⁰ along with specific provisions in the Indian Penal Code of the same year, were seminal in addressing the issue of food adulteration. These early interventions are often cited in scholarly literature as setting precedents for subsequent regulatory efforts in the region.³¹ With the geopolitical reshaping of the Indian subcontinent, first through the partition of India in 1947 and then the emergence of Bangladesh as an independent state in 1971, there was a discernible shift towards developing distinct legal frameworks.

One of the first statutes in the region to specifically address food adulteration was the Pure Food Ordinance (PFO 1959), which was promulgated during the Pakistani era, prior to the independence of Bangladesh.³² Sikder, Islam, Ahmed and Chowdhury observe that this ordinance laid a foundational basis for later regulatory frameworks in Bangladesh.³³ Post-independence, GoB really took the ball and ran with it when it came to food safety by developing its food safety regulations. For example, the Special Powers Act (1974), though broader in its scope, did encompass aspects relevant to food safety and regulation.³⁴ A

²⁶ *ibid* 94(1).

²⁷ Bangladesh Bureau of Statistics, 'Bangladesh: An Overview' (2020) XXII.

²⁸ *ibid* XXIII.

²⁹ Hasanuzzaman Zaman, *Challenging Colonial Administrative Behavior in Bangladesh* (1st edn, Taylor & Francis 2023) 2014.

³⁰ Peter Barton and Peter Hutt, 'A History of Government Regulation of Adulteration and Misbranding of Food' (1984) 39(1) Food, Drug, Cosmetic Law Journal 2, 34.

³¹ P Dudeja and A Singh, *Food Safety in the 21st Century* (Rajul Gupta, Dudeja, and Singh Minhas eds, Academic Press 2017) 244; Upendra Baxi, 'Law and Social Change: The Colonial Experience', *Towards Sociology of Law* (1st edn, Satvahan 1986) 11–15.

³² Bangladesh Pure Food Ordinance 1959.

³³ Md Sikder and S Islam, 'Right to Food and Food Security in Bangladesh: An Overview' (2023) 5(5) Asian Journal of Social Sciences and Legal Studies 125, 131; Arif Ahmed, 'Food Adulteration and Right to Food Safety in Bangladesh: An Analysis of Legal Frameworks' (2019) xiii(2) Society & Change 7, 12; AR Chowdhury, 'The Food Safety Act of 2013: A Critical Analysis and Reform Proposals' (2018) 3(1) Premier Critical Perspective 21, 23.

³⁴ Special Powers Act 1974.

notable development in the institutional framework was the establishment of the BSTI in 1985.³⁵ This institution continues to have a key role in standardising and enforcing food safety measures till date.

The ongoing challenges with food safety in Bangladesh could be linked to the country's historical and regulatory background. Rahman, a pioneer scholar in Bangladeshi consumer law, traces these problems to the colonial period and the political instability that followed.³⁶ The colonial governance systems did not prioritise consumer rights protection, which could have influenced the legislative priorities in the years following independence. Rahman points out that adequate food safety legislation during this time has left a lasting imprint on the problem of adulteration.

Moreover, the ability of consumers to seek compensation or take legal action against offenders is often limited. Rahman's 1994 observations noted that consumer rights laws did not empower ordinary consumers to initiate lawsuits.³⁷ Recent research by Andaleeb, Ali, Chowdhury, Hossain, Mia, and Mallick have continued to critique that legal proceedings tend to be initiated by specific officials rather than the affected consumers themselves.³⁸

Indeed, these patterns reflect fundamental differences in consumer protection philosophies between developed and developing nations.³⁹ In wealthier economies, consumers are faced with a plethora of choices and stronger mechanisms to assert their rights. In poorer contexts, limited purchasing power and the struggle to meet basic needs mean that other consumer rights such as safety, information, choice, representation, redress, education and a healthy environment remain less visible and less enforced.⁴⁰

It goes without saying that in a country where poverty is widespread, consumer rights often hold little practical significance.⁴¹ In Bangladesh, the enforcement and acknowledgement of

³⁵ Sikder and Islam (n 33) 129.

³⁶ Mizanur Rahman, 'Consumer Protection in Bangladesh: Law and Practice' (1994) 17(3) *Journal of Consumer Policy* 349, 350.

³⁷ *ibid* 358.

³⁸ Zafrin Andaleeb and ANMA Ali, 'The Development of Consumer Protection Law in Bangladesh: A Critical Comparative Study' (131AD) 2(1) *Independent Business Review* 133–134; AR Chowdhury, 'The Consumer Rights Protection Act 2009 in Bangladesh: Revisiting with Reformatory Approach' (2016) 2(1) *Premier Critical Perspective* 153, 157–158; Md Hossain, 'A Focus on the Legal Framework of Consumer Protection: Bangladesh Perspective' (2020) 5 *Ideas* 134, 148–149; B Mia and S Mallick, 'Protection of Consumers' Rights in Bangladesh: Law and Reality' (2021) 4(3) *International Journal of Law Management & Humanities* 4789, 4797–4798.

³⁹ Thomas Wilhelmsson and Geraint Howells, 'Consumer Law', *Consumer Law* (Edward Elgar 2019).

⁴⁰ Mizanur Rahman, 'Consumer Protection in Bangladesh: Present Status and Some Thoughts for the Future' (2009) 3(1) *Prime University Journal* 1 section 2.1; Hossain, 'A Focus on the Legal Framework of Consumer Protection: Bangladesh Perspective' (n 38) 135. UNCTAD, 'United Nations Guidelines for Consumer Protection' (United Nations 2016) UNCTAD/DITC/CPLP/MISC/2016/1.

⁴¹ Mia and Mallick (n 38).

these rights have historically been minimal.⁴² This is evident by the fact that even decades after independence, for a long time, there was no specific law dedicated to consumer protection. However, progress has been made after years of lobbying by the Consumer Association of Bangladesh (CAB) with the enactment of the Consumer Rights Protection Act in 2009 (CRPA 2009).⁴³ Yet, food adulteration persisted as a prevalent public health concern⁴⁴ which prompted further governmental action, leading to the enactment of the FSA (2013).⁴⁵

1.1.4 Food Adulteration in the Post-2015 Context

Although food adulteration has long been a nationally featured issue in Bangladesh, this thesis will specifically focus on the period after 2015. For instance, in 2016, the National Food Safety Laboratory at the Institute of Public Health (IPH) found aflatoxin, colouring agents, formaldehyde, and pesticide residues in 25% of 15 food commodity samples.⁴⁶ This data supports news reports from the same year that found hazardous chemicals in butter, vermicelli, and bakery products.⁴⁷

In 2018, the Bangladesh Standards and Testing Institution (BSTI) tested 175 food samples and found 36 adulterated, a 20.57% rate.⁴⁸ The 2019 adulteration rate dropped to 12.80%, with 52 samples out of 406 tested.⁴⁹ The decrease suggests a positive impact of the policy measures on food safety standards. The study also identified Dhaka's food adulterants. These included colouring agents in spices, sauces, juices, lentils, and oils; formalin and

⁴² Mizanur Rahman, 'Consumer Protection in Bangladesh: Law and Practice' (1994) 17 *Journal of Consumer Policy* 349, 359–360.

⁴³ The Consumer Rights Protection Act (2009); Andaleeb and Ali (n 38) 130–131.

⁴⁴ Zemichael Gizaw, 'Public Health Risks Related to Food Safety Issues in the Food Market: A Systematic Literature Review' (2019) 24 *Environmental Health and Preventive Medicine* 1, 6, 10, 12, 13, 17; Sharifa Nasreen and Tahmeed Ahmed, 'Food Adulteration and Consumer Awareness in Dhaka City, 1995-2011' (2014) 32(3) *Journal of Health, Population, and Nutrition* 452; Md Hossain and KM Islam, 'Consumption of Foods and Foodstuffs Processed with Hazardous Chemicals: A Case Study of Bangladesh' (2008) 32(6) *International Journal of Consumer Studies* 588; T Chanda and others, 'Adulteration of Raw Milk in the Rural Areas of Barisal District of Bangladesh' (2013) 41(2) *Bangladesh Journal of Animal Science* 112; T Hossain, 'Food and Agricultural Import Regulations and Standards Country Report' (United States Department of Agriculture 2020) BG2019-0010 s 1.

⁴⁵ The Food Safety Act (2013); M Francic, 'FAIRS Annual Country Report' (United States Department of Agriculture 2023) BG2023-0014.

⁴⁶ Reaz Ahmad, 'Ensuring Safe Food a Far Cry' *The Daily Star* (24 September 2016) <<https://www.thedailystar.net/frontpage/ensuring-safe-food-far-cry-1288846>> accessed 27 August 2024.

⁴⁷ R Kabir, 'Food Adulteration a Cause of Concern' (*Dhaka Tribune*, 28 June 2016) <<https://www.dhakatribune.com/bangladesh/1179/food-adulteration-a-cause-of-concern>> accessed 24 October 2023.

⁴⁸ Sharmin Aktar, 'Food Adulteration and Awareness of Consumer Right Protection: An Empirical Study in Sutrapur and Dhupkhola Area of Dhaka City' (2019) 9(2) *Jagannath University Journal of Arts* 194, 199.

⁴⁹ *ibid*.

carbide in fish, fruit, meat, and milk; sulphuric acid in milk; and other harmful substances in *jilapi* and *biriyani*.⁵⁰

A 2019 nationwide investigation of the turmeric supply chain found that polishing mills were adding lead chromate pigments to boost root colour and profitability. The practice continued since the 1980s despite laws against it.⁵¹ Earlier in 2018, Bangladesh had no safe food-grade lead-free alternative colourants and the pigment was widely available without restrictions.⁵² In response, the BFSA employed collaborative strategies and devised targeted measures which led to a notable reduction in the adulteration of turmeric, dropping from 47% in 2019 to 0% in 2021.⁵³ However, this was only a one-shot intervention at mitigating adulteration. Nonetheless, it indicates that although food adulteration in Bangladesh is widespread, it can be mitigated through consistent and targeted governmental intervention and collaboration.

However, concerns have arisen regarding the potential manipulation of test results by manufacturers, a tactic employed to mask the adulteration of food products.⁵⁴ In 2014, it was found that pasteurised milk can contain cheaper vegetable protein such as soya protein and still pass tests.⁵⁵ This has not changed, as a 2019 IPH study found adulteration in 40% of 30 food items out of 43. Nearly 100% of 13 items were adulterated.⁵⁶ Chrome, tartrazine, and Sudan red, which cause cancer, allergies, and respiratory problems, were found in the adulterants. Fish, fruit, meat, and milk contained cancer and liver-damaging formalin and carbide. Rye flour, urea, sulphuric acid, oleomargarine, and DDT⁵⁷ in food also pose long-term health risks, including nervous system and cardiac disorders.⁵⁸

⁵⁰ *ibid.*

⁵¹ Jenna Forsyth and others, 'Turmeric Means "Yellow" in Bengali: Lead Chromate Pigments Added to Turmeric Threaten Public Health across Bangladesh' (2019) 179(A) *Environmental Research* 1, 2.

⁵² *ibid.* 6.

⁵³ Jenna Forsyth and others, 'Food Safety Policy Enforcement and Associated Actions Reduce Turmeric Lead Chromate Adulteration Across Bangladesh' (2023) 232(1) *Environmental Research* 1, 2, 8.

⁵⁴ Aktar (n 48) 199.

⁵⁵ Nasreen and Ahmed (n 44) 455.

⁵⁶ ICLEI South Asia, 'Tackling Food Adulteration as a Measure to Ensure Access to Safe Food in Dhaka, Bangladesh' (2021) <https://southasia.iclei.org/tackling-food-adulteration-as-a-measure-to-ensure-access-to-safe-food-in-dhaka-bangladesh/#_heading=h.3dy6vkm> accessed 24 October 2023; KB Choudhury, 'Rampant Food Adulteration and Its Impacts' *Daily Sun* (2019) <<https://www.daily-sun.com/post/409855>> accessed 24 October 2023.

⁵⁷ Dichloro-diphenyl-trichloroethane (DDT) is a common adulterant in Bangladesh despite being banned in 1991. However, recent news uncovered that the world's largest remaining stockpile of the banned DDT was left in Bangladesh's second largest city for 37 years: FAO in Bangladesh, 'Huge Pile of Toxic Pesticide DDT Cleared after Nearly Four Decades' <<https://www.fao.org/bangladesh/news/detail-events/en/c/1623736/>> accessed 17 January 2024; Sayeeda Rahman and others, 'The Extent and Magnitude of Formalin Adulteration in Fish Sold in Domestic Markets of Bangladesh: A Literature Review' (2016) 40 *International Journal of Consumer Studies* 152.

⁵⁸ Shahedul Islam and others, 'Dreadful Practices of Adulteration in Food Items and Their Worrisome Consequences for Public Health: A Review' (2022) 8(1) *Journal of Food Safety and Hygiene* 1, 4–7.

According to Dr Ruskin of the National Institute of Cancer Research and Hospital, adulterated food is now recognised as a leading cause of cancer in the country. He warns that adulterated food can cause asthma, dermatological disorders, and neurological impairments.⁵⁹ The magnitude of this situation is further evidenced by a 2020 report which revealed a notable increase in new cancer cases in Bangladesh between 2015 and 2017.⁶⁰ These numbers go beyond statistics. They symbolise countless lives irrecoverably altered by a system that has failed in its fundamental duty to protect public health. Each statistic embodies an individual, a family, and a community grappling with the repercussions of ineffective food safety measures.

Recent medical trends reveal that Bangladeshi patients seeking liver and kidney disease treatment at Bumrungrad Hospital have increased.⁶¹ These are conditions frequently associated with the consumption of adulterated foods. In parallel, the World Fertility Survey reports 4% infertility in Bangladesh, alongside declining fertility rates.⁶² Although endocrine-disrupting chemicals in adulterated foods could potentially impact fertility, broader societal factors, such as delayed childbearing and environmental pollutants, are also likely influential. These developments could indirectly hinder Bangladesh's progress towards achieving Sustainable Development Goal No. 3, which aims to ensure good health and well-being.⁶³ As these health trends unfold, they necessitate an urgent need for comprehensive actions to address food safety concerns in the country.

Despite the imposition of fines, deceptive practices persist,⁶⁴ which suggests a lack of deterrence and points towards systemic inadequacies in enforcement mechanisms.⁶⁵ Interestingly, perceptions amongst officials tasked with overseeing these regulatory measures present a dichotomy. On one hand, one metropolitan magistrate has observed noticeable improvements, particularly in areas of hygiene and product labelling.⁶⁶ This observation indicates that some regulatory standards are being successfully implemented, at

⁵⁹ S Rahman, 'Adulterated Food Poses Threat to Public Health' *The Financial Express* (15 October 2021) <<https://www.thefinancialexpress.com.bd/national/adulterated-food-poses-threat-to-public-health-1634265786>> accessed 26 August 2024.

⁶⁰ *ibid.*

⁶¹ N Wahab and F Sultana, 'Adulterated Food Induced Female Infertility in Bangladesh' (2017) 3(3) *Journal of Asian and African Social Science and Humanities* 12, 19.

⁶² P Nahar, 'Invisible Women in Bangladesh: Stakeholders' Views on Infertility Services' (2012) 4(3) *Facts, Views & Vision in ObGyn* 149.

⁶³ United Nations in Bangladesh, 'Sustainable Development Goal 3: Good Health and Well-Being' <<https://bangladesh.un.org/en/sdgs/3>> accessed 17 January 2024.

⁶⁴ Aktar (n 48) 204; F Zohra and Md Uddin, 'Economic Reasons behind Adulteration Issues in Fish Supply Chain in Bangladesh' XXXVII (1) *Journal of Business Studies* 145, 154.

⁶⁵ ANMA Ali and SM Solaiman, 'Dishonest and Excessive Use of Antibiotics in Meat Producing Animals in Bangladesh: A Regulatory Review' (2020) 15(5) *European Food and Feed Law Review* 449, 458.

⁶⁶ Aktar (n 48) 204.

least in part. On the other hand, scholars who attribute this persistence to entrenched corruption and inefficiencies within the system offer a contrasting perspective. They suggest superficial regulatory measures fail to tackle the underlying causes of the problem.⁶⁷ This perspective is not new. It supports a 2014 report by Transparency International Bangladesh on food safety corruption and inefficiency.⁶⁸ In retrospect, the report foreshadowed Bangladesh's food safety regulatory framework's ongoing problems.

A candid view from inside the system provides a compelling perspective. When questioned about the potential decrease in food adulteration, the staff member observed:

It has decreased only on the surface; activities continue underneath. As long as corruption prevails in the country, it will not decrease.⁶⁹

The insider's take prompts important questions about the effectiveness of the current regulatory framework and whether BFSA and related agencies are doing enough. It seems that even though things might look better on the surface, food adulteration is still a big problem. It goes on to say that fixing the underlying problems can require more than just cosmetic adjustments or one-off treatments. A lot of effort has gone into enforcing rules and handing out penalties, but these actions often just deal with the symptoms, not the root causes. The fact that food adulteration keeps happening, even with all these laws and enforcement efforts, makes one question whether the current regulatory approach is really working. Although total eradication of food adulteration might not be realistic, lowering its prevalence is both achievable and imperative.

Therefore, this situation points to the need for a more holistic and coordinated strategy. A shift towards preventive strategies could be more effective in addressing the systemic issues that perpetuate food adulteration, rather than relying solely on punitive measures, which are inherently reactive. Looking at the current approach, there is a noticeable missing piece i.e., a focus on prevention and collaboration among stakeholders. Hence, this thesis takes a fresh look at the problem and attempts to reframe the discourse by investigating socio-legal factors underpinning food adulteration. It is essential to understand these foundational issues is key to crafting more robust solutions to combat this problem. Without a reorientation towards prevention, the existing trajectory risks jeopardising public health and

⁶⁷ ANMA Ali and SM Solaiman (n 65) 460.

⁶⁸ Md Rahman, 'Ensuring Safe Food: Challenges of Good Governance and Ways to Overcome Them' (Transparency International Bangladesh (TIB) 2014) 29, 30.

⁶⁹ Aktar (n 48) 193, 204.

Bangladesh's broader development goals, including its ambition to achieve developed nation status by 2041.⁷⁰

Therefore, this thesis employs a systematic and holistic approach to tackling food adulteration. The research will delve into the current governance framework, identify key challenges, and prioritise prevention-focused reforms.

Accordingly, this thesis adopts a systematic and holistic approach to investigating the governance of food adulteration in Bangladesh, with a view to identifying pathways for strengthening prevention and collaboration.

1.2 Research Aims and Objectives

This research aims to examine the structural shortcomings of Bangladesh's food safety governance, assess the effectiveness of current enforcement, and explore the potential of prevention-based and collaborative strategies.

In order to achieve this aim, the research pursues the following objectives:

- i. Examine the legal and institutional framework governing food safety in Bangladesh following the introduction of the Food Safety Act 2013, in order to map the current governance landscape.
- ii. Identify key barriers to effective implementation and enforcement of food safety laws, with a focus on systemic and operational challenges.
- iii. Evaluate the effectiveness of the BFSA and other relevant institutions in mitigating food adulteration since their establishment.
- iv. Assess the potential role of preventive strategies such as food traceability and labelling in reducing food adulteration.
- v. Propose an improved governance model that could reinforce state leadership while integrating meaningful multi-stakeholder collaboration.

The aforementioned objectives combine descriptive, analytical, and prescriptive elements, thereby contributing to theory by enhancing understanding of governance gaps and to practice by offering context-sensitive solutions.

⁷⁰ M Gill, M Hasan and Feed the Future Policy LINK, 'Bringing Everyone to the Table to Strengthen Food Safety Policy in Bangladesh' (*Agrilinks*, 10 June 2024) <<https://agrilinks.org/post/bringing-everyone-table-strengthen-food-safety-policy-bangladesh>> accessed 19 June 2024.

1.3 Research Questions

The central research question is: How might the GoB strengthen its food safety governance framework to more effectively prevent food adulteration?

The overarching question reflects the persistence of food adulteration despite institutional reforms and frames the investigation as both diagnostic and normative by identifying weaknesses and suggesting improvements.

In order to address the main research question, this research examines four sub-questions:

- i. What are the key regulatory and institutional limitations of the current food safety framework in Bangladesh?
- ii. To what extent has the BFSA been effective in leading national efforts to combat food adulteration since its inception in 2015?
- iii. How might preventive strategies such as food traceability and labelling help reduce the incidence of food adulteration?
- iv. How can multi-stakeholder collaboration be meaningfully integrated into a state-led model of food safety governance?

1.4 Literature Review

This literature review is extensive because of the pluralistic and interdisciplinary nature of scholarship in this field. It explores the development of food law which is a relatively nascent area in legal scholarship, particularly with respect to food fraud. Until after 2013, the subject of food law remained largely unexplored in scholarly circles. The length of the review is justified by its focus on the diverse scholarly sources that inform food safety regulation. In addition, this review draws on experiences and debates from other jurisdictions to illustrate how different regulatory approaches and best practices could inform both the theoretical analysis and the design of context-sensitive reforms in Bangladesh.

It should be briefly mentioned that much of the literature on food safety originates from private law, yet food safety also intersects considerably with public law due to its broader social implications. Traditionally, English commercial law addressed aspects of food safety through statutes such as the Sales of Goods Act, which dealt with quality issues, thereby

implicitly encompassing safety concerns.⁷¹ Additionally, foundational tort law principles, as exemplified by landmark cases such as *Donoghue v Stevenson* (1932), have played a fundamental role.⁷² Although these legal authorities did not explicitly focus on ‘food’ or use the term ‘food law’, they would have been the regulatory authorities then.

1.4.1 Introduction to Food Law

The exploration of food law as an academic discipline began to crystalise in the United Kingdom (UK) towards the latter part of the 1990s. Prior to this, the literature was sparse and largely practitioner focused, concerned mainly with European Union (EU) rules on free movement of goods, without much attention to domestic application or societal implications.⁷³ Historically, food laws have existed since ancient times, but they gained complexity in the 19th century,⁷⁴ and evolved further after the UK joined the European Economic Community (EEC) in 1973.⁷⁵ However, even then, food law remained a fragmented and underdeveloped discipline.⁷⁶

It was the emergence of bovine spongiform encephalopathy (BSE), commonly known as ‘Mad cow disease’, that marked a watershed moment in stimulating deeper interest and development in the field of food law.⁷⁷ The health scare exposed gaps in existing laws and their inability to protect public health effectively. The controversy over genetically modified organisms (GMOs) soon followed, raising further concerns about regulatory inadequacies, labelling, and consumer protection, and drawing scrutiny from international bodies such as the World Trade Organisation.⁷⁸

⁷¹ Colin Scott and Julia Black, *Cranston’s Consumers and the Law* (2nd edn, Cambridge University Press 2000); Ross Cranston, *Regulating Business* (Palgrave Macmillan UK 1979).

⁷² *Donoghue v Stevenson* [1932] AC 562 (HL Sc).

⁷³ Food law had already gained recognition as a topic of study in the United States, with the first publication of the Food and Drug Law Journal (previously known as the Food, Drug, and Cosmetic Law Journal) in 1946. Onno Brouwer, ‘Free Movement of Foodstuffs and Quality Requirements: Has the Commission Got It Wrong’ (1988) 25 Common Market Law Review 237; Hans-Christoph Von Lasa and H.-C, ‘Free Movement of Foodstuffs, Consumer Protection and Food Standards in the European Community: Has the Court of Justice Got It Wrong?’ [1991] European Law Review 391.

⁷⁴ Caoimhín MacMaoláin, ‘History and Development of Food Law’, *Food Law: European, Domestic and International Frameworks* (1st edn, Bloomsbury Publishing 2015) 25–38.

⁷⁵ Alan Swinbank, ‘The EEC’s Policies and Its Food’ (1992) 17(1) Food Policy 53.

⁷⁶ MacMaoláin (n 74) 1.

⁷⁷ Matteo Ferrari, *Risk Perception, Culture, and Legal Change: A Comparative Study on Food Safety in the Wake of the Mad Cow Crisis* (Routledge 2016) xii. Ellen Vos, ‘EU Food Safety Regulation in the Aftermath of the BSE Crisis’ (2000) 23(3) Journal of Consumer Policy 227, 246–249.

⁷⁸ MacMaoláin (n 74) 2. David Barling, ‘Regulating GM Foods in the 1980s and 1990s’ in *Food, Science, Policy and Regulation in the Twentieth Century* (1st edn, Routledge 2000).

These and similar other incidents increased public and academic scrutiny of food sector legal governance, thereby elevating food law as a distinct field of study. Today, food law addresses a broad array of societal concerns, including public health, environmental conservation, animal welfare, consumer information, employment in the food industry, and economic considerations.⁷⁹ Whilst initial attention to food law was drawn by issues such as 'mad cows' and 'Frankenstein foods', the field's ongoing relevance and expansion as a scholarly discipline are maintained by its capacity to address matters of both professional and profound personal importance.⁸⁰ Indeed, the versatile nature of food law also characterises its role in research and teaching, where it is recognised as a functional (or multi-doctrinal) field.⁸¹

Unlike fields in legal scholarship that are defined based on legal dogma such as constitutional law, private/civil law, administrative law, and penal law, food law, much like environmental and labour law, is defined based on societal phenomena.⁸² As Meulen asserts:

Food law is both a way of looking as well as what the researcher is looking at.⁸³

Therefore, depending on whether the scope is defined by researchers or the government, food law serves as both a lens through which to see other research topics and an object of study in its own right. Researchers define the parameters of food law by directing their investigations inside its functional sector. Conversely, 'food law' as conceived by policymakers takes physical form when laws are passed by the legislature. The conceptual view of food law as a societal and regulatory phenomenon lays the groundwork for investigating how the scope of food safety itself has evolved to handle increasingly complex and multidimensional risks in practice.

1.4.2 The Expanding Scope of Food Safety

⁷⁹ Neal Fortin, *Food Regulation: Law, Science, Policy and Practice* (1st edn, Wiley 2022).

⁸⁰ MacMaoláin (n 74) 3.

⁸¹ Bernd Meulen and Bart Wernaart, 'Comparative Food Law' in Michael T Roberts, *Research Handbook on International Food Law* (Edward Elgar Publishing 2023).

⁸² *ibid.*

⁸³ Bernd Meulen, 'The Functional Field of Food Law: The Emergence of a Functional Discipline in the Legal Sciences' (European Institute for Food Law Working Paper Series 2018/02).

The scope of food safety has expanded to address both immediate and long-term health risks. The Foundation Food Safety System Certification (FSSC) 22000 scheme provides a detailed framework for understanding these aspects of food safety. It describes food and feed safety as the application of various controls, including policies, procedures, and monitoring systems, to ensure that food does not cause harm when consumed.⁸⁴ Hazards that can affect food safety include biological agents like bacteria and viruses, physical contaminants such as metal shards or plastic pieces, and chemical pollutants including pesticides and additives.⁸⁵

Furthermore, in 2012, the Global Food Safety Initiative (GFSI) conducted a review that emphasised the breadth of issues encompassed by food safety.⁸⁶ One outcome of this review was the formal acknowledgment of food fraud as a significant concern within the domain of food safety, which had previously not been as central to the discussion.⁸⁷ As a result, the GFSI broadened its scope, acknowledging that food fraud can be a fundamental cause of food safety incidents.⁸⁸ Similarly, the WHO affirms that food fraud can result in a food safety issue if unsafe ingredients or substitutions are added to the food.⁸⁹

Indeed, the concern for food safety captures the attention of politicians and scholars around the world, reflecting its widespread importance.⁹⁰ As noted in the literature, despite advancements in legal frameworks, detection technology, and governance institutions, food safety incidents continue to occur worldwide,⁹¹ with effects that disproportionately impact developing countries.⁹² For instance, studies of China's experience indicate that despite measures such as the urgent enactment of the PRC Food Safety Law,⁹³ restructuring of food safety governance, and introduction of advanced testing technologies, following the 2008

⁸⁴ Darin Detwiler, 'Food Fraud and Food Defense: Food Adulteration Law and the Sustainable Development Goals (SDGs)' in Adam Friedlander, Gabriela Steier (eds), *Food System Transparency Law, Science and Policy of Food and Agriculture* (CRC Press 2021) 19.

⁸⁵ *ibid.*

⁸⁶ Emily Leib, Margot Pollans, 'The New Food Safety' (2019) 107 *California Law Review* 1173, 1179.

⁸⁷ John Spink, 'The GFSI Food Fraud Prevention Compliance Development & Requirements: A Ten-Year Review' (2023) 138 *Trends in Food Science & Technology* 766.

⁸⁸ *ibid.*

⁸⁹ World Health Organisation, 'WHO Global Strategy for Food Safety 2022–2030: Towards Stronger Food Safety Systems and Global Cooperation' (World Health Organisation 2022) 11.

⁹⁰ Donal Casey, *The Changing Landscape of Food Governance: Public and Private Encounters* (Edward Elgar Publishing 2015); Fortin (n 79); Vivian Hoffmann, Christine Moser and Alexander Saak, 'Food Safety in Low and Middle-Income Countries: The Evidence through an Economic Lens' (2019) 123 *World Development* 104611.

⁹¹ Mysha Momtaz, Saniya Bubli and Mohidus Khan, 'Mechanisms and Health Aspects of Food Adulteration: A Comprehensive Review' (2023) 12 *Foods* 1; FAO, *Thinking about the Future of Food Safety: A Foresight Report* (FAO 2022) 91.

⁹² Steven Jaffee and others, *The Safe Food Imperative: Accelerating Progress in Low-And Middleincome Countries* (International Bank for Reconstruction and Development / The World Bank 2019) xxiii; Satyam Chachan and others, 'Trends of Food Adulteration in Developing Countries and Its Remedies' in Mousumi Sen (ed), *Food Chemistry* (1st edn, Wiley 2021) 168–169.

⁹³ Food Safety Law of the People's Republic of China was promulgated in 2009, and amended in 2015, 2018, and 2021 respectively.

melamine-tainted milk scandal, may have not fully addressed the persistent issues in the food industry.⁹⁴ Adulterated food incidents such as waste oil, poisoned rice, amongst others, still continue.⁹⁵

Prominent food law scholars, Roberts and Lin, pointed out that, similar to all regulatory systems, China's approach should extend beyond the mere implementation of well-defined regulations. Instead, they recommend a more comprehensive strategy that incorporates appropriate norms, approaches, and practices into the food safety governance framework.⁹⁶ Indeed, it is an intelligible take, especially considering how big a player China is in the global food scene. Basically, they suggested that China may need to think outside the box to improve food safety.

Building on the discussion of food safety, the concept of 'shared responsibility' promoted by the WHO emerges as a key principle in the scholarly dialogue.⁹⁷ The principle emphasises that all stakeholders, including government entities, industry representatives, scientific and academic institutions, and consumers, are equally responsible for ensuring food safety. Therefore, a collaborative effort is required. However, implementing this principle poses considerable challenges, especially in developing countries. Interestingly, there is little discussion about the exact apportionment of responsibility between these stakeholders. A hypothetical breakdown might allocate 60% to government, 30% to industry, and 10% to consumers. Although it is a rough estimation, but it helps to give an idea of how the weight ought to be distributed.

The literature suggests that shared responsibility models often struggle in fragmented legal systems with inadequate accountability.⁹⁸ In Bangladesh, scholars have highlighted the

⁹⁴ Yonghong Han, 'A Legislative Reform for the Food Safety System of China: A Regulatory Paradigm Shift and Collaborative Governance' (2015) 70(3) Food and Drug Law Journal 453, 479; Yi Kang, 'Food Safety Governance in China: Change and Continuity' (2019) 106 Food Control 2, 5; Zhe Zhang and others, 'Transformation of China's Food Safety Standard Setting System— Review of 50 Years of Change, Opportunities and Challenges Ahead' (2018) 93 Food Control 106, 109–110.

⁹⁵ Momtaz, Bubli and Khan (n 91) 2.

⁹⁶ Michael Roberts and Ching-Fu Lin, '2016 China Food Law Update' (2016) 12(2) Journal of Food Law & Policy 238, 241.

⁹⁷ *ibid* 255; Principle 4 of Codex Alimentarius Commission, 'Principles and Guidelines For National Food Control Systems' (Food and Agricultural Organization) CAC/GL 82-2013; World Health Organization (n 89) 2, 20, 37; Sadiya Silvee and Ximei Wu, 'International Food Law: Historical Development and Need of Comprehensive Law' (2021) 16(2) Asian Journal of WTO & International Health Law and Policy 421, 443, 448; Paul Verbruggen, 'Understanding the "New Governance" of Food Safety: Regulatory Enrolment as a Response to Change in Public and Private Power' (2016) 5(3) Cambridge Journal of International and Comparative Law 418, 449; Richard Evershed and Nicola Temple, *Sorting the Beef from the Bull: The Science of Food Fraud Forensics* (1st edn, Bloomsbury Publishing 2017) 47; Jaffee and others (n 92) 127.

⁹⁸ Lawrence Gostin and others, 'The Legal Determinants of Health: Harnessing the Power of Law for Global Health and Sustainable Development' (2019) 393(10183) Georgetown Law Faculty Publications and Other Works 1857, 1881.

limited capacity of governance as a barrier to adopting such a model. In such contexts, the barriers to realising the full potential of shared responsibility become more pronounced. All of this really drives home the point that solutions cannot be copy-pasted from one place to another. What works in one country might fall flat in another. Hence, GoB needs its own tailored approaches to food safety governance. Something that considers their specific challenges and realities.

1.4.3 Collaborative Nature of Food Safety Governance

Collaborative governance strategies could help overcome these challenges. The literature on food safety governance has been the focus of scholarly attention, with research suggesting a strong collaborative trend. Shen et al.'s in-depth bibliometric analysis shows how food safety governance has become interdisciplinary by integrating environmental science, food science, economics, and agriculture to address food safety issues.⁹⁹ The evolution of food safety governance research has progressed through three distinct phases, which is indicative of this interdisciplinary approach. Initially, there was a focus on the independent development of standards within public and private sectors. This evolved into a phase where these standards were collaboratively implemented which highlights the importance of cooperation between different stakeholders.

The enactment of the FSA (2013) could be seen as a part of this trend towards more collaborative food safety governance. The FSA (2013) seemingly appears to encourage collaboration between public and private entities, albeit to varying degrees.¹⁰⁰ The observed trend also reveals a divergence in focus between lower- and middle-income countries and higher income nations. Although the former prioritises food supply and system design, possibly at the expense of food safety, the latter are increasingly focusing on food safety and nutrition.¹⁰¹

⁹⁹ Environmental Sciences (0.46), Agriculture (0.20), Public, Environmental & Occupational Health (0.17), Government & Law (0.17), and Nutrition & Dietetics (0.14) lead food safety governance literature by centrality index. Thus, food safety governance study is linked to environmental challenges, agriculture, public health, policy and regulation, and nutrition. The findings indicate that food safety governance research is very interdisciplinary. Cong Shen, Mingxia Wei and Yilong Sheng, 'A Bibliometric Analysis of Food Safety Governance Research from 1999 to 2019' (2021) 9 Food Science & Nutrition 2316, 2318. See also, Dori Patay and others, 'Whole-of-Food System Governance for Transformative Change' [2025] Nature Food 1.

¹⁰⁰ Chowdhury, 'The Food Safety Act of 2013: A Critical Analysis and Reform Proposals' (n 33) 35.

¹⁰¹ European and American countries have led food safety governance research. The US dominates this field with 253 papers, 34.2% of the overall research output. UK and China follow closely with 89 and 80 papers, accounting for 12.0% and 10.8% of total publications. The Netherlands and Canada are also top five in this category. According to the centrality value, the USA (0.67), the UK (0.53), the Netherlands (0.23), Canada (0.17), and Italy (0.12) have the highest collaboration intensity in the national cooperation network. Shen, Wei and Sheng (n 99) 2318.

Over the past two decades, numerous academic journals have published papers on food safety governance, including management dilemmas,¹⁰² management and regulatory models,¹⁰³ and consumer behaviour.¹⁰⁴ Notably, scholarly discourse on food safety governance has evolved to recognise the versatile nature of this field by leaving behind traditional views that predominantly positioned the government as the central regulatory authority. Scholars challenge the notion of a singular, authoritative entity governing food safety, pointing out the fragmented nature of regulatory efforts across different sectors.¹⁰⁵ Based on this perspective, several scholars recommend a multi-stakeholder approach as inclusivity could mitigate the politicisation of food safety issues whilst amplifying the influence of various stakeholders.¹⁰⁶ In the last two decades, Scotland, the UK, Wales, Australia, Brazil, Finland, and Ireland have developed national food policies with intra-governmental and multi-stakeholder co-governance mechanisms to help with implementation, stakeholder engagement, and monitoring.¹⁰⁷

To this end, the literature outlines five distinct models of third-party supervision in this area: media exposure, certification, consumer association supervision, NGO-led social

¹⁰² J. Glamann and others, 'The Intersection of Food Security and Biodiversity Conservation: A Review' (2017) 17 *Regional Environmental Change* 1303; Christopher Scott and others, 'Water Security and the Pursuit of Food, Energy, and Earth Systems Resilience' (2018) 43 *Water International* 1055.

¹⁰³ Marian Martinez and others, 'Co-Regulation as a Possible Model for Food Safety Governance: Opportunities for Public-Private Partnerships' (2007) 32(3) *Food Policy* 299; Alexia Marks, 'A New Governance Recipe for Food Safety Regulation' (2016) 47(3) *Loyola University Chicago Law Journal* 907, 913; Elodie Rouvière and Julie Caswell, 'From Punishment to Prevention: A French Case Study of the Introduction of Co-Regulation in Enforcing Food Safety' (2012) 37(3) *Food Policy* 246; E. Vos and F. Wendler, 'Legal and Institutional Aspects of the General Framework' in Ortwin Renn and Marion Dreyer (eds), *Food Safety Governance: Integrating Science, Precaution and Public Involvement*, vol 15 (Springer Berlin Heidelberg 2009); Rounaq Nayak and Lone Jespersen, 'Development of a Framework to Capture the Maturity of Food Safety Regulatory and Enforcement Agencies: Insights from a Delphi Study' (2022) 142 *Food Control* 109220; Laura Devaney, 'Good Governance? Perceptions of Accountability, Transparency and Effectiveness in Irish Food Risk Governance' (2016) 62 *Food Policy* 1.

¹⁰⁴ Casey (n 90) 8–9; Syed Meerza, Konstantinos Giannakas and Amalia Yiannaka, 'Markets and Welfare Effects of Food Fraud' (2019) 63 *Australian Journal of Agricultural and Resource Economics* 759, 761; Helen Kendall and others, 'Chinese Consumer's Attitudes, Perceptions and Behavioural Responses towards Food Fraud' (2019) 95 *Food Control* 339; Devaney (n 103) 4–8; Jill Hobbs and Ellen Goddard, 'Consumers and Trust' (2015) 52 *Food Policy* 71; Wen Wu and others, 'Consumer Trust in Food and the Food System: A Critical Review' (2021) 10 *Foods* 2490.

¹⁰⁵ Saba Siddiki and others, 'How Policy Rules Shape the Structure and Performance of Collaborative Governance Arrangements' (2015) 75(4) *Public Administration Review* 536, 537, 538; Marion Nestle, *Safe Food: The Politics of Food Safety* (University of California Press 2010) 30, 112; Gráinne de Búrca and Joanne Scott, *Law and New Governance in the EU and the US* (Bloomsbury Publishing 2006) 23–27; CLJ Jeroen, 'Food Security Governance: A Systematic Literature Review' (2014) 6 *Food Security* 585, 593.

¹⁰⁶ Chris Ansell and Alison Gash, 'Collaborative Governance in Theory and Practice' (2008) 18(4) *Journal of Public Administration Research and Theory* 543, 547; Han (n 94) 454; Jessica Duncan and Priscilla Claeys, 'Politicizing Food Security Governance through Participation: Opportunities and Opposition' (2018) 10 *Food Security* 1411, 1424; Renn and Dreyer (n 103); Alemanno Alemanno and Simone Gabbi, 'The Stakeholders' Perspective', *Foundations of EU Food Law and Policy* (1st edn, Routledge 2016) 255.

¹⁰⁷ Peter Andrée, Mary Coulas and Patricia Ballamangie, 'Governance Recommendations from Forty Years of National Food Strategy Development in Canada and Beyond' (2018) 5(3) *Canadian Food Studies / La Revue canadienne des études sur l'alimentation* 6, 20.

movements, and industry oversight.¹⁰⁸ The impact of media in this context is particularly noteworthy, as findings by Zhu et al. and Holtkamp et al. show that media analysis can enhance the understanding of food safety issues, especially in the absence of official data.¹⁰⁹ Yet, McCluskey and others caution against the media's potential to exaggerate public concerns about food safety risks disproportionately.¹¹⁰

The discourse also emphasises citizen involvement in food safety co-governance.¹¹¹ Sinclair et al. argue for the benefits of informed citizen participation in food safety governance and policy implementation in developing regions such as south East Asia and sub Saharan African countries.¹¹² This has been a common practice in developed countries where food regulatory agencies frequently use public consultation and negotiated rule-making with industry and NGOs to bolster expertise and participation.¹¹³

However, social co-governance presents challenges. Rothstein showed that consumer representation did little to enhance the scientific and policy discussions because risk assessments were difficult to follow and much had to be 'taken on trust'.¹¹⁴ Yasuda cited large-scale production systems, bureaucratic complexities, and geographical expanses, as substantial hurdles to effective governance, particularly in China.¹¹⁵ Additionally, the literature acknowledges the rarity of purely public or private regulatory regimes.¹¹⁶ Consequently, there is a spectrum in regulatory practices, with certain countries adopting more public-oriented models focusing on governmental control, whereas others favour private-driven frameworks that emphasise industry self-regulation and consumer involvement in food safety governance.

¹⁰⁸ Verbruggen (n 97) 421; Han (n 94) 454, 471; Martijn Scheltema, 'Balancing Public and Private Regulation' (2016) 12 *Utrecht Law Review* 16.

¹⁰⁹ Xinyi Zhu, Iona Huang and Louise Manning, 'The Role of Media Reporting in Food Safety Governance in China: A Dairy Case Study' (2019) 96 *Food Control* 165, 179; Han (n 94) 460; Nicholas Holtkamp, Peng Liu and William McGuire, 'Regional Patterns of Food Safety in China: What Can We Learn from Media Data?' (2014) 30 *China Economic Review* 459, 468.

¹¹⁰ Jill McCluskey, Nicholas Kalaitzandonakes and Johan Swinnen, 'Media Coverage, Public Perceptions, and Consumer Behavior: Insights from New Food Technologies' (2016) 8(1) *Annual Review of Resource Economics* 467, 470.

¹¹¹ World Health Organisation (n 89) 37.

¹¹² Jan Sinclair and others, 'How Worried Are You about Food Fraud? A Preliminary Multi-Country Study among Consumers in Selected Sub-Saharan African Countries' (2023) 12(19) *Foods* 1, 12–13; Jan Sinclair and others, 'Consumers' Perceptions of Food Fraud in Selected Southeast Asian Countries: A Cross Sectional Study' (2023) 16 *Food Security* 65.

¹¹³ *ibid.*

¹¹⁴ Henry Rothstein, 'Domesticating Participation: Participation and the Institutional Rationalities of Science-Based Policy-Making in the UK Food Standards Agency' (2013) 16(6) *Journal of Risk Research* 771, 778.

¹¹⁵ John Yasuda, 'Why Food Safety Fails in China: The Politics of Scale' (2015) 223 *The China Quarterly* 745.

¹¹⁶ Verbruggen (n 97) 424.

As Black articulates, these observations exemplify the fragmented and hybrid nature of regulation,¹¹⁷ Black's 'decentred' regulatory analysis moves away from the notion of governments as the sole regulatory authorities.¹¹⁸ Instead, there are all sorts of different players involved in making regulation work. Verbruggen asserts that regulation does not have a singular, ultimate authority, acknowledging the complex and multi-dimensional interactions amongst regulatory actors.¹¹⁹ Smith appreciates Black's mapping of regulation, especially her examination of decentralised regulatory techniques which he acknowledges enables a deeper understanding of what regulation is or could be.¹²⁰ However, he emphasises the need for continued debate and exploration in regulatory studies. He views Black's work as noteworthy but not definitive.¹²¹

Nevertheless, contemporary scholarly discussion of non-governmental stakeholders notes a discrepancy between inclusive governance ideals and the reality. Although ideals promote a top-down approach and stakeholder involvement, actual documented practices show three trends that undermine these ideals. First, that local supervision bodies denied responsibility, avoided blame, and suppressed evidence in the infant formula scandal.¹²² Second, the situation involving Abbott laboratories shows how non-governmental stakeholders were unable to hold a company accountable, inhibiting social accountability from developing.¹²³ Third, to activate vertical accountability and impose true remedies, the central state remains the key regulator.¹²⁴ This also explains why modern food law assigns monitoring and enforcement to national and local authorities, because they are deemed best equipped to tackle local issues.¹²⁵

In recognition of the disparities between inclusive governance ideas and the practical enforcement realities in Bangladesh, the stance this thesis takes is a government-led collaborative model which promotes meaningful stakeholder involvement. This model keeps the government in charge, whilst ensuring other voices are heard. It could stop local bodies

¹¹⁷ Julia Black, 'Decentring Regulation: Understanding the Role of Regulation and Self-Regulation in a "Post-Regulatory" World' (2001) 54(1) *Current Legal Problems* 103, 112.

¹¹⁸ *ibid.*

¹¹⁹ Verbruggen (n 97) 422.

¹²⁰ Dimity Smith, 'What Is Regulation? A Reply to Julia Black' (2002) 27 *Australian Journal of Legal Philosophy* 37, 46.

¹²¹ *ibid.*

¹²² Ronghui Yang, Klasien Horstman and Bart Penders, 'Stakeholder Perspectives on Infant Formula Safety Governance in China: A Decade after the Melamine Crisis' (2022) 25 *Food, Culture & Society* 70, 83.

¹²³ *ibid.*

¹²⁴ Christa Drew and Fergus Clydesdale, 'New Food Safety Law: Effectiveness on the Ground' (2015) 55 *Critical Reviews in Food Science and Nutrition* 689, 692.

¹²⁵ Caoimhín MacMaoláin, *Food Law: European, Domestic and International Frameworks* (1st edn, Bloomsbury Publishing 2015) 54–57.

from passing the buck, empower non-government groups, and let the central government do what it does best. It may not be a perfect solution, but it could be a start.

1.4.4 Food Fraud and Adulteration in Scholarly Discourse

Although the literature covers a broad range of issues related to food safety governance, this review will now narrow its focus to food fraud and adulteration, in line with the earlier ring-fencing of this thesis. Whereas section 1.1.2 outlined their conceptual relationship to frame the scope of this thesis, the focus here is on how these issues have been approached in research and practice by drawing out key findings, debates, and gaps that underpin the present work. Academic and policy interest in food fraud has grown significantly since high-profile international incidents, such as the 2013 European horsemeat scandal and other major adulteration cases. These events featured food fraud as a serious worldwide governance issue, thereby prompting greater attention from supranational bodies and national regulators.¹²⁶

Academic interest in food fraud, previously limited, increased notably after the 2013 European horsemeat scandal.¹²⁷ Related publications have increased since-2013.¹²⁸ Pre-2013, publications on this topic were sparse. The importance of food fraud as a significant worldwide issue was further propelled by high-profile incidents within the EU, such as the 2013 horsemeat adulteration, the 2017 fipronil in eggs scandal, and the 2019 issue of using sick cows for meat. These events have accentuated the necessity for action. Consequently, food fraud has become a focus for both supranational entities such as the EU and national policymakers and food regulators across many countries.¹²⁹

Prior to the recent surge in interest, Moore et al. in 2012 had already contributed to this field by organising data from scholarly journals and general media into a database to identify trends in food ingredient fraud from 1980 to 2010.¹³⁰ Their findings revealed that fraud was most prevalent in 25 key ingredients, with olive oil, milk, honey, saffron, orange juice, coffee,

¹²⁶ Mwenda Kailemia, “Peeling Back the Mask”: Sociopathy and the Rhizomes of the Eu Food Industry’ (2016) 24(2–3) *European Journal of Crime, Criminal Law and Criminal Justice* 176; Manning and Soon (n 11). Gussow and Mariët (n 14) 622. Roberts, Viinikainen and Bullon (n 14) 1.

¹²⁷ *ibid*

¹²⁸ Gussow and Mariët (n 14) 622.

¹²⁹ Roberts, Viinikainen and Bullon (n 14) 1.

¹³⁰ Jeffrey Moore, John Spink and Markus Lipp, ‘Development and Application of a Database of Food Ingredient Fraud and Economically Motivated Adulteration from 1980 to 2010’ (2012) 77(4) *Food Science* R118.

and apple juice being the most frequently misrepresented. These comprised over 50% of the scholarly records in the database.

Food fraud is also attracting academics from natural and social sciences. These disciplines, often operating independently, approach the topic from various conceptual, theoretical, and occasionally commercial perspectives. This has led to a range of specialised discourses within each field. For example, criminologists, sociologists, and socio-legal scholars primarily investigate the creation of food fraud regulations, the reasons behind rule violations, and the responses to these violations from both public and private sectors. On the other hand, biological scientists and biotechnologists concentrate on the authenticity of food, particularly identifying genetic discrepancies that may indicate fraud. Business and management researchers focus on the integrity and security of food supply chains to enhance their resilience against fraud. Although these fields share a common goal of reducing or preventing food fraud, they differ in their narratives and frameworks regarding the nature, management, and control (both public and private) of food fraud.

However, the narratives and perspectives on the nature, structure, and both public and private management of food fraud are portrayed differently. Consequently, this has led to a variety of interpretations and understandings within both scientific and policy circles. Yet, it is not always evident which perspectives most accurately reflect the realities of food fraud.¹³¹ These differences have created rifts that challenge the understanding of food fraud and how it is approached, with some scholars suggesting that certain assertions may be more politically motivated than based on solid evidence or intrinsic reasoning.

Furthermore, Lord et al. discuss the relatively minimal focus on food fraud within academic circles compared to other types of fraud and volume crimes such as anti-social behaviours, property crime or interpersonal violence, or even serious and organised crimes.¹³² They attribute the limited research on food fraud to three key factors: fragmented regulations that make ownership and enforcement unclear, limited research funding that limits comprehensive analysis, and methodological challenges in accessing and studying food fraud networks, which span from legitimate businesses to organised crime.¹³³

¹³¹ Nicholas Lord and others, 'Fault Lines of Food Fraud: Key Issues in Research and Policy' (2022) 78(5) *Crime, Law and Social Change* 577, 578.

¹³² *ibid* 580.

¹³³ *ibid*.

A notable ‘fault line’ in food fraud research, is the heavy reliance on known cases that have come to the attention of enforcement agencies.¹³⁴ This approach creates a substantial blind spot in understanding the full scope of the problem. It is like studying crime by only looking at solved cases because much of what is happening is hidden. This method potentially overlooks important patterns or trends in food fraud activities that remain undetected. Indeed, by focusing solely on discovered cases, researchers might miss important insights into the true nature and extent of food fraud which in turn diminishes the efficacy of prevention and control measures. There is also a notable scarcity of rigorous empirical research in this area on the nature, victims and impacts of food fraud.¹³⁵ Much of the studies rely on anecdotal evidence or enforcement data, which may not provide a complete picture and affect theory and policy development.

Other food lawyers similarly affirm that existing incidents of data likely represents only the ‘tip of the iceberg’.¹³⁶ This is especially the case in the developing countries, where food supply chains are long and complex, and suffer from a lack of transparency and traceability.¹³⁷ Accurate data on food fraud in this region is scarce, leading to a proliferation of food fraud incidents.¹³⁸ Despite Brazil’s status as one of the world’s largest food producers, there appears to be a ‘lack of published reviews about food fraud and adulterations in Brazil, especially concerning adulterations in different categories of food products’, which prompted discussions about the need for a fraud database.¹³⁹

Therefore, to enhance the understanding of food fraud, new and diverse data sources are needed.¹⁴⁰ The relative novelty of scientific interest in this area means that comprehensive qualitative and quantitative studies similar to those conducted in other areas of crime are still emerging. There are, nonetheless, examples of innovative research combining social and natural sciences, offering insights into the multidimensional nature of food fraud. These studies utilise various methodologies to explore different aspects of food fraud, from supply chain vulnerabilities to consumer attitudes and behaviours.¹⁴¹ These examples also

¹³⁴ *ibid.*

¹³⁵ *ibid* 581.

¹³⁶ Roberts, Viinikainen and Bullon (n 14) 5.

¹³⁷ Konstantinos Giannakas and Amalia Yiannaka, ‘Food Fraud: Causes, Consequences, and Deterrence Strategies’ (2023) 15(1) *Annual Review of Resource Economics* 85, 89.

¹³⁸ FAO, *Food Fraud – Intention, Detection and Management: Food Safety Technical Toolkit for Asia and the Pacific* (FAO 2021) 5.

¹³⁹ Casiane Tibola and others, ‘Economically Motivated Food Fraud and Adulteration in Brazil: Incidents and Alternatives to Minimize Occurrence’ (2018) 83(8) *Journal of Food Science* 2028, 2029.

¹⁴⁰ Lord and others (n 131) 581.

¹⁴¹ SM Ruth and others, ‘Differences in Fraud Vulnerability in Various Food Supply Chains and Their Tiers’ (2018) 84 *Food Control* 375, 381; Y Yang and others, ‘Fraud Vulnerability in the Dutch Milk Supply Chain: Assessments of Farmers, Processors and Retailers’ (2019) 95 *Food Control* 308; Yuzheng Yang and others,

demonstrate the potential of collaborative and interdisciplinary research in shedding light on the intricacies of food fraud.

The existing literature on food fraud encompasses three main areas. The first area includes studies that seek to understand, measure, and define food fraud and examining it from various angles.¹⁴² The second area involves research into the response and prevention of food fraud which focuses on regulatory, legal, and industry measures, including the benefits of enhanced traceability and reducing opportunities for fraud.¹⁴³ The third area is a growing body of scientific research dedicated to developing analytical detection methods to verify food authenticity and detect fraudulent practices.¹⁴⁴

This thesis is situated within the second area as it focuses on the responses to and prevention of food fraud. Notwithstanding the extensive literature in this area, a noticeable gap exists in understanding how food safety authorities, particularly in developing countries, may effectively strategise against food adulteration. This thesis seeks to bridge this gap by offering insights into combatting food fraud, tailored specifically to the challenges and needs of Bangladesh.

In bridging this gap, this thesis turns to the latest developments in international norms and guidelines, which are instrumental in informing policy and regulatory enhancements in Bangladesh. The WHO and the Food and Agricultural Organisation (FAO), both being specialised agencies of the United Nations (UN), play fundamental roles in this sphere. The

'The Chinese Milk Supply Chain: A Fraud Perspective' (2020) 113 Food Control 107211; Kendall and others (n 104).

¹⁴² Spink and Moyer (n 13); Spink and others (n 14); Manning and Soon (n 11), (n 12); Nicholas Lord, Cecilia Elizondo and Jon Spencer, 'The Dynamics of Food Fraud: The Interactions between Criminal Opportunity and Market (Dys)Functionality in Legitimate Business' (2017) 17(5) Criminology & Criminal Justice 605; Kailemia (n 126); Karen Everstine, John Spink and Shaun Kennedy, 'Economically Motivated Adulteration (EMA) of Food: Common Characteristics of EMA Incidents' (2013) 76(4) Journal of Food Protection 723; KE Gussow and A Mariët, 'The Scope of Food Fraud Revisited' 78 Crime, Law and Social Change 621; Lord and others (131) 577; H Croall, 'Food Crime' in Avi Brisman, Nigel South (eds), *Routledge International Handbook of Green Criminology* (Taylor & Francis 2013).

¹⁴³ M Creydt and M Fischer, 'Blockchain and More - Algorithm Driven Food Traceability' (2019) 105 Food Control 45; Liam Fassam and Samir Dani, 'A Conceptual Understanding of Criminality and Integrity Challenges in Food Supply Chains' (2017) 119(1) British Food Journal 67, 83; Brian Jack, 'Food Fraud: Protecting European Consumers Through Effective Deterrence' (2018) 24(1) European Public Law 147, 168; Louise Manning, 'Food Fraud: Policy and Food Chain' (2016) 10 Current Opinion in Food Science 16, 21; Simon Pearson and others, 'Are Distributed Ledger Technologies the Panacea for Food Traceability?' (2019) 20 Global Food Security 145, 149; John Spink, Douglas Moyer and Cheri Pero, 'Introducing the Food Fraud Initial Screening Model (FFIS)' (2016) 69 Food Control 306, 314; Saskia Ruth, Wim Huisman and Pieter Luning, 'Food Fraud Vulnerability and Its Key Factors' (2017) 67 Trends in Food Science & Technology 70, 75. Jade Lindley, 'Shifting the Focus of Food Fraud: Confronting a Human Rights Challenge to Deliver Food Security' (2020) 5 Perth International Law Journal 117, 121; Brigitte Cadieux, Lawrence Goodridge and John Spink, 'Gap Analysis of the Canadian Food Fraud Regulatory Oversight and Recommendations for Improvement' (2019) 102 Food Control 46, 47.

¹⁴⁴ Eunyoung Hong and others, 'Modern Analytical Methods for the Detection of Food Fraud and Adulteration by Food Category' (2017) 97(12) Journal of the Science of Food and Agriculture 3877; KE Gussow, 'Finding Food Fraud: Explaining the Detection of Food Fraud in the Netherlands' (PhD Thesis, 2020).

WHO primarily addresses public health concerns, including food safety and security.¹⁴⁵ FAO, as the first and largest of seventeen specialised UN agencies, focuses on eradicating world hunger, improving nutritional standards, and boosting agricultural productivity.¹⁴⁶ Notably, in recent years, FAO has been actively involved in combating food fraud, as part of its broader agenda on food safety and security. FAO has also done considerable work and has engaged with both developed and developing countries, including Bangladesh, to enhance the overall food safety.¹⁴⁷ Further, the collaboration between the FAO and WHO has resulted in the creation of normative guides such as the Codex Alimentarius, which sets international food standards.¹⁴⁸

Notable food lawyers such as Meulen and Roberts have discussed the influence of these organisations on international food safety.¹⁴⁹ In order to identify the most effective strategies, this thesis consulted the FAO's recent publication on combating food fraud, authored by prominent food lawyers, as a primary reference.¹⁵⁰ Although there may be no one-size-fits-all plan to prevent food fraud once and for all, this thesis does not uncritically employ the FAO's recommendations as the definitive solution for Bangladesh.¹⁵¹ Instead, it contextualises how the recommendations sit within the literature and evaluates these strategies, thereby assessing their adaptability and applicability to Bangladesh's socio-legal context.

1.4.5 Bangladeshi Consumer and Food Law Scholarship

¹⁴⁵ Constitution of the World Health Organisation 1948 art 2(u).

¹⁴⁶ FAO, *Basic Texts of the Food and Agriculture Organisation of the United Nations. 2017 Edition: Volumes I and II* (FAO 2017) <<https://www.fao.org/documents/card/en?details=15a5abdf-16a6-4c6a-9427-01a8e6b34157>> accessed 31 December 2023.

¹⁴⁷ Lindley (n 143) 120.

¹⁴⁸ The Codex standards serve as a reference for international food trade. According to Article 1 of the Statutes of the Codex Alimentarius Commission, the three objectives of the Codex Alimentarius Commission are to protect consumer health, to ensure fair practices in the international food trade and to coordinate all work on food standards carried out by international governmental and non-governmental organisations. Bangladesh became Codex member in 1975. FAO and WHO, *Codex Alimentarius Commission Procedural Manual, Revised* (28th edn, FAO, WHO 2023).

¹⁴⁹ Michael Roberts, 'Introduction: Making a Case for International Food Law' in Michael Roberts (ed), *Research Handbook on International Food Law* (Edward Elgar Publishing 2023) 4; Lindley (n 143) 120; Bernd van der Meulen, 'The Global Arena of Food Law: Emerging Contours of a Meta-Framework' (2010) 3 *Erasmus Law Review* 217, 219–220; Michael Roberts, 'Understanding Modern History of International Food Law Is Key to Building a More Resilient and Improved Global Food System' (2021) 17(1) *Journal of Food Law & Policy* 57, 69.

¹⁵⁰ Roberts, Viinikainen and Bullon (n 14).

¹⁵¹ Michael Roberts and Whitney Turk, 'The Pursuit of Food Authenticity: Recommended Legal and Policy Strategies to Eradicate Economically Motivated Adulteration (Food Fraud)' (28 March 2017) 22; Christopher Elliott, 'Elliott Review into the Integrity and Assurance of Food Supply Networks: Final Report' (2014) 12 <<https://www.gov.uk/government/publications/elliott-review-into-the-integrity-and-assurance-of-food-supply-networks-final-report>> accessed 31 December 2023.

As previously mentioned, Bangladeshi public health discussions are increasingly focused on food adulteration. Thus, understanding the issue's complexity is vital for developing effective regulatory responses.¹⁵² Yet, scholarly discussion on this topic has been relatively sparse. Although researchers have contributed to understanding the regulatory challenges, notable gaps persist in the literature. Notably, Ali's 2013 doctoral thesis advocated for the establishment of the BFSA, a recommendation that materialised but a thorough assessment of its performance still remains absent.¹⁵³

The effectiveness of the BFSA's regulatory practices, particularly its interactions with other bodies in combating adulteration, presents an important area for investigation. The complex institutional relationships and coordination challenges between the BFSA and other key agencies, including the BSTI, the Directorate of National Consumer Rights Protection (DNCRP) have yet to be thoroughly examined in academic literature.

Nearly a decade after the BFSA's inception, this thesis aims to address these knowledge gaps by scrutinising the authority's efficacy in combating food adulteration, as mandated by section 13 of FSA (2013).¹⁵⁴ This thesis is therefore a logical extension of Ali's thesis. Whilst taking inspiration from Ali's foundational work, this thesis also takes a different methodological approach in scrutinising the effectiveness of the BFSA. This approach will be detailed further in the subsequent section.

In the broader context of food safety and regulatory frameworks, particularly in developing countries, the scholarly conversation has shifted to their complexity and adaptability. Ali also advocated for the integration of network partnerships into Bangladesh's food safety regulatory regime.¹⁵⁵ Network governance is defined as a strategic move away from direct state control towards a more interconnected approach involving various state and non-state actors.¹⁵⁶ This approach is seen as a way to utilise the varied capabilities and resources of multiple stakeholders in managing complex regulatory difficulties. Basma supports network partnerships to combat food adulteration, believing that stakeholders collaborations could lead to more efficient and adaptive regulatory outcomes.¹⁵⁷ However, their work does not

¹⁵² Aktar (n 48) 199; Md Khan and others, 'A Systematic Review of Fish Adulteration and Contamination in Bangladesh: A Way Forward to Food Safety' (2023) 15 *Reviews in Aquaculture* 1574; Gizaw (n 44) 6, 10, 12, 13, 17.

¹⁵³ ANMA Ali, 'Manufacturing Unsafe Foods in Bangladesh: A Legal and Regulatory Analysis' (PhD thesis, University of Wollongong 2013) 402, 403.

¹⁵⁴ Section 13 of FSA (2013) outlines the duties and functions that the BFSA is mandated to carry out.

¹⁵⁵ ANMA Ali, 'Application of the Responsive Regulation Theory in the Food Safety Regulatory Regime in Bangladesh' (2013) 1(1) *Journal of South Asian Studies* 1, 3–5.

¹⁵⁶ Jon Pierre and B Peters, *Governance, Politics and the State* (2nd edn, Macmillan UK 2020) 11, 46.

¹⁵⁷ Nayla Basma, 'Addressing the Human Rights Violation of Food Adulteration in Bangladesh' (2017) ii(ii) *Journal of Global Health* 52, 56.

dwel into the specifics of such collaborative efforts and how it can be affected on the ground to bring about meaningful change in minimising food adulteration.

Food adulteration is criminalised in many jurisdictions, including Bangladesh. Section 272 of the Bangladesh Penal Code criminalises adulterating food or drink intended for sale.¹⁵⁸ Such offences are treated as offences against the state.¹⁵⁹ The criminalisation of food adulteration implies that the state has a vested interest in prosecuting and preventing such offenses.¹⁶⁰ This situates the issue from the private sphere, where disputes could be settled between parties, into the public sphere, demanding governmental action. Consequently, it becomes a matter of public law, which by its very definition requires state enforcement and governance strategies.¹⁶¹ On the other hand, tort law, whilst providing a post-incident remedy, cannot substitute for the proactive oversight demanded by public law. The law must not simply react to violations but it should also proactively mitigate the conditions that enable them.

Indeed, the responsibility of prevention ought to be placed predominantly on public enforcement to protect public health on a larger scale.¹⁶² As Vessio aptly observes, regulatory authorities worldwide confront the challenge of protecting consumers and ensuring ‘systemic stability’ whilst preserving innovation and competition.¹⁶³ She asserts that:

Regulation is notorious for bringing up the rear, rather than the van-guard.¹⁶⁴

In light of rapidly evolving systems, she argues for a ‘forward-looking mind-set’ and the need to anticipate and address new and complex risks effectively.¹⁶⁵ In order to achieve this, Vessio emphasises the importance of establishing ‘clearly defined criteria’ to determine the scope of activities requiring regulatory oversight. Although her analysis primarily pertains to financial regulation, the underlying principles of adaptive and anticipatory governance are

¹⁵⁸ Penal Code 1860 s 272.

¹⁵⁹ SM Solaiman, ‘The Most Serious Offences and Penalties Concerning Unsafe Foods under the Food Safety Laws in Bangladesh, India, and Australia: A Critical Analysis’ (2015) 70(3) Food and Drug Law Journal 409, 430.

¹⁶⁰ *ibid* 410; Bangladesh Sangbad Sangstha, ‘PM Orders Stern Action against Food Adulteration’ *New Age* (Dhaka, 18 February 2021) <<https://www.newagebd.net/article/130531/pm-orders-stern-action-against-food-adulteration%20accessed%2025%20March%202022>> accessed 1 January 2024;

¹⁶¹ Tanja Börzel and Thomas Risse, ‘Governance without a State: Can It Work?’ (2010) 4(2) Regulation & Governance 113, 127.

¹⁶² Christine Riefa, ‘Transforming Consumer Law Enforcement with Technology: From Reactive to Proactive?’ (2023) 12(3) Journal of European Consumer and Market Law 97.

¹⁶³ Monica Vessio, ‘The Bank of England’s Approach to Central Bank Digital Currencies – Considerations Regarding a Native Digital Pound and the Regulatory Aspects’ in Alison Lui and Nicholas Ryder (eds), *FinTech, Artificial Intelligence and the Law: Regulation and Crime Prevention* (1st edn, Routledge 2021) 186.

¹⁶⁴ *ibid*.

¹⁶⁵ *ibid*.

also relevant to areas such as food safety, wherein a proactive strategy could alleviate systemic vulnerabilities before they escalate.

However, this also prompts pertinent questions about the allocation of responsibilities within governance structures. Although proactive initiatives are essential, how should these be divided between public authorities and private actors? The interaction between public and private responsibilities in governance presents both opportunities and challenges, as elaborated below.

Critics argue that governance without government amounts to the privatisation of state functions and to the overtaking of governance tasks by illegitimate actors such as companies.¹⁶⁶ Winters asserts that 'government regulation needs private governance and vice versa' and 'neither is better, and neither can stand on its own'.¹⁶⁷ The debate shows the importance of synchronising governance frameworks with preventive measures that address systemic vulnerabilities. Within food safety governance, such alignment is necessary to mitigate risks effectively and fortify public health protections.

Lytton further reinforces the centrality of the government's role and asserts that government is 'uniquely equipped' to investigate outbreaks, whereas the industry should focus resources on improving the private food safety auditing system.¹⁶⁸ The perspectives seeks to show the potential for a collaborative ecosystem where the strengths of one can could compensate for the limitations of the other. However, such collaboration requires clarity in roles, responsibilities, and accountability mechanisms. In the absence of these, coordination risks devolving into inefficiency or even chaos. Although the literature acknowledges the state's role, there is a gap in understanding how effectively the BFSA, alongside other regulatory bodies, interact with private actors to enforces these laws effectively. The literature has not sufficiently investigated the practical challenges of inter-agency cooperation in enforcing food safety standards, nor has it explored the implications of these challenges for preventing adulteration in Bangladesh.

¹⁶⁶ Börzel and Risse (n 161) 127; For a critical view, see: Jorge Contreras, *The Cambridge Handbook of Technical Standardisation Law: Further Intersections of Public and Private Law* (1st edn, Cambridge University Press 2019) 23–25.

¹⁶⁷ Winters (n 6) 444.

¹⁶⁸ Lytton (n 6) 202.

Broader academic discourse on food fraud also increasingly call for proactive governance to 'prevent and manage' food fraud incidents, to 'outwit the fraudsters'.¹⁶⁹ This corresponds with a Bangladeshi Supreme Court advocate, Ahmed's recent call for preventive actions to avert food safety violations.¹⁷⁰ Previous studies by Ali and Solaiman in 2014 and 2015 have also focused on remedial aspects of food safety.¹⁷¹ Although Solaiman in 2021 supported the adoption of stronger punitive measures, his work suggests that such measures might not be entirely effective without a well-rounded preventive framework.¹⁷² They collectively affirm the state's leading role in driving the required preventive changes.¹⁷³ Indeed, there is a growing consensus that robust public governance that is complemented by proactive private sector engagement, is important for systemic stability in food safety.

Ali and Solaiman also examine the effectiveness of the CRPA (2009) in protecting Bangladeshi consumers against unsafe food.¹⁷⁴ Their research builds upon the foundational food safety issues identified by Rahman in 1994.¹⁷⁵ They emphasise the importance of consumer education as a prevention strategy and identify socio-legal obstacles that impede the effective implementation of this legislation.¹⁷⁶ Their analysis, however, was conducted before the establishment of the BFSA, which potentially limits its relevance in the context of the changes brought about by the FSA (2013).

In terms of prevention strategies for food adulteration, the literature remains noticeably limited. A singular study in 2017 by Ali and Shahnewaj stands out, focusing on the issue of 'flawed' food labelling in the context of food waste. Though not directly addressing food adulteration, their research employs both qualitative and quantitative methods to examine the legal and regulatory challenges surrounding food labelling.¹⁷⁷ International food lawyers also consider labelling a key tool for fighting food adulteration as part of a broader

¹⁶⁹ Tony Hines and Luke Murphy, 'Combatting Food Fraud with Due Diligence' (2016) 25(8) *World Food Regulation Review* 3, 20; M Kasaj and N Knezevic, 'Food Frauds - Legislative Framework and Consumer Perception' 17(6) *European Food and Feed Law Review* 407, 410; Roberts, Viinikainen and Bullon (n 14) 14.

¹⁷⁰ Ahmed, 'Food Adulteration and Right to Food Safety in Bangladesh: An Analysis of Legal Frameworks' (n 33) 7, 18.

¹⁷¹ SM Solaiman, 'The Most Serious Offenses and Penalties Concerning Unsafe Foods under the Food Safety Laws in Bangladesh, India, and Australia: A Critical Analysis' (2015) 70(3) *Food and Drug Law Journal* 409, 411. SM Solaiman and ANMA Ali, 'Civil Liabilities for Unsafe Foods in Bangladesh and Australia: A Comparative Perspective on Consumer Protection' (2014) 13(4) *Comprehensive Reviews in Food Science and Food Safety* 656, 667.

¹⁷² SM Solaiman, 'Laws Governing Manslaughter by Food Safety Crimes in the United Kingdom, Australia, Bangladesh and India: A Critical Review' (2021) 47(1) *North Carolina Journal of International Law* 76, 130.

¹⁷³ *ibid* 125; Ahmed, 'Food Adulteration and Right to Food Safety in Bangladesh: An Analysis of Legal Frameworks' (n 33) 18.

¹⁷⁴ Solaiman and Ali (n 171) 665–667.

¹⁷⁵ Rahman, 'Consumer Protection in Bangladesh' (n 42).

¹⁷⁶ Solaiman and Ali (n 171) 665–667.

¹⁷⁷ ANMA Ali and Shahnewaj, 'Improper Labelling of Manufacturing and Expiry Dates of Food: A Legal and Regulatory Study of Food Quality and Food Waste in Bangladesh' (2017) 18(1) *Australian Journal of Asian Law* 27, 38.

strategy.¹⁷⁸ It could serve as a conduit for information which enables consumers to make informed decisions and potentially deterring malpractices amongst manufacturers. The research provides first-hand perspectives on the challenges faced by national enforcement authorities.

Ali and Shahnewaj support a comprehensive approach that combines consumer protection laws with food safety communication and education in accordance with international food lawyers. They stress the importance of educating a wide range of stakeholders about the nuances of date labelling, including suppliers, lawmakers, food safety experts, consumer behaviour specialists, relevant government authorities, consumer advocates, and particularly retailers.¹⁷⁹ Notably, however, the current literature underexamined the effectiveness of labelling practices as a preventive measure against food adulteration, particularly in how these practices are implemented and monitored within a fragmented regulatory environment. However, the current research recognises the deeply interconnected nature of food adulteration and labelling issues as these problems often amplify each other, with misleading labels frequently concealing adulterated products.

The research oversight is especially apparent in the limited exploration of how labelling laws interact with other preventive measures, such as traceability mechanism and front-end consumer empowerment strategies, which are important for the holistic effectiveness of food safety regulations. Therefore, expanding the literature on food labelling and traceability is necessary to evaluate their practical effectiveness within the broader regulatory framework, particularly by addressing enforcement challenges and socio-legal factors that influence both consumer behaviour and industry compliance.

Ali and Solaiman's 2020 study combined empirical and doctrinal methods in effectively pointing out key factors contributing to the unsafe use of Medically Important Antimicrobials (MIA).¹⁸⁰ These include profit motives, regulatory laxity, and a lack of awareness all of which are fundamental issues in understanding the challenges of food safety governance in Bangladesh.¹⁸¹ Considering the lack of empirical studies in relation to food adulteration in Bangladesh, their study is insightful.

¹⁷⁸ Jack (n 143) 150, 167; Emma Tonkin, 'The Process of Making Trust Related Judgements through Interaction with Food Labelling' (2016) 63 Food Policy 1, 10; Roberts, Viinikainen and Bullon (n 14) s 3.1.2.

¹⁷⁹ Ali and Shahnewaj (n 177) 38.

¹⁸⁰ Ali and Solaiman (n 171).

¹⁸¹ *ibid.*

These studies collectively feed into the broader scholarly discourse of consumer responsibility. Given the existing informational asymmetries and the credence attributes of food products, as outlined by George Akerlof in 1970, consumers are often at a disadvantage in assessing food quality.¹⁸² This asymmetry is particularly exacerbated by the nature of food products, whose qualities or safety might not be apparent even after consumption.¹⁸³ As a result, such a scenario creates opportunities for fraud, exacerbating the problem of food adulteration.¹⁸⁴ This dilemma is supported by empirical studies in sectors such as agriculture and pharmaceuticals in developing countries.¹⁸⁵

Governments have a fundamental obligation to safeguard public health, a responsibility often enshrined in constitutional and human rights laws. Given this mandate, it is unreasonable to expect that consumers can navigate food safety independently, particularly when the information needed for making such judgements is not readily available or decipherable.¹⁸⁶ Markets often fail to supply adequate information for consumers to make choices that reflect their individual preferences due to information asymmetries.¹⁸⁷ Thus, this challenge is especially compounded in a developing country such as Bangladesh, where the infrastructure for disseminating such information is often lacking. Therefore, it is both a legal and economic imperative for the government to have a role in enabling consumers through consumer centred interventions to regulate adulteration.

Taken together, these studies support the notion that the governance of food adulteration in Bangladesh cannot be reduced to isolated interventions or piecemeal reforms. Legal, institutional, and socio-economic dimensions must be a part of a holistic strategy. Although prior research has laid important groundwork in understanding food safety regulation in Bangladesh, there is a notable need for a more updated and comprehensive examination of the post-2015 regulatory environment. Specifically, this includes a deeper analysis of the BFSA's interactions with other regulatory bodies and the practical effectiveness of prevention measures (labelling and traceability) as part of a comprehensive food safety

¹⁸² George Akerlof, 'The Market for 'Lemons': Quality Uncertainty and the Market Mechanism' (1970) 84(3) *The Quarterly Journal of Economics* 488, 489.

¹⁸³ Meerza, Giannakas and Yiannaka (n 176) 760.

¹⁸⁴ Mariah Ehmke and others, 'Food Fraud: Economic Insights into the Dark Side of Incentives' (2019) 63(4) *Australian Journal of Agricultural and Resource Economics* 685, 686.

¹⁸⁵ Bjorkman Nyqvist and others, 'The Market for (Fake) Antimalarial Medicine: Evidence from Uganda' (Centre for International Development at Harvard University 2013) CID Working Paper No. 242 30; Tessa Bold and others, 'Lemon Technologies and Adoption: Measurement, Theory and Evidence from Agricultural Markets in Uganda' (2017) 132(3) *The Quarterly Journal of Economics* 1055, 1057.

¹⁸⁶ Sebastian Schwemer, 'Food for Thought- Revisiting the Rationale of Law-Based Food Origin Protection' (2012) 7(3) *European Food and Feed Law Review* 134, 135.

¹⁸⁷ Elise Golan and others, 'Economics of Food Labelling' (2001) 24(2) *Journal of Consumer Policy* 117, 136.

strategy. Hence, this thesis aims to fill these gaps by providing a more holistic approach to food safety governance in Bangladesh.

Overall, this thesis differs from previous works that have focused exclusively on the criticism of enforcement failures. This thesis offers a fresh perspective by reframing food adulteration as a multi-dimensional governance problem which necessitates integrated solutions spanning law, technology, and consumer empowerment. The aim is to tap into international best practices in adulteration prevention by using them as inspiration for crafting a blueprint attuned to Bangladesh's specific challenges. Instead of engaging in a direct comparison of systems, this thesis distils strategies that hold promise for local adaption and meaningful impact. In doing so, this thesis endeavours to function as a policy document that outlines concrete steps to effectively combat food adulteration in Bangladesh.

1.5 Methodology & Sources

This thesis is based on desk-based research. It utilises a combination of primary and secondary sources to conduct a comprehensive analysis of food safety regulations and practices in Bangladesh. Although the challenges in data acquisition and reliability highlighted in the preceding literature review remain pertinent, this thesis has made efforts to incorporate empirical data where available, to improve the robustness of the analysis to the extent possible.

The primary sources including the Bangladeshi Constitution, national legislation, judicial decisions, government policies, acts and regulations that pertain to food safety. In addition to domestic sources, this thesis draws on international guidelines and standards, particularly those from the FAO, the Codex Alimentarius, and the EU's food safety regulations, and relevant WHO frameworks. These international sources provide comparative insights and best practices that can be adapted to the Bangladeshi context.

Secondary sources include peer-reviewed journal articles, books, working papers, theses, Additionally, newspapers are used extensively in this thesis, as investigative journalism has played a key role in uncovering food adulteration cases in Bangladesh. The reliance on newspaper articles and reports allows this thesis to incorporate real-time insights and uncover issues that may not be covered extensively in academic literature. In order to offset the limitation of publication bias and to ensure a more comprehensive dataset, this thesis also relies on grey literature, including evaluation reports from relevant organisations,

government agencies, international bodies such as UNCTAD, World Bank, FAO, WHO, as well as legal analyses from think tanks and NGOs.

This research does not include interviews with key stakeholders or original empirical data collection. Although interviews with government officials, food industry representatives, and consumers could have provided valuable on-the-ground insights into the practical challenges of implementing food safety regulations, they were not conducted for this thesis.

1.5.1 Rationale for Research Approach

This thesis next explains the rationale for its methodological selections. This thesis adopts a combination of doctrinal and socio-legal research methodologies to address the overarching research question. This is also the novelty of this thesis that it uses cross-disciplinary methods encompassing law and regulation, public administration and governance studies, criminology, food science and technology, economics, social sciences, public health and policy, including agriculture - all of which are invaluable in contemporary legal research. This section critically examines why a predominantly socio-legal approach is favoured, whilst also acknowledging the foundational role of doctrinal research.

The 'black-letter' approach to doctrinal research examines statutes, regulations, and case law to understand and interpret legal principles and doctrines.¹⁸⁸ The nature of the research question which is centred on the potential avenues for the government to reinforce the public food safety governance framework, necessitates an initial scrutiny of the existing legal framework. Amendments to the law are predicated on the conception of existing legal statutes and regulatory norms. Hence, the doctrinal approach serves as the foundational structure for this thesis by providing both the framework and the substantive base for scholarly enquiry.

Hutchinson and Duncan enrich this discourse by adding that doctrinal research advances beyond rule identification, It also involves a critical evaluation of laws for coherence, consistency, and practical applicability.¹⁸⁹ This depth of analysis is particularly relevant for addressing the overarching research question which requires an understanding of laws that

¹⁸⁸ D Watkins and M Burton, *Research Methods in Law* (2nd edn, Routledge 2018) 13.

¹⁸⁹ Terry Hutchinson and Nigel Duncan, 'Defining and Describing What We Do: Doctrinal Legal Research' (2012) 17 *Deakin Law Review* 83, 84–85.

goes beyond a superficial review of legal texts. However, the doctrinal approach is not without its limitations because laws do not exist in a vacuum, and as Cotterrell explained, law is generally understood as significant in experience only if applied and related to specific contexts.¹⁹⁰ He further posited that as a value-oriented and context-focused enterprise, legal studies should draw on the social sciences to make its enquiries relevant in a changing socio-legal world.¹⁹¹

Hence, given the potential implications of this thesis shaping law and informing policy, doctrinal research could be complimented by a socio-legal perspective. The socio-legal approach examines law as a social phenomenon, situating legal doctrines within broader societal contexts.¹⁹² Socio-legal studies has been described as a 'magpie discipline' that has picked up ideas from many other disciplines in the service of its own goals.¹⁹³ Influential interdisciplinary relationships in socio-legal studies include those labelled as 'law and...', such as sociology, anthropology, development, economics, social psychology and international development, criminology, political science, psychology, anthropology, history, science and technology etc.¹⁹⁴

Scholars such as Cotterrell,¹⁹⁵ Pound,¹⁹⁶ and Tamanaha¹⁹⁷ have argued consistently that legal doctrines are not isolated constructs but are deeply entwined with social structures. They emphasise that law derives its efficacy and meaning from its sociocultural environment, thereby extending the enquiry from 'law in books' to 'law in action'. This illuminating perspective highlights the imperative for a socio-legal methodology by observing the interaction between law, society, and human behaviour.¹⁹⁸

This thesis aims to enhance the food governance framework by advocating for collaborative strategies within the food industry and empowering consumers, areas that are closely tied to

¹⁹⁰ Roger Cotterrell, 'Why Must Legal Ideas Be Interpreted Sociologically?' (1998) 25 *Journal of Law and Society* 171, 187.

¹⁹¹ Roger Cotterrell, 'A Socio-Legal Quest: From Jurisprudence to Sociology of Law and Back Again' (2023) 50(1) *Journal of Law and Society* 3.

¹⁹² *ibid.*

¹⁹³ Naomi Creutzfeldt, Marc Mason and Kirsten McConnachie, *Routledge Handbook of Socio-Legal Theory and Methods* (1st edn, Routledge 2019) 6.

¹⁹⁴ *ibid* 6, 232; See also, Roberts, 'Introduction' (n 230) 12.

¹⁹⁵ M Reimann and R Zimmermann, *The Oxford Handbook of Comparative Law* (Oxford University Press 2006) 710.

¹⁹⁶ Halperin referring to Roscoe Pound's famous article. Jean-Louis Halperin, 'Law in Books and Law in Action: The Problem of Legal Change' (2011) 64 *Maine Law Review* 45; Roscoe Pound, 'Law in Books and Law in Action' (1910) 44 *American Law Review* 12.

¹⁹⁷ Brian Tamanaha, *Legal Pluralism Explained: History, Theory, Consequences* (Oxford University Press 2021) 202–204; Cormac Amhlaigh, 'Legal Pluralism Explained: History, Theory, Consequences' (2022) 49(2) *Journal of Law and Society* 430, 432.

¹⁹⁸ Creutzfeldt, Mason and McConnachie (n 193) 6.

societal factors and human behaviour. Given that the central research question focuses on how the government can take a leading role in strengthening food safety governance, it is imperative to implement a multi-disciplinary approach. This means going beyond just a legalistic view and incorporating the social, cultural, and personal dimensions or biases that influence food safety.

Incorporating the viewpoint of Hutt, who asserts that 'food law and policy encompasses social, cultural, and personal beliefs and biases that cannot be ignored', including religious practices, is pivotal in advocating for a multidisciplinary approach to food safety governance.¹⁹⁹ This perspective recognises food's deep connections with various aspects of human life, thereby suggesting that a legalistic approach alone may not capture the full societal impact of food. Consequently, a purely doctrinal lens may offer an incomplete perspective by inadequately addressing the complexities of these issues that are inherently societal in nature.²⁰⁰

International food lawyers and scholars further reaffirm the importance of interdisciplinary aspects of food law and policy around the world, to include fields of law, science, medicine, public health and public policy.²⁰¹ These perspectives emphasise the necessity of a multidisciplinary perspective to fully comprehend the legal, social, economic, and scientific dimensions of food safety governance. Hence, although law remains the anchor, incorporating knowledge from other disciplines could lead to a more robust solution that actually works in the real world, not just on paper.²⁰²

Additionally, the epistemology of socio-legal studies prioritises understanding how knowledge about law is constructed, interpreted, and internalised within society.²⁰³ Legal knowledge, particularly the kind produced through the detailed interpretation of legal texts, an activity known as 'exegesis', is specialised in nature.²⁰⁴ However, this specialised or esoteric quality should not obscure its inherently social character.²⁰⁵ The forms of knowledge and the 'truths' that the law produces are mediated by social communication processes,

¹⁹⁹ Peter Hutt, 'Food Law & Policy: An Essay' (2005) 1(1) *Journal of Food Law and Policy* 1, 2.

²⁰⁰ 'A question which cannot be legitimately answered by reference to a statute or judgment lies outside the doctrinal gaze': Adam Bradney, 'Law as a Parasitic Discipline' (1998) 25(1) *Journal of Law and Society* 71, 76.

²⁰¹ Gabriela Steier and Kiran K Patel (eds), *International Food Law and Policy* (Springer International Publishing 2016) xi, pt A.

²⁰² Ortwin Renn, 'Essay 1 A Guide to Interdisciplinary Risk Research 8', *Risk Governance* (1st edn, Routledge 2008) 1; Steier and Patel (n 215) pt A; Renn and Dreyer (n 175) 68, 220, 224.

²⁰³ Deflem Mathieu, 'Introduction: Sociology, Society, Law', *Sociology of Law: Visions of a Scholarly Tradition* (1st edn, Cambridge University Press 2008) 1.

²⁰⁴ Ann Denis and Kalekin-Fishman Fishman, *The ISA Handbook in Contemporary Sociology: Conflict, Competition, Cooperation* (1st edn, Sage 2009) 61.

²⁰⁵ *ibid.*

falling within the ambit of social theory.²⁰⁶ As articulated by Cotterrell, the law lacks an intrinsic 'truth' of its own and sociology is not only capable of grasping the essence of legal doctrine but it also provides a form of insight that is 'not only useful but necessary for legal studies'.²⁰⁷ This socio-legal epistemological framework challenges traditional positivist views that treat legal texts as static and objective sources of knowledge.²⁰⁸

The relevance of socio-legal epistemology to this thesis is manifold. It offers a theoretical lens to scrutinise the changing and context-dependent nature of law,²⁰⁹ thereby making it particularly suited for examining food safety governance in Bangladesh. In this specific context, food safety governance is not solely the domain of state actors but includes non-state entities such as NGOs, community organisations, and consumers themselves. Socio-legal epistemology facilitates an examination of barriers to food safety in their social context, which may vary from culturally ingrained practices to economic factors that make adulterated food financially attractive. Moreover, empowering consumers is not simply an educational endeavour about legal rights. It also entails understanding the societal barriers that impede the exercise of these rights. Indeed, recognising the socio-cultural factors that shape legal frameworks enables a more sophisticated approach to devising mechanisms for combating food adulteration.

However, like any methodology, the socio-legal approach is not exempt from critique. Firstly, the 'question of identity' in socio-legal studies warrants attention. As the field has proliferated to assert its distinctiveness, it has simultaneously grappled with defining the precise nature of that distinctiveness.²¹⁰ This dual character presents both an asset and a liability. Although the interdisciplinary nature of socio-legal studies offers perspectives that enrich our understanding of legal phenomena, it also raises substantive questions about the core competencies and methodologies that precisely define the field.²¹¹ This issue is pertinent to this thesis as it employs a socio-legal lens to investigate food adulteration in Bangladesh. A recognition of the field's inherent complexity and the methodological implications thereof is imperative for lending rigour to the present thesis.

Secondly, socio-legal studies have the potential to blur or even efface what is considered 'legal', thereby presenting a risk of 'decentering' the law from its position as the focal point of

²⁰⁶ *ibid.*

²⁰⁷ Roger Cotterrell, *Law, Culture and Society: Legal Ideas in the Mirror of Social Theory* (1st edn, Routledge 2017) 45.

²⁰⁸ DW Vick, 'Interdisciplinarity and the Discipline of Law' (2004) 31(2) *Law and Society* 163, 178.

²⁰⁹ Roger Cotterrell (note 207) 3.

²¹⁰ Creutzfeldt, Mason and McConnachie (n 193) 107.

²¹¹ *ibid.*

analysis.²¹² For the aims of this thesis, which seeks to offer a comprehensive governance framework for food safety in Bangladesh, this potential decentering could translate into a methodological shortcoming. It could result in a dispersed focus rather than a concentrated analysis of the legal instruments and mechanisms central to the governance of food safety. Therefore, this thesis takes measures in the concluding chapter to delineate clearly between legal and non-legal elements, thereby preserving the essence of law whilst benefiting from a broader socio-legal purview.

Further support for an interdisciplinary approach comes from literature on food fraud. Food fraud experts such as Spink et al. demonstrate the integration of various fields, including criminology, food science and technology.²¹³ Legal experts in the field of food fraud have also emphasised for interdisciplinary measures to tackle the rapidly evolving nature of deceptive tactics used in food adulteration.²¹⁴ For instance, Fortin,²¹⁵ Kasaj and Knezevic, reiterate that interdisciplinary approach and the use of new ideas and strategies are needed to respond to the possibility of deception by increasingly creative fraudsters and reduce the possibility of fraud'.²¹⁶

However, though these works advocate for an interdisciplinary approach, the effectiveness of such an approach in addressing food adulteration is a question that warrants further investigation. The involvement of diverse disciplines in food fraud research suggests that a narrow, purely legalistic focus may not be sufficient to address the complexities of food adulteration. Ewick and Silbey critique the 'law first' tradition of scholarship by arguing that it has drastically narrowed our vision, and that, despite the research which shows that law 'has no center and little uniformity, it is often implicitly assumed that the law is still recognisably, and usefully distinguishable from that which is not law'.²¹⁷ Nevertheless, the comparative effectiveness of an interdisciplinary approach versus a legalistic one remains a subject for empirical study.

²¹² *ibid* 1-7; John Harrington, Lucy Series and Alexander Keene, 'Law and Rhetoric: Critical Possibilities' (2019) 46(2) *Journal of Law and Society* 302, 326.

²¹³ Spink and others (n 15) 327. Robert Smith, Louise Manning and Gerard McElwee, 'Critiquing the Inter-Disciplinary Literature on Food Fraud' (2017) 3(2) *International Journal of Rural Criminology* 250, 253.

²¹⁴ Kailemia (n 201) 177; Kasaj and Knezevic (n 169) 410; Aline Wisniewski and Anja Buschulte, 'Dealing with Food Fraud: Part 1: A Review of Existing Definitions and Strategies for the Prevention of Food Fraud, Established in Legal Regulations Focusing on Germany's Major Trading Partners' (2019) 14(1) *European Food and Feed Law Review* 6, 14; Lord and others (131) 577, 581, 586, 595.

²¹⁵ Spink and others (n 15) 327.

²¹⁶ Kasaj and Knezevic (n 169) 410.

²¹⁷ P Ewick and S Silbey, *The Common Place of Law* (University of Chicago Press 1998) 19; See also, Creutzfeldt, Mason and McConnachie (n 193) 98.

Therefore, the evolving and complex patterns of food adulteration and safety governance in Bangladesh necessitate an interdisciplinary approach that combines doctrinal precision with socio-legal breadth. Legal analysis provides the necessary foundation, whereas the socio-legal perspective offers key insights into the contextual factors that influence the efficacy of governance frameworks. This integrated methodology is designed to produce both theoretically sound and practically effective recommendations for improving food governance in Bangladesh.

It is hereby reiterated that this research does not employ a traditional comparative law methodology, which would entail a structured and systematic comparison of two or more legal systems against predefined criteria. Nonetheless, it draws selectively from international jurisdictions to identify instructive practices and legal concepts relevant to food safety governance. These examples are used not to compare outcomes formally but rather to enrich the theoretical foundation and illustrate regulatory strategies that may be adaptable to the Bangladeshi context. The multi-jurisdictional perspective is consistent with the interdisciplinary and socio-legal orientation of this thesis. This approach allows the analysis to situate Bangladesh within an international regulatory discourse whilst remaining sensitive to the country's unique socio-legal and institutional realities.

1.6 Structure and Overview of the Thesis

This thesis is divided into two parts. Part I consists of Chapters 2 and 3 which delves into the legal scaffolding underpinning food safety regulation within the bounds of private law. Part II consists of Chapters 4 to 7 which explore the socio-legal dimensions of enforcement and preventive strategies in this area.

Chapters 2 and 3 examine the historical and legal foundations of food safety regulation in Bangladesh with a focus on the role of contract and tort law in combating food adulteration. Using doctrinal analysis, they collectively build a case for stronger public law mechanisms and increased governmental intervention for effective prevention of food adulteration.

Chapter 4 shifts the discussion to the public sphere to critically evaluate Bangladesh's food safety regulatory and governance framework through both doctrinal and socio-legal lenses. This chapter examines the legal and institutional impediments to effective food safety governance. In highlighting the practical ramifications of these difficulties in a post-BFSA

regulatory environment, this chapter stresses the need for systemic reforms and proactive government oversight.

Building on this analysis, Chapter 5 pivots to explore traceability systems as a key strategy for preventing food adulteration. This chapter uses a socio-legal approach by juxtaposing Bangladesh's specific challenges with international benchmarks to assess the viability of such systems within its regulatory framework.

Consumer empowerment takes centre-stage in Chapter 6 by positioning informed and educated consumers as vital allies in the fight against food adulteration. This chapter uses a socio-legal approach and examines how government policies and regulations influencing better labelling and other consumer-facing strategies could stand as instruments of change.

Building on the consumer-centric approach, Chapter 7 examines the interplay between food adulteration and misleading labelling and highlights how systemic challenges in regulation and enforcement exacerbate these issues. This chapter then proposes a recalibration of legal frameworks and enforcement measures to bolster defences against adulteration and deceptive practices.

Chapter 8 concludes this thesis by bringing together the key insights into actionable recommendations for strengthening Bangladesh's food safety governance framework. It reaffirms the fundamental role of government as the driving force behind these efforts and calls for evolution in policies which prioritise prevention in the battle against food adulteration.

Part I
Private Law Doctrines

Chapter 2: The Role of Foundational Doctrines of Private Law in Addressing Food Adulteration

2.1 Introduction

This thesis begins by exploring the role of private law in addressing food adulteration in Bangladesh by focusing on the key doctrines of contract and tort law. Following its independence from Pakistan in 1971, Bangladesh inherited a legal system deeply rooted in British colonial jurisprudence. Although English caselaw is no longer binding, it continues to exert noteworthy influence over legal interpretations in Bangladeshi courts. Commencing with contract law, this chapter delves into fundamental principles including misrepresentation, fraud, and implied conditions, which are based on the Indian Contract Act (1872) and the Sale of Goods Act (1930). The chapter then turns to tort law by specifically addressing product liability and negligence, which impose responsibility on manufacturers for the adverse effects of their products. Through an analysis of contract and tort law, this chapter establishes the foundation for a critique of their efficacy in tackling modern food adulteration, which will be further examined in the next chapter.

2.2 The Role of Contract Law in Addressing Food Adulteration

Typically, food supply chains of contracts bind producers to consumers in both vertical and horizontal dimensions.²¹⁸ These contracts connect value chain actors and support services, such as input suppliers and financial institutions. Within these contractual relationships, instances of food fraud frequently emerge.²¹⁹ A party may intentionally violate the contract by supplying a product that differs from its description to deceive the other party. This deceptive practice breaches public law norms related to food safety, quality, and consumer protection including contracts.²²⁰ Hence, food fraud is a domestic contract law issue as well as a public law issue or a criminal offence. This positioning enables the aggrieved parties to sue privately for breach.

²¹⁸ S Kapur, 'The Regulation of Agri-Food Safety by Regulations: Utilising Traceability and Recalls in India and USA' in Güner Aytekin and Çağlar Doğru (eds), *Handbook of Research on Recent Perspectives on Management, International Trade, and Logistics*: (IGI Global 2021) 87.

²¹⁹ RH Mostert and others, 'Dhaka Food Agenda 2041 Foresight and Scenario Development' (Wageningen Centre for Development Innovation Wageningen 2022) Workshop Report Dhaka Food Systems project WCDI-22-207 29; FAO, *Thinking about the Future of Food Safety* (n 91) 3.

²²⁰ Roberts, Viinikainen and Bullon (n 14) 31.

Contract law defines the core aspects of agreements and guides their interpretation, formation, and enforcement through a blend of voluntary and mandatory rules.²²¹ Particularly, mandatory provisions apply when a party's consent to a contract is secured through deceit or misrepresentation which is a common feature in food fraud cases.²²² Deception undermines the contractual foundation and deviates from the agreed-upon quality standards of the food product, allowing the wronged party a path to seek legal remedies under private law. Eventually though, it is the governments which shape and support the enforcement of private remedies.²²³ Once these legal frameworks are in place, good faith traders can enforce their contractual rights and seek justice against fraudulent counterparts. Thus, contract law provides helps address and rectifying the malpractices associated with food fraud within the supply chain.

2.2.1 The Colonial Context of Contract Law in Bangladesh

Bangladeshi contract law has its roots deeply embedded in the colonial era of India.²²⁴ During the mid-18th century, as the British East India Company established its territory over the Indian subcontinent, it sought to integrate English common law principles into the local legal systems.²²⁵ This culminated in the enactment of the Indian Contract Act (1872), which codified rules around contractual agreements such as offer, acceptance, breach of contract, and damages.²²⁶ The Contract Act (1872) was not developed in isolation. It was heavily influenced by English common law, notably by *Hadley v Baxendale* (1854),²²⁷ which shaped the law around foreseeable losses from breach of contract.²²⁸

²²¹ *ibid.*

²²² Lord, Flores Elizondo and Spencer (n 142) 607.

²²³ Roberts, Viinikainen and Bullon (n 14) 31; FAO, *Thinking about the Future of Food Safety* (n 91) 93.

²²⁴ AS Mizan, 'The Law of Language and the Language of the Law: A Sociolegal Appraisal of Colonial Legal Language in Bangladesh' (2021) 32(2) Dhaka University Law Journal 119, 121, 127; Katy Barnett, 'The Surprising Indian Influence on English Contractual Remoteness Rules, by Katy Barnett' (*British Association of Comparative Law*, 27 January 2023) <<https://british-association-comparative-law.org/2023/01/27/the-surprising-indian-influence-on-english-contractual-remoteness-rules-by-katy-barnett/>> accessed 10 April 2024; Katy Barnett, 'The Surprising Indian Influence on English Contractual Remoteness Rules' in KV Krishnaprasad, N Venkatesan and S Swaminathan, *Foundations of Indian Contract Law* (Oxford: Oxford University Publishing 2024) (forthcoming).

²²⁵ MP Jain, 'The Law of Contract Before Its Codification' [1972] *Journal of the Indian Law Institute* 178, 204.

²²⁶ The Indian Contract Act 1872. Stelios Tofaris, 'The Regulation of Unfair Terms in Indian Contract Law: Past, Present, and Future' in Mindy Chen-Wishart and Stefan Vogenauer, *Studies in the Contract Laws of Asia III: Contents of Contracts and Unfair Terms* (Oxford University Press 2020);

²²⁷ *Hadley v Baxendale* (1854) 9 Exch 341.

²²⁸ Barnett, 'The Surprising Indian Influence on English Contractual Remoteness Rules' (n 224).

Surana has extensively analysed the adaptation of the law of unjust enrichment within the Indian Contract Act (1872).²²⁹ She notes that this doctrine which was designed to prevent one party from unjustly benefiting at another's expense, was 'domesticated' to address the realities of colonial trade and economic exchange between British and local entities. She argues that, although the Act was based on English law, its principles were applied within a uniquely colonial context and has influenced legal interpretations in modern jurisdictions including Bangladesh. Furthermore, the drafters of the Indian Contract Act integrated the French scholar Robert-Joseph Pothier's 'Will Theory of Contract', which stressed the importance of mutual understanding and consent between parties in contract formation. This is true of English law too.²³⁰ They also took inspiration from the 1862 Draft New York Civil Code in the US.²³¹

After the 1947 partition of British India, Pakistan, which then included East Pakistan (now Bangladesh), adopted the Contract Act (1872). The Act remained the foundation of contractual law after East Pakistan became Bangladesh in 1971.²³² More than a century and a half later, Bangladeshi contractual disputes and obligations are based on the 1872 Act's principles of offer and acceptance, void and contingent contracts, execution and breach of contracts, misrepresentation, and damages.²³³ Thus, Bangladesh's contract law is a legacy of its colonial past as it comes from British India.

Misrepresentation is a notable contractual principle from the 1872 Act. In the 19th century, British India and English common law changed how they treated misrepresentation in contract law. How misrepresentation was handled in this era shows the legal thought that shaped the 1872 Act. This is explored below.

²²⁹ Ragini Surana, 'The Law of Restitution for Unjust Enrichment in India: A History' (Max Planck Institute For Legal History and Legal Theory) <<https://www.lhlt.mpg.de/2896816/01-surana-the-law-of-restitution-for-unjust-enrichment-in-india>> accessed 14 November 2024. Max Planck Lawcast, 'The Law of Unjust Enrichment in India' (22 May 2024) <<https://open.spotify.com/episode/4CZFyBXV35US7a8vo2uPpT?si=8mpGIOL4QpG-bxdzc6dUrg>> accessed 13 February 2025.

²³⁰ Robert Joseph Pothier and William David Evans, *A Treatise on the Law of Obligations, Or Contracts*, vol I (A Strahan 1806).

²³¹ New York (State) Commissioners of the Code, *Draft of a Civil Code for the State of New York* (Weed, Parsons 1862).

²³² Obaidul Chowdhury, *The Contract Act (IX of 1872), with up-to-Date Amendments & Case-Law* (First edition, Dacca Law Reports Office 1975). Dalia Pervin, 'Rediscovering the Rules for Communication of Contract Law in Bangladesh: Legal and Philosophical Perspective' (2015) 26(2) Dhaka University Studies Part F 47.

²³³ Pervin (n 232) 150; Barnett, 'The Surprising Indian Influence on English Contractual Remoteness Rules' (n 224).

2.2.2 Doctrine of Misrepresentation

The doctrine of misrepresentation has notably evolved over time. In the mid-19th century, English contract law had little development and misrepresentation was inconsistently addressed in legal texts.²³⁴ English legal scholarship on it was fragmented and undeveloped in the mid-19th century. Prominent legal scholars such as Joseph Chitty, John William Smith, and William Anson did not prominently feature misrepresentation in their works.²³⁵ It often appeared only as a marginal note in contract law discussions. Despite its rarity in legal discussions, there was a broad consensus amongst contemporary jurists that for misrepresentation to be actionable, it must have a substantial impact on the contract's formation. Misrepresentation was then beginning to be recognised in legal thought, but it had not yet achieved doctrinal independence. Slowly, the legal community acknowledged that misrepresentation must effectively induce one to enter a contract. In his influential text, John William Smith explicitly stated the necessity for deceit to induce the contracting party.²³⁶

However, the precise nature and categorisation of misrepresentation were disputed. During this time, misrepresentation was predominantly seen as fraud, closely associated with deceitful practices rather than negligence. Notably, in his 1857 commentary on Scottish and English contract law, Shaw argued that misrepresentation, a subset of fraud, could take the form of explicit misstatements or tacit deception.²³⁷ *Polhill v Walter* (1832) supports this view as only deliberate deceptions as misrepresentation. Chief Justice Lord Tenterden ruled that a wilful lie was fraud, establishing the need for intentional dishonesty in misrepresentative actions.²³⁸ Yet, the debate over what precisely constitutes misrepresentation was far from settled. Fluid categorisation and definitions reflected a broader discussion on contractual deceit. Smith's authoritative contract law text illustrates this tension. It emphasises that although deceit must involve intentional falsehoods designed to mislead, mere falsity without knowledge does not suffice for fraud.²³⁹ This view challenges the earlier, more rigid interpretations and suggests a gradual shift towards discerning the intent behind misleading statements.

²³⁴ Victoria Barnes and Emily Whewell, 'English Contract Law Moves East: Legal Transplants and the Doctrine of Misrepresentation in British Consular Courts' (2019) 7(1) *The Chinese Journal of Comparative Law* 26, 38.

²³⁵ *ibid.*

²³⁶ John William Smith, *The Law of Contracts* (George Malcolm ed, 5th edn, Stevens & Sons 1868); Barnes and Whewell (n 234).

²³⁷ Patrick Shaw, *A Treatise on the Law of Obligations and Contracts* (T & T Clark 1857) 51.

²³⁸ *Polhill v Walter* (1832) 3 B & Ad 114, 123 ER 43, 46.

²³⁹ Smith, *The Law of Contracts* (n 317) 224.

The evolution of these legal perspectives in England indirectly shaped contract law in British colonial territories, including Bangladesh. The Contract Act (1872) defines misrepresentation in a manner that echoes the English legal principles of the time.²⁴⁰ Section 18 outlines the conditions under which a statement or act constitutes misrepresentation. These include: (1) the positive assertion, unsupported by the person's information, of something he believes to be true; (2) any breach of duty that, without intent to deceive, benefits the person committing it or any one claiming under him by misleading another to their detriment; (3) Misleading a party to an agreement about its subject, even innocently.²⁴¹

These acts or omissions are only fraudulent if done with deception, per section 17. The law requires an act or statement must significantly influence the aggrieved party's contract decision. This links misrepresentation to the contractual agreement by requiring truthful and accurate information. Notably, section 18(3) of the Act expands the definition of misrepresentation to include innocent factual errors in agreements, demonstrating a sophisticated approach to contractual fairness and protection from inadvertent harm.²⁴²

2.2.3 Fraud under the Contract Act

Parallel to the doctrine of misrepresentation, section 17 of the Contract Act (1872) defines fraud in English law.²⁴³ It defines fraud as an intentional deception. Specifically, fraud occurs when a party, the representor, makes a misleading statement with the intention that it be interpreted in a manner they know to be false.²⁴⁴ Central to this definition is the intent or the 'deceptive mind' behind the statement or action.²⁴⁵ Section 17 states that act is considered to be fraudulent if it involves: (1) presenting a lie as fact by someone who doesn't believe it; (2) active concealment of a fact by a knowing or believing person; (3) a promise given without intent; (4) any other deceptive act; (5) any act or omission specifically declared fraudulent by law.²⁴⁶

²⁴⁰ Pollock and Mulla, *Indian Contract and Specific Relief Act* (11th edn, India 1994) 247; Mohammad Razzak, 'Formation of a Contract and Its Technicalities: Bangladesh Perspectives' (2008) 19(2) Dhaka University Studies Part F 159, 176.

²⁴¹ The Contract Act 1872 s 18 (Bangladesh).

²⁴² *ibid* 18(3) (Bangladesh).

²⁴³ Razzak (n 240) 176.

²⁴⁴ Guenter H Treitel, *The Law of Contract* (11th edn, Sweet and Maxwell 2003) 337.

²⁴⁵ Razzak (n 240) 176.

²⁴⁶ The Contract Act s 17 (Bangladesh).

These acts or omissions are only fraudulent if done with deception, per section 17. The representor's belief in the statement's truth distinguishes fraud from misrepresentation. Although both deceive the representee, the representor in fraud knows the statement is false and the representor in misrepresentation believes it is true.²⁴⁷ Nonetheless, a contract induced by either fraud or misrepresentation is voidable at the deceived party's discretion, though of *caveat emptor* still allows the representor some defences.²⁴⁸

Moreover, the essence of fraud is the intent to deceive as per the Bangladesh Supreme Court in the cases of the *Government of the People's Republic of Bangladesh v Chairman, The First Court of Settlement, Segunbagicha, Dhaka and another* (2018) including *Abed Khan v The Government of Bangladesh and another* (2015).²⁴⁹ This applies irrespective of any potential gain for the perpetrator or malice towards the victim. It encompasses two key elements: deceit and harm to the deceived. Harm is defined broadly, extending beyond economic loss to include any damage to a person's property, body, mind, reputation, or other aspects, thus recognising both economic and non-economic (or pecuniary and non-pecuniary) losses. The deceiver's benefit usually implies a loss to the deceived, satisfying the condition for fraud even in rare cases where the deceived does not suffer a corresponding loss.

Fraud also includes deliberate concealing material facts or defects to deceive the other party. In *Schneider v Heath* (1813), the seller of a ship 'to be taken with all faults' kept it afloat to hide defects. This concealed a broken keel and worm-eaten hull.²⁵⁰ Though ostensibly sold 'as is', the action for misrepresentation was allowed because the seller took positive steps to hide the defects. By displaying the ship for sale without disclosing the covered-up flaws, he effectively misrepresented their absence.²⁵¹

Even inaction can be fraudulent. The Act recognises that silence can be fraudulent in certain situation. Section 17 states that not disclosing information that could influence a contract is not fraud unless there's a duty to speak out due to the parties' relationship or circumstances. Thus, non-disclosure is fraud only when important facts must be disclosed due to a special

²⁴⁷ *Karnaphuli Paper Mills Ltd V Amanullah* (1971) 23 DLR 150.

²⁴⁸ See section 22 and exception to section 19 of the Contract Act. Under English law principle of *caveat emptor* shall not be available as a defence if the consent is obtained by fraud: Robert Merkin and Séverine Saintier, *Poole's Casebook on Contract Law* (Oxford University Press 2021).

²⁴⁹ *The Government of the People's Republic of Bangladesh v Chairman, The First Court of Settlement, Segunbagicha, Dhaka and another* Writ Petition No. 9051 of 2018; *Abed Khan v The Government of Bangladesh and another* Writ Petition No. 7082 of 2015.

²⁵⁰ *Schneider v Heath* [1813] 3 Camp 506.

²⁵¹ André Naidoo, 'Misrepresentation', *Complete Contract Law: Text, Cases and Materials* (1st edn, Oxford University Press) para 13.2.2.

relationship or context.²⁵² For instance, if goods are adulterated and unfit for their intended purpose, and the seller fails to disclose this despite having a duty to do so, such omission constitutes fraud by concealment.

Building upon the understanding of misrepresentation and fraud in Bangladeshi contract law it is relevant to examine commercial transaction laws, particularly those governing goods sales. This exploration now turns to the Sales of Goods Act (1930) that requires sellers to disclose product quality.

2.2.4 Origin and Evolution of Sales of Goods Act (1930) in Bangladesh

Similar to the Contract Act (1872), the Sales of Goods Act (1930) is another colonial-era statute. The Sale of Goods Act (1930) was established during the British rule to address contracts related to the sale of goods. Initially, it was introduced in both Britain and its territories, including British India, as an extension of the Sale of Goods Act (1893).²⁵³ With the division of British India into India and Pakistan in 1947, both nations adopted Sale of Goods Act (1930) under the Federal Laws (Revision and Declaration) Act 1951.²⁵⁴ Meanwhile, the UK replaced Sale of Goods Act (1930) with the Sale of Goods Act (1979), which was later amended in 1994.²⁵⁵

Before the Sale of Goods Act (1930), the sale of goods in British India was governed by sections 73-123 of the Indian Contract Act (1872), which were repealed upon the enactment of Sale of Goods Act (1930).²⁵⁶ Interestingly, Sale of Goods Act (1930) incorporated principles from the Indian Contract Act (1872), in line with English common law.²⁵⁷ Bangladesh's Sale of Goods Act (1930), a derivative of English law, originated from the

²⁵² *ibid.*

²⁵³ Sale of Goods Act 1930 (India); F Pollock and DF Mulla, *The Sale of Goods Act* (11th edn, LexisNexis India 2021); Law Commission of India, 'Eighth Report - Sale of Goods Act, 1930' (1958) Law Commission Report 8; SP Sen, 'Effects on India of British Law and Administration in the 19th Century' (1958) 4(4) *Journal of World History*.

²⁵⁴ MC Setalvad and P Vibhufhan, *The Common Law in India* (Stevens & Sons 1960). Most recently, Sale of Goods Act 1979 (UK) replaced for consumer contracts from 1 October 2015 by the Consumer Rights Act (2015) (UK). However, in the UK Sale of Goods Act (1979) remains the primary legislation for selling / buying goods, more precisely for business-to-business transactions ('B2B').

²⁵⁵ Michael Bridge, *The Sale of Goods* (Oxford University Press 1998); Eric Baskind, Greg Osborne and Lee Roach (eds), 'An introduction to the sale of goods', *Commercial Law* (4th edn, Oxford University Press 2022) 212-213.

²⁵⁶ The Indian Contract Act; Commission of India (n 335).

²⁵⁷ SK Gupta, A Tiwary and N Gupta, *Business Law* (Rajeev Bansal 2021) ch 3; S Gardazi, M Iqbal and M Arif, 'The Inception of Caveat Venditor Doctrine in Sales Law of Pakistan from an Islamic Perception' (2022) 4(2) *Research Journal Al-Meezan* 1, 3.

Contract Act (1872) but became a separate entity in 1930. Although it is influenced by the Sale of Goods Act (1893), it includes some additional provisions.²⁵⁸ Despite Bangladesh's independence, this law remains largely unchanged. It contains 66 sections, applies throughout Bangladesh, and is heavily based on the English Act. It took effect on July 1, 1930.

In order to understand the doctrine of *caveat emptor* in the context of the Sales of Goods Act, a historical perspective is necessary. The Sale of Goods Act was influenced by English *caveat emptor*.²⁵⁹ English courts have long used *caveat emptor*, which worked well for small quantities but not large quantities.²⁶⁰ 'Cavere' means to caution, and 'emptor' refers to the buyer in Latin.²⁶¹ During medieval times, the *lex mercatoria* (i.e., private merchant law) effectively resolved many disputes in specialised courts, yet some issues regarding buyers' and sellers' rights remained unaddressed.²⁶² Issues such as adulteration of food and drink, and using false measurements, were regulated by criminal laws.

Since there were no quality guarantees of products, *caveat emptor* required buyers to be informed and vigilant.²⁶³ Merchants often avoided written warranties and preferred to negotiate prices to account for defects disclosed before a sale. The 17th century case of *Chandelor v Lopus* (1603), established that the seller was not liable for goods defects without written warranties.²⁶⁴ This led to rights violations being addressed through contractual breaches with written warranties or fraud actions for deception.

By the end of the 18th century, the doctrine of *caveat emptor* remained firmly entrenched, with little change from earlier centuries. Lord Mansfield's 1778 dicta echoed Roman legal principles.²⁶⁵ In his dicta, Lord Mansfield stated that:

²⁵⁸ ABM Patwari, *Legal System of Bangladesh* (Humanist and Ethical Association of Bangladesh 1991) 73.

²⁵⁹ Paul Plessis, 'Obligations: Common Principles and Obligations Arising from Contracts', *Borkowski's Textbook on Roman Law* (Oxford University Press) 276.

²⁶⁰ Walton Hamilton, 'The Ancient Maxim Caveat Emptor' (1931) 40 Yale Law Journal 1133, 1156; Gardazi, Iqbal and Arif (n 258) 3; Plessis (n 260) 269, 279.

²⁶¹ Hamilton (n 261) 1157.

²⁶² JH Baker, 'The Law Merchant and the Common Law Before 1700' (2009) 38(2) The Cambridge Law Journal 295.

²⁶³ CJ Bruijn (Niels), 'Historical Perspectives on the Remedies' in ALM Keirse and MBM Loos (eds), *Alternative Ways to Ius Commune* (Intersentia 2012) 4–6; Reinhard Zimmermann, *The Law of Obligations: Roman Foundations of the Civilian Tradition* (Oxford University Press 1996) 306; WW Buckland and Arnold McNair, *Roman Law and Common Law* (Cambridge University Press 1952) 282.

²⁶⁴ *Chandelor v Lopus* [1603] Cro Jac 4.

²⁶⁵ Andrew Fede, 'Legal Protection for Slave Buyers in the U. S. South: A Caveat Concerning Caveat Emptor' (1987) 31 The American Journal of Legal History 322, 338.

A warranty extends to all faults known and unknown to the seller. Selling for a sound price without warranty may be a ground for an *assumpsit*, but, in such a case, it ought to be laid that the defendant knew of the unsoundness.²⁶⁶

Essentially, Mansfield affirmed that under *caveat emptor*, a seller was only liable for defects if there was fraudulent behaviour or an explicit warranty concerning the goods' condition.²⁶⁷ The burden remained squarely on buyers to ensure the quality of purchased goods. This reaffirmed the prevailing stance i.e., in the absence of fraud or express warranties, buyers purchased goods at their own risk under the doctrine of *caveat emptor*. Lord Mansfield's reasoning in *Stuart v Wilkins* (1778) echoed the Roman law principles that had long underpinned *caveat emptor*'s application in English common law.

However, a change began early in the next century. *Parkinson v Lee* (1802) started this change.²⁶⁸ Parkinson purchased hops from Lee based on a sample that suggested good quality. Yet, by the time of delivery, the quality of the hops had considerably deteriorated, rendering them 'bad, damaged, and unsaleable'.²⁶⁹ This case illustrated the growing legal recognition of discrepancies between sample quality and actual product quality at delivery. The central issue in *Parkinson v Lee* (1802) was whether a seller could be held liable for the unsoundness of goods due to reasons other than fraud or an explicit warranty. The question posed was whether paying a fair price for goods implies a warranty of merchantability and whether the seller should be accountable for goods that ultimately did not meet this standard, regardless of the seller's awareness of any defects at the time of the sale. Despite compelling arguments advocating for these views, the court ruled otherwise. The court acknowledged that the hops sold were not of merchantable quality, but pointed out that there was no discrepancy with the samples provided at the time of sale, based on which Parkinson had agreed to the purchase. Lee had assured that the bulk of the hops matched the quality of those samples, which was true at the time of the agreement, thus exonerating him from any wrongdoing. Justice Grose clarified:

If there be no such warranty, and the seller sell the thing such as he believes it to be, without fraud, I do not know that the law will imply that he sold it on any other terms

²⁶⁶ *Stuart v Wilkins* [1778] 1 Doug KB 18 99. *Stuart v Wilkins* is the earliest reported case where action was brought on the contract, though the practice began rather earlier around 1750. MP Furmston, 'Historical Introduction', *Cheshire, Fifoot, and Furmston's Law of Contract* (Oxford University Press 2017) 17.

²⁶⁷ *Stuart v Wilkins* (n 267) 4.

²⁶⁸ *Parkinson v Lee* [1802] 2 East 314.

²⁶⁹ *ibid.*

than what passed in fact. It is the fault of the buyer that he did not insist on a warranty.²⁷⁰

Thus, the burden of demanding a warranty against hidden defects rested on the buyer. Justice Lawrence added that the buyer, being experienced in dealing with such commodities, should have been aware of the potential for latent defects and thus purchased the goods at his own risk.²⁷¹ This reinforced the doctrine of *caveat emptor*, which states that the buyer is responsible in transactions between equal parties and must be vigilant and proactive in obtaining quality assurances.

As industrialisation progressed and mass production became widespread, the relationship between buyers and sellers shifted. As buyers were often in a weaker position,²⁷² this shift raised the question of whether traditional standards based on assumed equality between parties were still relevant in a changing society. The nature of commerce was also evolving, as mass-produced, standardised goods replaced bespoke crafts. This change hindered thorough product inspection.

These shifts in the commercial environment likely influenced Lord Ellenborough during his consideration of a case involving the sale of 'waste silk', where the buyer had no opportunity to inspect the goods beforehand.²⁷³ Lord Ellenborough opined that under such circumstances, it is reasonable for the purchaser to expect that the goods will be of a sellable quality that matches the description in the contract. He stated that every contract of this kind has an implied warranty even without a warranty. *Caveat emptor* does not apply when inspection is impossible. Although the buyer cannot demand a specific quality without a warranty, it is understood that the goods should be marketable as specified in the contract. Lord Ellenborough emphasised that it is unreasonable to assume that a buyer would purchase goods only to discard them,²⁷⁴ which highlighted a move away from the traditional *caveat emptor* towards a more protective stance for buyers in commercial transactions. Lord Ellenborough's point that *caveat emptor* could be waived when the buyer had no chance to inspect the goods before buying fundamentally changed this legal doctrine.

²⁷⁰ *ibid* 321.

²⁷¹ *ibid* 322.

²⁷² Wallace Sedgwick, Scott Conley and Roger Sleight, 'Products Liability: Implied Warranties' (1964) 48(2) *Marquette Law Review* 139, 141.

²⁷³ Frank Mechem, 'Implied Warranties in the Sale of Goods by Trade Name' (1927) 11(6) *Minnesota Law Review* 486, 489.

²⁷⁴ *Gardiner v Gray* [1815] 171 E R 46; See also, *Laing v Fidgeon* [1815] 6 Taunt 108.

Subsequent cases such as *Brown v Edgington* (1841) demonstrate that one incident can change everything. Brown clearly told Edgington he wanted a rope for lifting wine barrels from his cellar. However, the rope proved inadequate for the task, broke, and resulted in the loss of a wine barrel and its contents.²⁷⁵ The court had to decide whether Edgington was liable for providing a rope that failed under its intended use. Chief Justice Tindal explained that if a buyer selects an item based on their judgment alone, they cannot later claim it was unfit for its intended purpose.²⁷⁶ However, if the buyer relies on the seller's expertise and specifies the item's use, this creates an implied warranty that the item will be suitable for that purpose. Here, the implied warranty was based on the seller's judgement about the rope's suitability for wine barrels. This case further illustrates how *caveat emptor* is not absolute and can be waived when the buyer relies on the seller's advice. It supports the trend towards more buyer protections than they cannot independently verify the suitability of goods for a specific purpose.²⁷⁷

Jones v Just (1868) captured the evolving subtleties around the sale of goods and warranties. The court noted that when an item is sold by a manufacturer to a buyer who has not had the chance to inspect it during its production, it is generally understood that the item should be reasonably fit for use or be of a merchantable quality. The court then asked question why sales between merchants who could not inspect the goods should not be treated the same?²⁷⁸ In the earlier 'waste silk' case, Lord Ellenborough recognised an implied warranty of merchantability where the buyer could not inspect the good.²⁷⁹ *Jones v Just* (1868) expanded this concept to include situations where a buyer relied on the seller's expertise to provide goods for a specific purpose. In some cases, this reliance could create an implied warranty that the goods were suitable for the intended use.

Justice Mellor elaborated explained that the essence of an implied warranty hinges on whether the buyer had the opportunity to make an informed judgment on their own.²⁸⁰ He stated that it makes no difference whether the sale involves goods specifically designated for a particular contract or goods bought to meet a specific description. This clarification meant that implied warranties protect buyers when they rely on seller assurances, particularly when they cannot independently assess the goods.

²⁷⁵ *Brown v Edgington* [1841] 133 ER 751.

²⁷⁶ *ibid* 756.

²⁷⁷ For an earlier, but less unequivocal case see: *Jones v Bright* [1829] 5 Bing 531.

²⁷⁸ *Jones v Just* [1868] 3 LR 203 (QB).

²⁷⁹ *ibid* 11.

²⁸⁰ *Jones v Just* (n 279).

Laws varied on whether stating a product's purpose implied a warranty of fitness for that purpose. Justice Mellor cited instances where no implied warranty was recognised. In *Chanter v Hopkins* (1838), the buyer's order for a specific equipment did not imply a warranty that the item would be suitable for a brewery, despite its specialised nature.²⁸¹ Similarly, in *Ollivant v Bayley* (1843), the buyer of a well-defined two-colour printing machine could not claim it was unfit for his intended use if it was a known and specified item he had ordered. The responsibility was on him to ensure its suitability.²⁸²

By the end of the 19th century, *caveat emptor* still prevailed under circumstances where the buyer could and should have inspected the goods themselves. Buyers were expected to seek an explicit warranty if they doubted the goods' quality. Failure to do so meant bearing any subsequent losses alone if the goods turned out to be unsatisfactory. However, this rule had exceptions. Common law recognised an implied warranty of merchantability or fitness for use when the buyer had no opportunity to inspect the goods. *Jones v Just* (1868) demonstrated the courts were prepared to find an implied warranty of fitness for a particular purpose when the buyer relies on the seller's expertise. These cases demonstrated *caveat emptor*'s importance. Yet, the courts were willing to adapt and apply exceptions based on the fairness of the circumstances and the nature of the commercial relationship between buyer and seller.

Similarly, Bangladeshi Sale of Goods Act (1930) embodies the principle of *caveat emptor* in section 16, which explicitly states that, subject to other laws, there is no implied warranty or condition regarding the goods' quality or fitness for a particular purpose.²⁸³ It emphasises the buyer's need to check goods' suitability before buying, a traditional commercial practice.

Given the colonial origins of Bangladesh's legal system, it is understandable that courts and legal scholars would likely consult English caselaw when interpreting the Sales of Goods Act (1930). However, there is little in the way of Bangladeshi case law on these issues. As such, the analysis necessitated a reliance on English precedents. Although relevant and persuasive, it should be noted that these English decisions are ~~persuasive~~ not binding on Bangladeshi courts. Legal historians such as Barnes and Whewell highlight how former colonies including Bangladesh use English legal decisions as persuasive authority by adapting them to local circumstances rather than as mandatory directives.²⁸⁴ The reliance is

²⁸¹ *Chanter v Hopkins*, 150 E.R. 1484 (Q.B. 1838).

²⁸² *Ollivant v Bayley* [1843] 114 ER 1258 (QB).

²⁸³ Sale of Goods Act s 16.

²⁸⁴ Victoria Barnes and Emily Whewell, 'Judicial Biography in the British Empire' (2021) 28 *Indiana Journal of Global Legal Studies* 1, 3.

explicable since the 1930 Act was modeled directly on the English Sale of Goods Act (1893), with many of its core provisions, such as section 15 on implied conditions, are similar. The relevant caselaw will be discussed in the following sections.

That said, Bangladesh's post-colonial realities have increasingly bent its legal evolution away from British jurisprudence.²⁸⁵ The nation's liberation struggle and pro-independence movements were deeply rooted in anti-colonial sentiment. Efforts to indigenise Bangladesh's legal institutions in accordance with its socio-cultural identities, developmental priorities, and sovereign state policy vision have been motivated by this foundational ethos.

The post-colonial bend in Bangladesh's legal trajectory makes uncritical application of archaic English commercial laws problematic.²⁸⁶ Considering the major shifts in Bangladesh's economic, social and legal framework after independence, relying too heavily on these colonial-era English precedents warrants reconsideration. An over-reliance on these rulings' risks overlooking the nation's contemporary commercial realities and socio-economic imperatives. From a jurisprudential standpoint, it is antithetical to post-colonial nation-building efforts to indiscriminately graft portions of a Victorian-era legal framework onto a modern, pluralistic society with high aspirations for equitable prosperity.²⁸⁷

Yet, Bangladesh's common law foundations require consideration of early English judgments' philosophical and doctrinal principles. These precedents could illuminate legal concepts such as implied warranties and sales duties when applied wisely and contextually. Such colonial rulings could help develop an indigenous jurisprudence that conceptualises consumer rights purposefully whilst remaining grounded in common law.

2.2.4.1 Implied Conditions as to Description

Section 15 of Bangladesh's Sale of Goods Act (1930) and section 13 of the English Sale of Goods Act (1893) share parallels, particularly regarding the implied conditions regarding the

²⁸⁵ Maisha Anima, 'Legacy of Colonialism: Colonized Laws Which Holds Back for Reformation and Liberal Criminological Perspective in Bangladesh', *1st Decolonization and Justice Conference at University of Regina* (2022) 156.

²⁸⁶ Arpeeta Mizan, 'Continuing the Colonial Legacy in the Legislative Drafting in Bangladesh: Impact on the Legal Consciousness and the Rule of Law and Human Rights' (2017) 5(1) *International Journal of Legislative Drafting and Law Reform* 1, pts 3, 4.

²⁸⁷ Anima (n 286) 156; DNI, 'Five-Year Regional Outlook South Asia' (Office of the Director of National Intelligence 2021) NIC-2021-02484 2 <https://www.dni.gov/files/images/globalTrends/GT2040/GT2040-5-YR-Regional-2021317-South_Asia.pdf> accessed 22 April 2024; *Decolonising Law in the Post-Colony: Colonial Laws and Social Change* (Directed by South Asia Centre LSE, 2020) <<https://www.youtube.com/watch?v=VeeMmBJT4fg>> accessed 22 April 2024; Ali Riaz and Mohammad Rahman (eds), *Routledge Handbook of Contemporary Bangladesh* (Routledge, Taylor & Francis Group 2016) 336.

description of goods.²⁸⁸ Under section 15 of the Bangladeshi Act, there is an implicit condition in contracts for selling goods by description that the goods must match this description.²⁸⁹ If the sale is based on a sample and a description, the goods must conform to both, not just the sample.²⁹⁰ Similarly, section 13 of the English Act mandates that goods sold by description must correspond to that description.²⁹¹ It also states that goods sold based on sample and a description, must meet both criteria, not just the sample.²⁹² Given these similarities, analysing English court interpretations of section 13 could provide insights. For instance, *Varley v Whipp* (1900) considered a reaping machine's sale by description as nearly new and having limited use.²⁹³ This demonstrates the importance of accurate goods descriptions in sales contracts.

Sale by description applies even when the buyer has physically seen the items. There was initially some uncertainty about whether a typical in-store purchase qualifies as a sale by description, but this has been clarified. Lord Wright stated in *Grant v Australian Knitting Mills Ltd* (1936) that a product can still be sold by description even if it is displayed and chosen by the buyer.²⁹⁴ For example, items such as woollen undergarments and hot-water bottles are sold by description when bought as a set.²⁹⁵

The concept of sale by description extends far beyond simple menu listings or product labels. Courts have established that a sale by description can occur even when buyers have physically examined goods or selected them from available options. *Beale v Taylor* (1967) clearly articulated this principle where the court held that even though the buyer had inspected a car before purchase, the sale was still considered 'by description' because the buyer had relied partly on the seller's advertisement description.²⁹⁶ The scope of sale by description was further expanded in *H Beecham & Co Pty Ltd v Francis Howard & Co Pty Ltd* (1921), which established that selecting items from a seller's range does not negate the sale being 'by description'.²⁹⁷

Sales by description can manifest in various forms, including advertisements in newspapers or online, product labels and packaging, restaurant menus, store displays, verbal

²⁸⁸ Sale of Goods Act s 15; Sale of Goods Act 1893 s 13.

²⁸⁹ Sale of Goods Act s 15.

²⁹⁰ *ibid.*

²⁹¹ Sale of Goods Act s 13.

²⁹² *ibid.*

²⁹³ *Varley v Whipp* [1900] 1 QB 513.

²⁹⁴ *Grant v Australian Knitting Mills Ltd* [1936] AC 85.

²⁹⁵ *ibid* 100.

²⁹⁶ *Beale v Taylor* [1967] 1 WLR 1193 (CA)

²⁹⁷ *H Beecham & Co Pty Ltd v Francis Howard & Co Pty Ltd* [1921] VLR 428.

descriptions by salespeople including product catalogues. For example, in *Wren v Holt* (1903), the court considered menu descriptions as part of the sale contract.²⁹⁸ Similarly, in *David Jones Ltd v Willis* (1934), the sale of shoes was deemed a sale by description despite the buyer trying them on, as they relied on the product's represented characteristics.²⁹⁹

However, if a buyer specifies they want an item due to its unique characteristics and no substitute would be acceptable, or if they do not rely on the item's description at all, then the sale is not considered to be by description.³⁰⁰ For example, if a buyer requests Manuka honey because of its unique medicinal properties and no other type of honey would suffice, this transaction falls outside the typical sale by description. The buyer's insistence on the specific characteristics of the Manuka honey overrides the general description-based nature of the sale. Moreover, if a buyer does not rely on the description of the item at all, the sale is also not by description. This might occur if the buyer has prior, detailed knowledge of the item and selects it based on that knowledge rather than the seller's description. For instance, a food safety expert purchasing honey for testing purposes might rely on their own criteria rather than the description provided by the seller. Essentially, only when the buyer insists on a specific item for its unique features, making no other item suitable, is a sale not 'by description'.³⁰¹

The distinction between specific and unascertained goods is important for understanding sales by description, as outlined in section 16 of the Sale of Goods Act (1979). When dealing with manufactured items, they are typically treated as unascertained goods until the point of delivery, meaning they are part of a bulk of identical items rather than a specific, unique item. This principle is fundamental because manufactured goods are produced to be identical rather than unique, and any item meeting the description would satisfy the contract. For example, in *Grant v Australian Knitting Mills Ltd*, the court emphasised that when purchasing new manufactured goods, buyers are contracting for items matching a description rather than specific goods they have examined. This differs from the sale of specific goods (like antiques or artwork) where the particular item's unique characteristics are essential to the contract. The evolution of this principle can be traced through case law, including the aforementioned *Beale v Taylor* (1967) case, where even though the buyer had fully examined a used car, the sale was held to be by description because the buyer had partly relied on the seller's newspaper advertisement.³⁰² This 1967 decision was particularly

²⁹⁸ *Wren v Holt* [1903] 1 KB 610 (CA).

²⁹⁹ *David Jones Ltd v Willis* [1934] 52 CLR 110.

³⁰⁰ *Harlington & Leinster v Christopher Hull Fine Art* [1991] 1 QB 564.

³⁰¹ *ibid.*

³⁰² *ibid.*

important as it came before the substantial amendments to the Sale of Goods Act in 1979, which demonstrates the courts' early recognition of description-based sales.

However, products that are broadly described but tainted or impure often lose their usefulness without changing them. The House of Lords (HOL) case *Ashington Piggeries Ltd v Christopher Hill Ltd* (1971) illustrates this issue.³⁰³ The case involved Hill Ltd., feeding-stuff compounders, who contracted with Ashington Piggeries, mink breeders, to supply an animal foodstuff named 'King Size'. The herring meal used in the compound, supplied by a third party Norsildmel, contained DMNA, a toxic substance that killed thousands of Ashington's mink. Hill sued for the price of the foodstuff, whereas Ashington counterclaimed under sections 13 and 14 of the Sale of Goods Act (1893). Hill then sought indemnity by joining Norsildmel to the proceedings. Initially, Milmo J. in favour of Ashington against Hill and ruled that Hill should be indemnified by Norsildmel. The judge held that 'King Size' did not correspond to its description due to contamination, and both implied warranties of fitness for purpose and merchantable quality had been breached. However, the Court of Appeal reversed this decision as no proof that the goods failed to match their description was found. They also ruled that Ashington had not established that a condition of fitness for feeding mink should be implied in the contract, as the suitability for mink was beyond the seller's judgment scope.

The HOL concurred with the Court of Appeal that as per section 13, contamination altered quality rather than kind. Lord Wilberforce proposed a 'market-place' standard of description which implies a broad, common-sense approach by using market criteria. Lord Hodson noted that labelling the herring meal as a misdescription would be 'working the word 'description' too hard'.³⁰⁴

However, the HOL found a breach of section 14(1), as Ashington had partially relied on Hill's skill and judgment. Although buyers prescribed the formula, sellers chose the ingredients, leading to unsuitability due to the use of Norwegian herring meal containing the toxic substance. The HOL unanimously agreed that the food item was 'of a description which it was in the course of the seller's business to supply'. Both Lord Hodson and Viscount Dilhorne regarded the seller's business as compounding animal foodstuffs, with 'King Size' simply using their regularly handled raw materials. Regarding section 14(2), the majority extended their section 14(1) reasoning, with Lord Wilberforce interpreting 'goods of that

³⁰³ *Ashington Piggeries Ltd v Christopher Hill Ltd* [1972] AC 441.

³⁰⁴ *ibid* 1057.

description' as 'goods of that kind'. However, Lords Hodson and Diplock expressed a divergent perspective and observed that although the sellers had previously supplied similar goods, they had never dealt in 'King Size' specifically.

Eventually, *Norsildmel* was held liable to Hill for breaching section 14(1), as their contract did not exclude damages for breach. However, they were not found in breach of section 13, because the contractual reference to Norwegian herring meal of 'fair average quality' was considered a quality warranty rather than part of the description. Importantly, this decision removed restrictive 'description' arguments that could have led to excessive legal 'hair-splitting'.³⁰⁵ It acknowledged that sale of goods law, which evolved from 19th century mercantile settings, must be practically applied to accommodate modern commercial practices whilst maintaining its protective function. Hence, this case signifies a significant attempt to prevent the Sale of Goods Act (1893) from being unduly restrictive. As per Lord Diplock, the Act should not:

Fossilise the law and restrict the freedom of choice of parties to contracts for the sale of goods to make arrangements which take account of advances in technology and changes in the way in which business is carried on today.³⁰⁶

Conversely, in *Pinnock Bros v Lewis and Peat Ltd* (1923),³⁰⁷ the contract stipulated the delivery of copra cake, but what was actually provided was a mix of copra cake and castor beans. It was ruled that the delivered goods did not match their specified description. The distinction between product description and quality was carefully examined in *Ashington Piggeries Ltd v Christopher Hill Ltd* (1971). In his decision, Lord Wilberforce discussed the difficulty of determining whether a product, when mixed with a contaminant or undesired substance, remains essentially the same product or transforms into something entirely different. He described this dilemma as potentially being an 'Aristotelian' question, requiring deep philosophical analysis. However, he added that the Sale of Goods Act (1893) was not designed to incite such profound debates about the goods delivered versus what was agreed upon. Instead, the 1983 Act aimed for a practical, business-minded approach to determine if the goods match their description by assessing whether the delivered goods meet buyer expectations based on market standards. The 1893 Act left finer points about

³⁰⁵ KE Dawkins, 'Recent Developments in the Law: Commercial Law' [1972] Otago Law Review 482, 484.

³⁰⁶ *Ashington Piggeries Ltd v Christopher Hill Ltd* (n 304) 1088–108.

³⁰⁷ *Pinnock Bros v Lewis and Peat Ltd* [1923] 1 KB 690.

the goods' condition or quality to be addressed under different contract clauses or sections of the Act.³⁰⁸

In certain situations, a product's description might suggest a specific level of 'quality'. For example, in the New Zealand case of *Cotter v Luckie* (1918),³⁰⁹ a buyer purchased a bull from the seller, which was advertised as 'a pure-bred polled Angus bull'. The seller was aware that the buyer intended to use the bull for breeding purposes. However, it was later discovered that the bull had a physical defect that made it unsuitable for breeding. The court held that this transaction qualified as a sale by description, with the description 'pure-bred polled Angus bull' inherently implying that the bull was fit for breeding.³¹⁰ The court reasoned that the descriptive terms 'pure-bred' and 'polled Angus' were not solely identifiers of breed but also implied an expectation of suitability for breeding purposes. In essence, the description conveyed more than just the type of bull. Rather, it implied that the bull was capable of fulfilling the typical purpose for which a farmer would purchase such an animal. The court's interpretation was grounded in section 16 of the New Zealand Sale of Goods Act (1908), which addresses implied conditions and warranties for quality and fitness in sales by description.³¹¹ Since the seller knew the buyer intended to use the bull for breeding, the description inherently implied that the bull would be fit for this specific purpose, invoking section 16(a) regarding fitness for a particular purpose. The failure of the bull to meet this implied condition constituted a breach, as the buyer had relied on the description provided by the seller.

However, unlike modern consumer laws such as the Consumer Rights Act (2015) in the UK, which has moved away from explicitly addressing buyer-specific purposes under such

³⁰⁸ Following *Ashington Piggeries Ltd v Christopher Hill Ltd* (1971), which discussed implied terms about quality under the Sale of Goods Act (1893), significant reforms were introduced. The Sale and Supply of Goods Act (1994) amended the Sale of Goods Act (1979), notably with the introduction of Section 14(2B), which outlines specific criteria for 'satisfactory quality'. These criteria include: fitness for all common purposes, appearance and finish, freedom from minor defects, safety and durability. Hence, this amendment moved the law towards a more detailed framework for assessing quality, beyond the previous generic interpretation. See for example, in *Toeffer v Continental Grain Co* [1974] 1 Lloyd's Rep 11, Lord Denning clarified the overlap between 'quality' and 'description' in contract law. He noted that certain descriptors, such as 'hard' in relation to wheat, could serve as both quality and description terms simultaneously. He stated that terms such as 'new-laid egg' encapsulate both aspects, as they convey a particular standard (quality) while also serving as a distinguishing label (description). Therefore, Denning's approach in *Toeffer* demonstrates that when a term carries both qualitative and descriptive connotations, finality as to quality implies finality as to description, and vice versa. This interpretation has been influential in understanding that quality can inherently form part of a contractual description. Such rationale continues to guide judicial interpretation of implied terms under the Sale of Goods Act (1979), especially when distinguishing between sections 13 (description) and 14 (quality) in sales contracts. See also, MG Bridge, 'The Performance Obligations of Seller and Buyer in English Law' in MG Bridge (ed), *The International Sale of Goods* (4th edn, Oxford University Press 2017) para 2.39.

³⁰⁹ *Cotter v Luckie* [1918] NZLR 811.

³¹⁰ *ibid* 813; See also some of the examples discussed by the CA in *Ashington Piggeries* [1969] 3 All ER 1496, 1512, such as the description of goods as 'oysters' which may carry the implication that they are fit for human consumption.

³¹¹ Sale of Goods Act 1908 (New Zealand).

conditions, the New Zealand Sale of Goods Act (1908) still reflects an older framework where buyer-specific purposes can influence implied conditions of fitness for purpose, provided they are communicated to the seller.

Determining if goods match their description is usually a straightforward matter of fact, as per Lord Denning.³¹² However, the seller must strictly guarantee the goods match their description. *Arcos Ltd v E A Ronaasen & Sons* (1933) illustrates this high standard because even a minor difference in wooden stave thickness, which did not impact the timber's utility constituted a breach.³¹³ Whilst some older cases may appear questionable for considering minor violations as significant breaches, their validity in defining what constitutes a breach remains intact. The law is clear though. Any deviation from the contract's described terms (provided those terms are integral to the contract) constitutes a breach of contract, except for negligible deviations under the *de minimis* principle.³¹⁴

2.2.4.2 Implied Conditions as to Quality or Fitness

Section 16 of the Sale of Goods Act (1930) and section 14 of the English Sale of Goods Act (1893) share parallels in terms of structure and content. Both provisions begin by stating that, as a general rule, there is no implied warranty or condition as to the quality or fitness of goods supplied under a contract of sale.³¹⁵ However, there are exceptions to this rule. The first exception, under section 16(1) of the 1930 Act and section 14(1) of the 1893 Act, arises when the buyer makes known to the seller the specific purpose for which the goods are required, either expressly or impliedly. If the buyer also relies on the seller's skill or judgment, and the goods are of a description that the seller ordinarily supplies, there is an implied condition that the goods must be reasonably fit for the stated purpose. However, both Acts include an important limitation: if the goods are sold under a patent or trade name, there is no implied condition of fitness for a particular purpose. This exclusion assumes that, by specifying a patent or trade name, the buyer is making an independent judgment about the product's suitability.

Both section 16(2) of the 1930 Act and section 14(2) of the 1893 Act establish an implied condition of merchantable quality when goods are sold by description and the seller deals in goods of that description. Goods must be free from hidden defects and fit for the ordinary

³¹² *Toepfer v Continental Grain Co* (n 98). See also, *Re Moore & Landauer* [1921] 2 KB 519 (CA).

³¹³ *Arcos Ltd v E A Ronaassen Son* [1933] AC 470.

³¹⁴ PS Atiyah and others, *Atiyah and Adams' Sale of Goods* (13th edn, Pearson 2016) 135.

³¹⁵ Sale of Goods Act s 16. Sale of Goods Act 1893 s 14.

purposes for which they are generally used. However, the provisions introduce a qualification. If the buyer examines the goods, there is no implied condition as to defects that such examination ought to have revealed. Additionally, both section 16(3) of the 1930 Act and section 14(3) of the 1892 Act recognise that implied warranties or conditions may arise by usage of trade. Under section 16(4) of the 1930 Act and section 14(4) of the 1893 Act, an express warranty or condition does not negate an implied warranty or condition, unless the two are inconsistent. Therefore, both section 16 of the 1930 Act and section 14 of the 1893 Act are virtually identical in structure and content.

2.2.4.3 Analysis of Implied Conditions

Commonalities:

Implied Conditions on Quality and Fitness for Purpose

Both the Bangladesh Sale of Goods Act (1930) and the English Sale of Goods Act (1893) incorporate provisions that implicitly embed conditions into contracts of sale concerning the quality of goods and their fitness for a specific purpose.³¹⁶ This implies that the law expects the goods to adhere to certain standards, even if these are not explicitly mentioned in the contract.

Historically, the term 'particular purpose' has been broadly interpreted.³¹⁷ One might expect that this term would be interpreted in a narrow sense, limited to unusual or specialised uses. An example is the *Cammell Laird* case (1971), where a propeller was ordered for a unique ship, paint may be needed for an unusual substance or surface.³¹⁸ Contrary to these expectations, the legal interpretation has not been restrictive. In cases where goods have a single or evident purpose, this purpose is deemed to be 'particular'. For example, courts have considered food to be purchased for the 'particular' purpose of consumption, as illustrated in *Wallis v Russell* (1902),³¹⁹ or milk for drinking as noted in *Frost v Aylesbury Dairy Co* (1905).³²⁰ Similarly, a hot-water bottle is assumed to be bought for containing hot water, as in *Priest v Last* (1903),³²¹ and a staircase is presumed to be intended for

³¹⁶ Sale of Goods Act s 14; Sale of Goods Act s 16.

³¹⁷ D Fox and others, 'Seller's Obligations as to Quality' in D Fox and others, *Sealy and Hooley's Commercial Law* (Oxford University Press 2020) 416.

³¹⁸ *Dooley v Cammell Laird* [1971] 1 Lloyd's Rep 271.

³¹⁹ *Wallis v Russell* [1902] 2 IR 585.

³²⁰ *Frost v Aylesbury Dairy Co* [1905] 1 KB 608, CA.

³²¹ *Priest v Last* [1903] 2 KB 148, CA.

installation in a building whilst complying with building regulations, as in *Lowe v W Machell Joinery Ltd* (2011).³²²

If goods had multiple purposes, each was considered a 'particular' purpose.³²³ In cases of common or obvious purposes, the courts discounted the requirement that the seller be informed of the buyer's needs. Instead, they assumed the seller knew the purpose by ordering the goods. Thus, the Bangladesh Sale of Goods Act (1930) and the English Sale of Goods Act (1893) both require goods to be fit for their intended use, so this broad interpretation emphasised this.

Reliance on Seller's Skill or Judgment

Both legislations recognise situations where the buyer relies on the seller's skill or judgment, particularly when the buyer tells the seller the specific purpose for which the goods are required. The seller is then expected to provide goods suitable for that purpose.

Merely knowing the buyer's intended purpose for the goods is not sufficient to establish reliance on the seller's skill or judgment.³²⁴ What matters is whether the buyer can trust the seller's expertise or claims to provide suitable goods. When the seller lacks expertise or the buyer accepts the risk that the goods may not meet their needs, reliance is reduced. The law presumes that the buyer relies on the seller's skill or judgment, making it easier to prove such reliance. However, the buyer can still prove that there was no reliance or that any reliance was unreasonable. *Sumner Permain & Co v Webb & Co* (1922) showed that even when the seller knew that the tonic water was intended for sale in Argentina, they did not rely on their judgment or expertise, especially since it contained an illegal ingredient.³²⁵ *Frost v Aylesbury Dairy Co Ltd* (1905) shows that reliance can extend to undiscoverable defects, as the buyer trusted the seller to supply uncontaminated milk, demonstrating the seller's commitment to quality.³²⁶

However, in *Hamilton v Papakura DC* (2002), the municipal water supplier's skill in providing water for hydroponic tomatoes was not relied on due to its monopoly or near-monopoly.³²⁷ Yet, *Britvic Soft Drinks Ltd v Messer UK Ltd* (2002) was complicated because the buyer

³²² *Lowe v W Machell Joinery Ltd* [2011] EWCA Civ 794, [2012] 1 All ER (Comm) 153.

³²³ *Henry Kendall & Sons v William Lillico & Sons Ltd* [1969] 2 AC 31 (compound used for feeding both pheasants and poultry).

³²⁴ Fox and others (n 399) 419.

³²⁵ *Sumner Permain & Co v Webb & Co* [1922] 1 KB 55.

³²⁶ *Frost v Aylesbury Dairy Co* [1905] 1 KB 608.

³²⁷ *Hamilton v Papakura DC* [2002] UKPC 9.

relied on the seller's supplier rather than the seller.³²⁸ Britvic relied on Terra's judgement to provide uncontaminated carbon dioxide, but the law usually expects reliance to be directly on the seller's skill or judgement. Hence, this was considered a contentious interpretation of reliance.

Differences:

‘Merchantable Quality’

Both the Bangladeshi Sale of Goods Act (1930) and English Sale of Goods Act (1893) consider goods bought by description as ‘merchantable quality’.³²⁹

As touched upon earlier, ‘merchantable quality’ in the English Sale of Goods Act has a long history. The Sale of Goods Act (1893) introduced the term ‘merchantable quality’ without a definition, leaving its interpretation to the courts. Since it focused on business transactions predominantly, the term was precise enough. However, as the consumer market evolved, ‘merchantable quality’ became less suitable for consumer sales. Nevertheless, this term was used for about 80 years without a clear statutory definition, resulting in an extensive body of caselaw in England and the US,³³⁰ that followed the 1893 Act. A single quality standard was impractical because goods and transactions ranged from machinery to live animals, agricultural produce to food and drinks, and consumer goods. Consequently, no unified judicial definition of ‘merchantable quality’ was established.³³¹

In the earlier cases, such as *Jackson v Rotax Motor & Cycle Co* (1910), courts interpreted ‘merchantable’ as being synonymous with ‘saleable’ or ‘resaleable’ or ‘saleable under that description’.³³² Subsequent cases such as *Bristol Tramways v Fiat Motors Ltd* (1910)³³³ and *BS Brown & Sons v Craiks Ltd* (1970)³³⁴ considered whether a reasonable buyer would accept the goods as fulfilling the contract of sale, based on the description and price. Other cases focused on whether the goods were fit for their usual purpose, as in *Henry Kendall &*

³²⁸ *Britvic Soft Drinks Ltd v Messer UK Ltd* [2002] EWCA Civ 548 (2 All ER (Comm) 321).

³²⁹ Sale of Goods Act 1979 s 14(2); Sale of Goods Act s 16(2).

³³⁰ The Uniform Commercial Code arts 2-314(2) attempts to spell out the characteristics that goods must have to be ‘merchantable’, but this is not particularly helpful either.

³³¹ Atiyah and others (n 315) 137–138.

³³² *Jackson v Rotax Motor & Cycle Co* [1910] 2 KB 937, CA.

³³³ *Bristol Tramways etc Carriage Co Ltd v Fiat Motors Ltd* [1910] 2 KB 831.

³³⁴ *BS Brown & Sons v Craiks Ltd* [1970] 1 WLR 752 (HL).

Sons v William Lillico & Sons Ltd (1969),³³⁵ where animal feed was deemed merchantable if it was nutritious to cattle, even if it was harmful to poultry.³³⁶

The statutory definition of the seller's duties regarding quality was debated. Some lawyers believed that a simple definition for a wide range of cases could simplify the law and eliminate the need to consult a large body of cases. Others argued that no simple statutory statement could handle the wide variety of problems illustrated by caselaw and that avoiding reference to the old caselaw would only encrust the new term with interpretative caselaw.³³⁷

In the amended English Sale of Goods Act (1979) goods must now be of 'satisfactory quality',³³⁸ rather than 'merchantable quality'. It also represents a higher threshold as it includes consideration of 'fitness for all purposes for which goods of the kind in question are commonly supplied' is 'in appropriate cases' to be a quality factor.³³⁹ Bradgate noted that courts would continue to refer to pre-1994 cases, at least for guidance, when applying the new test of satisfactory quality, and this prediction has proven accurate.³⁴⁰ The experience of courts with the statutory definition of 'merchantable quality' introduced in 1973 is instructive. For instance, in *Rogers v Parish (Scarborough) Ltd* (1987), the Court of Appeal described the statutory definition as 'clear and free from technicality' and emphasised that pre-1973 case law would only be relevant in exceptional cases.³⁴¹ However, in *Aswan Engineering Establishment Co v Lupdine Ltd* (1987), a differently constituted Court of Appeal heavily relied on older case law and asserted that s 14(6) was not intended to change the law established in those cases.³⁴² Although the 1994 changes to the Act represent a more significant departure from prior law than the 1973 definition, it is unlikely that older case law will be entirely abandoned. For example, in *Albright & Wilson UK Ltd v Biachem Ltd* (2000), goods were found unsatisfactory without explicit reference to the revised statutory wording but by following pre-1973 precedent.³⁴³

³³⁵ *Henry Kendall & Sons v William Lillico & Sons Ltd* (n 405).

³³⁶ The present provision partly reflects the recommendations in the Law Commissions' report: Law Commission, 'Sale and Supply of Goods: Report by the Law Commission and the Scottish Law Commission...' (1987) (Scot Law Com No 104) (Cmnd 137). For a general understanding on what constitutes 'satisfactory quality', see, W Irvine, 'Satisfactory Quality: What Does It Mean?' (2004) 684 *Journal of Business Law* 1.

³³⁷ Atiyah and others (n 315) 138.

³³⁸ Sale of Goods Act s 14(2).

³³⁹ *ibid* 4(2B)(a).

³⁴⁰ Reza Beheshti, Séverine Saintier and Sean Thomas, *Bradgate's Commercial Law* (4th edn, Oxford University Press 2024) 333.

³⁴¹ *Rogers v Parish (Scarborough) Ltd* (1987) QB 933

³⁴² *Aswan Engineering Establishment Co v Lupdine Ltd* [1987] 1 All ER 135.

³⁴³ *Albright & Wilson UK Ltd v Biachem Ltd* [2002] UKHL 37, [2003] 2 AC 48 (HL).

Hidden Defects

However, hidden product defects remain a major issue, especially when they pose dangers solely by being hidden or not visible. It has been well acknowledged that the mere appearance of goods being in good condition does not equate to their merchantability.³⁴⁴ Merchantability was determined by assuming all hidden defects were known.³⁴⁵

For instance, *Henry Kendall & Sons v William Lillico & Sons Ltd* (1969) addresses hidden defects in implied warranties and the sale of goods.³⁴⁶ This case shows the sellers' responsibilities for defects that are not immediately apparent at the time of sale. Henry Kendall & Sons sold hay to William Lillico & Sons Ltd. without knowing it was contaminated with aminotriazole, a fungicide harmful to livestock, making it unsuitable for feeding pigs. The primary issue was whether there was an implied warranty that the hay was fit for the particular purpose of feeding livestock. The buyer's need was specifically known to the seller, which underpins the relevance of implied terms in commercial transactions. The HOL ruled in favour of the buyer, William Lillico & Sons Ltd. The court held that there was an implied warranty of fitness for a particular purpose. Henry Kendall & Sons should have ensured the hay was fit for feeding livestock. The case emphasises that sellers may be held liable for hidden defects even if they are unaware of such defects at the time of sale. Hence, the implied conditions and warranties under the Sale of Goods Act (1893) (now updated by the Sale of Goods Act (1979)) are important in commercial situations where the buyer relies on the seller's expertise or assurance that the goods are suitable for a specific purpose.

2.2.5 Sale by Sample

Section 17 of the Sale of Goods Act (1930) defines several implied conditions for a 'sale by sample' contract.³⁴⁷ These conditions require that the quality of the bulk goods must match that of the sample (section 17(2)(a)), that the buyer has an adequate opportunity to compare them (section 17(2)(b)), and that the goods have no hidden defects that would make them unmerchantable, which would not be observable upon a reasonable examination of the sample (section 17(2)(c)).³⁴⁸

³⁴⁴ Atiyah and others (n 315) 153.

³⁴⁵ *Grant v Australian Knitting Mills Ltd* (n 376) 100: according to Lord Wright.

³⁴⁶ *Henry Kendall & Sons v William Lillico & Sons Ltd* (n 405).

³⁴⁷ Sale of Goods Act s 17.

³⁴⁸ *ibid* 17(2).

In parallel, the English Sale of Goods Act (1893) outlines comparable stipulations in section 15, particularly in subsection 15(2), which includes two implied conditions regarding the sale by sample.³⁴⁹ These are that the quality of the bulk goods should match with the sample (section 15(2)(a)) and that the goods should be devoid of any defects that would impair their quality in a way that would not be detectable upon a reasonable inspection of the sample (section 15(2)(c)).³⁵⁰ Thus, these clauses in both acts set clear expectations for sample sales to ensure that buyers receive goods that meet sample quality standards.

Section 15(1) states that a sale by sample occurs only when the contract explicitly or implicitly states that the sale should be based on a sample.³⁵¹ Thus, seeing a sample is not enough for the buyer. The agreement must specifically state that the purchase is based on the sample provided. Caselaw also shows that a sample, much like a contractual description, clarifies what the parties are agreeing to, especially when words fail to capture the details. Lord Macnaghten in *Drummond v Van Ingen* (1887) explained that a sample demonstrates the actual intent and agreement of the contract's subject matter, beyond what words might convey.³⁵²

In order to determine if the sample accurately represents the product, a reasonable buyer with industry knowledge must examine it. It does not need to reveal every minute detail that could be discovered through abnormal scrutiny. The implication here is that the seller guarantees the bulk of the products will match the sample to the extent a standard inspection would show, but not in every conceivable way. Beyond this, the buyer's protection lies in the implied terms of section 14(2) and (3) or in any explicit warranty they might secure.³⁵³ Additionally, section 15(2)(c) guarantees that the goods will be devoid of hidden defects that affect their quality.³⁵⁴

However, subsequent cases show that a sale by sample and its protections are limited. *Steels & Busks and Bleecker Bik* (1956) interpreted the purchase of pale pancake rubber as a sale by sample, using the reference sample from previous transactions.³⁵⁵ Steels & Busks manufactured corsets from this rubber, which contained PNP, an invisible preservative that stained the corsets. Due to the rubber's visual similarity to the sample, Sellers J found no

³⁴⁹ Sale of Goods Act s 15(2).

³⁵⁰ *ibid* 15(2)(c).

³⁵¹ *Drummond v Van Ingen* [1887] 12 App Cas 284 (HL) 297.

³⁵² *ibid*.

³⁵³ Sale of Goods Act s 14(2) and (3).

³⁵⁴ *ibid* 15(2)(c).

³⁵⁵ *Steels & Busks Ltd v Bleecker Bik & Co Ltd* [1956] 1 Lloyd's Rep 228 (Queen's Bench Division).

implied condition violation under section 15(2)(a). The rubber was still commercially usable after the staining agent was removed or neutralised, so section 15(2)(c)'s merchantability condition was met.

Sellers J noted that the arbitration Appeal Committee assessed the rubber's quality and condition using market standards for colour, texture, and impurities. Industry standards did not consider PNP use when assessing rubber quality. Since PNP is a preservative and less common in pale pancake, it did not affect rubber quality. According to the statutory definition of 'quality of goods' in section 62(1) (now section 14(2b) of the 1979 Sale of Goods Act), 'quality of goods' does not include preservative type, supporting the industry's claim that PNP did not affect rubber quality.³⁵⁶

The buyers' potential success hinges on demonstrating that the 21 bales of rubber did not match the sample delivered in the initial delivery. The court considered whether PNP, a defect not visible on a reasonable sample examination, grants rights under section 15(2)(c) rather than (a). Subsection (a) expects the bulk to match the sample in observable qualities, whereas subsection (c) expects satisfactory quality, possibly including latent defects not visible by standard inspection.³⁵⁷

Referencing the precedent set by *Drummond v Van Ingen* (1887), which largely informs section 15, the discussion focuses on the interpretation of 'quality' in contractual terms. Lord Selborne's remarks in that case suggest that 'quality' should only refer to attributes that are evident or could be identified through reasonable inspection and testing of the samples, given the buyers' context.³⁵⁸ Therefore, if the buyers were to prevail, they would need to prove that PNP in the bales, though undetectable through normal inspection, constitutes a significant deviation from the agreed-upon quality, rendering the goods not in violation of the contract based on the sample's characteristics. The HOL narrowly interpreted a contract clause to rule that it did not cover hidden defects. This implied a guarantee for unseen issues. In essence, this clause does not address hidden flaws. Hence, this interpretation negated the seller's claim.

However, a buyer cannot conduct an atypical analysis of a sample to uncover previously unknown properties and then demand that the entire product reflect these properties based on the sample clause. Following Lord Macnaghten's example, a buyer cannot insist that the

³⁵⁶ Sale of Goods Act s 62(1); Sale of Goods Act s 14(2b).

³⁵⁷ *Steels & Busks Ltd v Bleecker Bik & Co Ltd* (n 356).

³⁵⁸ *Drummond v Van Ingen* (n 352) 288.

entire batch must have the same chemical composition if they analyse a fabric sample and find the dye contains a specific amount of a chemical.³⁵⁹ If the batch lacks this composition, they can argue that it is not up to standard or does not meet another quality requirement. But they cannot claim it violates the agreement that the bulk must match the sample in visible quality.

Sellers J agreed with the clause's interpretation and intended to apply the same reasoning.³⁶⁰ He said that the contract and parties' expectations determine how well a sample represents the whole. In this case, the parties agreed to use a visual inspection, which is common in their industry, instead of analysis, X-raying, or destructive testing. Lord Selborne also noted that neither 'PNP' nor any other chemical commonly used for coagulation and preservation is visible to the naked eye. Therefore, the presence or absence of such chemicals would not violate the sample clause because the contract required visual inspection to determine sample quality. The fact that the buyers used the initial delivery without any issues and placed subsequent orders indicates their satisfaction with the product. No defects were found after buyers processed the rubber. In such cases, sellers are only responsible for visually matching the product to the sample.

The case of *Gill & Duffus v Berger & Co Inc* (1983) provides definitive guidance on the interpretation of sale by sample in commercial contracts.³⁶¹ The case involved a contract for 500 tonnes of 'Argentine Bolita Beans' that explicitly included sample-based quality requirements under section 15. Lord Diplock's judgment confirms that this was 'a contract of sale by sample as well as by description,' which established a clear precedent for how courts should approach such dual-classification cases. The contract's terms were particularly illuminating regarding the role of samples in commercial transactions. It specified that quality would be determined 'as per sample submitted to buyers and sealed by the General Superintendence Company Ltd., Paris'. The explicit reference to a sealed sample, combined with the requirement for a quality certificate 'indicating that the quality of the lot is equal to the one of the sealed sample', demonstrates how sample-based sales could be structured to provide clear quality benchmarks. The case's treatment of mixed goods within a sample-based sale is especially significant. When the delivered beans contained a small proportion of non-Bolita varieties, the court took a pragmatic approach by referring the matter back to arbitrators to determine whether, from a commercial perspective, the goods could still be classified as 'Argentina Bolita beans'. Therefore, this decision is indicative of a sophisticated

³⁵⁹ *ibid* 297.

³⁶⁰ *Steels & Busks Ltd v Bleecker Bik & Co Ltd* (n 356).

³⁶¹ *Gill & Duffus SA v Berger & Co Inc* (No. 2) [1983] UKHL J1215-4, [1984] AC 382 (HL).

comprehension of commercial realities in which the standard for evaluating sample compliance may not be absolute purity.

2.3 Product Liability under Tort Law and in Negligence

Whilst contract law provides some recourse for purchasers when goods do not conform to the terms of the contract, tort law offers additional avenues for consumer protection. Tort law applies where one party's actions or omissions harm another without any prior agreement. This branch of private law focuses on civil wrongs that occur between individuals, not state-related ones like criminal law. Although contractual obligations arise from agreements voluntarily entered into by the parties, tort obligations arise from laws that dictate acceptable behaviour and accountability in interpersonal interactions. For example, negligence, battery, deceit, and defamation demonstrate a fundamental legal principle i.e., individuals have rights that protect them against such wrongful conduct irrespective of any previous interactions.

Moreover, tort law addresses some of the most profound ethical and societal questions - the permissible ways individuals can treat one another and the allocation of responsibility when misconduct occurs.³⁶² Although contract law offers remedies when purchased goods fail to meet contractual standards, tort law extends its protective reach beyond contractual boundaries through doctrines such as product liability and negligence. This is particularly important in protecting consumers from harm caused by defective or unsafe products, even in the absence of a direct contract with the manufacturer.

Essentially, an act or omission that causes legally cognisable harm to persons or property is a tort. Tort law provides redress by imposing liability on the responsible party. By mandating compensation, tort law also acts as a deterrent against harmful behaviours.³⁶³ For instance, if a surgeon tasked with amputating a patient's left leg instead amputates the right leg, that patient may be able to pursue a tort lawsuit alleging medical malpractice and seeking compensation against the surgeon.³⁶⁴ However, academic discourse challenges the idea that tort law always improves justice. Goldberg and Zipursky discuss that the civil recourse literature often associates it with making the plaintiff whole. But this purely compensatory

³⁶² Arthur Ripstein, 'Theories of the Common Law of Torts' in Edward Zalta (ed), *The Stanford Encyclopedia of Philosophy* (Summer 2022, Metaphysics Research Lab, Stanford University 2022).

³⁶³ Peter Cane, 'Justice and Justifications for Tort Liability' (1982) 2(1) *Oxford Journal of Legal Studies* 30, 44.

³⁶⁴ Congressional Research Service, 'Introduction to Tort Law' (2023) <<https://crsreports.congress.gov/product/pdf/IF/IF11291>> accessed 17 April 2024.

idea of transitioning from a less just to a more just state is difficult to reconcile with the practical realities of how tort law operates.³⁶⁵

A manufacturer who knowingly sells adulterated food that causes consumer illness is a classic example of food adulteration. In such cases, affected consumers can sue under tort law to obtain compensation for the harm suffered. This application of tort law holds the manufacturer accountable and may encourage other food industry entities to follow safety standards to avoid similar liabilities.³⁶⁶ However, scholarship doubts this deterrent effect in food safety. Despite the intention of tort law, Polinsky and Shavell argue that product liability law, does not improve product safety beyond what is achieved through regulatory oversight and the fear of negative publicity. Besides, no statistical evidence could be found to support the idea that product liability law had improved safety for popular products such as general aviation aircraft, automobiles, and the DPT vaccine.³⁶⁷

A later study expands on this critique by investigating how liability law might motivate firms to implement safer food practices.³⁶⁸ The research reveals that although liability claims, insurance, and management strategies influenced by liability law may drive food safety initiatives, these assumptions may be overly optimistic as much of the evidence is mostly anecdotal.³⁶⁹ The study suggests that although liability law does not necessarily guarantee improved safety measures, it could promote a corporate culture that prioritises food safety.³⁷⁰ This suggests that sociological analysis of economic and legal issues could improve understanding of liability law's effects on firm behaviour.

Goldberg and Zipursky articulate that tort law compensate victims, deters harmful actions and to a lesser extent, imposes punishment.³⁷¹ These principles highlight how tort law's role protects public health by preventing the distribution of unsafe food products and resolving individual disputes. Tort law is shaped by both common law, which evolves through judicial decisions, and statutory law, and establishes a formal framework for damage assessment.

³⁶⁵ John Goldberg and Benjamin Zipursky, *Recognizing Wrongs* (Harvard University Press 2020).

³⁶⁶ John Goldberg and Benjamin Zipursky, 'The Easy Case for Products Liability Law: A Response to Professors Polinsky and Shavell' (2010) 123(8) *Harvard Law Review* 1919, 1927.

³⁶⁷ AM Polinsky and Steven Shavell, 'The Uneasy Case for Product Liability' (2009) 123 *Harvard Law Review* 1438, 1473 ('[W]e found no statistical evidence suggesting that product liability has in fact enhanced product safety for the three widely sold products that have been studied: general aviation aircraft, automobiles, and the DPT vaccine'.)

³⁶⁸ Tetty Havinga, 'The Influence of Liability Law on Food Safety on Preventive Effects of Liability Claims and Liability Insurance' (2012) *Nijmegen Sociology of Law Working Papers Series* 2010/02.

³⁶⁹ *ibid* 23.

³⁷⁰ *ibid* 3.

³⁷¹ Goldberg and Zipursky, *Recognizing Wrongs* (n 366).

The dualistic nature³⁷² enables tort law to adaptively apply its principles to diverse cases, such as food adulteration.³⁷³ Tort law addresses societal duties, including the sale of unsafe food, unlike criminal or contract law, which address public order or contractual agreements.³⁷⁴ Indeed, by emphasising the consequences of wrongful acts rather than the perpetrators' intentions, tort law protects public health and consumer interests.³⁷⁵ Food adulteration, where the harm inflicted, such as health risks, triggers liability regardless of producer intent, shows the focus on consequences. Thus, tort law is especially relevant for remedying food safety lapses.

2.3.1 Development of the Common Law of Tort in Bangladesh

The tortious cause of action of negligence has its roots in the common law of Bangladesh, the UK, and India. This requires some consideration of some settled laws in most of the advanced jurisdictions such as the UK. This section is included in this thesis to provide an analysis of the legal framework and highlight its potential application, despite its sporadic use in Bangladesh. This examination sheds light on the shared legal heritage and distinct challenges to advance the dialogue on tort law and its ability to adapt to food adulteration.

The law of tort is a recognised cause of action under the legal system of Bangladesh. In *Bangladesh Beverage Industries Limited* (2016),³⁷⁶ the Appellate Division³⁷⁷ upheld the High Court Division's ruling that judges can establish new tort laws. Additionally, tort law allows for monetary compensation for suffering, pain, and loss of life expectancy.³⁷⁸ In the *British American Tobacco* (2014) case, the Appellate Division defined tort as a non-contractual wrong requiring a common law remedy, based on Clerk and Lindsell's Law of Torts.³⁷⁹ These judgments demonstrate that tort law evolves from common law through judicial decisions.

³⁷² A Brudner, *The Unity of the Common Law* (2nd edn, Oxford University Press 2013) 318.

³⁷³ A Calnan, 'Torts as Systems' (2018) 28(2) Southern California Interdisciplinary Law Journal 301, 304.

³⁷⁴ Michael S Moore, *Causation and Responsibility: An Essay in Law, Morals, and Metaphysics* (Oxford University Press 2009).

³⁷⁵ Jane Stapleton, 'Legal Cause: Cause-in-Fact and the Scope of Liability for Consequences' (2001) 54(3) Vanderbilt Law Review 941, 945.

³⁷⁶ *Bangladesh Beverage Industries Limited v Rawshan Aktar and Ors* [2016] 4 CLR 411 (AD).

³⁷⁷ Since its establishment, the Appellate Division of the Supreme Court has taken over the role that the Privy Council played during the colonial period and functions as the final court of appeal.

³⁷⁸ *Bangladesh Beverage Industries Limited v Rawshan Aktar and Ors* (n 377) para 27.

³⁷⁹ *British American Tobacco Bangladesh Company Ltd v Begum Shamsun Nahar* [2014] 66 DLR 80 (AD) [9].

However, despite the passage of time since these cases, there has been a notable lack of new case law in the field of tort, with very few reported instances.³⁸⁰ The High Court Division of Bangladesh highlighted the stagnant development of tort law in the country in *Catherine Masud and others v Md Kashed Miah and others* (2015).³⁸¹ The court recognised the significance of tort law, a key component of English Common Law, which has been adopted in India and various Commonwealth nations due to its alignment with principles of 'justice, equity, and good conscience'.³⁸² Notably, in an earlier case, *Wahid Mia*, the High Court Division also recognised the tort of nuisance but noted that Bangladesh does not have a tort law statute.³⁸³ Therefore, the courts have always adopted the English common law as being consonant to justice, equity and good conscience.³⁸⁴

Despite this, tort law is not a fundamental part of Bangladesh's legal system.³⁸⁵ The reluctance of subordinate courts to address tortious claims, unless they are strictly statutory, has resulted in a noticeable absence of decisions on matters like medical negligence and vicarious liability.³⁸⁶ In addition, the High Court Division pointed out that it had not been asked to comprehensively review tort law issues, which limited its ability to provide detailed guidance.³⁸⁷ Nonetheless, the court expressed a clear stance that it is time for a thorough examination and consideration of integrating tort law into Bangladesh's legal system. Even medical and other negligence claims would be properly addressed with this integration.

The observations made by the High Court Division in *Catherine Masud* and *Wahid Mia* highlight two significant tort law developments in Bangladesh. Firstly, the High Court Division's emphasis on 'justice, equity, and good conscience' is consistent with the adoption and adaptation of tort law in other Commonwealth countries which suggests that it should be integral to legal fairness and justice. Secondly, the High Court Division explicitly expressed concern over the subordinate courts' reluctance to issue rulings on tort law matters. This hesitation is perceived to stem from a sense of inadequacy or lack of empowerment amongst these courts to adjudicate on tortious claims, despite the Appellate Division affirming that judges have the authority to create new tort laws. This discrepancy casts doubt on the judicial system's ability to develop and apply tort law, especially when the appellate authority has acknowledged the need. These concerns also have practical implications.

³⁸⁰ Naima Haider, 'Development of the Laws of Tortious Liability in Bangladesh' (2022) 32 Dhaka University Law Journal 196, 201, 202.

³⁸¹ *Catherine Masud and others v Md Kashed Miah and others* [2015] 67 DLR 523.

³⁸² *ibid* 15.

³⁸³ *Wahid Mia alias Abdul Wahid Bhuiyan v Dr Rafiqul Islam and others* [1997] 49 DLR 302.

³⁸⁴ *ibid* 9.

³⁸⁵ *Catherine Masud and others v Md Kashed Miah and others* (n 463) para 15.

³⁸⁶ *ibid*.

³⁸⁷ *Ibid*.

Numerous incidents reported in the media, such as clinical negligence, reckless driving, and workplace accidents, fall under the purview of tort law. Yet, the number of tort law cases filed and successfully adjudicated is disproportionately low compared to the potential number of tortious incidents. This gap indicates the legal system should be more proactive in encouraging tort-related case filing and adjudication. As such, there is an urgent necessity to inform the people about their legal rights and the protective role of tort law, as heightened awareness could enable individuals to pursue justice and catalyse the evolution of tort jurisprudence.

In essence, Bangladesh has little tort jurisprudence, so it lacks insight into the elements of liability needed for a successful cause of action. Following the above discussion, the High Court Division's ruling suggests that English common law liability should apply to Bangladeshi tort actions. This means that tort actions in Bangladesh would generally apply English common law liability elements such as duty of care, breach of duty, and causation for negligence claims.³⁸⁸

2.4 Remedies in Tort

In addition to contract law, consumers may seek remedies under tort law, particularly through claims of negligence and deception. Tort law provides important mechanisms for redress in cases where consumers are harmed by defective or adulterated food. This section introduces these remedies and outlines their potential in addressing food adulteration, whilst briefly acknowledging their limitations. A more detailed exploration of these limitations, particularly the challenges of proving causation and assigning liability, will follow in Chapter 3.

2.4.1 Negligence in Food Adulteration

Consumers may claim remedies if the seller fails to ensure the food's 'safe' status, thereby breaching the duty of care to avoid harm to the consumer.³⁸⁹ The development of duty of care commenced with the seminal case of *Donoghue v Stevenson*, in which Mrs Donoghue drank a bottle of ginger beer manufactured by Stevenson that contained a decomposed

³⁸⁸ T Huda, 'Bangladesh' in E Aristova and K O'Regan, *A Handbook for Practicioners: Civil Liability for Human Rights Violations* (Bonavero Institute for Human Rights 2022) paras 23–28.

³⁸⁹ Percy Winfield and John Jolowicz, *Winfield and Jolowicz on Tort* (Sweet & Maxwell 2014) 78.

snail.³⁹⁰ She claimed damages for both the shock and gastroenteritis after consuming the ginger beer. The HOL held, by bare majority, that the manufacturer owed a general duty to consumers to ensure their products do not cause foreseeable harm. In his judgement, Lord Atkin formulated the 'neighbour principle', stating:

You must take reasonable care to avoid acts or omissions which you can reasonably foresee would be likely to injure your neighbour.³⁹¹

The scope of this duty evolved in *Anns v Merton London Borough Council* (1978),³⁹² where Lord Wilberforce articulated a two-stage test for negligence: first, determining the proximity between the parties, and second, assessing whether policy considerations would render imposing a duty unfair, unjust or unreasonable.³⁹³ However, this test was later overruled in *Caparo Industries plc v Dickman* (1990),³⁹⁴ which established a more refined three-stage test requiring (1) foreseeability of harm, (2) proximity between the claimant and defendant, and (3) an assessment of whether imposing liability is 'fair, just, and reasonable'.³⁹⁵ The *Caparo* test remains the primary test for duty of care in negligence claims today.³⁹⁶ Although this is true generally for tort law, in relation to the topic of consumer protection, tort law would refer back to the Sale of Goods Act (1979), and the Consumer Protection Act (1987).

Food adulteration can cause both physical and psychological injuries. Physical harm may result from the consumption of adulterated food, leading to severe health conditions, including organ damage or chronic illnesses such as cancer. However, psychological harm presents a more complex legal challenge because courts generally require a diagnosed psychiatric condition to support a claim. Brennan provides historical context for this strict approach:

Formerly, it was believed that psychological injury was much more likely to be fraudulently claimed than the physical, which is usually visible and therefore somehow more 'real'.³⁹⁷

³⁹⁰ *Donoghue v Stevenson* [1932] AC 562 (SC (HL)).

³⁹¹ *ibid* 562, 580.

³⁹² *Anns v Merton London Borough Council* [1978] AC 728.

³⁹³ *ibid* 767; Craig Purshouse, *Essential Cases: Tort Law* (6th edn, Oxford University Press 2023) pt 1.

³⁹⁴ Carol Brennan, 'Negligence: Duty of Care', *Tort Law Directions* (8th edn, Oxford University Press 2022) 30; *Caparo Industries plc v Dickman* [1990] 2 AC 605.

³⁹⁵ *Caparo Industries plc v Dickman* (n 476).

³⁹⁶ Brennan (n 395) 137.

³⁹⁷ Carol Brennan, 'Negligence: Duty of Care Problem Areas', *Tort Law Directions*, vol 9 (Oxford University Press 2024) s 5.1.2.

The examples of psychological injury include clinical depression, personality changes, sleeping problems, and post-traumatic stress disorder (PTSD).³⁹⁸ In order to claim damages for negligence, the plaintiff must prove a breach of duty and that the damage is not too remote.³⁹⁹ The Hillsborough disaster litigation, particularly in *Alcock v Chief Constable of South Yorkshire* (1992), the courts restricted recovery for psychological injury to recognised conditions such as PTSD or clinical depression, rather than transient emotional upset.⁴⁰⁰ The same principle applies to food adulteration cases, where claimants must provide medical evidence linking their psychiatric injury to the negligent act. Yet, courts have only:

Slowly, and because of progress in medical science, come to accept that 'nervous shock' constitutes a medical condition for which compensation may be appropriate.⁴⁰¹

The foreseeability and proximity principles are pivotal in assessing claims for establishing a psychological harm. In *McLoughlin v O'Brian* (1983), the courts recognised that witnessing harm to close family members could lead to compensable psychiatric injury if such harm was foreseeable.⁴⁰² By applying this reasoning to food adulteration, courts may impose liability if a direct link between adulterated food and psychiatric injury is established. However, Deakin and Adams caution that:

Foreseeability alone is entirely inadequate as a test for establishing a duty of care.⁴⁰³

The case of *Bhamra v Dubb* (2010) explored food safety negligence in a religious context.⁴⁰⁴ The defendant, a caterer responsible for providing food at a Sikh wedding, failed to ensure the food was free from eggs, which violated Sikh dietary expectations. A guest suffered a fatal allergic reaction after consuming a dessert that contained egg. The court applied the *Caparo* three-stage test and ruled that the caterer had a heightened duty of care due to the religious setting, as guests reasonably relied on the expectation that the food adhered to dietary laws.⁴⁰⁵ The court reasoned that Mr Dubb owed a heightened duty of care due to the

³⁹⁸ C Elliot and F Quinn, *Tort Law* (7th edn, Pearson 2009) 42.

³⁹⁹ Naemah Amin and Norazlina Aziz, 'The Liability of the Producer of False Halal Products under Product Liability Law' (2015) 11 *Asian Social Science* 295, 298.

⁴⁰⁰ *Alcock v Chief Constable of South Yorkshire Police* [1992] 1 AC 310.

⁴⁰¹ Simon Deakin and Zoe Adams, 'Establishing Liability in Principle: Duty of Care', *Markesinis & Deakin's Tort Law* (8th edn, Oxford University Press 2019) 89.

⁴⁰² *McLoughlin v O'Brian* [1983] 1 AC 410.

⁴⁰³ Deakin and Adams (n 402) 91.

⁴⁰⁴ *Bhamra v Dubb* [2010] EWCA Civ 13.

⁴⁰⁵ *ibid* 2.

specific religious context, which created an expectation of absolute adherence to dietary laws.⁴⁰⁶ This case demonstrates that food providers at religious or culturally specific events may be subject to more stringent liability if they are not meeting the dietary expectations that consumers justifiably rely upon.

However, if a similar case involved only psychological distress, such as distress from learning that food was not halal or kosher after consumption, the courts' decision would depend on whether the claimant is classified as a primary victim or a secondary victim. A primary victim, as defined in *Page v Smith* (1996), can claim damages for psychological harm if it is a direct result of the defendant's negligence and constitutes a recognised psychiatric condition, such as PTSD or clinical depression.⁴⁰⁷ For secondary victims, the *Alcock* test must be satisfied. These include a close tie of love and affection with a primary victim, proximity in time and space to the negligent act or its immediate aftermath, and foreseeability of the psychiatric harm caused by witnessing the harm. Secondary victims cannot succeed in a claim for psychological injury without these elements.

Thus, generalised claims arising from indirect impacts, such as public distrust in food safety or even fear, might also lack the proximity needed to establish a duty. For example, in *Re Creutzfeldt-Jakob Disease Litigation* (1998), the courts showed reluctance to assign liability for psychiatric injury solely due to the apprehension of acquiring a prospective illness unless a specific relationship (e.g., doctor-patient) or proximity exists to make psychiatric injury reasonably foreseeable.⁴⁰⁸ A stricter approach was also seen in *Watts v Morrow* (1991), where the court ruled that damages for distress and inconvenience are not recoverable under negligence, except where physical discomfort is also present.⁴⁰⁹

One of the primary policy concerns is the floodgates argument, which suggests that allowing too many negligence claims for psychiatric harm could lead to excessive litigation. Courts have historically been cautious about expanding liability in these cases in recognition of the risk of overwhelming defendants with claims. In *Alcock*, the HOL reiterated the necessity of preventing an influx of psychiatric injury claims by enforcing strict legal thresholds. The judgment emphasised that public interest may override proximity to ensure that negligence law remains within reasonable limits. As Lord Oliver stated:

⁴⁰⁶ *ibid* 3.

⁴⁰⁷ *Page v Smith* [1996] 1 AC 155.

⁴⁰⁸ *Re Creutzfeldt-Jakob Disease Litigation* [1998] 41 BMLR 157.

⁴⁰⁹ *Watts v Morrow* [1991] 4 ER 937 (CA).

Grief, sorrow, deprivation and the necessity for caring for loved ones who have suffered injury or misfortune must, I think, be considered as ordinary and inevitable incidents of life which, regardless of individual susceptibilities, must be sustained without compensation.⁴¹⁰

According to Deakin and Adams, courts may deny liability even where proximity exists if allowing claims would lead to indeterminate liability, overwhelm defendants, or create unsustainable financial burdens.⁴¹¹ This reasoning is pertinent in food adulteration cases because claimants may seek damages for psychological harm without direct physical injury. Courts are reluctant to expand liability in these cases, as doing so could expose food manufacturers and suppliers to excessive claims, thereby raising compliance costs and leading to defensive practices in the industry. As Lord Steyn aptly summarised in *White v Chief Constable of South Yorkshire Police* (1999):

The law on the recovery of compensation for pure psychiatric harm is a patchwork quilt of distinctions which are difficult to justify.⁴¹²

Despite these policy-driven restrictions, courts have occasionally allowed psychological injury claims in cases involving intentional deceit, though such exceptions remain rare. This is explored further below.

2.4.2 Deception in Food Adulteration

The tort of deceit remains a key tool in addressing cases where food adulteration occurs through fraudulent misrepresentation.⁴¹³ However, since the enactment of the Misrepresentation Act (1967), tort law's application has become rare and confined to cases where statutory remedies are unavailable or insufficient. This section examines the elements of deceit, the remedies available and the related legal challenges.

In order to establish a claim under the tort of deceit, the claimant must meet the following requirements. The first element is a false representation made by the defendant. False representations are frequently used in food fraud cases, such as through misleading labeling, deceptive advertising, or the intentional omission of harmful or unapproved

⁴¹⁰ *Alcock v Chief Constable of South Yorkshire Police* (n 482).

⁴¹¹ Deakin and Adams (n 402) 99.

⁴¹² *White v Chief Constable of South Yorkshire* [1999] 2 AC 455

⁴¹³ Christian Witting, 'False Representations', *Street on Torts* (16th edn, Oxford University Press 2021) 349.

ingredients. Companies may falsely advertise food as organic, 'free from' allergens, or meeting safety standards when, it actually contains unauthorised substances. This is consistent with *R v Barnard (1837)*, where a false representation by conduct was deemed deceitful.⁴¹⁴

The second requirement is that the statement be about an existing fact rather than an opinion or future promise. For instance, a food manufacturer falsely claiming a product is '100% organic' or 'sugar-free' when it contains synthetic additives constitutes a factual misrepresentation. The third element is knowledge of falsity or recklessness as to its truth. The defendant must either know the representation is false or be reckless as to whether it is true. *Derry v Peek (1889)* established this principle whereby the court held that fraudulent intent must be proven, and mere negligence is insufficient.⁴¹⁵ More recently, in *Eco 3 Capital Ltd v Ludsin Overseas Ltd (2013)*, the Court of Appeal reaffirmed that intention is inferred from the defendant's awareness of the falsehood rather than being a separate legal requirement.⁴¹⁶ In food fraud instances, intentional mislabelling, substitution of inferior ingredients, or failure to disclose harmful components would satisfy this element.

The fourth requirement is that the defendant made the misrepresentation with the intention that the claimant would rely on it. The purpose of deceptive food labelling and false advertising is to influence consumer purchasing decisions by creating a misleading perception of a product's quality or authenticity. Fifth, the claimant must have relied on the false representation to make a transaction. Consumers in the developed world generally tend to depend on product labelling and advertising to make informed choices. If a company falsely markets a product as 'safe for allergy sufferers' and a consumer purchases it based on this claim, reliance is established.

Lastly, the claimant must have suffered damage as a direct consequence of the deceit. Food fraud can cause various harms such as economic (overpaying for an adulterated product), physical (illness caused by adulterated or mislabelled food), or psychological (distress and betrayal from being misled). Courts have recognised that fraud-related distress is compensable, as illustrated in *Shelley v Paddock (1979)*, where the claimant successfully recovered damages for fraud-induced distress.⁴¹⁷

⁴¹⁴ *R v Barnard* [1837] 7 C & P 784, 173 ER 342.

⁴¹⁵ *Derry v Peek* [1889] 14 App Cas 337, 54 JP 148, 58 LJ Ch 864, 1 Meg 292, 38 WR 33, [1886-90] All ER Rep 1, 61 LT 265, 5 TLR 625.

⁴¹⁶ *Eco 3 Capital Ltd v Ludsin Overseas Ltd* [2013] EWCA Civ 413

⁴¹⁷ *Shelley v Paddock* [1979] QB 120, [1978] 3 All ER 129.

Compensatory damages are the primary remedy and are intended to restore the claimant to the position they would have been in had the fraud not occurred. As per Lord Denning in *Doyle v Olby (Ironmongers) Ltd* (1969), deceit allows claimants to recover all losses directly caused by the fraudulent misrepresentation, even if they were unforeseeable.⁴¹⁸ The Court of Appeal in *Glossop Cartons and Print Ltd v Contact (Print & Packaging) Ltd* (2021) reinforced this principle by clarifying how courts should assess damages in deceit claims.⁴¹⁹ The court held that damages should be calculated by determining the actual value of the misrepresented goods at the time of purchase and awarding the claimant the difference between the price paid and the actual value of the goods. In food fraud instances, where consumers typically overpay for products based on deceptive labeling, the court would likely evaluate the actual market worth of a product, subtract it from the amount paid, and award the difference as damages if, for instance, a corporation falsely markets a product as 'organic' whereas laboratory tests show non-organic pesticide use.

Additionally, *Glossop Cartons* confirms that consequential losses are recoverable in deceit cases. In this context, claimants may recover not just the difference in price, but also financial losses resulting from the deceit, including medical expenses due to allergic reactions from undisclosed ingredients, and psychological harm experienced by consumers misled into violating religious or ethical dietary restrictions. Hence, full restitution could be a possibility in deceit-based claims.

In contrast, punitive/exemplary damages are generally unavailable in deceit cases unless the fraud is oppressive or calculated for profit.⁴²⁰ Courts have also recognised the emotional distress caused by deceit. In *Archer v Brown* (1985), the court awarded £500 in aggravated damages for the plaintiff's injured feelings.⁴²¹ Taking this into consideration, a consumer who unintentionally consumes adulterated food may be able to argue for aggravated damages if they suffer significant emotional distress or humiliation, especially if religious, dietary, or ethical beliefs are implicated. In any event, courts require clear evidence beyond just disappointment.

However, proving that a defendant knew their representation was untrue is one of the trickiest parts of a deceit claim. As QCs Grant and Mumford observe, those who lie to gain an advantage or to harm others do not openly disclose their dishonest intentions or

⁴¹⁸ *Doyle v Olby (Ironmongers) Ltd* [1969] 2 QB 158 167.

⁴¹⁹ *Glossop Cartons and Print Ltd v Contact (Print & Packaging) Ltd* [2021] EWCA Civ 639

⁴²⁰ *Rookes v Barnard* [1964] AC 1129 1226. Punitive or exemplary damages have recently been given by UK courts for insurance fraud: *Axa Insurance UK Plc v Financial Claims Solutions Ltd* [2018] EWCA Civ 1330, [2019] RTR 1. For details on this trend, see, Jack Beatson, Andrew Burrows and John Cartwright, 'Misrepresentation and Non-Disclosure', *Anson's Law of Contract* (31st edn, Oxford University Press 2020) 343.

⁴²¹ *Archer v Brown* [1985] QB 401, [1984] 2 All ER 267 [4].

actions.⁴²² Indeed, this makes it difficult for claimants to present concrete proof of fraudulent intent, especially in corporate food fraud cases, where senior executives may attempt to shield themselves from liability by claiming ignorance or shifting blame within the supply chain.⁴²³

To summarise, the above discussion has shown the various issues relating to the establishment of a duty of care to begin with. Victims of food fraud may find some solace in the tort of deceit, but it is still only applicable in situations where fraudulent intent can be proven. Future legal developments may further clarify the boundaries of compensable emotional harm in deceit claims. Overall, the current analysis is meant to be a precursor to a more detailed critique in Chapter 3, which further investigates the challenges associated with burden of proof and the overall effectiveness of tort law in protecting consumers.

2.5 Conclusion

This chapter has examined the foundational doctrines of private law, specifically contract and tort law, and their potential application in addressing food adulteration in Bangladesh. The analysis reveals a complex legal framework shaped by the country's colonial history and subsequent legal evolution. In contract law, key doctrines such as misrepresentation, fraud, and implied conditions as outlined in the Contract Act (1872) and the Sale of Goods Act (1930) were explored. These doctrines provide potential avenues for consumers to seek redress when food products fail to meet represented standards or are unfit for their intended purpose. The principle of *caveat emptor*, whilst still relevant, has been tempered by legal developments that place greater responsibility on sellers to ensure product quality. Tort law, particularly the doctrines of negligence and product liability, offers additional protections for consumers harmed by adulterated food products. The development of the duty of care principle, from *Donoghue v Stevenson* to the *Caparo* test, provides a framework for holding food producers and sellers accountable for negligence. However, the chapter also highlighted the underdeveloped nature of tort law in Bangladesh.

The examination of these legal doctrines reveals both potential and limitations in their application to food adulteration cases. Although they provide mechanisms for individual redress, questions remain about their efficacy in addressing the systemic character of food

⁴²² QC David Mumford QC Thomas Grant, *Civil Fraud: Law, Practice & Procedure* (1st edn, Sweet & Maxwell 2022).

⁴²³ See Section 5.4.3.2.2 of this thesis on for a discussion on how variations in due diligence requirements could impact corporate liability in food fraud cases.

adulteration. Moreover, scarcity of tort law cases in Bangladesh and the hesitancy of lower courts to adjudicate on tortious claims suggest that the full potential of private law in addressing food adulteration may not yet be realised in Bangladesh. Overall, the present analysis sets the stage for a more detailed critique in the next chapter of the efficacy of these private law mechanisms in combating food adulteration. It brings up important queries about whether these legal tools are sufficient to protect consumers and deter adulteration practices, or if alternative or complementary regulatory methods may be necessary.

Chapter 3: The Efficacy of Private Law in Tackling Contemporary Food Adulteration

3.1 Introduction

This chapter builds upon the groundwork laid in the previous chapter to critically analyse the practical application of private law in addressing food adulteration. Specifically, the current analysis will specifically examine the constraints of conventional contractual and non-contractual solutions in addressing modern day food adulteration. Through the identification of these deficiencies, the critique will facilitate the examination of extensive public law interventions as possible remedies to this widespread problem.

3.2 Shortcomings Under Contract Law

The following section first examines the key limitations of contract law which undermine its effectiveness in protecting consumers from adulterated food products.

3.2.1 Fallacy of the Privity of Contract Requirement

The doctrine of privity has been revered and critiqued for centuries. It enshrines the common law principle that only parties privy to a contract are allowed to sue each other to enforce their rights and liabilities, and no stranger is allowed to confer obligations upon any person who is not a party to contract.⁴²⁴ However, by the mid-19th century, the relationship between contract and tort law under English common law was notably obscure. A landmark case exemplifying this confusion was *Winterbottom v Wright* (1842), where the presence of a contract seemingly seemed to preclude tort claims by non-parties.⁴²⁵ The lack of a tort action in early 19th century England is often cited as explaining this decision.⁴²⁶ The ruling entrenched the 'privity' or 'contract' fallacy, which later broadly shielded contractual parties from tort claims by non-privy individuals.⁴²⁷ The result was a jurisprudence that, for much of 19th century stifled the interaction between contract and tort law.

⁴²⁴ Jack Beatson, Andrew Burrows and John Cartwright, 'Introduction', *Anson's Law of Contract* (31st edn, Oxford University Press 2020) 18; *Winterbottom v Wright* [1842] 10 M & W 109.

⁴²⁵ *Winterbottom v Wright* (n 425); Simon Whittaker, *The Development of Product Liability* (Cambridge University Press 2010) 51, 55–60; For a historical background, see, V Palmer, 'Why Privity Entered Tort-An Historical Reexamination of *Winterbottom v. Wright*' (1983) 27(1) *The American Journal of Legal History* 85.

⁴²⁶ Palmer (n 426).

⁴²⁷ *ibid*; Jane Stapleton, 'Duty of Care and Economic Loss: A Wider Agenda' (1991) 107 LQR 249, 250. Palmer uses contract fallacy, whereas for example Stapleton refers to privity fallacy. For the spread of the fallacy to the US, see for example, *Savings Bank v Ward* 100 US 195 (1879).

By the 20th century, however, the edifice of privity began to crack. In response to the privity fallacy, English courts recognised a general tort of negligence, particularly for defective products. *Donoghue v Stevenson* established the modern tort of negligence and allowed negligence claims to coexist with contractual obligations.⁴²⁸ Product liability increased due to fragmented distribution chains, where buyers relied on a manufacturer's marketing to distinguish between products bought from retailers that were not easily appraisable, such as pre-packaged foodstuffs or automobiles, and where mere users who had no relation to the chain of sales might have no remedy under contract. Had the privity fallacy continued, it would have allowed manufacturers immunity from tort liability for defective goods.⁴²⁹

Yet, the journey did not end there. English common law has uniquely progressed in its handling of contractual third-party beneficiary doctrines. Unlike other legal systems that have long permitted such doctrines, England explicitly prohibited them until the 1999 Contracts (Rights of Third Parties) Act.⁴³⁰ Even after this Act, English law continues to prefer tort actions over contract claims in situations that other jurisdictions might handle contractually.⁴³¹ In addition, the evolution of contract law has also changed how guarantees are treated. The Sale of Goods Act (1893) abolished *caveat emptor* with implied warranties of merchantability.⁴³² Nevertheless, manufacturers and sellers commonly offered 'guarantees' that effectively limited the scope of both warranty and negligence claims, even in personal injury cases. After widespread use, the Unfair Contract Terms Act (1977) banned unreasonable contract terms to limit liability.⁴³³ Thus, the requirement for a direct contractual relationship, or privity, in lawsuits against manufacturers and sellers for negligence is progressively disappearing.⁴³⁴

⁴²⁸ *Donoghue v Stevenson* (n 472).

⁴²⁹ Jane Stapleton, *Product Liability* (Cambridge University Press 1994) 19–21.

⁴³⁰ For the common starting points of English and American common law, see, MA Eisenberg, 'Third Party Beneficiaries' (1992) 92 Colum L. Rev 1358, 1366–67; For discussion of developments in England prior to and following the Contracts (Rights of Third Parties) Act 1999 ch 31; See, Edwin Peel and GH Treitel, *The Law of Contract* (Sweet & Maxwell 2007) 622–25.

⁴³¹ One example is the ruling in *White v Jones* [1995] 2 AC 207: It involved a solicitor's incorrect drafting of a will. The court ruled that the solicitor's liability to the intended legatees was rooted in tort (including pure economic loss). The Contracts (Rights of Third Parties) Act 1999 would not apply to cases like *White v Jones*, as the Act does not extend to intended legatees, who are considered unintended beneficiaries of the contract. Peel and Treitel (n 431) 694–95; In US, similar cases have been classified as potentially falling under both contract and tort causes of actions: Basil Markesinis, *Markesinis's German Law of Torts* (4th edn, Bloomsbury Publishing 2002) 332. Although for Germany, similar situations fall under contractual liability, see, *ibid* 328–338; Israel Gilead, 'Non-Consensual Liability of a Contracting Party: Contract, Negligence, Both, or In-Between?' (2002) 3 Theoretical Inquiries in Law 511.

⁴³² Sale of Goods Act; For developments related to the act, see, Whittaker (n 507) 61–69.

⁴³³ Whittaker (n 426) 68–69, 83; Stapleton (n 430) 39–44; For a definition of 'consumer guarantee', see, Peel and Treitel (n 431) 270. Unfair Contract Terms Act 1977.

⁴³⁴ Simon Deakin and Zoe Adams, 'Product Liability', *Markesinis & Deakin's Tort Law* (8th edn, Oxford University Press 2019).

Conversely, in Bangladesh, section 2(h) of the Bangladeshi Contract Act (1872)⁴³⁵ defines a contract as a legally binding agreement between two parties backed by consideration.⁴³⁶

Here, the privity doctrine retains its rigid form which could be problematic because it bars third-parties, who are not in privity of contract, from bringing claims against the contracting parties. This limitation applies in situations where a contract is made between two parties, but it has negative effects on or causes harm to a third-party who is not involved in the contract. The third-party may have no legal remedy against the contracting parties due to the privity requirement. This could then prevent consumers, users, or other third-parties not in direct contractual relationships from suing manufacturers, distributors or sellers for defective products or negligence, even if they are harmed by the products. The privity doctrine can also prevent third-party beneficiaries, who were intended to benefit from a contract, from enforcing a contract if they are not formal parties to it.

However, Bangladeshi courts have carved out exceptions and allowed third-parties or 'strangers' to enforce contracts in certain cases.⁴³⁷ The first major exception is the 'beneficiary under a contract' principle. In *Dunlop Pneumatic Tyres v Selfridge & Co.* (1915) the court ruled that property rights, such as under a trust, can give a third party the right to enforce a contract.⁴³⁸ The second exception relates to conduct, admission, or acknowledgment. If one party acknowledges, conducts, or admits the other's right to sue and enforce the contract without privity of contract, the recognising party can be held liable based on estoppel principles. The third exception applies to provisions for maintenance under family agreements. A third-party (often a female family member) has beneficiary rights and can sue to enforce a family agreement's main purpose.

3.2.1.1 Addressing Modern Consumer Challenges

The inherent characteristics of consumer transactions may be necessary to further assess the doctrine of privity's limitations in protecting consumers from food adulteration. Traditional retail channels cater to daily/frequent needs rather than stock up shopping, so consumer purchases are small but high in volume.⁴³⁹ Since legal fees often exceed the value of the

⁴³⁵ The Contract Act s 2(h).

⁴³⁶ *ibid* 2(d); Mafizul Islam, *Principles of Commercial Law* (MA Hannan ed, 5th edn, Shams Publications 2010) 9.

⁴³⁷ Remura Mahbub and Tahmidur Rahman, 'The Legal Doctrine of Privity of Contract Under the Bangladeshi Contract Law' (*Advocates in Bangladesh*, 10 December 2022) <<https://adv.com.bd/the-legal-doctrine-of-privity-of-contract-under-the-indian-contract-law/>> accessed 26 April 2024.

⁴³⁸ *Dunlop Pneumatic Tyre Co Ltd v Selfridge & Co Ltd* [1915] AC 847.

⁴³⁹ Z Munir, 'Bangladesh: The Surging Consumer Market Nobody Saw Coming' (*BCG Global*, 2015) <<https://www.bcg.com/publications/2015/bangladesh-the-surging-consumer-market-nobody-saw-coming>> accessed 23 April 2024: Many Bangladeshi MAC households still shop for groceries from traditional stores (94%). Compared to 76% in Myanmar, 77% in the Philippines, and 27% in Thailand. MAC households buy

adulterated product, individual litigation seems impractical. A consumer affected by a low-priced adulterated food item will unlikely seek legal redress due to the high cost of litigation compared to the financial harm.

Moreover, there exists a profound knowledge and power asymmetry between consumers and producers. Consumers often lack detailed knowledge about the legal recourse available and the technical specifics of the products they consume. For instance, a BFSA study covered 24 districts across divisions and 48 sub-districts (two from each district). This structure yielded a large sample of 1225 households for studying consumer behaviour on unsafe or adulterated food.⁴⁴⁰ The findings indicate that over half of the respondents (55.1%) reported that they typically complain to the seller when faced with such issues. However, a substantial proportion (41.1%) opt for inaction, and only a minor fraction take other actions such as returning the food (28.7%) or avoiding the seller in the future (13.3%). Remarkably, very few (1.4%) use the adulterated food as animal feed, and some (7.7%) destroy it at home, which suggests an underutilisation of more formal legal channels.⁴⁴¹

As a result, the imbalance makes it harder for consumers to assert or recognise their rights. This gap is precisely where consumer law diverges from commercial law, which typically deals with entities possessing similar bargaining powers and resources. Consumer law is uniquely positioned to protect a weaker party which is the consumer against more powerful commercial entities, through mechanisms that do not rely on the consumer's initiation of legal action.⁴⁴² Consumer protection laws address these issues by instituting preventative measures such as safety standards and clear labelling requirements,⁴⁴³ coupled with punitive measures for non-compliance. These regulations operate independently of individual consumer litigation, thus removing the burden from consumers to initiate legal proceedings and instead placing the onus of compliance directly on businesses.

almost 80% of their home and personal care products there. Most consumers, including the middle/affluent class, shop at mom-and-pop stores with small basket sizes but high purchase frequencies and volumes across multiple small stores. See also, COVID-19-related food consumption changes: Mohammad Rabbi and others, 'Food Security and the COVID-19 Crisis from a Consumer Buying Behaviour Perspective—The Case of Bangladesh' (2021) 10 *Foods* 1: Consumer food consumption habits have shifted due to decreased grocery shopping frequency, income shock, and increased food prices. The reference to falling grocery shopping frequency compared to pre-pandemic norms implies that pre-COVID consumer behaviour included a greater frequency of smaller basket size supermarket purchases. The negative income shock experienced during the pandemic would have required more frequent, smaller value transactions by consumers; LK Raynil and others, '2020 Findings from the Diary of Consumer Payment Choice' (2020) <<https://www.frbsf.org/research-and-insights/publications/fed-notes/2020/07/2020-findings-from-the-diary-of-consumer-payment-choice/>> accessed 23 April 2024.

⁴⁴⁰ M Hoque and others, 'Baseline Survey on Consumer Confidence and Awareness of Food Safety and Food Safety Act/Regulations Bangladesh' (Bangladesh Food Safety Authority 2018) 7.

⁴⁴¹ *ibid* 10.

⁴⁴² I Benöhr, 'The United Nations Guidelines for Consumer Protection: Legal Implications and New Frontiers' (2020) 43 *Journal of Consumer Policy* 105.

⁴⁴³ See Chapters 6 and 7 of this thesis.

Given the impracticality of individual litigation for small-value claims, Alternative Dispute Resolution (ADR) methods such as mediation or arbitration present a practical solution. ADR could offer a quicker, less expensive, and more accessible means for consumers to resolve disputes.⁴⁴⁴ Furthermore, the implementation of ADR specifically tailored for consumer disputes can facilitate the aggregation of small claims into larger, more economically viable action groups.⁴⁴⁵ In short, the doctrine of privity falters in its application to consumer protection from adulteration by limiting legal recourse to contracting parties. Therefore, its rigid confines necessitate a recalibration of consumer law to emphasise accessible dispute resolution options.

3.2.2 High Standard of Proof for Proving Fraud

Essentially, section 17 of the Contract Act (1872) predicates liability on intent which is a legal threshold that proves to be impractical in many cases of food adulteration.⁴⁴⁶ For example, economic adulteration can be both intentional and unintentional. The Gloucester Cheese case where toxic red lead found its way into cheese due to adulterated annatto used for colouring exemplifies unintentional adulteration through a convoluted supply chain.⁴⁴⁷ Despite the harm inflicted, no clear intent to deceive existed amongst the involved parties. Complex commercial interactions, even in the absence of fraudulent intent, can result in the creation of harmful products, as this case shows. Similarly, in relation to the widespread use of formalin in Bangladesh, proving intent, whether on the part of sellers or upstream suppliers often remains difficult.⁴⁴⁸ Many of them use formalin without understanding its health risks to meet consumer expectations for fresh-looking produce which blurs the line between deceit and negligence.⁴⁴⁹ Thus, whilst deceptive, using an adulterant often lacks

⁴⁴⁴ Cosmo Graham, 'Improving Courts and ADR to Help Vulnerable Consumers Access Justice', *Vulnerable Consumers and the Law* (1st edn, Routledge 2020).

⁴⁴⁵ H Matnuh, 'Rectifying Consumer Protection Law and Establishing of a Consumer Court in Indonesia' (2021) 44(3) *Journal of Consumer Policy* 483; Marco Giacalone, Irene Abignente and Seyedeh Salehi, 'Small in Value, Important in Essence: Lessons Learnt from a Decade of Implementing the European Small Claims Procedure in Italy and Belgium' (2021) 17(2) *Journal of Private International Law* 308.

⁴⁴⁶ The Contract Act s 17.

⁴⁴⁷ B Wilson, *Swindled: The Dark History of Food Fraud, from Poisoned Candy to Counterfeit Coffee* (Princeton University Press 2008) 32; G Walton, 'Food and Drink Adulteration in the 1700 and 1800s' (20 August 2014) <<https://www.geriwatson.com/food-and-drink-adulteration-in-1700-and/>> accessed 26 April 2024.

⁴⁴⁸ Golam Kabir and others, 'The Role of Training in Building Awareness about Formalin Abuse: Evidence from Bangladesh' (2018) 11 *International Journal of Islamic and Middle Eastern Finance and Management* 96; Md Hoque and others, 'Quantitative Risk Assessment for Formalin Treatment in Fish Preservation: Food Safety Concern in Local Market of Bangladesh' (2016) 6 *Procedia Food Science* 151; Rahman and others (n 57).

⁴⁴⁹ *ibid*.

the direct 'intent to deceive' in the traditional legal sense, which could complicate prosecution under the current framework.⁴⁵⁰

In practice, proving intent in food adulteration is notoriously difficult. In order to successfully prosecuting under fraud-based laws, concrete evidence that links an individual to the adulteration and shows they were aware of the harm is required. This typically involves chemical analysis of the food product, which must be clearly linked to the accused through additional documentary or testimonial evidence demonstrating their awareness and deliberate involvement. Consumers are generally inexperienced and would fail to notice the differences between higher quality and lower quality food.⁴⁵¹ This makes it difficult to make manufacturers and sellers responsible.⁴⁵²

Furthermore, when regulatory bodies compromise evidence, consumers face an even greater evidential burden. The BSTI case exemplifies how regulatory lapses obstruct justice and impairs the consumer's ability to prove fraud.⁴⁵³ BSTI was found to have deliberately destroyed test samples and altered case details during the prosecution of companies accused of selling unsafe food. The deliberate evidence tampering protected certain manufacturers and concealed information about adulteration from coming to light.⁴⁵⁴ Such actions severely compromise the legal process, especially where proving fraudulent intent is necessary. Consumers need to be able to trust regulatory-verified information when buying. When these bodies misbehave or neglect consumers, they betray trust and weaken consumer rights protections. This is especially harmful in misrepresentation cases where consumers must prove they were deliberately misled about a product's quality or safety.

Indeed, section 17 may not be well-suited to police and enforce such widespread practices though it may be better suited to addressing clear, intentional misrepresentations in transactional relationships. Therefore, a transition to a strict liability framework, focusing on the condition of the product rather than the mental state of the producer or distributor, would better serve the goals of food safety regulations regarding public health. This approach finds precedent in various areas of consumer protection law, such as notable product liability

⁴⁵⁰ Cruse (n 14) 342.

⁴⁵¹ This view was also endorsed by the court in the case of *United States v Two Bags, Each Containing 110 Pounds, Poppy Seeds* 147 F2d 123 (6th Cir 1945) at 128.

⁴⁵² Domitilla Vincenzo, 'Product Liability from a Comparative Perspective: What Kinds of Protection?', *The Language of Law and Food* (1st edn, Routledge 2021) 223;

⁴⁵³ E Hossain, 'BSTI Destroys Evidence, Frames Innocents: Court' *New Age* (21 January 2020)

<<https://www.newagebd.net/article/97234/bsti-destroys-evidence-frames-innocents-cou>> accessed 27 April 2024.

⁴⁵⁴ The evidence also points to the need for a transparent and accountable food safety public governance framework. See Chapter 4 of this thesis.

cases in UK and US.⁴⁵⁵ Hence, regulatory authorities must first prioritise enforcing standards based on the food's condition and preventing harmful food from entering the supply chain, rather than focusing solely on proving wrongful intent. This approach offers more immediate consumer protection, although it may still not address the underlying causes of pervasive food adulteration.

Therefore, this shift reorients the legal lens towards the safety and transparency of food products. A preventive framework that focuses on traceability and comprehensive labelling could offer a more effective socio-legal approach.⁴⁵⁶ Traceability makes every stage of the supply chain transparent and accountable, allowing regulators to detect and address adulteration at its source. Clear, mandatory labelling empowers consumers with information about product origins and composition, facilitating informed choices and reducing reliance on prosecutorial burdens. The goal is to try and possibly reduce the risk of harm. Although it is logical to abandon a fraud-based approach for immediate consumer protection, fraud laws may still have a place in instances where intentional adulteration for profit is clearly evident.

3.2.3 Inadequacies in Addressing 'Safety' Concerns

As mentioned in the previous chapter, Bangladesh continues to use antiquated sales laws from the colonial 1930s as the basis for food quality standards. In particular, the loose principle of 'merchantable quality',⁴⁵⁷ whereas the English Act has moved to using the term 'satisfactory quality'.⁴⁵⁸ Goods do not need to be of top quality to be considered of satisfactory quality; they must simply meet the reasonable expectations of the average consumer, considering the nature of the goods and the price paid. For instance, *Jewson Ltd v Boyhan* (2003) and *BS Brown & Sons v Craiks Ltd* (1970) illustrate the broader criterion, where the goods performed their basic functions adequately even if they did not maximise potential advantages or meet higher expectations.⁴⁵⁹ Furthermore, goods must be fit for the purposes for which they are commonly supplied, but they do not need to be fit for every conceivable purpose, especially unusual or highly specific ones not typically expected by an average consumer. *Jewson v Boyhan* (2003) and *Balmoral Group Ltd v Borealis (UK) Ltd*

⁴⁵⁵ *Escola v Coca Cola Bottling Co*, 24 Cal2d 453 (1944); *Donoghue v Stevenson* (n 80); *Grant v Australian Knitting Mills Ltd* (n 376). *A v National Blood Authority* [2001] 3 All ER 289; *Worsley v Tambrands Ltd* [2000] PIQR P95 95.

⁴⁵⁶ See Chapters 5, 6, 7 of this thesis.

⁴⁵⁷ Bangladeshi Sale of Goods Act s 16(2).

⁴⁵⁸ English Sale of Goods Act s 14(2).

⁴⁵⁹ *Jewson Ltd v Boyhan* [2003] EWCA Civ 1030. *BS Brown & Sons v Craiks Ltd* (n 416).

(2006) demonstrate that goods suitable for general purposes may not be suitable for very specialised applications unless they are expressly stated in the sale contract.⁴⁶⁰

Moreover, higher-quality and more expensive goods are expected to be defect-free. In *Clegg v Andersson* (2003), a premium-priced yacht was expected to be nearly perfect.⁴⁶¹ The actual usability of the product in its intended market also matters. *Britvic Soft Drinks Ltd v Messer UK Ltd* (2002) shows that even if a product meets technical standards, benzene (even in harmless amounts) could damage commercial or reputational value, making it unsatisfactory.⁴⁶² Additionally, goods must also comply with relevant laws and regulations to be considered as satisfactory quality. The cases *Niblett Ltd v Confectioners Materials Co Ltd* (1921)⁴⁶³ and *Pears (Newark) Ltd v Omega Proteins Ltd* (2009) demonstrate that even if a product is technically usable, trademark infringement or non-compliance with hygiene regulations can render a product unsatisfactory.⁴⁶⁴

As Atiyah points out, the Sale of Goods Act (1979) did not explicitly require goods to be safe to meet merchantability before the amendments.⁴⁶⁵ However, case law, especially regarding motor vehicles, established a precedent that goods deemed unsafe for use were not considered merchantable.⁴⁶⁶ The inclusion of 'safety' in section 14(2b)(d)⁴⁶⁷ makes explicit what was previously inferred through case law: safety is a key element of the 'satisfactory quality' standard.⁴⁶⁸ Consequently, this shift requires goods to perform their intended functions and be safe for all intended uses.

Building on this, Goode and McKendrick elaborate on the practical considerations of safety.⁴⁶⁹ They note that the safety of goods can be context-dependent, meaning that goods may be safe for one purpose but not for another. As a result, it is essential for the seller to clearly specify this in the contract. Additionally, it is incumbent on the seller to provide clear instructions on the safe use of the goods. If the seller provides adequate instructions and warnings about the use of the product, the product is considered to meet the satisfactory quality standard concerning safety. However, if such instructions are lacking, the quality

⁴⁶⁰ *Jewson Ltd v Boyhan* (n 541); *Balmoral Group Ltd v Borealis UK Ltd* [2006] 2 Lloyds Rep 629.

⁴⁶¹ *Clegg v Andersson (t/a Nordic Marine)* [2003] EWCA Civ 320.

⁴⁶² *Britvic Soft Drinks Ltd v Messer UK Ltd* (n 410).

⁴⁶³ *Niblett v Confectioners' Materials Co Ltd* [1921] 3 KB 387.

⁴⁶⁴ *Pears (Newark) Ltd v Omega Proteins Ltd* [2009] EWHC 1070.

⁴⁶⁵ Atiyah and others (n 315) 153.

⁴⁶⁶ See, *Unity Finance v Mitford* [1965] 109 Sol Jo 70 (strictly a case of fundamental breach); *Bernstein v Pamson Motors (Golders Green) Ltd* [1987] 2 All ER 220; *Lee v York Coach & Marine* [1977] RTR 35;

⁴⁶⁷ Sale of Goods Act s 14(2b)(d).

⁴⁶⁸ Atiyah and others (n 315) 153.

⁴⁶⁹ Royston Goode and Ewan McKendrick, *Goode and McKendrick on Commercial Law* (6th edn, Penguin Books 2020) 372.

could be deemed unsatisfactory due to safety concerns. The integration of safety into the definition of satisfactory quality conforms with the reasonable expectations of a buyer concerning the safety of the product. In turn, sellers are required to ensure that goods are safe for all intended purposes and to provide all necessary information and warnings to prevent misuse or hazards. Thus, this approach to safety implies that the standards for satisfactory quality are not just about the functional and aesthetic aspects of goods but is also fundamentally about their safety.

On the other hand, the continued use of the term 'merchantable quality' in the Bangladeshi Sale of Goods Act (1930) raises important questions about the implications for consumer protection against food adulteration. The first concerns legal ambiguity. As discussed above, the term 'merchantable quality' was historically interpreted within a commercial context, primarily focuses on whether goods can be sold under the description by which they are marketed. This could lead to ambiguity in enforcement, particularly for food adulteration cases where the safety and health implications may not directly impact the saleability of the goods in the short term.

The interpretation of 'merchantable quality' are addressed by an Irish case, *James Elliot Construction Ltd v Irish Asphalt Ltd* (2011).⁴⁷⁰ The case addressed the contractual liability of a supplier of defective building materials to a buyer/builder. However, the judge's decision provided important clarification on two key points of law relevant to the broader debate. Firstly, the judge rejected the accepted English position, as demonstrated in the case *Aswan v Lupdine* (1987), which held that for commercial buyers, goods only needed to be fit for one of their common purposes to be considered merchantable.⁴⁷¹ Instead, the Irish judge applied a more demanding standard, typically associated with consumer sales, whereby goods must be fit for all common purposes to meet the 'merchantable quality' threshold. This decision favoured the position of the buyer over the seller in a commercial sales contract.

Secondly, the judge's interpretation pre-empted the recommendations of Ireland's Sales Law Review Group, an expert body tasked with advising on reforms to the sale of goods laws. Inspired by the UK's position, the group recommended replacing the archaic 'merchantable quality' requirement with the modern 'satisfactory quality' standard.⁴⁷² Under their proposed

⁴⁷⁰ *James Elliot Construction Ltd v Irish Asphalt Ltd* [2011] IEHC 269. This case is a welcome development because it addresses a number of key questions about the meaning of merchantable quality for the first time in Irish law. See, Fidelma White, 'The Meaning of Merchantable Quality: James Elliot Construction LTD v Irish Asphalt LTD' (2012) 47 Irish Jurist (NS) 225, 232.

⁴⁷¹ *Aswan Engineering Establishment Co v Lupdine Ltd* (n 424).

⁴⁷² Sales Law Review Group, 'Report on the Legislation Governing the Sale of Goods and Supply of Services' (Dublin 2011) (Pm. A11/1576) para 4.43.

definition, goods would be deemed satisfactory quality if ‘they meet the standard that a reasonable person would regard as satisfactory, taking account of any description of the goods, the price (if relevant) and all other relevant circumstances’.⁴⁷³ Notably, this recommendation made no distinction between commercial and consumer buyers in terms of the quality standard applied.

Although the aforementioned cases may point to the need for Bangladesh to transition from the antiquated ‘merchantable quality’ to the more robust ‘satisfactory quality’ standard, it is arguable whether such legislative amendments alone would be sufficient to effectively tackle the deeply entrenched issue of food adulteration in the country. The introduction of a ‘satisfactory quality’ standard may enhance the legal framework by broadening the criteria for assessing goods, but this standard primarily focuses on ensuring that goods meet reasonable consumer expectations in appearance, safety, and durability. However, the definition itself does not directly tackle the hidden nature of food adulteration. This is because adulterated food could sometimes pass the basic tests of satisfactory quality as perceived by an average consumer, especially when the adulteration does not immediately affect the look or basic function of the food.

Besides, the enforcement of the ‘satisfactory quality’ standard requires sophisticated detection techniques, especially in cases of chemical adulterants and other non-visible alterations that can easily evade basic quality checks.⁴⁷⁴ The current regulatory control system in Bangladesh lacks the tools or technologies required to properly identify and monitor such advanced forms of adulteration, hence applying this standard becomes difficult.⁴⁷⁵

Furthermore, the philosophical lens of the social contract theory, as articulated by Locke⁴⁷⁶ and Rousseau⁴⁷⁷ posits that individuals consent to surrender certain freedoms to a governing body in exchange for protection of their remaining rights. The idea reinforces the imperative for stringent food safety laws, as such laws exemplify the government's duty to protect its citizens under the social contract. Governments, as the custodians of public welfare, have a fundamental obligation to protect citizens from harm. This responsibility is

⁴⁷³ An indicative list of specific aspects of quality should apply alongside the general definition in appropriate cases, including, in particular, fitness for all the purposes for which goods of the kind in question are commonly supplied: *ibid* 4.48.

⁴⁷⁴ Louise Manning and Jan Soon, ‘Developing Systems to Control Food Adulteration’ (2014) 49 *Food Policy* 23, 30. J Rees, *Food Adulteration and Food Fraud* (Reaktion Books 2020) 13, 58; Prasanna Vasu and Asha Martin, ‘Chemical Adulterants in Food: Recent Challenges’ in H Umesh Hebbar and others (eds), *Engineering Aspects of Food Quality and Safety* (Springer International Publishing 2023).

⁴⁷⁵ See Chapters 4 and 5 of this thesis.

⁴⁷⁶ John Locke, *Two Treatises of Government* (Awnsham and John Churchill 1698).

⁴⁷⁷ Jean Rousseau, *The Social Contract* (Amsterdam: Chez Marc-Michel Rey 1762).

embodied in stringent standards for food safety that include both preventative monitoring and high-quality standards. These ensure the state fulfills its duty in safeguarding the health and rights of all citizens, particularly the most vulnerable.⁴⁷⁸

3.2.4 Challenges of Sale by Sample Clause

The sale by sample clause poses considerable difficulties in addressing intricate instances of food adulteration due to its focus on 'reasonable examination' and 'visual inspection' of samples. Instances such as *Steels & Busks* (1956), where PNP in rubber could not be identified by visual examination, demonstrate that numerous food adulterants are likewise imperceptible to both the unaided eye and conventional inspection techniques.⁴⁷⁹ For example, the 2013 horsemeat scandal across Europe exposed how processed horsemeat, visually indistinguishable from beef, circumvented traditional inspection protocols.⁴⁸⁰ Hence, food adulterants that mimic the expected characteristics of genuine products remain undetectable under the clause's parameters.

Moreover, the 2008 melamine contamination crisis in China exemplifies how reliance on visual inspection could enable public health disasters. Melamine, a nitrogen-rich compound, was deliberately introduced into milk to falsify protein levels in standard nitrogen-based tests. Unlike conventional adulterants such as urea that could be detectable through basic chemical analysis, melamine evaded detection precisely because it was designed to circumvent existing inspection methods. Consequently, renal damage in thousands, including infants, and a public health emergency on an unprecedented scale.⁴⁸¹ Therefore, sale by sample clause, with its outdated reliance on visual and apparent defects, would be inadequate to prevent or address such adulteration.

The melamine case further reveals the deliberate concealment that complicates the sale by sample framework. Farmers, seemingly oblivious to melamine's presence in so-called 'protein powder', participated in a system that profited from widespread adulteration. By 2005, knowledge of melamine contamination was prevalent in industry circles, yet the deception persisted unchecked.⁴⁸² The sale by sample doctrine, with its narrow focus on

⁴⁷⁸ John Rawls, *A Theory of Justice* (Revised edition, Harvard University Press 1999). For a discussion on vulnerable consumers, see Chapter 6 of this thesis.

⁴⁷⁹ *Steels & Busks Ltd v Bleecker Bik & Co Ltd* (n 437).

⁴⁸⁰ F Lawrence, *Not On the Label: What Really Goes into the Food on Your Plate* (Penguin UK 2013) ch 1; Francesco Montanari, Cesare Varallo and Daniele Pisanello, 'Food Fraud in the EU' (2016) 7 *European Journal of Risk Regulation* 197.

⁴⁸¹ R Yang and others, 'Milk Adulteration with Melamine in China: Crisis and Response' (2009) 1(2) *Quality Assurance and Safety of Crops & Foods* 111.

⁴⁸² Adam Tehrani and Henry Pontell, 'Corporate Crime and State Legitimacy: The 2008 Chinese Melamine Milk Scandal' (2015) 63 *Crime, Law and Social Change* 247, 255; Gordon Fairclough, 'Tainting of Milk Is Open Secret

visible discrepancies, would fail to account for covert adulterants intentionally designed to evade detection.

The doctrine of *caveat emptor* exacerbates matters. Traditionally, by placing the burden of inspection on the buyer, it presumes an ability to detect adulterants that, in reality, is beyond the capability of even trained inspectors without advanced tools.⁴⁸³ Thus, In cases of food adulteration, where defects are hidden and often chemical, the principle of 'buyer beware' offers no meaningful protection Food safety standards and expectations of consumer protection necessitate a higher duty of disclosure from sellers, which the traditional doctrine does not account for.

The onus of proof imposed on the buyer presents an additional impediment. In food adulteration cases, establishing a discrepancy between the bulk goods and the sample is particularly onerous because adulterants may not be immediately apparent and can degrade over time. This burden is intensified by the doctrine's restriction to contractual parties, which often excludes end consumers who are the individuals most vulnerable to harm. Legal interpretations further constrain buyers by disallowing claims that rely on characteristics discernible only through unconventional methods. Given evolving adulteration techniques, which exploit precisely these limitations to evade detection, this becomes particularly problematic.

Overall, the doctrine remains an anachronism with its narrow focus on visible and apparent defects fails to address the more covert risks that modern food adulterations present. The reliance on reactive measures, such as visual inspection and post-sale litigation, ignores the importance of preventive mechanisms in ensuring food safety. As the melamine case demonstrates, even when adulteration is widespread and known within industry circles, it could escape detection by regulatory frameworks that rely on outdated methods. However,

in China' *Wall Street Journal* (4 November 2008) <<https://www.wsj.com/articles/SB122567367498791713>> accessed 23 April 2024.

⁴⁸³ For example, olive oil is often laced with cheaper oils such as sunflower or palm. This type of fraud has been documented in Italy and Spain, which are major olive oil producers. Adulterated products pass visual and taste tests, thereby making it to detect them without chemical testing: 'Police in Spain and Italy Seize 5,000 Litres of Adulterated Olive Oil in Raids | Europe' *The Guardian* (Europe, 4 December 2023) <<https://www.theguardian.com/world/2023/dec/04/police-in-spain-and-italy-seize-5000-litres-of-adulterated-olive-oil-in-raids>> accessed 23 April 2024; Honey laundering involves adulterating honey with cheaper sugar syrups such as high-fructose corn syrup or rice syrup to increase volume and profit. Isotopic ratio mass spectrometry or nuclear magnetic resonance testing are needed to detect this adulteration: European Anti-Fraud Office, '(No) Sugar for My Honey: OLAF Investigates Honey Fraud - European Commission' <https://anti-fraud.ec.europa.eu/media-corner/news/no-sugar-my-honey-olaf-investigates-honey-fraud-2023-03-23_en> accessed 23 April 2024; Chilli and curry powders contained Sudan Red, a carcinogenic industrial dye. It made spices look fresher and better by enhancing their colour. The dye is not detectable through visual inspections alone and poses serious health risks: K Baker, 'Illegal Dyes in the Food Industry: Colouring Our Judgment' (*foodmanufacture.co.uk*, 17 July 2021) <<https://www.foodmanufacture.co.uk/Article/2021/07/17/Food-safety-and-illegal-dyes-colouring-our-judgment>> accessed 23 April 2024. Momtaz, Bubli and Khan (n 91) 1.

the issue was not solely the failure of inspection. It was also the absence of preventive measures capable of detecting and deterring adulteration at its source. Hence, the solution lies in a government-led, proactive approach to food safety. It is imperative for governments to prioritise enforcement, introduce advanced testing protocols, and ensure compliance throughout the food supply chain.⁴⁸⁴

3.2.5 Limitations of Legal Remedies for Contractual Misrepresentation

Legal remedies for misrepresentation, such as rescission, restitution, and damages, are important tools for rectifying transactions when deception occurs.⁴⁸⁵ However, *restitution in integrum*, which seeks to restore both parties to their pre-contractual state, is difficult to apply to food adulteration. Food is perishable and consumable which renders this principle impossible.⁴⁸⁶ Firstly, the very nature of food means that once it is consumed or has perished, it cannot be returned or restored to its original state. This characteristic makes the typical process of returning goods to the seller impractical in the context of restitution. Even if the food remains uneaten, its condition may deteriorate over time, thus altering its original state and complicating any effort to restore the initial conditions of the contract.

Restitution is also limited because food adulteration is often discovered after consumption or significant deterioration. Once the food is consumed, it cannot be returned or restored, making rescission unfeasible. Indeed, permitting consumers to rescind the contract post-consumption would pose the risk of unjust enrichment, wherein buyers might consume the product without paying for it, disadvantaging even an unwitting seller unfairly prejudiced. Additionally, because food adulteration typically entails low-value, high-volume transactions, pursuing individual claims for restitution or rescission is generally economically unfeasible. Furthermore, the secondary nature of seller prejudice is highlighted by *Halpern v Halpern's* (2006) emphasis on avoiding unjust enrichment at the seller's expense.⁴⁸⁷ Given these impediments, the courts rarely pursue *restitution in integrum* for food adulteration. Instead, alternative remedies like compensatory damages are considered. These seek to restore the buyer's loss rather than a literal undoing of the transaction.

⁴⁸⁴ Riefa (n 162) 101.

⁴⁸⁵ Steven Shavell, *Foundations of Economic Analysis of Law* (Harvard University Press 2004). Richard A Posner, *Economic Analysis of Law* (9th edn, Wolters Kluwer 2014). Robert Cooter and Thomas Ullen, 'An Economic Theory of Contract Law', *Law & Economics* (6th edn, Pearson 2011) 297–298.

⁴⁸⁶ André Naidoo, 'Misrepresentation', *Complete Contract Law* (1st edn, Oxford University Press 2021) para 13.5.3.

⁴⁸⁷ *Halpern v Halpern* [2006] EWHC 1728 (Comm).

The challenge of partial consumption exacerbates restitution claims. Even when only part of the food is consumed, the buyer may have already derived some benefit, rendering full restitution difficult to justify. Courts are unlikely to order full rescission if the buyer has already used the product, particularly in cases where only part of the food was found to be adulterated post-consumption. This presents an additional obstacle in seeking fair redress for adulteration, as buyers may not be able to fully reverse the transaction upon discovering the issue. For example, consumers and impacted businesses struggled to get redress for the EU Horsemeat scandal and Chinese Melamine scandal. Rescission or restitution were impractical because the adulteration was discovered post-consumption or disposal of the food.⁴⁸⁸

Since there is no statute definition of 'perish', it has traditionally meant the total destruction of goods. This view has been expanded by several court rulings to include conditions that affect goods' usability and fundamental qualities beyond physical destruction. *Horn v Minister of Food* (1948) involved 33 tonnes of potatoes that rotted due to the seller's negligence, rendering them useless.⁴⁸⁹ However, Morris J. determined that the potatoes still technically met the definition of potatoes, despite their condition. Thus, section 7 transferred risk to the buyer, but the buyer still had to pay.⁴⁹⁰ This decision implies that the mere alteration in a product's condition does not inherently mean it has perished in the legal sense.

Another development occurred in *Barrow; Lane and Ballard Ltd v. Philip Philips & Co. Ltd* (1929),⁴⁹¹ wherein a large portion of a specific lot of goods had vanished. The case involved 700 bags of Chinese groundnut, with 150 bags delivered and 109 discovered stolen at the time of contract, whereas the remainder had disappeared. Wright J. ruled that since the contract pertained to an indivisible parcel, the loss of a significant portion effectively meant all had perished. This ruling demonstrated that even partial disappearance could invalidate a contract if the goods are indivisible.

Moreover, as discussed earlier, proving fraudulent intent, a key requirement under section 17 of the Contract Act, is especially difficult in complex supply chains, where sellers may be

⁴⁸⁸ An Jingjing, 'International Law and Food Adulteration in China: Innovation of Remedy Mechanisms' (2018) 15 Manchester Journal of International Economic Law 238, 241; Lin Zhang, 'Engineering Compulsory Food Safety Liability Insurance in China: A Joint Perspective of Public and Private International Law' (2016) 9 Journal of East Asia and International Law 341, 347; Umberto Izzo, 'Awakening the Sleeping Dog: The Promises and Pitfalls of Enforcing Food Information Rules via Tort Law', *Le regole del mercato agroalimentare tra sicurezza e concorrenza* (2020) 6.

⁴⁸⁹ *Horn v Minister of Food* [1948] 2 All ER 1036, 65 TLR 106.

⁴⁹⁰ Sale of Goods Act s 7.

⁴⁹¹ *Barrow; Lane and Ballard Ltd v Philip Philips & Co Ltd* [1929] 1KB 574.

oblivious to adulteration introduced by other parties.⁴⁹² Many cases thus fall under misrepresentation rather than fraud, as proving intent to deceive remains elusive. In Bangladesh, where food adulteration is pervasive, the limitations of traditional misrepresentation remedies are particularly pronounced. The fragmented nature of the food supply chain and the prevalent reliance on informal intermediaries complicate tracing the source of adulteration and hold the responsible parties accountable. The lack of transparency potentially hinders the ability to prove misrepresentation or fraud, particularly when the adulteration occurs at a stage distant from the consumer or the original vendor.

Additionally, judicial decisions such as *Horn v Minister of Food* (1948) and *Barrow, Lane and Ballard Ltd v Philip Philips & Co. Ltd* (1929) have expanded the legal understanding of 'perish' beyond physical destruction to include conditions affecting usability. Food products frequently undergo substantial alterations in their fundamental characteristics which could complicate contract enforcement and the transfer of risk.

These difficulties compel the legal system to turn towards prevention through traceability mechanisms. The implementation of traceability enables enhanced monitoring of products across the entire supply chain to augment transparency and accountability. Government-backed traceability could effectively mitigate the spread of adulterated food to consumers by facilitating the identification of adulteration sources.⁴⁹³

3.2.6 Restrictions in the Scope of Misrepresentation Laws

This sub-section will examine how key English misrepresentation cases do not quite consider widespread and public health-centric issues associated with fraudulent practices in the food industry. It should be noted that these cases are not directly related to food adulteration. Nevertheless, they have been used as supplementary examples to highlight the need for tailored regulations and legal frameworks that account for the unique risks associated with food adulteration, rather than solely relying on general misrepresentation principles.

Firstly, the *Bisset v Wilkinson* (1927) sharply challenges the legality of misrepresentation as a remedy for widespread food adulteration.⁴⁹⁴ The problem revolves mostly on the difference between fact and opinion. This distinction lies at the core of misrepresentation law, yet one

⁴⁹² The Contract Act s 17.

⁴⁹³ See Chapter 5 of this thesis.

⁴⁹⁴ *Bisset v Wilkinson* [1927] AC 177.

that becomes increasingly blurred in the modern food industry. For a case to be actionable, the misrepresented fact must have directly induced the representee to enter the contract.⁴⁹⁵ In cases of fraudulent adulteration, the challenge is proving that the adulteration was known to the seller (fraudulent) and that it was a fact presented to the buyer, on which the buyer relied in making the purchase decision. In *Bisset v Wilkinson*, the Privy Council's court ruled that the appellant's statement about the land's sheep capacity was an opinion, not a fact. This classification, based on both parties' equal knowledge (or lack thereof) of the land's untested nature, shows misrepresentation principles' limitations.

One could argue that *Bisset v Wilkinson* illuminates the challenge of applying a legal doctrine anchored in the binary logic of fact versus opinion to the multifaceted and often ambiguous field of product quality, composition, and safety. Indeed, factors such as purity claims, nutritional value, and the ethos of 'organic' certifications obscure the distinction between subjective branding and objective misrepresentation.⁴⁹⁶ The foregoing analysis precisely highlights the hurdle of proving the causal link between the misrepresented fact and the buyer's decision to enter the contract. Under the shadow of food adulteration scandals, this doctrinal rigidity inhibits effective legal recourse. Moreover, the web of supplier chains, distribution channels, and customer perceptions complicates the direct, clear link between a specific misrepresentation and a buyer's purchase choice.

In *Bisset v Wilkinson*, the individualised, contractual focus of misrepresentation law contrasts with the systemic, public health-oriented nature of food adulteration. Although the decision is made by the Privy Council, it serves as persuasive precedent rather than binding authority in many common law jurisdictions, including Bangladesh. Misrepresentation may work in clear cases of deception in bilateral transactions, but it does not address the societal implications and the need for proactive, comprehensive food safety regulations.

Secondly, *Edgington v Fitzmaurice* (1885) illustrates the legal principles of fraudulent misrepresentation in financial transactions and securities law,⁴⁹⁷ though its direct application to food adulteration is limited. *Edgington v Fitzmaurice* hinges on the court's distinction

⁴⁹⁵ Naidoo (n 487) 416.

⁴⁹⁶ P Sarma, 'Investigating Consumers' Preference on Fresh Vegetables in Bangladesh: Best-Worst Scaling Approach' (2020) 24(1) Bangladesh Agricultural University 0015, 0022; Afjal Hossain and others, 'The Role of Private Companies in Improving Nutrition of Consumer Groups in a Developing Country: A Hedonic Analysis of Tilapia Attributes in Bangladesh' (2022) 34 Journal of Applied Aquaculture 598; Mohammed Hoque, Md Alam and Kulsuma Nahid, 'Health Consciousness and Its Effect on Perceived Knowledge, and Belief in the Purchase Intent of Liquid Milk: Consumer Insights from an Emerging Market' (2018) 7 Foods 150; MB Talukder and others, 'Mindful Consumers and New Marketing Strategies for the Restaurant Business: Evidence of Bangladesh', *Social Media Strategies for Tourism Interactivity* (IGI Global 2024) ch 10.

⁴⁹⁷ *Edgington v Fitzmaurice* [1885] 29 Ch D 459, 50 JP 52.

between statements of intention and statements of material fact. The court set a precedent by ruling that the directors' representations about using the raised funds were factual claims, not just intentions. Misrepresenting the purpose of a financial investment is a material misrepresentation that can invalidate a contract and warrant compensation, according to this precedent. Hence, the court ruled that investors can rely on such representations when making investment decisions and that misrepresenting material facts is deceitful.

The clear-cut, bilateral contractual relationship between the company and the investor in *Edgington* that is characterised by well-defined inducement and reliance, do not map neatly onto sprawling, multi-party interactions typical of the food sector. Moreover, *Edgington*'s prioritisation of financial harm over public health impacts shows a regulatory myopia. Food adulteration, by its very nature, implicates broader societal harms such as diminished trust, potential health crises, and the erosion of consumer rights, all of which are surpass bilateral contractual remedies.

Importantly, the *Edgington v Fitzmaurice* case is also limited in its ability to address the power imbalances and information asymmetries that often characterise the food industry.⁴⁹⁸ In contrast to the relatively equal footing of the company and investor in the financial context, consumers in the food system frequently lack the knowledge and bargaining power to effectively spot and challenge adulteration.

Furthermore, in *Zurich v Hayward* (2016), the Supreme Court's ruled that an action in misrepresentation must be material to induce the party to enter into the contract, not that the party must believe in the truth of the misrepresentation.⁴⁹⁹ For instance, misrepresentations or misleading information on product labels can induce consumers to purchase products they might not have bought if they were aware of the true nature of the product. Even if consumers are somewhat sceptical about the veracity of certain claims (e.g., 'all-natural' or 'organic'), these claims could still materially influence purchasing decisions,⁵⁰⁰ much like how

⁴⁹⁸ Benjamin Wood and others, 'Market Strategies Used by Processed Food Manufacturers to Increase and Consolidate Their Power: A Systematic Review and Document Analysis' (2021) 17 *Globalisation and Health* 17; Sheraz Malik and Martin Hingley, 'Consumer Demand Information as a Re-Balancing Tool for Power Asymmetry between Food Retailers and Suppliers' (2021) 23(2) *Economia agro-alimentare* 1; Francesca Minarelli and others, 'Asymmetric Information along the Food Supply Chain: A Review of the Literature' 1.

⁴⁹⁹ *Zurich v Hayward* [2016] UKSC 48.

⁵⁰⁰ Shanjida Chowdhury and others, 'An Empirical Study on the Factors Affecting Organic Food Purchasing Behavior in Bangladesh: Analysing a Few Factors' (2021) 4 *Academy of Strategic Management Journal* 1; Khadiza Rahman, 'Understanding the Consumer Behaviour towards Organic Food: A Study of the Bangladesh Market' (2015) 17(4) *Journal of Business and Management* 49; Anushree Tandon and others, 'Behavioural Reasoning Perspectives on Organic Food Purchase' (2020) 154 *Appetite* 1; Samia Ayyub, Muhammad Asif and Muhammad Nawaz, 'Drivers of Organic Food Purchase Intention in a Developing Country: The Mediating Role of Trust' (2021) 11 *Sage* 1.

Zurich was influenced by Hayward's exaggerated injury claims despite their suspicions. The point is not whether consumers believe the claims fully. Instead, the key issue is whether the claims materially influence their decision to buy. This implies that food labelling must be accurate and honest to protect consumers and warrants regulatory scrutiny.⁵⁰¹

In light of the limitations identified through the analysis of the key misrepresentation cases as supplementary examples, it could be concluded that classical misrepresentation law indeed serves a necessary role in addressing deceit in contractual relationships. However, it is arguably rendered a blunt instrument for tackling widespread food adulteration because of its inherent constraints, including its reliance on clear distinctions between facts and opinions, the limitations in enforcement and scope, as well as its primary focus on individual disputes rather than comprehensive public health protection. Indeed, the ineffectiveness of misrepresentation laws in preventing food fraud reveals a deeper problem with legal modernity; namely, the collision between the lingering institutions of a bygone industrial era and the increasing complexity of a globalised, digital marketplace. The imperative, then, is to forge a governance framework that is as vigorous and multidimensional as the systems it seeks to regulate.

3.3 Problems with Tort Liability Approach

The inadequacy of contractual remedies forces the interpreter to opt for non-contractual remedies. From this angle, the problem is negligence, i.e. the traditional criteria for imputation of liability.⁵⁰² This topic was touched upon in previous chapter, which introduced the fundamental concepts and limitations of tort law within the broader framework of private law. In doing so, it set the stage for understanding why traditional legal approaches often fall short in providing effective consumer protection against defective food products. Building on this foundation, the following section delves deeper into the specific legal and practical challenges of establishing causation in negligence claims. This is a key component because the burden of proof typically lies with the injured consumer to demonstrate the producer's negligence to receive compensation. Such complexity could make it difficult even for manufacturers to pinpoint the stage at which the defect occurred, let alone consumers. Consequently, consumers seeking legal protection through traditional civil tort remedies might find the process cumbersome and difficult to follow.

⁵⁰¹ See Chapters 6 and 7 of this thesis.

⁵⁰² The Anglo-Saxon tort law has known the general tort of negligence since the fundamental case concerning producer liability *Donoghue v Stevenson*. Andrea D'Alessio, 'The Second Slice of the Cake Liability for Defective Food Products between Tradition and Innovation' in Salvatore Mancuso, *Law and Food: Regulatory Recipes of Culinary Issues* (1st edn, Routledge 2021) 206.

As noted by Swanson, causation is a legal and practical hurdle across both the UK and US in food cases.⁵⁰³ This difficulty arises from the numerous processes and handling stages that food products undergo before consumption.⁵⁰⁴ Moreover, Mildred's analysis of the history of product liability litigation in England suggests that evidential problems in relation to causation and the existence of a defect are at the root, even where liability is strict.⁵⁰⁵

3.3.1 Introduction to Causation in Negligence

Before proceeding with its critique, one must grasp what causation is. The fundamental question centers on whether the causal outcomes of negligent actions should indeed influence liability, particularly in light of the fact that such outcomes frequently escape the direct control of the negligent party. This philosophical enquiry has its roots in earlier jurisprudential discussions by figures such as Holmes, who have highlighted the complex chain of events triggered by seemingly simple actions:

When a man commits an assault and battery with a pistol, his only act is to contract the muscles of his arm and forefinger in a certain way, but it is the delight of elementary writers to point out what a vast series of physical changes must take place before the harm is done.⁵⁰⁶

In the context of food adulteration, this discussion assumes a distinct perspective. The act of introducing an adulterated product into the market by a manufacturer, whether intentional or due to negligence, sets off a complex chain of distribution and consumption that results in consumer harms. Holmes' observation of the numerous changes that occur post-act is mirrored in the challenge of establishing a clear causal link between the initial act of adulteration and the eventual injury.

Furthermore, the incidence of food adulteration appears to be influenced by the role of luck in negligence, as critiqued by Alexander⁵⁰⁷ and Ripstein.⁵⁰⁸ In such instances, the

⁵⁰³ Alayne Swanson, 'Food Scares and Product Tampering - European and US Perspectives' (1990) 15(2) International Legal Practitioner 46, 47. L Kolarek, 'An Assessment of the Limitations and Strengths of Existing Product Liability Protections' (*QUBSLJ*, 16 June 2017) <<https://blogs.qub.ac.uk/studentlawjournal/2017/06/16/an-assessment-of-the-limitations-and-strengths-of-existing-product-liability-protections/>> accessed 25 April 2024.

⁵⁰⁴ Swanson (n 503) 47.

⁵⁰⁵ Mark Mildred, 'Pitfalls in Product Liability' [2007] JBL 141; Eric Baskind, Greg Osborne and Lee Roach, 'Product Liability', *Commercial Law* (4th edn, Oxford University Press 2022) 514.

⁵⁰⁶ Oliver Holmes, *The Common Law* (Boston: Little, Brown 1881) 91.

⁵⁰⁷ Larry Alexander, 'Causation and Corrective Justice: Does Tort Law Make Sense?' (1987) 6 Law and Philosophy 1.

⁵⁰⁸ Arthur Ripstein, 'Some Recent Obituaries of Tort Law' (1998) 48(4) The University of Toronto Law Journal 561; Arthur Ripstein, 'Closing the Gap' (2007) 9(1) Theoretical Inquiries in Law 61.

randomness with which consumers are burdened by adulterated products might seem like luck, thereby undermining the consistency and justice of making manufacturers answerable. Moreover, unlike in criminal law, tort law does not recognise 'attempt liability',⁵⁰⁹ which means that actions that result in potential harm but are not realised, such as narrowly avoided food safety breaches, are seldom punished. Critiques argue that the focus on outcomes create moral inconsistencies by failing to address narrowly avoided harm.⁵¹⁰

Thus, the debates around negligence in tort law resonate deeply with food safety regulation. They compel one to consider whether existing legal frameworks sufficiently address both the moral and practical dimensions of negligence in cases of food adulteration. The following section will now consider caselaw to show that the most difficult part for the plaintiff to prove is causation.

3.3.2 Causal Problems in Food Adulteration Cases

The establishment of causation in food adulteration cases presents significant challenges within the tort law framework. These are discussed below.

3.3.2.1 Limitations of the 'But-For' Test

In tort law, the 'but-for' test serves as the fundamental approach to establishing factual causation in negligence cases. Essentially, the claimant must prove not only that the manufacturer owes a duty of care to him, but that this duty has been broken. In other words, he must prove that the manufacturer failed to take reasonable care. In *Donoghue v Stevenson*,⁵¹¹ Lord McMillan said:

The burden of proof must always be upon the injured party to establish that the defect which caused the injury was present in the article when it left the hands of the ... [defendant] ... There is no presumption of negligence in such a case as the present, nor is there any justification for applying the maxim, *res ipsa loquitur*.⁵¹² Negligence must be ... proved.⁵¹³

⁵⁰⁹ Ripstein, 'Theories of the Common Law of Torts' (n 363). Jeremy Waldron, 'Moments of Carelessness and Massive Loss' in David G Owen (ed), *The Philosophical Foundations of Tort Law* (Oxford University Press 1997) 387–408.

⁵¹⁰ Arthur Ripstein and Benjamin C Zipursky, 'Corrective Justice in an Age of Mass Torts' in Gerald J Postema (ed), *Philosophy and the Law of Torts* (Cambridge University Press 2001) 241–249; John Goldberg and Benjamin Zipursky, 'Tort Law and Moral Luck' (2007) 92(6) *Cornell Law Review* 1123.

⁵¹¹ *Donoghue v Stevenson* (n 72).

⁵¹² *res ipsa loquitur* means 'the thing speaks for itself' i.e., an occurrence which proves negligence unless the defendant can prove otherwise. See, Baskind, Osborne and Roach (n 506) 495.

⁵¹³ *Donoghue v Stevenson* (n 72) 623.

Indeed, in the muddy waters of food adulteration, causation sometimes becomes a slippery fish to grasp. When examining a case of food adulteration, one must consider whether the impure or altered food product directly caused harm to the consumer. The legal framework commonly employs the 'but-for' causation test: but for the adulteration of the food, would the consumer have suffered the injury? However, in food adulteration cases, causation often becomes obscured by overlapping factors. For instance, a consumer might get sick from adulterated food, but improper storage or unrelated vulnerabilities, such as pre-existing health conditions, could also be contributing factors. In such situations, the direct causal link between adulteration and harm might be difficult to establish.

The Australian case of *Grant v Australian Knitting Mills* followed the precedent set in *Donoghue v Stevenson*.⁵¹⁴ *Grant* involved a claimant who suffered dermatitis from woollen underwear containing harmful chemicals. The Australian court applied the principles of *Donoghue* to find the manufacturer liable, as the defect causing harm was present at the time of manufacture. Although the claimant in this case had a satisfactory outcome, it emphasises the clear evidentiary difficulties in establishing causation, especially when additional variables may contribute to the harm. Indeed, *Grant* illustrates the successful application of *Donoghue's* principles in the Australian context, despite the complexities of the case.

In contrast, other cases demonstrate the difficulties of applying the 'but-for' test in negligence claims. In *Evans v Triplex Safety Glass Co Ltd* (1936), the court could not conclusively determine that because alternative plausible causes could not be ruled out.⁵¹⁵ Similarly, in *Daniels v White & Sons* (1938), the court noted the challenges in proving that ingestion of the adulterated drink was the exclusive cause of the plaintiff's gastric distress, following the discovery of a corrosive chemical in a lemonade drink.⁵¹⁶ Hence, these examples illustrate that even when a product is defective or adulterated, establishing a direct causal link to the harm requires strong proof.

Another illustration of these challenges is seen in *Barnett v Chelsea and Kensington Hospital Management Committee* (1969), where the court applied the 'but-for' test to determine causation in a medical negligence claim.⁵¹⁷ Although the doctor's failure to examine and treat the victim constituted negligence, the court held that causation was not established because the victim would have died from arsenic poisoning irrespective of the

⁵¹⁴ *Grant v Australian Knitting Mills Ltd* (n 295).

⁵¹⁵ *Evans v Triplex Safety Glass* [1936] 1 All ER 283.

⁵¹⁶ *Daniels v R White and Sons and Tarbard* [1938] 4 All ER 258.

⁵¹⁷ *Barnett v Chelsea and Kensington Hospital Management Committee* [1969] 1 QB 428.

breach. The judgment shows the rigidity of the 'but-for' test in cases where harm is inevitable or where multiple causal factors are present.

Therefore, these examples illustrate the difficulty in linking the direct cause (adulteration) to the effect (injury), especially when a definitive, scientific connection cannot be clearly proved. In essence, the 'but-for' test, though useful in straightforward scenarios, often neglects complex causal relationships in instances of food adulteration or product defects, especially when other elements help to explain the additional the harm.

3.3.2.2 Evidentiary Challenges and Burden of Proof

A second causal issue arises because the plaintiff must ordinarily establish each of the elements of a tort on the balance of probabilities, in the face of factual uncertainty. The 'but for' test requires the plaintiff to prove that, but for the defendant's negligence, the harm would not have occurred. In food defect cases, quite often the plaintiff has suffered the alleged harm in the privacy of their homes without witnesses to confirm the occurrence.⁵¹⁸ Since plaintiffs must mostly rely on circumstantial evidence and their own testimony to prove that the defendant's negligence, in the form of a defective food product, was the cause of their injury or illness, this evidentiary challenge could provide a major obstacle for them in proving causality.

Here, the doctrine of *res ipsa loquitur* emerges as a judicial balm, by offering an inferential pathway where direct evidence is unavailable. This doctrine allows the court to infer negligence on the part of the defendant based on the mere occurrence of the accident or injury, provided that the plaintiff can establish certain prerequisites.⁵¹⁹ For instance, in *McGhee v National Coal Board* (1973), the HOL inferred causation despite the plaintiff's inability to conclusively prove it, due to the defendant's material contribution to the risk of harm.⁵²⁰ Similarly, in *Fairchild v Glenhaven Funeral Services Ltd* (2003), a case involving multiple defendants, the HOL held that a material increase in the risk of harm caused by each defendant's negligence was sufficient to establish causation, even where scientific uncertainty precluded identifying the specific employer responsible for the claimant's mesothelioma.⁵²¹

⁵¹⁸ James Henderson, Aaron Twerski and Douglas Kysar, *Products Liability: Problems and Process* (4th edn, Aspen Publishing 2000) 96.

⁵¹⁹ Charles E Carpenter, 'The Doctrine of Res Ipsa Loquitur' (1934) 1(4) University of Chicago Law Review 519, 520–523.

⁵²⁰ *McGhee v National Coal Board* [1973] 1 WLR 1.

⁵²¹ *Fairchild v Glenhaven Funeral Services Ltd* [2003] 1 AC 32.

In Bangladesh, food defect cases are difficult to litigate due to systemic factors including pervasive food adulteration, inadequate regulatory enforcement, and limited access to scientific testing. Typically, administrative penalties are sought rather than private litigation. For instance, a significant proportion of fish and vegetables in Bangladeshi markets are laced with formalin, a known carcinogen, yet no major tort claims have been brought against suppliers.⁵²² Similarly, despite high-profile food safety scandals, such as lead-contaminated turmeric and pesticide-laden dried fish, litigation under tort law remains conspicuously absent.⁵²³ This lacuna is a more general critique of the socio-legal architecture than it is only indication of evidentiary stringency.

Further deepening this conflict is judicial reluctance to adapt tort principles to food safety. Unlike English courts, Bangladeshi courts have yet to embrace doctrines that alleviate the plaintiff's burden of proof. Economic constraints exacerbate the issue by deterring litigation in a society where the cost of justice often eclipses its perceived benefits. The systematic inertia also denies victims recourse and helps to fuel a culture of impunity amongst FBOs as well.

Hence, a modification could involve shifting the burden of proof back to the defendant once the plaintiff has made a *prima facie* case that their harm/injury plausibly resulted from the defendant's actions.⁵²⁴ This suggestion is consistent with precedents set by the UK HOL.⁵²⁵ Alternatively, courts might adopt a more flexible standard of proof in cases involving systemic risks and interconnected failures. This kind of approach acknowledges the cumulative nature of harm in food adulteration, whereby failures often span the entirety of the food supply chain. Admittedly, these reforms are not without risks. Overly lenient standards could invite frivolous claims, thereby burdening courts and conscientious businesses alike. Yet, the greater danger lies in the status quo, where strict evidentiary requirements stifle legitimate claims, diminish public confidence, and undermine deterrence.

3.3.2.3 The Multiple Precautions Problem

In food defect cases, liability often hinges on the defendant's failure to implement multiple, complementary precautions that collectively address diverse hazards.⁵²⁶ The problem arises when multiple causal elements or a series of interconnected failures or lapses contribute to

⁵²² Tamanna (n 4).

⁵²³ *ibid.*

⁵²⁴ Solaiman and Ali (n 171) 661.

⁵²⁵ *McGhee v National Coal Board* (n 521). *Fairchild v Glenhaven Funeral Services Ltd* (n 522).

⁵²⁶ Ripstein, 'Theories of the Common Law of Torts' (n 363).

harm rather than a single, isolated breach of duty. Courts must then determine whether the defendant's actions fell below the standard of care by not adopting all necessary measures to prevent foreseeable harm. Food adulteration is particularly prone to this problem since chemical, biological, and physical risks require a coordinated safety net.

Gilboa's critique of negligence in relation to medical safety highlights that the availability of multiple safety measures does not absolve a defendant from liability if the untaken precaution could have prevented the harm.⁵²⁷ Here, the philosophical underpinnings of negligence in the medical field that could be analogously applied to food safety because food safety demands a coordinated approach, whereby complementary measures, such as rigorous contamination checks and sourcing protocols operate as interdependent safeguards. For example, thorough contamination checks might mitigate chemical adulteration, yet unless combined with strict sourcing protocol, such actions may not be able to address concerns related with biological dangers.⁵²⁸ When harm occurs even with some precautions being in place, courts must grapple with whether the defendant's failure to adopt complementary measures constitutes a breach of the standard of care.

The decision in *Tomlinson v Congleton Borough Council* (2003) illustrates the balancing exercise required to determine the standard of care.⁵²⁹ The court emphasised that the duty of care must be proportionate to the likelihood and severity of harm, the social utility of the activity, and the practicality of further precautions. In *Tomlinson*, reasonable measures such as signage and swimming prohibitions were deemed sufficient to address foreseeable risks without imposing undue restrictions on public access. Whilst this proportionality principle is helpful, its application to food adulteration has to consider the special difficulties presented by cumulative risks.

Fitzgerald v Lane (1988) distinguishes between independent causative factors, which may not meet the threshold for liability, and causation arising from events forming a unified chain.⁵³⁰ Similarly, the *Fairchild* litigation concerning asbestos-related conditions illustrates how courts have addressed cumulative risks where scientific uncertainty complicates

⁵²⁷ Maytal Gilboa, 'Multiple Reasonable Behaviors Cases: The Problem of Causal Underdetermination in Tort Law' (2019) 25(2) Legal Theory 77, 92.

⁵²⁸ Lipp (n 11); Lorna Christie and Sophie Mountcastle, 'Food Fraud' <<https://post.parliament.uk/research-briefings/post-pn-0624/>> accessed 25 April 2024; D Goodwin, 'Foreign Body Contamination Implications for Food Manufacturing' (*New Food Magazine*) <<https://www.newfoodmagazine.com/article/13789/foreign-body-contamination-and-the-implications-for-the-food-manufacturing-sector/>> accessed 25 April 2024; Markus Lipp, 'Ingredient Adulteration Undermines Food Safety' <<https://www.food-safety.com/articles/3803-ingredient-adulteration-undermines-food-safety>> accessed 25 April 2024.

⁵²⁹ *Tomlinson v Congleton Borough Council* [2003] UKHL 47.

⁵³⁰ *Fitzgerald v Lane* [1988] 2 All ER 961.

attribution of harm.⁵³¹ In *Fairchild*, the HOL acknowledged that cumulative exposures to asbestos could collectively establish causation despite the impossibility of identifying a specific exposure as the cause. Although *Fairchild* mostly focuses on occupational harm, its rationale on unified causation chains provides a conceptual framework for food adulteration cases. Under such circumstances, lapses in contamination checks and sourcing protocols usually constitute part of a unified chain of failures, that makes harm foreseeable and preventable. The direct transferability of *Fairchild* is limited though. Food safety encompasses a wider array of risks and causal factors and requires a tailored application of these principles. Nevertheless, the *Fairchild* rationale emphasise the necessity for courts to outgrow isolated breaches of duty and recognise the cumulative impact of interconnected precautions.

Claimants also face major evidentiary challenges in proving which untaken precaution caused the harm. Cases such as *Evans v Triplex Safety Glass Co Ltd* and *Wilsher v Essex Area Health Authority* (1988) demonstrate the difficulty of establishing causation in complex scenarios, particularly where scientific uncertainty complicates the chain of events.⁵³² In food adulteration, the variety of hazards including chemical, biological, and physical ones further muddles attribution.

Hence, the multiple precautions problem demonstrates the limitations of traditional negligence law in addressing interconnected failures. An integrated and holistic safety framework is therefore much needed. Courts are required to do a balancing exercise of the practicality of additional precautions against the severity of harm and the broader societal implications.⁵³³ In food adulteration cases, the balance would mean ensuring liability does not disproportionately penalise manufacturers whilst still protecting public health. Indeed, the approach also requires an understanding of the cumulative impact of interconnected risks instead of remaining within tort law's conventional focus on isolated breaches of duty.

3.3.3 Systemic Limitations of Tort Law in Addressing Food Adulteration

Tort law, by design, is retrospective as it compensates victims after harm has occurred rather than preventing harm proactively. Adulterated food often introduces harmful

⁵³¹ *Fairchild v Glenhaven Funeral Services Ltd* (n 522).

⁵³² *Evans v Triplex Safety Glass* (n 516). *Wilsher v Essex Area Health Authority* [1988] AC 1074.

⁵³³ Kirsty Horsey and Erika Rackley, 'Breach of Duty: The Standard of Care' in Kirsty Horsey and Erika Rackley, *Tort Law* (8th edn, Oxford University Press 2023) 254.

substances, such as heavy metals or illegal additives, that may not cause immediate symptoms but lead to chronic health conditions over time. Tort law, however, focuses on demonstrable and immediate harm. A notable example is the lead-adulterated turmeric crisis in Bangladesh in 2019, where the harm materialised before detection which left millions exposed.⁵³⁴ Tort law's insistence on direct causation and immediate damage often leaves such latent risks unaddressed and thus ill-suited for preemptive or long-term protective measures.

The structural shortcomings of tort law in addressing cumulative harm are paralleled in asbestos and tobacco litigation. In both contexts, harm often becomes evident only after prolonged exposure. For example, earlier rulings such as *Holtby v Bringham and Cowan* (2000) and *Barker v Corus* (2006) established principles of proportionate liability, which limited defendants' liability to their contribution to the harm or risk.⁵³⁵ Although this approach acknowledged the cumulative nature of harm, it placed a significant evidentiary burden on plaintiffs and often resulted in under-compensation when precise evidence was unavailable.

Similarly, in food adulteration cases, victims face significant evidentiary burdens in proving the extent of each actor's contribution across opaque and transnational supply chains. For mesothelioma cases, the Compensation Act (2006) reversed Barker's proportionate liability principle by reinstating joint and several liability and ensuring that victims could recover full compensation irrespective of apportionment challenges.⁵³⁶ However, Barker continues to govern *Fairchild* cases not covered by the Act, as confirmed in *Zurich Insurance v International Energy Group* (2015). Consequently, this results in a fractured framework whereby victims of systemic harm not covered by the Act remain vulnerable to the evidentiary burdens and inequities shown in *Barker* and *Holtby*.

Furthermore, in addressing cumulative harm, tort law usually calls for extensive proportionality analyses and robust scientific evidence. For instance, in *R (British American Tobacco & Ors) v Secretary of State for Health* (2016), the High Court upheld the Standardised Packaging of Tobacco Products Regulations (2015) despite industry claims that they were disproportionate.⁵³⁷ The case demonstrates the court's reliance on comprehensive evidence and analysis to validate the proportionality of interventions meant to protect long term-term public health. Likewise, establishing a causal link between

⁵³⁴ Kris Newby, 'Turmeric's Unexpected Link to Lead Poisoning in Bangladesh' (*Stanford Medicine Magazine*, 2 June 2023) <<https://stanmed.stanford.edu/turmeric-lead-risk-detect/>> accessed 11 September 2024.

⁵³⁵ *Holtby v Bringham and Cowan* [2000] 3 All ER 423. *Barker v Corus UK Ltd* [2006] 2 AC 572.

⁵³⁶ Compensation Act 2006.

⁵³⁷ *R (British American Tobacco & Ors) v Secretary of State for Health* [2016] EWHC 1169 (Admin). Standardised Packaging of Tobacco Products Regulations 2015.

prolonged exposure to adulterated food and chronic illnesses often necessitates longitudinal studies, expert testimony, and extensive scientific research. These could be difficult to find, especially when evidence is sparse, contested, or incomplete. Indeed, the lack of strong scientific research or the time-consuming process of compiling such data compromises the effectiveness of tort law in such situations.

The covert nature of food adulteration also reveals a parallel with the behavioural manipulation observed in tobacco cases. Substances such as excessive sugar, salt, or artificial flavourings, which can exploit behavioural dependencies and drive overconsumption. Emerging research indicates that high-sugar or highly processed foods may engage neurochemical pathways, similar to those that are activated by tobacco's addictive properties, which could make cravings and habitual consumption stronger.⁵³⁸ Should food adulteration cultivate addiction-like dependencies, it may necessitate a review of how such practices are regulated.

The judicial commentary in *BAT v UK Department of Health (2016)* is instructive here.⁵³⁹ Justice Green dismissed specific studies put forth by the business and also blasted its unwillingness to provide internal research connecting advertising to consumer behaviour. He echoed the conclusions of Judge Kessler in *USA v Philip Morris Inc. (2006)* in which she found that internal documents revealed that tobacco companies understood the strong causal relationship between advertising and consumer reactions.⁵⁴⁰ Both cases show the deliberate tactics employed by tobacco companies to exploit behavioural dependencies, therefore further solidifying the limitations of litigation alone in tackling such manipulation.

Consequently, the limitations of tort law necessitate a shift toward proactive regulatory interventions to mitigate harm. The success of standardised packaging laws highlights the importance of regulatory measures in addressing public health issues where litigation alone has faltered. For example, in *R (British American Tobacco UK Ltd) v Secretary of State for Health (2016)*, legal challenges by tobacco firms against these regulations were dismissed. Subsequently, this case paved the way for reforms that mandated graphic warnings covering 65% of cigarette packets with additional warnings on the top of the pack.⁵⁴¹

⁵³⁸ Susan Prescott and others, 'The Intersection of Ultra-Processed Foods, Neuropsychiatric Disorders, and Neurolaw: Implications for Criminal Justice' (2024) 5 *NeuroSci* 354.

⁵³⁹ *BAT v UK Department of Health* [2016] EWHC 1169 (Admin).

⁵⁴⁰ *USA v Philip Morris Inc* [2006] US v Philip Morris, Inc, Civil Action No 99-CV-2496 (GK) (DDC Sep 7, 2004).

⁵⁴¹ *R (On the Application Of) British American Tobacco UK Limited & Others v The Secretary of State for Health* [2016] EWCA Civ 1182. Kirsty Horsey and Erika Rackley, 'Product Liability' in Kirsty Horsey and Erika Rackley, *Tort Law* (8th edn, Oxford University Press 2023) 382.

Equally, in food adulteration context, a similar regulatory approach is needed. For example, stricter controls on supply chains, enforced transparency through independent audits, and outright bans on harmful adulterants could address root causes. However, food adulteration backdrop demonstrates that market participants often operate under substantial pressure to reduce costs and increase margins. This economic impetus incentivises concealment and innovation in avoiding detection, as seen in cases where adulterants are intentionally used to mimic legitimate ingredients or qualities. Indeed, expecting businesses to disclose these practices voluntarily, without robust oversight, is quite unrealistic and counterproductive as well, since it creates a facade of accountability whilst perpetuating systemic harm.

Also, the power imbalance between individual claimants and corporate defendants further illustrates tort law's limitations. Large corporations frequently leverage substantial financial and legal resources to deploy strategies such as Strategic Lawsuits Against Public Participation (SLAPPs). There are cases where large organisations will essentially 'bury' a claimant in litigation in order to financially burden the claimant. Equally, a lot of cases are decided outside of court which does not help a public issue and avoids any negative press. Often such cases come with the need for the claimant to sign an NDA agreement (non-disclosure agreement).⁵⁴² The infamous 'McLibel' case, where two environmental activists were sued for defamation by McDonald's, arguably epitomises this imbalance.⁵⁴³ Although the activists eventually secured a partial victory at the European Court of Human Rights, the prolonged financial and emotional toll of the litigation illustrates the barriers faced by individuals when contesting powerful corporations.

Thus, the inherent limitations of tort law, coupled with strategic corporate defences, hinder its capacity to ensure accountability or deter harmful practices. Be it in food adulteration or product safety contexts, individuals remain vulnerable to systemic risks posed by negligent corporate behavior without strong regulatory oversight. Initiatives to counter such tactics, including the EU's 2024 directive against SLAPPs, arguably signify progress in leveling the playing field.⁵⁴⁴ However, these measures have not yet been widely implemented.

It is therefore evident from tobacco and asbestos litigation that complementary regulatory measures are necessary to mend the safety net to protect public health. Overall, tort law, in its current form, is structurally insufficient to address food adulteration. Its reactive nature,

⁵⁴² Amnesty International, 'Trafigura: A Toxic Journey' (*Amnesty International*, 11 April 2016) <<https://www.amnesty.org/en/latest/news/2016/04/trafigura-a-toxic-journey/>> accessed 3 December 2024.

⁵⁴³ *Steel & Morris v United Kingdom* [2005] EMLR 314.

⁵⁴⁴ Directive (EU) 2024/1069 of the European Parliament and of the Council of 11 April 2024 on protecting persons who engage in public participation from manifestly unfounded claims or abusive court proceedings ('Strategic lawsuits against public participation') [2024] OJ L1069/16.

coupled with reliance on causation and foreseeability, restricts its capacity to address latent and cumulative harm.

3.4 Conclusion

This chapter has critically examined the role private law has played in attempting to address the covert threat of food adulteration through the lenses of contract and tort doctrines. Although misrepresentation, implied conditions, product liability for negligence and deceit have provided some avenues for accountability, the analysis has illuminated their major drawbacks. Amongst the fundamental limitations noted were those pertaining to the privity requirement suppressing contract claims against remote parties, limitations on the scope of misrepresentation laws, heavy burdens of proof for proving fraud, and inadequate addressing of more general public safety issues beyond the individual parties to a transaction.

From the tort standpoint, complicated causation questions make it quite challenging for consumers to get remedies against manufacturers and suppliers engaged in long, hidden supply chains. Tort law's retrospective character which mostly addresses compensation following injury suggests that it might not be best suited for preventing food adulteration, a problem that usually calls for more proactive control and monitoring. Individual tort claims often have narrow focus in addressing the more general public health consequences of food adulteration, which can simultaneously impact numerous consumers. Moreover, the emphasis of tort law on specific cases does not fully solve the more general public safety issues related to food adulteration. Particularly for low-income consumers who are disproportionately impacted by adulterated food, the financial and logistical weight of seeking tort claims usually exceeds the probable benefits. Given the systematic character of food adulteration which often involves large supply chains and widespread practices, individual legal remedies may be insufficient. Finally, it is found that the piecemeal, retroactive approach of private law is insufficient to properly control and discourage food adulteration.

Therefore, it is evident how inadequate conventional contractual and non-contractual legal remedies are in guaranteeing strong consumer protection for food safety. Consequently, the inherent restrictions of the private law model inevitably lead to realising the need for robust public law enforcement and regulatory oversight to properly combat food adulteration. Although private actions can play a supplementary role, they are fundamentally inadequate

as the primary line of defence against this pervasive problem. The next chapter will therefore pivot to the necessity of strong public regulatory and governance regimes.

Part II
Socio-Legal Enforcement Strategies

Chapter 4: A Critical Appraisal of the Food Safety Regulatory and Governance Framework of Bangladesh

4.1 Introduction

This chapter critically appraises the public food safety regulatory and governance framework in Bangladesh. It examines the overarching legal framework governing food safety and identifies key issues hindering effective regulation. This examination lays the foundation for subsequent discussions on institutional features and the roles of key actors in the country's food safety control system. The comprehensive analysis of the BFSA since its inception and the regulatory framework's impact on food adulteration post its establishment represents a novel contribution to the field. The analysis aims to pinpoint areas where the legislative and regulatory system may be strengthened so as to optimise the effectiveness of food safety measures. This chapter offers a road map for reform by critically examining existing practices, legislative loopholes, and institutional challenges to provide insights into the systemic issues that perpetuate food adulteration. In doing so, this holistic approach considers the technical elements of food safety regulation alongside the socio-political setting in which these rules operate.

4.2 Understanding Regulatory Governance and Gauging the Effectiveness of Food Safety Regulation

Academic debates regarding regulation focus on regulatory governance, but measuring its effectiveness is identified as a major obstacle.⁵⁴⁵ Regulatory governance is the complex interaction of regulatory actors and involves both the design and implementation of regulatory and control instruments. The idea is associated with multiple logics of control,⁵⁴⁶ and the rise of the 'regulatory state'.⁵⁴⁷ Although the meaning of 'regulation' remains contested, Levi-Faur's provides a practical definition:

The promulgation of prescriptive rules as well as the monitoring and enforcement of these rules by social, business, and political actors on other social, business, and political actors.⁵⁴⁸

⁵⁴⁵ David Levi-Faur, 'Regulation and Regulatory Governance', *Handbook on the Politics of Regulation* (Edward Elgar 2011) ch 1.

⁵⁴⁶ Martin Lodge and Kai Wegrich, 'Governance as Contested Logics of Control: Europeanized Meat Inspection Regimes in Denmark and Germany' (2011) 18 *Journal of European Public Policy* 90, 90.

⁵⁴⁷ Giandomenico Majone, 'The Rise of the Regulatory State in Europe' (1994) 17(3) *West European Politics* 77.

⁵⁴⁸ Levi-Faur (n 546) 9.

This definition is helpful because it reiterates that regulation is more than just having static set of rules on paper. Rather, it is about continuous monitoring and enforcement which is vitally important for food safety. Levi-Faur's definition also brings out the important power dynamics and interactions that shape Bangladesh's food regulatory process. As this chapter will later reveal, food safety governance in Bangladesh encompasses many institutional relationships, overlapping mandates, and coordination challenges amongst different regulatory bodies. These actors' operations and struggles within this framework can be better understood with this definition.

When it comes to measuring the effectiveness of food safety regulation, scholars have increasingly focused on achieving efficiency in regulatory instruments adopted by governments to solve problems.⁵⁴⁹ Essentially, effectiveness in regulation is broadly understood as goal achievement or the 'level of success towards some objectives that motivated its establishment'.⁵⁵⁰ Effectiveness translates to minimising risks for consumers.⁵⁵¹ However, measuring effectiveness is difficult. Bazzan's empirical review of existing metrics reveals several limitations.⁵⁵² Many metrics are single-item or partial indicators which miss key information on food safety information quality and national response capacities. Secondly, most studies focus on FBOs and overlook perspectives from regulators, enforcement authorities, and consumers. Also, the available data is often fragmented, inaccurate, or non-comparable across countries. Consequently, there is no universally accepted metric that captures the entire food safety system.⁵⁵³ Although recent reports have recognised certain improvements in Bangladesh's food safety system, the present evaluation will offer a more thorough examination of the regulatory effectiveness and areas that still need work.⁵⁵⁴

⁵⁴⁹ B Peters and others, *Designing for Policy Effectiveness: Defining and Understanding a Concept* (1st edn, Cambridge University Press 2018).

⁵⁵⁰ David Levi-Faur, *Handbook on the Politics of Regulation* (Edward Elgar 2011); Jon Birger Skjærseth and Jørgen Wettestad, 'Implementing EU Emissions Trading: Success or Failure?' (2008) 8 *International Environmental Agreements: Politics, Law and Economics* 275; Eva Thomann, *Customised Implementation of European Union Food Safety Policy: United in Diversity?* (Springer International Publishing 2019).

⁵⁵¹ Giulia Bazzan, 'Effective Governance of Food Safety Regulation across EU Member States: Towards Operationalization' (2017) 8 *European Journal of Risk Regulation* 565, 566.

⁵⁵² Giulia Bazzan, *Effective Governance Designs of Food Safety Regulation in the EU: Do Rules Make the Difference?* (Springer International Publishing 2021) 87.

⁵⁵³ D Grace, 'Food Safety Metrics Relevant to Low and Middle Income Countries' (Agriculture, Nutrition & Health Academy 2018) Working Paper 16; Jean Vallée and Sylvain Charlebois, 'Benchmarking Global Food Safety Performances: The Era of Risk Intelligence' (2015) 78 *Journal of Food Protection* 1896.

⁵⁵⁴ B Henderson, 'FAO Evaluates Food Safety in Bangladesh' [2022] *Food Safety Magazine* <<https://www.food-safety.com/articles/7768-fao-evaluates-food-safety-in-bangladesh>> accessed 19 June 2024; Food and Agriculture Organisation of the United Nations, 'Bangladesh Takes a Big Step towards International Food Standards' (*FAO in Bangladesh*, 03 2023) <<https://www.fao.org/bangladesh/news/detail-events/en/c/1635207/>> accessed 23 July 2024; Gill, Hasan and Feed the Future Policy LINK (n 70).

4.3 Gaps in the Legal Apparatus of Food Safety in Bangladesh

This section discusses the first set of persistent issues relating to the gaps in the legal apparatus governing food safety. Bangladesh's approach to food safety is notable for having the highest number of food safety laws in the world.⁵⁵⁵ However, quantity does not necessarily equate to quality or effectiveness.⁵⁵⁶ Hence, the longstanding gaps in key Acts and systemic inefficiencies that impede regulation will be discussed.⁵⁵⁷ The examination also includes a comparative viewpoint by looking at how similar issues are addressed in the legal frameworks of other jurisdictions.

4.3.1 Multiplicity of Legislation and Legislative Overlaps

Beginning with the Penal Code (1860), Bangladeshi food safety laws have evolved over a century. Food adulteration is punishable by six months in prison, a one thousand Bangladeshi Taka (BDT) fine, or both.⁵⁵⁸ Over time, subsequent laws have progressively increased penalties. For repeated offences or large-scale adulteration, the Cantonments Pure Food Act (CPFA 1966) imposed six months to five years of rigorous imprisonment, fines from 100 to 100,000 BDT, and whipping.⁵⁵⁹ The Special Powers Act (1974) increased penalties to death, life imprisonment, or up to fourteen years in prison, plus fines.⁵⁶⁰

Again, in CRPA (2009), the offence of food adulteration is repeated. Section 29 prohibits manufacturing, selling etc. of goods which are injurious to human health.⁵⁶¹ Sections 41 and 42 have imposed punishment for selling adulterated goods or medicine and mixing prohibited materials in foodstuff.⁵⁶² Both the offences are punishable with imprisonment for a term not exceeding three years, or with fine not exceeding BDT two lacs, or with both. It can

⁵⁵⁵ ANMA Ali, 'Food Safety and Public Health Issues in Bangladesh: A Regulatory' (2013) 8(1) European Food & Feed Law Review 31, 37; A list of all the food safety related rules and regulations can be found here: Bangladesh Food Safety Foundation, 'List of the Food Safety Related Regulations Administered by the Ministry of Food' (*Science & Resources*, 2024) <<https://fsfd.org/science-resources/>> accessed 16 July 2024.

⁵⁵⁶ R Uddin, 'Two Dozen Laws Fail to Ensure Food Safety' *The Business Post* (21 February 2023) <<https://businesspostbd.com/front/2023-02-21/two-dozen-laws-fail-to-ensure-food-safety-2023-02-21>> accessed 16 July 2024.

⁵⁵⁷ Although several laws exist in the books, this discussion will focus on the following laws: The Penal Code, (1860); Cantonments Pure Food Act (1966); the Special Powers Act (1974); the Consumer Rights Protection Act (2009); Food Safety Act (2013); Formalin Control Act (2015); Control of Essential Commodities Act (1956); Iodised Salt Act (2021); Food (Special Courts) Act (1956); Cantonments Pure Food Act (1966).

⁵⁵⁸ Penal Code ss 272 and 273.

⁵⁵⁹ Cantonments Pure Food Act 1966 s 23.

⁵⁶⁰ Special Powers Act 1974 s 25C.

⁵⁶¹ Consumer Rights Protection Act 2009 s 29.

⁵⁶² *ibid* 41 and 42.

be seen that the maximum punishment stipulated under the CRPA (2009) is above the Penal Code (1860) but below the punishments in the CPFA (1966), and much below the penalties (including the death penalty) in Section 25C under Special Powers Act (1974). It should be noted that the CRPA (2009) does not supersede the Sale of Goods Act (1930) in Bangladesh, unlike the UK where the Consumer Rights Act (2015) replaced the earlier Sale of Goods Act.

Thereafter, the FSA (2013) was enacted as a replacement for the PFO (1959) with a particular focus on protecting public health from adulterants.⁵⁶³ Sections 23 to 44 detail a wide range of offences related to food adulteration.⁵⁶⁴ The Act's schedule lists 23 different offence categories and their punishments. Notably, the maximum punishment for the use of adulterants under section 23 includes imprisonment for up to five years and a fine of up to 10 lakh BDT.⁵⁶⁵ The Act also doubles penalties for repeat offenders to five years in prison or a 25 lakh BDT fine.⁵⁶⁶ Furthermore, the Formalin Control Act (FCA 2015) was enacted in the beginning of 2015 and imposes stringent penalties for unauthorised activities related to formalin.⁵⁶⁷ Section 22 of this Act stipulates a penalty of two years of imprisonment or a fine of BDT four lakh for possession of formalin.⁵⁶⁸

More recently, in April 2023, the Cabinet approved a new law that increases penalties for those who produce, store, transfer, transport, supply, distribute, or market unsafe or adulterated food.⁵⁶⁹ The penalties for committing food adulteration include imprisonment ranging from two to five years, a fine of up to BDT 10 lakh, or a combination of both. The enforcement of this law is designated to be carried out through mobile courts and pure food courts. However, the approval of the new food law adds another layer to the existing multiplicity of legislation around food adulteration. Although the law aims to strengthen punitive measures, its relationship with previous laws such as the Penal Code (1860), the CRPA (2009), and the FCA (2015) is uncertain. The new law does not appear to repeal or consolidate the provisions of these earlier laws which already criminalise food adulteration. As a result, there is scope for continued overlap across different pieces of legislation.

⁵⁶³ Preamble of Food Safety Act.

⁵⁶⁴ *ibid* 23 to 44.

⁵⁶⁵ *ibid* 23.

⁵⁶⁶ *ibid*.

⁵⁶⁷ Formalin is a common adulterant that is used to preserve fish and fish feed in Bangladesh. Rahman and others (n 57) 152, 156; Khan and others (n 152) 1576–1578.

⁵⁶⁸ Formalin Control Act 2015 s 22.

⁵⁶⁹ Staff Correspondent, 'Cabinet Clears New Law on Ensuring Food Safety' *Dhaka Tribune* (Dhaka, 10 April 2023) <<https://www.dhakatribune.com/bangladesh/308707/cabinet-clears-new-law-on-ensuring-food-safety>> accessed 16 January 2024.

The overlapping nature of these legislations has been reported to create confusion amongst enforcement authorities and those regulated by them.⁵⁷⁰ Executive Magistrates go for raids in different retailing/wholesaling shops and manufacturing companies, uncertain of which statute to apply, resort to ad-hoc measures, often defaulting to older laws such as the Mobile Courts Act (2009) or the Special Powers Act (1974) and overlooking the directions of FSA (2013).⁵⁷¹ Additionally, retailers, wholesalers, and manufacturers often lack awareness that they are adulterating foods under particular statutes as well the associated risks.⁵⁷²

A particular area of ambiguity lies in the regulation of formalin use in food. Although legal questions arising from this confusion are generally not well-documented, the confusion regarding the acceptable limits of formalin in foods illustrates such ambiguity.⁵⁷³ Officially, GoB has zero tolerance for formalin, but reality is more complicated. The lack of definitive studies on which foods naturally contain formaldehyde and safe levels also contributes to this confusion. This gap in knowledge is highlighted by the Institute of Nutrition and Food Science, University of Dhaka, and the Bangladesh Agricultural Research Council (BARC), which note the natural occurrence of formaldehyde in some foods. BARC studies show that metabolism requires formaldehyde, which is naturally present in the body. If consumed within permissible limits, formaldehyde transforms into less toxic compounds and is excreted. The WHO states fruits, vegetables, milk, meat, and seafood have varying naturally occurring formaldehyde up to 100 micrograms per kg.⁵⁷⁴ Total intake for adults ranges from 1.5-14 mg per day.⁵⁷⁵ Despite the CRPA (2009) and SRO no.235/2010, Rule 3, the DNCRP has not established a laboratory or conducted research on food formalin limits. As a consequence, unclear formaldehyde limits make it difficult to enforce legal bans on formalin adulteration uniformly. Although foods likely have some natural formaldehyde content, but allowable thresholds remain undefined and open to interpretation.

The multiplicity of laws and their overlaps create a regulatory environment that inadvertently facilitates food adulteration. The confusion amongst enforcement agencies regarding the

⁵⁷⁰ National Audit Office, 'Country Paper on Audit on Implementation of Environmental Policy & Role of SAIs in Promoting National Sustainable Development' (Office of the Comptroller and Auditor General (OCAG), the Supreme Audit Institution (SAI) of Bangladesh) 4–5; S Sejan, 'Is Multiplicity of Food Safety laws a Problem?' (*The Daily Observer*) <<https://www.observerbd.com/news.php?id=219836>> accessed 16 July 2024; U Islam, 'Too Many Laws on Adulteration Creating Confusion' (*Bangla Tribune*, 20 June 2019) <<https://en.banglatribune.com/others/news/54913/Too-many-laws-on-adulteration-creating-confusion>> accessed 16 July 2024.

⁵⁷¹ Sejan (n 571).

⁵⁷² *ibid.* Zohra and Uddin (n 64) 147; *ibid.*; Wudan Yan, 'The Vice of Spice: Confronting Lead-Tainted Turmeric' [2023] *Undark* <<https://undark.org/2023/07/19/the-vice-of-spice-confronting-lead-tainted-turmeric/#>> accessed 16 January 2024.

⁵⁷³ National Audit Office (n 571) 7.

⁵⁷⁴ WHO, 'Formaldehyde' (WHO Regional Office for Europe, Copenhagen, Denmark 2001) 4.

⁵⁷⁵ *ibid.*

applicable law could be exploited by adulterators, so potentially enabling them to evade prosecution by asserting procedural irregularities.⁵⁷⁶ Moreover, the multiplicity of laws also dilutes deterrence. When penalties for comparable acts of adulteration differ widely across statutes, enforcement could become inconsistent and punitive measures may lose credibility. The nominal fines imposed under some laws are perceived as operational costs rather than deterrents, with penalised traders reported to quickly resuming their activities.⁵⁷⁷

4.3.1.1 Comparison with Other Jurisdictions

In contrast to Bangladesh's fragmented and piecemeal legislative approach, other jurisdictions have adopted more consolidated legal frameworks for food safety and adulteration. New South Wales' Food Act (2003) singularly and unequivocally criminalises any act that renders food unsafe or unsuitable for consumption.⁵⁷⁸ In England, Food Safety Act (1990) encapsulates the full spectrum of food adulteration offences within a single framework. Section 7 criminalises the sale of food that fails to meet safety requirements, including food that is harmful to health, unfit for human consumption, or adulterated.⁵⁷⁹ Section 14 prohibits the sale of food that is not of the nature, quality, or substance demanded by the purchaser, whilst section 15 addresses offences related to the false description or presentation of food.⁵⁸⁰

Perhaps most instructive is India's Food Safety and Standards Act (FSSA 2006) which amalgamates earlier acts⁵⁸¹ and orders into a unified statute.⁵⁸² This Act aims to create a singular authoritative point for all matters relating to food safety and standards, streamlining food safety governance under a central regulatory body.⁵⁸³ Offences such as adulteration are addressed with specificity, defining the scope of what constitutes an adulterant⁵⁸⁴ and

⁵⁷⁶ M Huda, 'Adulterated-Food Culture in Bangladesh: A New Form of Epidemic' *Dhaka Tribune* (8 June 2023) <<https://www.dhakatribune.com/bangladesh/284997/adulterated-food-culture-in-bangladesh-a-new-form>> accessed 11 June 2024.

⁵⁷⁷ Aktar (n 48) 204.

⁵⁷⁸ Food Act 2003 ss 14 and 15.

⁵⁷⁹ Food Safety Act 1990 s 7.

⁵⁸⁰ *ibid* 14 and 15.

⁵⁸¹ Prevention of Food Adulteration Act 1954; Fruit Products Order 1955; Meat Food Products Order 1973; Vegetable Oil Products (Control) Order 1947; Edible Oils Packaging (Regulation) Order 1998; Solvent Extracted Oil, Deoiled Meal, Edible Flour and (Control) Order 1967; Milk and Milk Products Order 1992; and any other order issued under the Essential Commodities Act 1955.

⁵⁸² Preamble of the Food Safety and Standards Act 2006; Rathna Gaur and Aqueeda Khan, 'An Analysis on the Existing Food Laws in India with Special Reference to the Food Safety and Standards Act, 2006 (FSSAI)' (2022) 17(6) *European Food & Feed Law Review* 414.

⁵⁸³ Gaur and Khan (n 583).

⁵⁸⁴ Food Safety and Standards Act 2006 s 3(a).

establishing corresponding penalties⁵⁸⁵ thus helping to create uniformity in the food industry.⁵⁸⁶

Despite the introduction of the FSA (2013) in Bangladesh, it largely replicates provisions of the outdated PFO (1959) without consolidating existing law.⁵⁸⁷ Ideally, with the introduction of FSA (2013), redundant or conflicting legislation should have been repealed to prevent legislative overlap. Hence, there is a recognised need to streamline the multiple laws in Bangladesh to create a unified and integrated legislative framework.⁵⁸⁸ The road to legislative unification ought to be about creating a coherent framework that explicitly repeals redundant or conflicting statutes, whilst providing clear, enforceable guidelines for regulators, businesses, and the judiciary. As human rights advocates' aptly observe, 'Too many laws on one issue results in lack of coordination; to avoid complexity, a new law can be formulated which will state unequivocally the highest punishment'.⁵⁸⁹ This approach could streamline the process for the authorities as well as convey a strong message to the food industry that adulteration would no longer be tolerated as a cost of running business.

Thus, Bangladeshi food laws are trapped in a cycle of inefficiency. The fragmented status quo has proven ineffective in safeguarding public health. Indeed, by adopting a unified legal framework, similar to those of England, India, and New South Wales, the GoB could turn its regulatory framework into one that is not just enforceable but, more importantly, also respected.

4.3.2 Obsolescent and Redundant Laws

Bangladesh's food safety legal framework is cluttered by outdated and redundant enactments which obscure regulatory coherence and weaken, rather than strengthen, governance. One such law is the Control of Essential Commodities Act (1956), enacted to regulate the production, treatment, keeping, storage, movement, transport, supply, distribution, disposal, acquisition, use, or consumption' of foodstuffs.⁵⁹⁰ Section 3 of this Act vests the government with the authority to control the production, supply, and distribution of

⁵⁸⁵ *ibid* 48–67.

⁵⁸⁶ Gaur and Khan (n 583).

⁵⁸⁷ Chowdhury, 'The Food Safety Act of 2013: A Critical Analysis and Reform Proposals' (n 33) 23.

⁵⁸⁸ Ahmed, 'Food Adulteration and Right to Food Safety in Bangladesh: An Analysis of Legal Frameworks' (n 33) 7, 18. National Audit Office (n 571) 5.

⁵⁸⁹ Islam, 'Too Many Laws on Adulteration Creating Confusion' (n 571).

⁵⁹⁰ Preamble of Control of Essential Commodities Act 1956.

essential commodities, including 'foodstuffs' as defined in Section 2(a)(i).⁵⁹¹ Despite its validity, its application to contemporary food safety issues is virtually non-existent.⁵⁹²

Similarly, the Food (Special Courts) Act (1956), which was established to expedite the trial process for those accused of offences related to foodstuffs, has outlived its purpose.⁵⁹³ Any violation of notified orders concerning foodstuffs is considered a breach of this Act. Notably, a violation of any provision of the Control of Essential Commodities Act (1956) by a regulatee, such as a food manufacturer, is subject to trial by special magistrates appointed under the Food (Special Courts) Act (1956).⁵⁹⁴ This Act exclusively grants jurisdiction to these special courts for such offences, thereby disregarding the provisions of its predecessor, the Control of Essential Commodities Act (1956). However, the Food (Special Courts) Act (1956) is rarely, if ever, invoked to address violations such as food adulteration. Its relevance has been eclipsed by newer laws such as the FSA (2013), yet it persists, anachronistic and underutilised, thereby cluttering the legal framework. The failure to repeal or integrate this Act shows a broader systemic reluctance to modernise the legal framework.

Even seemingly newer legislation such as the Iodised Salt Act (2021) demonstrates the risks of regulatory redundancy.⁵⁹⁵ This Act aims to combat iodine deficiency disorders and mandates the exclusive use and sale of iodised salt. Despite replacing the outdated Deficiency Disorders Prevention Act (1989), the Iodised Salt Act (2021) introduces discrepancies by mandating iodine concentrations of 30–50 parts per million (ppm) in contrast to the BSTI's standard of 20–50 ppm.⁵⁹⁶ The slight variation in their specified concentrations could lead to unnecessary confusion amongst salt producers and possibly distributors. the co-existence of these overlapping standards under different authorities could be argued to dilute the regulatory clarity that is important for attaining public health objectives. They could provide opportunities for non-compliance, as offenders are able to exploit inconsistencies to evade penalties.

⁵⁹¹ Section 2(1)(a)(i) of the Act states that 'foodstuffs' have been defined as an 'essential commodity'. *ibid* 2(1)(a)(i).

⁵⁹² Ahmed, 'Food Adulteration and Right to Food Safety in Bangladesh: An Analysis of Legal Frameworks' (n 33) 7, 16.

⁵⁹³ Food (Special Courts) Act 1956.

⁵⁹⁴ *ibid* 3.

⁵⁹⁵ Iodised Salt Act 2021.

⁵⁹⁶ *ibid* 10(4)(d). See, Mohammad Habib and others, 'Commercially Available Iodised Salts in Noakhali, Bangladesh: Estimation of Iodine Content, Stability, and Consumer Satisfaction Level' (2023) 2 Food Chemistry Advances 1, 5.

4.3.2.1 Comparison with India

India's approach to salt iodisation offers a relevant and instructive example of a cohesive legislative model. Initially, under the Prevention of Food Adulteration Act,⁵⁹⁷ India imposed a federal ban on the sale of non-iodised salt from 1998 to 2000 to address widespread iodine deficiency disorders. However, in 2000, the Prevention of Food Adulteration Act was repealed, leading to a period until 2006 where there was no specific legislation on salt iodisation. This gap potentially risked the public health progress made in controlling iodine deficiency disorders. It was not until the enactment of the Food Safety and Standards Act in 2006 (FSSA (2006)) that the ban on non-iodised salt was reinstated.⁵⁹⁸ Indeed, by consolidating various food safety standards, including iodised salt regulations, into a singular legislative framework, India established a streamlined system that integrated public health objectives with broader food safety goals.⁵⁹⁹ Hence, GoB could emulate India's success by incorporating iodised salt standards into the existing framework of the BSTI. There is a potential here to streamline compliance and enhance enforcement by centralising the regulation of iodised salt under one authoritative body, such as the BSTI.

4.3.3 Segregated Standards

The CPFA (1966) stands as a legislative anomaly in Bangladesh's food safety governance. The Act addresses food adulteration but its jurisdiction is restricted within military zones, and cantonment residents.⁶⁰⁰ It prohibits practices such as mixing, colouring, staining, powdering, or coating of food contrary to set rules.⁶⁰¹ It also forbids the preparation or manufacture of adulterated foods,⁶⁰² misbranded or mislabelled foods (where the contents differ from what is indicated on the label),⁶⁰³ foods that are not of the quality claimed,⁶⁰⁴ or other non-compliant foods as outlined in the Act.⁶⁰⁵ Furthermore, the CPFA (1966) explicitly bars anyone from preparing or manufacturing any food that is unsafe, unwholesome, injurious to health, or unfit for human consumption, either directly or indirectly through

⁵⁹⁷ Prevention of Food Adulteration Act.

⁵⁹⁸ Food Safety and Standards Act.

⁵⁹⁹ Karen Codling and others, 'The Legislative Framework for Salt Iodisation in Asia and the Pacific and Its Impact on Programme Implementation' (2017) 20(16) Public Health Nutrition 3008, 3015.

⁶⁰⁰ For more information on the definition and other details of 'cantonment', see sections 2, 3, 5 of the Cantonments Pure Food Act 1924.

⁶⁰¹ Cantonments Pure Food Act s 4.

⁶⁰² *ibid* 5(1)(i).

⁶⁰³ *ibid* 5(1)(ii).

⁶⁰⁴ *ibid* 2(1)(i).

⁶⁰⁵ For example, food produced in premises lacking the appropriate licence or produced in a manner that violates of the awarded licence. *ibid* 5(1)(iii), 5(1)(iv), 5(2).

others.⁶⁰⁶ It also ensures that food is of the nature, substance, or quality that it claims to be or is demanded to be.⁶⁰⁷ The Act broadly defines 'food' to include most consumables, including aerated water, food preparation substances, and even chewing gum. However, this expansive definition includes almost all types of foods, despite the existence of parallel laws such as the PFO (1959) and its subsequent FSA (2013), which apply to the general population and cover the same range of foods as the CPFA (1966).

Having a separate law such as the CPFA (1966) specifically for people in cantonments could be seen as discriminatory and an inefficient use of national resources. Although it ensures safe food for a specific group, but the rationale for not applying a similar law universally across Bangladesh to guarantee safe food for all is questionable. It was a law inherited by Bangladesh from Pakistan after its independence (when Bangladesh was formerly known as East Pakistan), is unique in its focus on cantonments.⁶⁰⁸ The absence of similar laws in other countries, as discussed below, including the fact that no other country except Pakistan seems to find the need for special food safety laws for military personnel or their residential areas, casts doubt on the necessity and practicality of maintaining the CPFA (1966) in Bangladesh's legal framework.

Furthermore, the existence of a separate CPFA (1966) specifically targeting food safety in military zones raises potential issues from the lens of constitutional rights protection in Bangladesh. Specifically, Article 27 of the Constitution states that:

All citizens are equal before law and are entitled to equal protection of law.⁶⁰⁹

The fundamental right to equality reinforces equal application of laws to all citizens regardless of race, religion, or occupation amongst other factors. However, the separate and specific CPFA (1966) only applies to military zones and personnel living in cantonments, which undermines Article 27 because it creates a differentiated priority for food safety based on geography or occupation. Indeed, such a distinction is unjustifiable, especially when food safety is a universal concern that impacts the health and wellbeing of all citizens equally.

The Bangladesh Supreme Court has consistently upheld the importance of Article 27 right to equality in numerous cases. In *Anwar Hossain Chowdhury v Government of the People's*

⁶⁰⁶ *ibid* 6(a).

⁶⁰⁷ *ibid* 7.

⁶⁰⁸ M Siraj, 'Food Safety Legislation in Pakistan: Identifying Entry Points for Public Intervention', *National Food Safety Conference, Lahore* (2004).

⁶⁰⁹ The Constitution of the People's Republic of Bangladesh art 27.

Republic of Bangladesh (1989), the Court rules that equality before law underpins a democratic government and way of life of a civilised society rests.⁶¹⁰ In *Md. Abdul Hye v Government of Bangladesh* (2017), the Court held that any differential treatment without reasonable classification violates the fundamental right to equality.⁶¹¹ Further reinforcing this perspective, the High Court Division in *HRPB v Jatiyo Sangsad* (2015) pronounced that section 32K(a) of the Anti-Corruption Commission Act (2004) was discriminatory.⁶¹² The Court found that requiring prior government sanction to prosecute certain officials for corruption under this section was inconsistent with Article 27 of the Constitution, as it created an unjust classification. This judgment demonstrates the Court's commitment to scrutinising laws that may lead to unequal treatment, even if the differentiation is not explicitly based on the grounds of religion, race, caste, sex, or place of birth.

Thus, the CPFA's (1966) selective jurisdiction compromises the democratic principles of fairness and equality. Food safety laws should serve the entire community without creating legal hierarchies that discriminate based on location or occupation. This becomes even more evident when juxtaposed with practices in other jurisdictions as discussed below.

4.3.3.1 Comparison with Other Jurisdictions

Developed countries such as Australia and the UK, as well as neighbouring India, do not have distinct food safety laws for military zones. For instance, all Australian states and territories follow the same food safety laws. The key piece of legislation is the Food Standards Australia New Zealand Act (1991),⁶¹³ which established Food Standards Australia New Zealand. This is an independent statutory authority responsible for developing and maintaining the Australia New Zealand Food Standards Code.⁶¹⁴ The Code sets clear and comprehensive guidelines for labelling, contaminants, and additives, ensuring consistency in food safety standards nationwide.⁶¹⁵ Importantly, these standards extend to all regions, including military establishments, without the need for separate laws.

⁶¹⁰ *Anwar Hossain Chowdhury v Government of the People's Republic of Bangladesh* [1989] AD 165, 9 BCR, 41 DLR [61].

⁶¹¹ *Md Abdul Hye v Government of Bangladesh* [2017] HCD Writ Petition No. 8932 of 2011.

⁶¹² *HRPB v Jatiyo Sangsad* [2015] HCD 191, 67 DLR [26].

⁶¹³ Food Standards Australia New Zealand Act 1991.

⁶¹⁴ *ibid* 12; FSANZ, 'Food Standards Australia New Zealand' (8 December 2023)

<<https://www.foodstandards.gov.au/about-us>> accessed 16 January 2024.

⁶¹⁵ Food Standards Australia New Zealand, 'Food Standards Code Legislation' (10 January 2024) <<https://www.foodstandards.gov.au/food-standards-code/legislation>> accessed 16 January 2024.

Furthermore, in the UK, the Food Safety Act (1990) and the General Food Regulations (2004) form the backbone of the country's food safety legal framework.⁶¹⁶ The Food Standards Agencies which are independent government departments oversees food safety and hygiene across the UK.⁶¹⁷ These laws are also uniformly applied throughout the UK, including military establishments, without any specific legislation targeting cantonment areas. This cohesive framework avoids the inefficiencies and inequities associated with segmented regulations, such as those in Bangladesh.

Notably, India's framework does not create special provisions for specific regions or groups, such as military zones or cantonments. Instead, the uniform application of the FSSA (2006) by Food Safety and Standards Authority of India (FSSAI) ensures equitable food safety standards for all citizens, irrespective of their location or occupation.⁶¹⁸ The uniform application of food laws in India is demonstrates a developing country's capacity to implement a centralised and comprehensive food law framework. The GoB should consider transitioning to an integrated food safety framework that applies uniformly across all regions and population groups.

4.4 Institutional Evaluation of Food Safety Governance in Bangladesh

Although the legal framework provides the bedrock for food safety governance, its true effectiveness eventually depends on the institutions mandated with implementation. Since there is no model specifically for developing countries,⁶¹⁹ this chapter will adapt Bazzan's robust explanatory model, which outlines the conditions and institutional features that affect the effectiveness of food safety governance.⁶²⁰ The institutional evaluation below focuses on four aspects outlined by Bazzan: independence and accountability of risk assessment, the separation of risk assessment from management, institutional capacity of risk management.

⁶¹⁶ Food Safety Act 1990; Regulation (EC) 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs 2004 OJL139/1; Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety 2002 OJ L 031; Regulation (EC) 853/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific hygiene rules for food of animal origin 2004 OJL138/55; Regulation (EC) 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs [2004] OJL139/1; EU food law, particularly its General Food Law, has historically shaped UK's food regulations, and despite Brexit, many of these EU principles and laws have been retained and amended in the UK, albeit with certain exceptions and changes in governance within Great Britain. Emily Lydgate and Chloe Anthony, 'Brexit, Food Law and the UK's Search for a post-EU Identity' (2022) 85(5) *Modern Law Review* 1168, 1169, 1174, 1176.

⁶¹⁷ John Krebs, 'Establishing a Single, Independent Food Standards Agency: The United Kingdom's Experience' (2004) 59 *Food & Drug Law Journal* 387.

⁶¹⁸ Food Safety and Standards Act ss 4 and 16. Gaur and Khan (n 664) 414.

⁶¹⁹ See Section 4.2. Grace (n 554) 16; Vallée and Charlebois (n 554) 1896.

⁶²⁰ Bazzan (n 553) 96.

Whilst acknowledging the importance of judicial mechanisms in the overall food safety system, this analysis focuses primarily on the administrative and regulatory aspects of food safety governance as outlined by Bazzan's model. This choice fits the breadth and emphasis of the research, which predominantly addresses regulatory institutions and policies. Following closely to Bazzan's approach helps the research to be methodologically consistent and enable more direct comparisons with other studies applying this model. Mobile courts and pure food courts, which run under different values and encounter different set of difficulties than regulatory authorities, have different character and call for different analytical approaches.

Moreover, this emphasis is reinforced by the availability of more solid and consistent data on administrative and regulatory aspects. Conversely, information on the efficiency of mobile courts and pure food courts appear to be more scarce or anecdotal. This thesis is meant to guide legislative changes inside the regulatory framework, where administrative reforms are more easily adopted. Notably, this thesis emphasises this as a vital area for future research by realising the possible relevance of judicial systems without including them in the present analysis.

Having said that, although Bazzan's model is based on developed countries, particularly those in the EU, it provides a useful framework for understanding and improving food safety governance in Bangladesh. This approach is justified for several reasons. Firstly, the EU's food safety governance model serves as an international benchmark, with high standards, comprehensive regulatory frameworks, and robust institutional mechanisms.⁶²¹ Applying these principles to Bangladesh could guide the enhancement of its food safety governance. This is because using EU principles as a reference point allows for an assessment of Bangladesh's food safety governance against internationally recognised food law standards. Two core principles from the EU model are particularly relevant to Bangladesh: the separation of risk assessment from risk management, and the emphasis on transparency in decision-making processes. Bangladesh has already taken steps towards these principles

⁶²¹ Paul Verbruggen, 'Understanding the "New Governance" of Food Safety: Regulatory Enrolment as a Response to Change in Public and Private Power' (2016) 5 Cambridge International Law Journal 418; Hanna Schebesta and Kai Purnhagen, *EU Food Law* (Oxford University Press 2024); A Boer, 'The Role of Scientific Evidence in European Food Assessments' in Ching-Fu Lin and Kuei-Jung Ni, *Food Safety and Technology Governance* (1st edn, Routledge 2023) ch 3; K Askew, "'We Have Heard the Call for Greater Transparency': Europe Boosting Trust in the Science of Food Safety' (*Food Navigator*, 13 February 2019) <<https://www.foodnavigator.com/Article/2019/02/13/We-have-heard-the-call-for-greater-transparency-Europe-boosting-trust-in-the-science-of-food-safety>> accessed 17 July 2024; Julie Chapon, 'Food Safety Standards: Is Bridging the International Divide Possible?' (*Food Safety News*, 9 November 2023) <<https://www.foodsafetynews.com/2023/11/food-safety-standards-is-bridging-the-international-divide-possible/>> accessed 17 July 2024.

with the establishment of the BFSA which aims to coordinate food safety activities across various agencies.⁶²² Yet, full realisation of these principles is still a work in progress.

Secondly, Bazzan's model, which uses national legal frameworks and domestic regulations in 15 EU member states as units of analysis, provides a structured approach to examining formal independence and accountability in food safety governance. However, no regulatory system is perfect and EU model is not without its faults or criticisms.⁶²³ Nevertheless, despite imperfections, the EU model remains one of the most comprehensive and well-developed food safety systems. Furthermore, the notable disparities in resources, infrastructure, and regulatory development between the 15-member states and Bangladesh necessitate careful and selective direct comparisons. Though it is important to clarify that the goal is not for Bangladesh to immediately replicate the EU15 system, but rather to identify core principles and structures that can be gradually adjusted to enhance its food safety governance.

This approach acknowledges that though Bangladesh may not immediately achieve the regulatory sophistication of the EU overnight but incremental progress is both necessary and possible. In order to ensure these steps are both feasible and effective, this evaluation will incorporate the perspectives of various stakeholders in Bangladesh including government regulators, food industry representatives, consumer advocacy groups, and experts. These perspectives would ground the approach in local priorities and challenges when recommending a food safety governance path forward. Figure 1 shows Bangladesh's food safety framework, which must be understood before assessing it:

⁶²² Food Safety Act s 13.

⁶²³ Jack (n 143) 154, 167–168; SAFE, 'Transparency of Food Risk Affairs' (*SAFE - Safe Food Advocacy Europe*, 27 September 2022) <<https://www.safefoodadvocacy.eu/actions/transparency-of-food-risk-affairs/>> accessed 17 July 2024; Tetty Havinga, 'Private Food Safety Standards in the EU' in Harry Bremmers and Kai Purnhagen (eds), *Regulating and Managing Food Safety in the EU: A Legal-Economic Perspective* (Springer International Publishing 2018); Alie Boer, 'Scientific Assessments in European Food Law: Making It Future-Proof' (2019) 108 *Regulatory Toxicology and Pharmacology* 1, 2–5; European Commission, 'The Refit Evaluation of the General Food Law (Regulation (EC) No 178/2002)' (European Commission 2018) Commission Staff Working Document {SWD(2018) 37 final} 10.

New National Food Safety Regulatory Framework

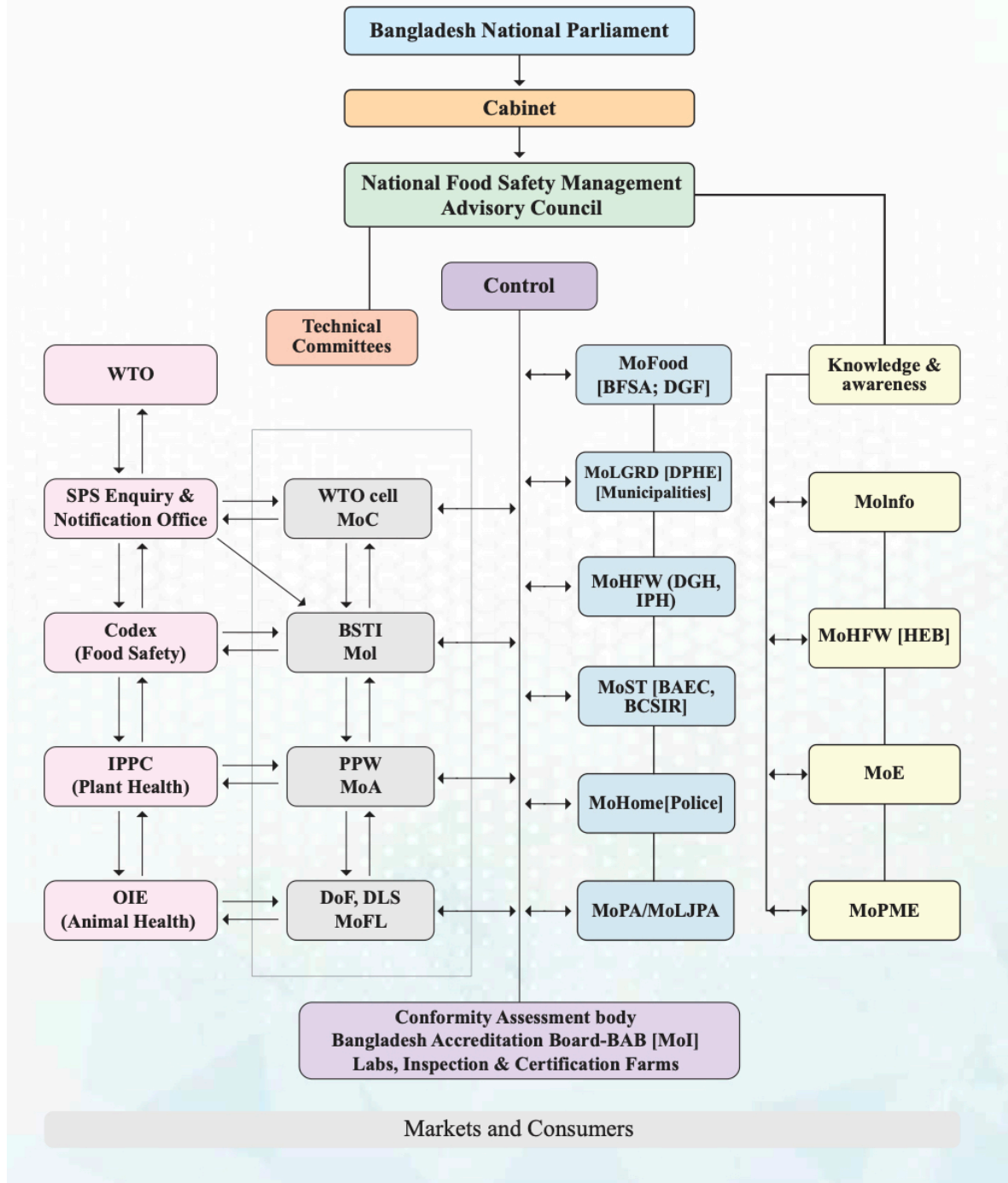


Figure 1 displays Bangladesh's current food safety governance hierarchy and the relationships between various regulatory bodies and committees.⁶²⁴

⁶²⁴ Bangladesh National Portal, 'Training Manual for Different Food Safety Hazards Identification' 06 <https://dls.portal.gov.bd/sites/default/files/files/dls.portal.gov.bd/publications/3bc1d85e_2a65_4597_a3c4_fc26bd863825/2023-03-18-08-16-42fa65f553c797e1a16afacc9fad9d27.pdf> accessed 22 January 2024.

4.4.1 Defining Risk Assessment in Food Law

Risk assessment is a key component in food law and forms part of the broader risk analysis framework alongside risk management and risk communication.⁶²⁵ The process of analysing scientific evidence related to food authorisations is often referred to as risk assessment.⁶²⁶ In contrast, risk management involves weighing policy alternatives with all interested parties, considering risk assessment and other factors relevant to consumer health and fair-trade practices, and selecting appropriate prevention and control options if necessary. Risk communication involves risk assessors, risk managers, consumers, industry, the academic community, and other interested parties exchanging information and opinions about risk, risk-related factors, and risk perceptions throughout the risk analysis process, including risk assessment findings and risk management decisions. CAC guidelines require risk assessment policy as part of risk management. Risk managers should consult with risk assessors and other stakeholders to create this policy before risk assessments. Risk assessments should be systematic, complete, impartial, and transparent. Risk assessors should receive clear mandates from risk managers and be asked to evaluate how different risk management options may affect potential risks.⁶²⁷

The effectiveness of risk assessment practices directly influences a country's ability to combat food adulteration. The lack of comprehensive, science-based risk assessments for a wide range of food products and potential adulterants leaves significant gaps in the regulatory net. For instance, the absence of standards for many potential adulterants means that these substances may not be routinely tested for, allowing their continued use in the food supply chain. This section examines how the current risk assessment practices in Bangladesh perpetuate food adulteration and hinder food safety efforts.

The primary responsibility for risk assessment is shared between the BSTI and the BCSIR.⁶²⁸ The division of labour exposes gaps in coverage and coordination. BSTI's role encompasses establishing safety standards including inspection methods, considering both national and international requirements.⁶²⁹ However, its focus on setting standards often results in incomplete assessments of potentially harmful substances which indicates a

⁶²⁵ Boer (n 622) 31–34.

⁶²⁶ *ibid* 33; Vittorio Silano, 'Science, Risk Assessment and Decision-Making to Ensure Food and Feed Safety in the European Union' (2009) 4(6) *European Food and Feed Law Review* 400.

⁶²⁷ FAO and WHO (n 148) 100.

⁶²⁸ Bangladesh Biggan O Shilpo Gobeshona Porishod Ain 2013; BCSIR is the leading multidisciplinary public research institute of the country. JICA, 'Data Collection Survey on Food Hygiene and Food Safety in Bangladesh' (IC Net Limited 2019) Final Report 13.

⁶²⁹ BSTI Act 2018 s 6.

disconnect between standard-setting and risk evaluation.⁶³⁰ The limited scope of mandatory certifications limits this arrangement. Only 76 processed foods are required to be tested by BSTI, leaving many food products, especially fresh ones, untested.⁶³¹ The importance of fresh produce in Bangladeshi diets and its susceptibility to adulteration make this regulatory gap notable.⁶³²

Alongside, the BFSA which coordinates risk assessment activities across domestic ministries and keeps up with international food safety trends also struggles to fulfil its mandate.⁶³³ Here again, fresh food safety regulation is notable for its absence. Although BFSA's inspections cover restaurants and markets in Dhaka, there is no established inspection and certification system for the agricultural sector under BFSA's purview.⁶³⁴ The BSTI's voluntary inspections of agricultural products are insufficient to ensure comprehensive food safety. The lack of systematic oversight for fresh food products represents a severe weakness in Bangladesh's food law as it exposes consumers to unmonitored risks from fresh produce, meats, and other non-processed food items.⁶³⁵

The effectiveness of risk assessment is influenced by two factors: the independence and accountability of actors carrying out these assessments. Several cross-cutting issues link these aspects. Strong accountability mechanisms could reinforce independence, whilst measures ensuring independence might improve accountability. The following sections will examine these factors next.

4.4.1.1 Independence of Actors Carrying Out Risk Assessment

The independence of regulatory agencies has been a subject of extensive scholarly discussion.⁶³⁶ The current analysis focuses on formal independence, which Koop and

⁶³⁰ JICA (n 629) 12–13.

⁶³¹ Sanjay Dave, 'Ensuring Food Safety in Bangladesh' *Dhaka Tribune* (10 February 2024) <<https://www.dhakatribune.com/opinion/op-ed/339056/ensuring-food-safety-in-bangladesh>> accessed 17 July 2024.

⁶³² Alan Brauw and others, 'Food Systems for Healthier Diets in Bangladesh Towards a Research Agenda' (International Food Policy Research Institute and CGIAR 2019) IFPRI Discussion Paper 01902 pts 3, 5.

⁶³³ Food Safety Act s 13(3)(c) and (j).

⁶³⁴ S Suman and others, 'Food Safety System in Bangladesh: Current Status of Food Safety, Scientific Capability, and Industry Preparedness' (USAID 2021) 9; FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (FAO 2022) Project Evaluation Series, 05/2022 17.

⁶³⁵ Monitoring gaps caused by poor risk assessment hamper the development and deployment of effective traceability systems to combat food adulteration. See Chapter 5.3 of this thesis.

⁶³⁶ Martino Maggetti and Fabrizio Gilardi, 'The Policy-Making Structure of European Regulatory Networks and the Domestic Adoption of Standards' (2011) 18 *Journal of European Public Policy* 830; Arndt Wonka and Berthold Rittberger, 'Credibility, Complexity and Uncertainty: Explaining the Institutional Independence of 29 EU Agencies' (2010) 33 *West European Politics* 730; T Christensen and P Laegreid, 'Regulatory Agencies—The Challenges of Balancing Agency Autonomy and Political Control' (2007) 20(3) *Governance* 499; Martino Maggetti, 'The Role of Independent Regulatory Agencies in Policy-Making: A Comparative Analysis' (2009) 16(3) *Journal of European Public Policy* 450.

Hanretty define as ‘the degree to which there are statutory provisions that decrease the possibility for politicians to influence agency decisions before they are made’.⁶³⁷ The agency's founding statute establishes its institutional design and features.⁶³⁸ In order to assess the independence of the BFSA, the following discussion will examine five dimensions proposed by Gilardi.⁶³⁹ This approach allows the evaluation of independence as a matter of degree rather than a simplistic binary by considering both the legal provisions and their practical execution.

4.4.1.1.1 Stated Independence

On paper, the BFSA's institutional design hints at independence. Its legal status as a body corporate with perpetual succession and a distinct seal establishes a theoretical foundation for operational autonomy.⁶⁴⁰ It is also entrusted with broad regulatory functions, including monitoring and regulating food manufacture, import, processing, storage, distribution, and sale to ensure food safety.⁶⁴¹ These responsibilities theoretically confer a degree of functional independence in BFSA's core mandate. However, a closer examination that follows discloses a contrasting scenario.

4.4.1.1.2 Financial and Organisational Autonomy

The BFSA has its own fund, but government grants and other government-approved sources, including donor organisations, fund it.⁶⁴² Although the BFSA is ‘regularly provided with a sizeable budget’ including a large capacity-building allocation for laboratories, this headline figure may not accurately reflect its practical financial situation.⁶⁴³ Much of the funding is tied to specific projects rather than supporting core operational needs, and little

⁶³⁷ Christel Koop and Chris Hanretty, ‘Political Independence, Accountability, and the Quality of Regulatory Decision-Making’ (2018) 51 *Comparative Political Studies* 38, 42.

⁶³⁸ Tetty Havinga and others, ‘Regulation of Food Safety in the EU: Explaining Organisational Diversity among Member States’ in Gabriele Abels and Alexander Kobusch, *The Changing Landscape of Food Governance* (Edward Elgar 2015) ch 3.

⁶³⁹ Fabrizio Gilardi, ‘Policy Credibility and Delegation to Independent Regulatory Agencies: A Comparative Empirical Analysis’ (2002) 9(6) *Journal of European Public Policy* 873; Fabrizio Gilardi, ‘The Institutional Foundations of Regulatory Capitalism: The Diffusion of Independent Regulatory Agencies in Western Europe’ (2005) 598 *The Annals of the American Academy of Political and Social Science* 84.

⁶⁴⁰ Food Safety Act s 5.

⁶⁴¹ *ibid* 13.

⁶⁴² *ibid* 20. The development of BFSA has been substantially aided by donor projects. One initiative supported by JICA, for example, is meant to advance Bangladesh's food safety inspection system. Other contributors including Fleming Fund and FAO have also helped BFSA develop its regulatory capabilities by helping to establish Standard Operating Procedures (SOPs), policies and laws. FAO, ‘Evaluation of the Project “Institutionalisation of Food Safety in Bangladesh for Safer Food”’ (n 635); J Woodford, ‘Gap Analysis of Legal and Policy Framework In the Livestock Sector’ (United Nations Industrial Development Organisation (UNIDO) 2022).

⁶⁴³ FAO, ‘Evaluation of the Project “Institutionalisation of Food Safety in Bangladesh for Safer Food”’ (n 635) 26.

information is available about the actual budget allocated for regulatory functions.⁶⁴⁴ It appears that resources are allocated on visible outputs rather than foundational capabilities.

For instance, insufficient funds for state-of-the-art laboratories force reliance on external facilities, leading to testing delays and potentially allowing adulterated products to remain in the market longer. Since its founding, BFSA has called for more manpower and skills to fight adulteration, but limited funds make recruitment, training, and retention difficult.⁶⁴⁵

Consequently, the financial constraint creates a gap in the frontline defence against food adulteration and impairs the very purpose for which BFSA was established.

In terms of organisational autonomy, the BFSA has made some progress in developing its own staff.⁶⁴⁶ Nonetheless, its operational identity remains ambiguous, particularly in relation to enforcement. Sections 18, 29, and 51 of the FSA (2013) provide BFSA with a clear legal mandate to regulate food safety, appoint inspectors, and coordinate enforcement activities.⁶⁴⁷ Despite this, BFSA's aspiration to lead inspections has sparked institutional friction with other enforcement agencies whose mandates overlap.⁶⁴⁸ Although this ambition is legally supportable, it has contributed to a perceived identity crisis in BFSA's role that is caught between coordinating policy and executing it. The unresolved tension has limited BFSA's ability to assert its operational autonomy within Bangladesh's fragmented food safety governance framework.

4.4.1.1.3 Delegated Regulatory Competencies

The BFSA is mandated 'to specify food standards and formulate guidelines, where no quality and safety parameters or guidelines of such food is determined under existing laws'.⁶⁴⁹

However, its performance has been notably limited. Begum, a law and policy member of the authority, said BFSA has not yet fixed standards for any food product because it would be impractical to set standards for thousands of products at once.⁶⁵⁰ It reveals a tension

⁶⁴⁴ Woodford (n 643) 19.

⁶⁴⁵ Government of the People's Republic of Bangladesh, 'Eighth Five Year Plan (2020-2025)' 733 <<https://oldweb.lged.gov.bd/UploadedDocument/UnitPublication/1/1166/8FYP.pdf>> accessed 17 July 2024; T Islam, 'Food Safety Authority yet to Start Functioning' (*Prothomalo*, 26 June 2015) <<https://en.prothomalo.com/bangladesh/Food-safety-authority-yet-to-start-functions>> accessed 17 July 2024; S Rahman, 'BFSA to Widen Dragnet as Food Adulteration Persists' (*The Financial Express*, 28 September 2019) <<https://thefinancialexpress.com.bd/trade/bfsa-to-widen-dragnet-as-food-adulteration-persists-1569644632>> accessed 17 July 2024.

⁶⁴⁶ Dave (n 632).

⁶⁴⁷ Food Safety Act ss 18, 29, and 51.

⁶⁴⁸ FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (n 635) 27.

⁶⁴⁹ Food Safety Act s 13(2)(c).

⁶⁵⁰ N Hossain, 'Companies in Trouble as Various Food Products Have No BSTI Standards' *Jago News 24* (14 June 2024) <<https://www.jagonews24.com/en/business/news/75023>> accessed 17 July 2024.

between the BFSA's broad mandate and its capacity to strategise effectively. A reactive modus operandi i.e., testing products only when health risks are suspected functions as a stopgap but still exposes consumers to avoidable harm,

Bangladesh's food regulation history further complicates BFSA's operationalisation. The long-standing role of BSTI as the primary standards authority, recognised internationally by ISO, has created a legacy regulatory structure that BFSA must now operate within. A FAO project transferring standardisation activities to BFSA, such as the 2017 contaminants, toxins, and harmful residues regulations, is a positive step towards food safety authority consolidation.⁶⁵¹

Yet, the persistent institutional fragmentation and overlapping authorities reveal underlying problems in the transition to a more centralised food safety governance model. Although BFSA is under the Ministry of Food (MOF), inspectors from the Ministry of Health and Family Welfare (MOHFW), BSTI, and the Ministry of Agriculture (MOA), including local authorities, inspect it independently without common procedures or coordination.⁶⁵² This fragmentation weakens BFSA's mandate to coordinate inspections. Hence, the gaps between BFSA's theoretical authority to standardise and coordinate food safety activities and its practical influence over inspection practices indicates that institutional reforms and inter-agency cooperation mechanisms have not kept pace with its legislative empowerment. The discord reveals a larger policy implementation issue whereby the creation of a new authority is not enough to overcome deep-seated institutional practices and interests.

4.4.1.1.4 Status of Agency Head and Management Board Members

Section 7(1) specifies a leadership structure consisting of a Chairman and four members, with section 7(3) designating the Chairman as the Chief Executive Officer. Section 9(1) and 9(2) require the Chairman to have 25 years of professional experience and specialised knowledge in food-related fields, members to have 20 years of relevant experience.⁶⁵³ Section 8 limits these positions to four years.⁶⁵⁴ Yet, the reality of BFSA's leadership contradicts these provisions. Since its inception, BFSA has witnessed frequent changes at the top leadership, with four different chairmen in a relatively short period.⁶⁵⁵ Such high

⁶⁵¹ FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (n 635) 14.

⁶⁵² *ibid* 18–19.

⁶⁵³ Food Safety Act s 9(1) and 9(2).

⁶⁵⁴ *ibid* 8.

⁶⁵⁵ Press Release, 'I Want to Achieve This Authority by Working Exceptionally: Newly Appointed BFSA Chairman' *The Business Standard* (14 March 2024) <<https://www.tbsnews.net/economy/corporates/i-want->

turnover disrupts the continuity required in anti-adulteration efforts. Long-term initiatives are disrupted and enforcement priorities are shifted as a result of leadership transitions, as each new team may employ a different approach. Food adulterators may exploit the voids that these disruptions, compounded by the time required for new leadership to acclimatise, create.⁶⁵⁶

Moreover, the practice of appointing officials from various government departments, often without relevant food safety expertise, contradicts the Act's emphasis on specialised knowledge and experience.⁶⁵⁷ Contrary to the Act, leadership lacks food safety expertise, which is especially relevant in adulteration. Food adulteration often involves sophisticated techniques that require expert knowledge to detect and counteract which necessitates leaders with a deep knowledge of food science and safety. Additionally, the transient nature of seconded officials in key positions further hampers the development of long-term strategies. These officials may not have the time to develop a deep understanding of food adulteration issues before returning to their parent organisations.⁶⁵⁸ Thus, the revolving door of expertise could cause a lack of institutional memory about adulteration trends, successful interventions, and lessons learned from past failures.

Thus, addressing these issues requires matching leadership appointments with the legislative requirement for specialised knowledge and incorporating technical expertise as recommended by the FAO.⁶⁵⁹ This experience could augment the authority's ability to devise sophisticated detection techniques, establish evidence-based rules, and ensure consistency, stability, and depth.

4.4.1.2 Accountability of Actors Carrying Out Risk Assessment

Transparent, responsive, and responsible governance necessitates public accountability.⁶⁶⁰ Accountability aims to build trust in government and connect citizens to their representatives.⁶⁶¹ Accountability is theoretically established through a principal-agent

achieve-authority-working-exceptionally-newly-appointed-bfsa-chairman> accessed 17 July 2024; FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (n 635) 18.

⁶⁵⁶ Huda, 'Adulterated-Food Culture in Bangladesh' (n 577).

⁶⁵⁷ Woodford (n 643) 14, 43; FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (n 635) 18.

⁶⁵⁸ FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (n 635) 18.
⁶⁵⁹ *ibid* 27.

⁶⁶⁰ Mark Bovens, 'Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism' (2010) 33(5) *West European Politics* 946, 954.

⁶⁶¹ Peter Aucoin and Ralph Heintzman, 'The Dialectics of Accountability for Performance in Public Management Reform' (2000) 66(1) *International Review of Administrative Sciences* 45, 49–52.

relationship, wherein regulatory bodies such as BFSA and BSTI act as agents accountable to the government and public (the principals). The BFSA is required to maintain records, submit annual reports, and conduct audits.⁶⁶² The BFSA and its officers can be held accountable by the Comptroller and Auditor General and actions by food courts.⁶⁶³ Additionally, the BFSA is mandated to publish scientific research and opinions for public access.⁶⁶⁴ These provisions are meant to promote transparent, responsive, and responsible governance, though institutional failures over the past five years have shown otherwise.

Firstly, BFSA's inability to identify food adulterators highlights its accountability shortcomings. In a notable case, BFSA formed a 16-member committee to investigate milk adulteration.⁶⁶⁵ However, the committee failed to identify the culprits in its report. BFSA submitted an affidavit supporting the original NFSL survey findings and a work plan without analysing or identifying responsible parties.⁶⁶⁶ When the court subsequently requested a follow-up report, BFSA requested more time, citing inability to prepare it in time.⁶⁶⁷ Notably, no reason was provided for this delay which leaves room for speculation about the authority's capacity and commitment to timely risk assessment and reporting.

The accountability deficit is exacerbated by the lack of coordination. The presentation of conflicting findings on adulteration to the High Court where BFSA identified hazardous substances in milk whereas BSTI deemed it safe reveals a discord that weakens the credibility of both institutions.⁶⁶⁸ Further, most of BSTI's 451 voluntary quality standards for food product adoption have been frozen in time and untouched for 20 to 60 years.⁶⁶⁹ As of 2024, BSTI mandates compulsory testing for only a limited number of items. Key safety parameters such as heavy metals, mycotoxins, and pesticide and veterinary drug residues are not standardised at the institution.⁶⁷⁰ This contrasts with developed nations' more extensive testing parameters. BSTI uses nine milk testing parameters, whereas developed

⁶⁶² Food Safety Act ss 22, 45, 49.

⁶⁶³ *ibid* 22, 50.

⁶⁶⁴ *ibid* 17.

⁶⁶⁵ Tribune Desk, 'Who Is Poisoning Our Milk Products?' *Dhaka Tribune* (8 May 2019) <<https://www.dhakatribune.com/bangladesh/court/176318/who-is-poisoning-our-milk-products>> accessed 18 July 2024.

⁶⁶⁶ National Food Safety Laboratory. 'National Food Safety Laboratory' (*Institute of Public Health - IPH*) <<https://iph.gov.bd/national-food-safety-laboratory/>> accessed 18 July 2024.

⁶⁶⁷ UNB News, 'HC Seeks Report on Adulterated Milk, Curd-Producing Companies' *UNB* (15 May 2019) <<https://unb.com.bd/category/Bangladesh/hc-seeks-report-on-adulterated-milk-curd-producing-companies/18367>> accessed 18 July 2024.

⁶⁶⁸ Staff Correspondent, 'New Tests Find Lead in Milk' *The Daily Star* (17 July 2019) <<https://www.thedailystar.net/frontpage/bangladesh-food-safety-authority-new-tests-find-lead-milk-1772533>> accessed 29 January 2024.

⁶⁶⁹ Dave (n 632).

⁶⁷⁰ *ibid*.

countries use 23-30.⁶⁷¹ Hence, milk containing high levels of lead, pesticides or drugs can still pass BSTI certification if these substances are not tested for. The disparity in testing rigour signals a major accountability gap, as BSTI does not provide a reliable assessment of food safety. Each day BSTI operates with its outdated playbook, it gambles with the well-being of millions of unsuspecting citizens. Smart crooks could easily pass outdated testing.⁶⁷² Therefore, out-of-date tests and standards could not be sufficient against such new technologies in stressing the need of modernising Bangladesh's food safety standards and policies.⁶⁷³

Moreover, BSTI seriously comprised its integrity by destroying evidence related to the prosecution of 61 companies accused of marketing 73 food products.⁶⁷⁴ BSTI also provided false information to mislead prosecutions and framed innocent individuals whilst allowing real culprits to escape justice.⁶⁷⁵ Innocent shopkeepers were wrongfully accused and had to clear their names in court.⁶⁷⁶ These actions suggest institutional corruption and a deliberate obstruction of justice to evade proper scrutiny and accountability. Further, the expedited re-certification of previously banned companies is another red flag. Most of these companies returned to the market within a week, with fresh certifications from BSTI.⁶⁷⁷ The quick turnaround calls into question the rigour of BSTI's regulatory processes and the integrity of its certification practices. Whilst there are glimmers of progress, such as BFSA's recent public disclosures of harmful adulterants, these steps are overshadowed by the magnitude of the accountability deficits.⁶⁷⁸ The ongoing issues with BFSA and BSTI suggest that meaningful accountability is still in its nascent stages.

⁶⁷¹ M Molla, 'BSTI Tests Well below Par' *The Daily Star* (13 July 2019) <<https://www.thedailystar.net/frontpage/bangladesh-standards-and-testing-institution-tests-well-below-par-1770778>> accessed 18 July 2024; Suman and others (n 635) 20.

⁶⁷² P Hatch, 'There's No Way to Be Sure Honey Isn't Fake, Says ACCC' *The Sydney Morning Herald* (2018) <<https://www.smh.com.au/business/consumer-affairs/there-s-no-way-to-be-sure-honey-isn-t-fake-says-acc-20181116-p50gk0.html>> accessed 30 January 2024; Xiaoteng Zhou and others, 'Authenticity and Geographic Origin of Global Honeys Determined Using Carbon Isotope Ratios and Trace Elements' (2018) 8 Scientific Reports 14639.

⁶⁷³ BFSA Ministry of Food, 'Harmonisation of Bangladesh's Food Safety Standards with Codex Standards and Other International Best Practices' (Govt of Bangladesh, Dhaka 2019).

⁶⁷⁴ E Hossain, 'Law Gives BSTI Limited Jurisdiction: Muazzem Hossain' *New Age* (24 January 2020) <<https://www.newagebd.net/article/97541/law-gives-bsti-limited-jurisdiction-muazzem-hossain>> accessed 18 July 2024.

⁶⁷⁵ Hossain, 'BSTI Destroys Evidence, Frames Innocents' (n 535).

⁶⁷⁶ *ibid.*

⁶⁷⁷ *ibid.*

⁶⁷⁸ M Chowdhury, 'Harmful Bromate and Iodate in Bread: Bakers Are "in the Dark"' *Harmful bromate and iodate in bread: Bakers are 'in the dark'* (10 September 2021) <<https://bdnews24.com/health/bakers-unsure-if-harmful-bromates-and-iodates-are-used-in-bread>> accessed 18 July 2024; Iftekhar Mahmud, 'Harmful Ingredients in Bread' *Prothomalo* (7 June 2021) <<https://en.prothomalo.com/bangladesh/harmful-ingredients-in-bread>> accessed 18 July 2024; Sukanta Halder, 'Harmful Sodium Compound Found in Molasses' *The Daily Star* (25 December 2022) <<https://www.thedailystar.net/news/bangladesh/news/harmful-sodium-compound-found-molasses-3204446>> accessed 18 July 2024.

4.4.2 Institutional Separation of Risk Assessment from Risk Management

The institutional separation of risk assessment from risk management is key principle in modern food law.⁶⁷⁹ It supports risk assessments by independent scientists and risk management by elected and accountable officials. The separation aims to balance scientific integrity with democratic accountability to improve food safety regulation.

4.4.2.1 National Food Safety Management Advisory Council (NFSMAC)

The role of NFSMAC creates structural ambiguity. NFSMAC must give the BFSA ‘necessary advice and direction’ on food safety system policies, plans, and related matters under section 3(1).⁶⁸⁰ Although ‘advice’ implies a consultative and collaborative, ‘direction’ implies authority and control. The 2021 policy statement that the NFSMAC will ‘support BFSA to develop/strengthen the national food safety control system’ highlights a linguistic and conceptual overlap between risk assessment (an inherently scientific work) and risk management (which is policy-driven).⁶⁸¹ The language thus obscures the difference between risk assessment and risk management.

Also, NFSMAC has a very administrative focus as per section 3(2).⁶⁸² Its 28 members include the Secretaries of thirteen Ministries with a direct or indirect interest in food safety, the Chairpersons and Director Generals (DG) of twelve national institutions that can provide technical support to the BFSA, and one or two others. The majority of the Council members are administrators, not ‘technical’ experts.⁶⁸³ This composition contravenes the principle of separating scientific assessment from political management. It could potentially reduce scientific input in decision-making processes related to adulteration. Although NFSMAC is mandated to meet twice a year, it may not be frequent enough to address cross-cutting issues of adulteration problems.⁶⁸⁴

The dominance of administrative expertise over technical knowledge in the NFSMAC suggests a potential ‘politicisation of science’ where political and administrative considerations may overshadow scientific risk assessments.⁶⁸⁵ It resonates with a well-documented tendency of high-ranking bureaucrats in Bangladesh to be politically

⁶⁷⁹ Havinga and others (n 653) 39–56.

⁶⁸⁰ Food Safety Act s 3(1).

⁶⁸¹ FPMU, ‘National Food and Nutrition Security Policy Plan of Action (2021-2030)’ (FPMU) 2021) 106.

⁶⁸² Food Safety Act s 3(2).

⁶⁸³ Woodford (n 643) 14.

⁶⁸⁴ Food Safety Act s 4.

⁶⁸⁵ Peter Weingart, ‘Scientific Expertise and Political Accountability: Paradoxes of Science in Politics’ (1999) 26(3) Science and Public Policy 151, 161.

involved.⁶⁸⁶ This continues to blur scientific assessment and political considerations in food safety management.⁶⁸⁷ The FSA (2013) does not cover the Council's decision-making process which adds another layer of opacity. Without a clear operational framework, it remains uncertain how the Council prioritises issues, allocates resources, or makes decisions on food adulteration matters. No evidence has been found of how the Council addresses food adulteration or how its structural composition influences such issues. Nevertheless, the politico-administrative entanglement suggests that separating risk assessment and risk management may be difficult or impossible in the short term. Also, the entrenched system hinders the implementation of reforms necessary to ensure scientific assessment's independence from political and administrative voices.

4.4.2.2 Central Food Safety Management Coordination Committee

Below the NFSMAC, section 15 establishes a Central Food Safety Management Coordination Committee, having 28 members from various ministries, departments, and stakeholder organisations.⁶⁸⁸ The committee's primary duty is to 'take initiative to ensure necessary institutional support for successful performance' of BFSA.⁶⁸⁹ However, the dairy scandal revealed a lack of such support. The High Court's repeated interventions, including ordering a survey on dairy adulteration in February 2019 and subsequently extending the deadline to May 2019 for BFSA to submit a list of companies involved, indicate that BFSA lacked the institutional backing to proactively address the crisis.⁶⁹⁰

Also, the need for judicial pressure suggests that the committee was unable to mobilise adequate backing from relevant authorities, rendering the unprepared to handle the scandal promptly. Despite the explicit requirement of three meetings a year to facilitate effective

⁶⁸⁶ Rafiqul Islam, 'Bureaucracy and Administrative Culture in Bangladesh' in Ali Farazmand (ed), *Global Encyclopedia of Public Administration, Public Policy, and Governance* (Springer 2022) 1008–1015; Asif Shahan and Paul Posner, 'Politics-Administration Relationship in Developing Countries: The Case of Bangladesh' (1 March 2013) <<https://papers.ssrn.com/abstract=2573458>> accessed 18 July 2024; Khurshed Alam, 'Bureaucracy in Bangladesh Is Transactional, Not Rational, in Nature' (*South Asia@LSE*, 25 April 2022) <<https://blogs.lse.ac.uk/southasia/2022/04/25/bureaucracy-in-bangladesh-is-transactional-not-rational-in-nature/>> accessed 18 July 2024; Muhammad Nurul Huda, 'Behind the Pre-Eminence of Bureaucrats' *The Daily Star* (11 March 2023) <<https://www.thedailystar.net/opinion/views/straight-line/news/behind-the-pre-eminence-bureaucrats-3268506>> accessed 18 July 2024.

⁶⁸⁷ B Rahman, 'Food Safety in Bangladesh: Challenges and Concerns' *Daily Sun* (29 August 2017) <<https://www.daily-sun.com/post/251275>> accessed 18 July 2024.

⁶⁸⁸ Food Safety Act s 15(1).

⁶⁸⁹ *ibid* 15(2) and (3).

⁶⁹⁰ P Neo, 'Dangerous Dairy: Bangladesh High Court Orders Investigation into Adulterated Milk Products in the Country' *Food Navigator* (26 February 2019) <<https://www.foodnavigator-asia.com/Article/2019/02/26/Dangerous-dairy-Bangladesh-High-Court-orders-investigation-into-adulterated-milk-products-in-the-country>> accessed 28 January 2024. Sun Online Desk, 'High Court Seeks List of Companies Involved in Milk Adulteration' *Daily Sun* (8 May 2019) <<https://www.daily-sun.com/post/390819>> accessed 18 July 2024.

coordination, no formal coordination meeting had been held.⁶⁹¹ Although the committee has reportedly started to engage with some member institutions, including DGs responsible for Fish and Livestock within the Ministry of Fisheries and Livestock, these engagements fell short of the comprehensive coordination required by law.⁶⁹² The inconsistency between the committee's legal mandate and its actual practice calls into question its very *raison d'être*.

By 2024, over a decade after the committee's establishment, gaps in food safety management persisted. BFSA is reportedly failing to play a distinctive role in controlling import and export products, with no control or inspection of food and food ingredients being imported into the country.⁶⁹³ This shortcoming was particularly notable given that the committee includes representatives from the Ministries of Commerce and Industries, who ought to have been instrumental in addressing such issues. The same year did see some signs of progress, with BFSA claiming that the matter of maintaining safety of imported items had been discussed in a recent central committee coordination meeting.⁶⁹⁴ The issue of forming regulations to ensure the safety of import goods was also raised. Nonetheless, the delayed response to these issues signifies a continual deficiency in the committee's capacity to fulfil its coordinating responsibilities efficiently and promptly.

4.4.2.3 Technical Committee

The institutional separation of risk assessment from risk management in Bangladesh remains largely nominal. Section 17 enables BFSA to form Technical Committees for scientific input.⁶⁹⁵ However, the law's ambiguity in delineating risk assessment and management functions has caused confusion and ineffective separation. A 2022 FAO evaluation found procedural inconsistencies, opaque member selection, and a limited understanding of risk analysis paradigms compromised committee effectiveness.⁶⁹⁶ The report concluded that 'the functional separation between risk assessment and risk management is not well defined and many management or assessment activities are mixed up'.⁶⁹⁷ The loss of technical independence, as seen in veterinary authority adopting administrative decisions without proper scientific basis, exemplifies the systemic

⁶⁹¹ Food Safety Act s 16(1); Woodford (n 643) 15.

⁶⁹² Woodford (n 643) 15.

⁶⁹³ Pradip Sarkar, 'Food Safety Authority: How Effective Is It in Ensuring Safe Food?' *Prothomalo* (3 February 2024) <<https://en.prothomalo.com/bangladesh/uwd8k4vucq>> accessed 18 July 2024.

⁶⁹⁴ *ibid*.

⁶⁹⁵ Food Safety Act s 17.

⁶⁹⁶ FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (n 635) 13–14.

⁶⁹⁷ *ibid* 14.

repercussions of this uncertainty.⁶⁹⁸ These concerns indicate a gap between the law's design and its operational reality, with decisions frequently lacking scientific integrity.

Further, FAO report highlights misconceptions about independence from private sector influence. The report states, 'Some interviewees questioned the absence of private sector representatives', thereby reflecting a lack of understanding of the need for these committees to operate independently from private sectors' influence.⁶⁹⁹ It suggests a misconception about the purpose of separation between risk assessment and management, which could lead to opening the door to conflicts of interest that might compromise food safety integrity. For example, BSTI violated risk assessment procedures soliciting public opinion on whether to set national energy drink standards rather than using expert scientific assessment.⁷⁰⁰ Also, consumer rights activists criticised this approach by stating that:

This is not a matter of public opinion. It is necessary to formulate national standards on this sensitive product.⁷⁰¹

On the progressive side, BFSA recently finalised 11,200 food standards aligned with Codex standards as per section 13(3).⁷⁰² Technical committees, BSTI, and international expert working groups collaborated on this FAO-supported initiative. This extensive standard-setting process shows BFSA's commitment to improving food safety governance, with technical committees providing scientific input and review. The enforcement and legal status of these standards, both domestically and internationally, are contingent upon their imminent gazette notification.⁷⁰³ This recent development represents a step forward in addressing some of the aforementioned issues. BFSA is advancing scientific food safety regulations by following international standards and involving many international experts. However, the effectiveness of these new standards will hinge on their proper implementation and the resolution of the systemic problems identified in the risk assessment and management processes.

⁶⁹⁸ Woodford (n 643) 13.

⁶⁹⁹ FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (n 635) 14.

⁷⁰⁰ Staff Correspondent, 'BSTI Facing Criticism for Soliciting Public Opinion on Energy Drinks' *Dhaka Tribune* (28 July 2018) <<https://www.dhakatribune.com/bangladesh/144457/bsti-facing-criticism-for-soliciting-%E2%80%98public>> accessed 18 July 2024.

⁷⁰¹ *ibid.*

⁷⁰² Food Safety Act s 13(3); Dave (n 632).

⁷⁰³ BFSA has the powers under Section 13(4) to make regulations and it has already started doing so. Food Safety Act s 13(4); Dave (n 632).

4.4.3 Institutional Capacity for Monitoring, Control, and Enforcement

The efficacy of food safety governance systems is intricately tied to their institutional capacities which in turn affects risk management functions such as enforcement and monitoring. It has several key components.⁷⁰⁴ First, skills and resources, defined as the capabilities and assets needed to effectively perform regulatory functions, are severely lacking.⁷⁰⁵ A nation of 170 million people being monitored by a mere 309 BFSA officers is entirely insufficient and is emblematic of a governance apparatus failing to meet its mandate to conduct comprehensive monitoring and enforcement.⁷⁰⁶ The acute resource deficit has led to a situation where 67% of bottled soybean oil contains Trans Fatty Acids (TFA) up to 2-4 times the WHO recommended limit of 2%.⁷⁰⁷ The lack of regular, widespread testing allows such adulteration to continue unchecked.

Secondly, analytical capacity that support policy goals through sound technical grounds is weak.⁷⁰⁸ For instance, authorities were reported to use archaic and almost folkloric methods of testing: 'If flies sit on a fruit then it is free of chemicals and if they don't then the fruit is adulterated by chemicals'.⁷⁰⁹ Although anecdotal, such practices indicate a systemic neglect to enforce meaningful regulatory standards, compounded by the availability of safety parameters for only a fraction of food additives and pesticides, reportedly, '22 food additives and 27 pesticides'.⁷¹⁰ This lacuna results in a regulatory black hole which allows numerous potential adulterants to remain in the food supply unregulated and untested.

Further, operational capacity, which refers to the system of controls over public agencies also looms large.⁷¹¹ The High Court criticised the BFSA for failing to remove 52 adulterated food items from the market.⁷¹² The court said that the BFSA's activities were 'merely

⁷⁰⁴ Bazzan (n 553) 56.

⁷⁰⁵ For an extensive review, see *ibid* 1; Michael Howlett and M Ramesh, 'Achilles' Heels of Governance: Critical Capacity Deficits and Their Role in Governance Failures' (2016) 10(4) *Regulation & Governance* 301; Robert Rotberg, 'Good Governance Means Performance and Results' (2014) 27(3) *Governance* 511; G Capano and M Howlett, *A Modern Guide to Public Policy* (Edward Elgar 2020).

⁷⁰⁶ 'World Population Dashboard -Bangladesh' (*United Nations Population Fund*, 2024) <<https://www.unfpa.org/data/world-population/BD>> accessed 19 July 2024; Sarkar (n 694).

⁷⁰⁷ Dave (n 632); Iftekhar Mahmud, 'Bottled Soybean Oil Contains Harmful "Trans Fat"' *Prothomalo* (15 January 2024) <<https://en.prothomalo.com/bangladesh/pjjwuqc8if>> accessed 19 July 2024.

⁷⁰⁸ Rotberg (n 706); Xun Wu, M Ramesh and M Howlett, 'Policy Capacity: Conceptual Framework and Essential Components' in Xun Wu, M Howlett and M Ramesh (eds), *Policy Capacity and Governance: Assessing Governmental Competences and Capabilities in Theory and Practice* (Springer International Publishing 2018); Capano and Howlett (n 720) 178–190.

⁷⁰⁹ Staff Correspondent, 'Use of Chemicals in Fruits: Recent Drives Draw Flak' *The Daily Star* (24 May 2018) <<https://www.thedailystar.net/backpage/use-chemicals-fruits-recent-drives-draw-flak-1580713>> accessed 19 July 2024.

⁷¹⁰ Dave (n 632).

⁷¹¹ Wu, Ramesh and Howlett (n 709) 12.

⁷¹² News Desk, 'Adulteration in 52 Food Items' *The Asian Age* (10 May 2019) <<http://dailyasianage.com/news/177072/?regenerate>> accessed 19 July 2024.

eyewash' and that they 'did not remove even a single packet of spices from any shop'.⁷¹³ BFSA's response included superficial measures such as holding 'views-exchange' meetings and publishing advertisements,⁷¹⁴ which are no substitutes for decision regulatory actions, such as product seizures and market recalls.

Moreover, inter-agency coordination, which refers to the level of cooperation between different government agencies is also problematic as discussed earlier in the chapter. Indeed, the involvement of 18 ministries, departments, agencies, and over 486 local government organisations in food safety management creates a fragmented regulatory environment.⁷¹⁵ Due to overlapping mandates and conflicting priorities, oversight gaps may allow food adulteration to slip through the cracks. Thus far, BFSA has only been able to sign MoUs with a small fraction of these entities, which notably does not include the BSTI even though this has been long overdue. Indeed, the rather slow pace of inter-agency agreements shows a lethargic response to this complex problem.

Finally, Bangladesh's system appears to have weak regulatory capture resistance, which allows regulatees to manipulate regulators.⁷¹⁶ Academics discussed 'greedy officials of BSTI and bakery owners,' which implies a problematic relationship between regulators and the bread industry they oversee.⁷¹⁷ The presence of potassium bromate in 67% of bread samples despite official bans indicates a failure to enforce regulations against industry interests.⁷¹⁸ Prior to this, High Court's pointed enquiry into whether BFSA officials fear big companies further foregrounds the perception that regulators may be caving to industry pressure rather than protecting consumers.⁷¹⁹ On the other hand, DNCRP official stating that, 'If I don't enjoy independence to enforce the law, I shall quit from this post,' shows a strong commitment to maintaining regulatory integrity which is important for resisting regulatory capture.⁷²⁰

⁷¹³ Staff Correspondent, 'Removal of 52 Food Items: HC Rebukes Food Authority for Inaction' *The Daily Star* (24 May 2019) <<https://www.thedailystar.net/frontpage/news/removal-52-food-items-hc-rebukes-food-authority-inaction-1748110>> accessed 16 September 2024; 'HC Rebukes BFSA over Banned Food Items in Market' *Bangla Tribune* <<https://en.banglatribune.com/national/news/48861/HC-raps-BSFA-over-banned-food-items-in-market>> accessed 16 September 2024.

⁷¹⁴ Correspondent, 'Removal of 52 Food Items' (n 714).

⁷¹⁵ Sarkar (n 694).

⁷¹⁶ Ernesto Bó, 'Regulatory Capture: A Review' (2006) 22(2) *Oxford Review of Economic Policy* 203.

⁷¹⁷ Mahmud (n 708).

⁷¹⁸ *ibid.*

⁷¹⁹ E Hossain, 'Food Safety Drive in Bangladesh Falters as Big Violators Go Scot-Free' *New Age* (19 July 2024) <<https://www.newagebd.net/article/97543/campaign-grinds-to-a-halt-as-big-violators-go-unpunished>> accessed 19 July 2024.

⁷²⁰ Bó (n 717). Md Chandan, "'If I Don't Enjoy Independence to Enforce the Law, I Shall Quit'" *The Daily Star* (14 June 2019) <<https://www.thedailystar.net/star-weekend/news/if-i-dont-enjoy-independence-enforce-the-law-i-shall-quit-1756384>> accessed 16 September 2024.

Although the aforementioned deficiencies present challenges, they also offer chances to rebuild institutional frameworks which are resilient, technically sound and better insulated from external pressure. After all, governance is really about enforcement and operationalisation of rules, not just formulating them. Hence, in this regard, the BFSA and its counterparts must translate rhetorical commitments into delivering concrete results.

4.5 Resolving Fragmentation in Bangladesh's Food Safety System

Thus far, this chapter has demonstrated that the fragmentation of Bangladesh's food safety regulatory framework continues to hinder food safety governance. The BFSA has struggled to fulfill its core mandate effectively. BFSA director Saha' acknowledgement that, 'There's no such precondition that there has to be agreements with everyone otherwise we won't be able to work',⁷²¹ though operationally pragmatic, reveals a complacency in urgently formalising coordination mechanisms. Saha also admitted, 'The radius of our duty is expanding but we couldn't yet become the sole authority'. The agency's ineffectiveness and resistance to centralisation are acknowledged by, 'It needs time'.⁷²² Given the severity of institutional inertia, UNIDO's suggestion that BFSA focus on coordination seems inadequate.⁷²³ BFSA's inability till date to sign MOUs with key organisations, particularly BSTI, suggests that the current coordination-focused mandate without enhanced legal authority or enforcement capacity leaves BFSA relegated to a reactive role, unable to pre-emptively manage food safety risks.

Therefore, government initiatives must be pragmatic and concentration on immediate, achievable improvements to prevent fragmented governance from diluting regulatory efficacy. Two key recommendations stand out. Firstly, BFSA must be legally empowered to enforce coordination and penalise non-compliance. This requires a big change in how the agency is perceived and positioned in the regulatory framework. Indeed, increased funding alone is inadequate. BFSA must be granted the authority to act decisively, with legal provisions that reduce dependency on goodwill or informal agreements. Such reforms could address the institutional capacity deficits discussed in section 3.4.3.

Secondly, targeted legal reforms should be implemented. Clearly defining the roles of each agency and establishing a legal hierarchy with BFSA at the apex is imperative. Legally binding agreements should be implemented to ensure cooperation and coordination

⁷²¹ Sarkar (n 694).

⁷²² *ibid.*

⁷²³ Woodford (n 643) 21.

amongst agencies which currently lack one, starting with BSTI. This recommendation fits with the accountability considerations in section 3.4.1.2. Additionally, a digital infrastructure ought to be developed for a centralised food safety information to streamline data collection, analysis, and dissemination. This would streamline operational challenges in risk assessment discussed in section 3.4.1 by providing a more solid foundation for scientific evaluation of food adulteration risks.

Overall, these foundational reforms aim to create a more coherent regulatory environment in the short term and paves the way for a potentially unified food safety system in the long term. However, reforms are almost never devoid of challenges. Vested interests within the food industry and bureaucracy have historically slowed reform efforts and may continue to resist changes that threaten their positions or practices. Alternatively, economic constraints may delay BFSA funding and investment in vital infrastructure including advanced testing facilities. As such, it takes consistent work to alter ingrained institutional cultures. The dominance of the informal sector, which functions mostly beyond purview of current legislation, further restricts the BFSA's regulatory reach. Therefore, to address these challenges, a staged strategy for progressive adaptation and stakeholder buy-in, as well as strong political will and targeted financial allocation, are required. Although these steps do not amount to a comprehensive system overhaul, they represent first steps towards removing the fragmentation that jeopardises Bangladesh's food safety governance and lowering the likelihood of adulteration.

4.6 Conclusion

To conclude, the food safety governance in Bangladesh remains by and large an abstract concept which is riddled with inefficiencies. The lack of institutional separation between risk assessment and risk management, combined with weak regulatory independence and accountability, has created a system incapable of comprehensive monitoring and enforcement. These deficiencies, compounded by overlapping laws and jurisdictional conflicts have rendered governance fragmented and ineffectual. Therefore, rectifying the identified governance issues is not exclusively an administrative necessity but is also an indispensable strategy against food adulteration. Empowering the BFSA with greater independence and resources would lead to more frequent and rigorous inspections, thereby increasing the detection of adulterated products. Closing legal loopholes through streamlined regulations would provide clarity and precision for enforcement agencies, whilst improved risk assessment processes would enable the anticipation and identification of emerging adulteration methods before they spread.

The GoB must therefore implement a pragmatic and incremental reform strategy. The ultimate goal should be the creation of a comprehensive, unified food law that consolidates all existing regulations under a singular, coherent framework. Inter-agency collaboration would be improved, responsibilities would be clarified, and a foundation for regulatory transparency and accountability would be established by that law. However, transformative reform of this magnitude cannot be achieved instantaneously. It requires sustained effort, time, and political commitment. In the interim, the focus must be placed on incremental yet impactful measures that address serious gaps in the existing system.

Overall, immediate priorities include empowering the BFSA with the authority to enforce regulations and penalise non-compliance. Additionally, implementing targeted legal reforms that address jurisdictional ambiguities and enhance inter-agency coordination starting with the BSTI. Simultaneously, capacity-building initiatives should strive to enhance institutional resources and address skill deficiencies. Future efforts must also prioritise the integration centralised data systems, to enable evidence-based policymaking and improve risk assessments. The objective is to commit both to short-term pragmatism and long-term vision so that GoB is able to turn the abstract concept of food safety governance into an operational reality.

Chapter 5: The Development of Food Traceability to Prevent Food Adulteration in Bangladesh

5.1 Introduction

This thesis has thus far investigated the systemic issues by concentrating on the deficiencies of private law and fragmented public regulatory and governance frameworks. As emphasised in the previous chapter, these deficiencies necessitate a government-led strategy to tackle food adulteration. However, a collaborative approach is required as the government cannot do this alone. Building on the analysis, this chapter explores how the government and food industry may work together to create food traceability systems to prevent adulteration. It utilises a socio-legal perspective to examine the interaction of legal frameworks, socio-economic issues, and technological obstacles that affect the implementation of traceability. The chapter then proposes a pragmatic approach to gradually establishing the legal, regulatory, and technical underpinnings for credible traceability systems. Since food traceability is still its nascent stages of development in Bangladesh, this chapter draws from government reports, industry initiatives, including international case studies. Select High Court directives are also examined to illustrate how broader traceability flaws likely contribute to persistent challenges in enforcing food safety standards.

5.2 The Necessity for Food Traceability in Food Law

5.2.1 Components of the Food Supply Chain

Before defining traceability, the food supply chain must be understood as a complex network with domino effects and two-way causality.⁷²⁴ It connects multiple actors, products, and markets to supply food products to consumers through national and international trade. Agriculture, food processing, and logistics/distribution are well-connected by this chain.⁷²⁵ According to Figure 2 below, it starts with primary producers such as farmers or growers and includes a variety of segments and intermediaries with different roles.

⁷²⁴ Mely Anthony, Paul Teng and Jose Montesclaros, 'COVID-19 and Food Security in Asia: How Prepared Are We?' (2020) IN20-03.

⁷²⁵ L Bukeviciute, A Dierx and F Ilzkovitz, 'The Functioning of the Food Supply Chain and Its Effect on Food Prices in the European Union' (European Commission 2009) Occasional Papers 47.

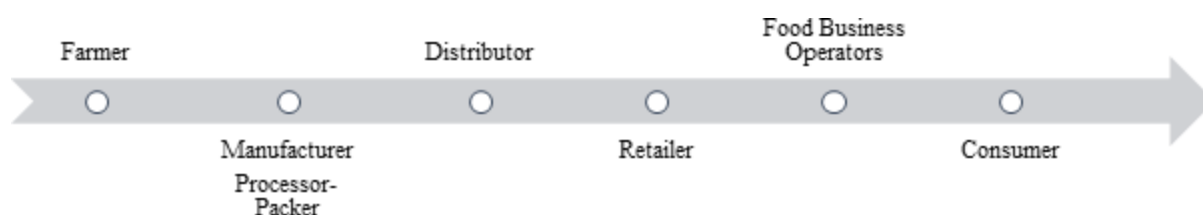


Figure 2: The Components of a Food Supply Chain⁷²⁶

5.2.2 Defining Food Traceability

Traceability was first defined by International Standards Organisation as the ‘ability to follow the movement of a feed or food through specified stages of production, processing and distribution’.⁷²⁷ FAO defines traceability as ‘the ability to discern, identify and follow the movement of a food or substance intended to be or expected to be incorporated into a food, through all stages of production, processing and distribution’.⁷²⁸ The Codex Procedural Manual defines traceability as ‘the ability to follow the movement of a food through specified stages of production, processing and distribution’⁷²⁹ and ‘the traceability/product tracing tool should be able to identify at any specified stage of the food chain (from production to distribution) from where the food came (one step back) and to where the food went (one step forward), as appropriate to the objectives of the food inspection and certification system’.⁷³⁰

The EU Food Law Regulation (EC) No 178/2002 (assimilated)⁷³¹ defines traceability as ‘the ability to trace and follow a food, feed, food-producing animal or substance intended to be, or expected to be, incorporated into a food or feed, through all stages of production, processing and distribution’.⁷³² It introduces the ‘one up, one down’ requirement which requires that operators involved in the production, processing or distribution of food or feed can identify every person from whom they have been supplied food, feed, food producing animals or substances they will incorporate within food or feed.⁷³³ They must also be able to

⁷²⁶ Kapur (n 218) tbl 1.

⁷²⁷ International Organisation for Standardisation (ISO 22005), ‘Traceability in the Feed and Food Chain — General Principles and Basic Requirements for System Design and Implementation’ (ISO 2007) 2.

⁷²⁸ Food and Agriculture Organisation of the United Nations, ‘Food Traceability Guidance’ (2017) 4.

⁷²⁹ FAO and WHO (n 148).

⁷³⁰ FAO, ‘Principles for Traceability/Product Tracing as a Tool within a Food Inspection and Certification System’ (2006) CAC/GL 60-2006 3.

⁷³¹ Following the enactment of Retained EU Law (Revocation and Reform) Act 2023, as of 1st January 2024, the terminology has changed: ‘retained law’ is now known as ‘assimilated law’. It has been recommended by FSA that this should now be identified or described as ‘assimilated law’. Food Standards Agency, ‘Key Regulations’ (2024) <<https://www.food.gov.uk/about-us/key-regulations>> accessed 29 January 2024.

⁷³² Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety art 3(15).

⁷³³ Regulation 178/2002, supra n. 8, Art. 18(2).

identify businesses they themselves supply with these products.⁷³⁴ The 'one up one down' approach imposes individual recording requirements upon each operator in the production and distribution chain.

Hence, these definitions, though divergent in scope and application, converge on two fundamental principles. First, traceability encompasses multiple phases of the food supply chain, though the degree of emphasis varies. For instance, the EU approach prioritises localised traceability within adjacent nodes, whereas other frameworks advocate for comprehensive, end-to-end visibility.⁷³⁵ Second, traceability requires a system to manage product flows throughout production stages.

5.2.3 Rationale for Food Traceability as a Proactive Approach

Traceability mechanisms are the backbone of modern supply chain governance as they promote responsible practices and accountability at each production stage.⁷³⁶ Basically, traceability is about communicating a food's journey. These stories could save lives and build trust in the food system. They document a food product's journey from field to table. When safety issues arise, this journal allows businesses to swiftly pinpoint and address any missteps along the way. For instance, Foras et al. highlighted Norway's improvements in traceability between 2008 and 2013, which showcases successful product recall mechanisms that enabled Norwegian wholesalers to manage trace-backs and withdrawals from retailers to origins.⁷³⁷

Experts also assert the importance of robust traceability systems in preventing fraud.⁷³⁸ Similarly, the European Commission underlined that traceability functions as a proactive risk management tool for future food safety systems and not just for present food safety issues.⁷³⁹ International food lawyers, too, affirm the effectiveness of traceability systems in

⁷³⁴ Regulation 178/2002, supra n. 8, Art. 18(3).

⁷³⁵ Jack (n 143) 152.

⁷³⁶ Ching-Fu Lin, 'Blockchainizing Food Law: Promises and Perils of Incorporating Distributed Ledger Technologies to Food Safety, Traceability, and Sustainability Governance' (2020) 74 Food and Drug Law Journal 594–595.

⁷³⁷ E Foras and others, 'State of Traceability in the Norwegian Food Sectors' (2015) 57 Food Control 65.

⁷³⁸ Creydt and Fischer (n 143); Fassam and Dani (n 143); Jack (n 143) 151–152; Pearson and others (n 143); Saskia Ruth, Wim Huisman and Pieterneel Luning, 'Food Fraud Vulnerability and Its Key Factors' (2017) 67 Trends in Food Science & Technology 70; Spink, Moyer and Speier-Pero (n 143); Louise Manning, 'Food Fraud: Policy and Food Chain' (2016) 10 Current Opinion in Food Science 16.

⁷³⁹ European Commission. Directorate General for Research and Innovation., *Food 2030: Pathways for Action 2.0: R&I Policy as a Driver for Sustainable, Healthy, Climate Resilient and Inclusive Food Systems*. (Publications Office 2023) 12 <<https://data.europa.eu/doi/10.2777/365011>> accessed 27 January 2024.

safeguarding against food fraud and ensuring compliance with safety standards.⁷⁴⁰ FAO supports legalising traceability mechanisms since prevention is cheaper and more effective than post-fraud remedies.⁷⁴¹ Although not a ‘silver bullet’ solution, emerging technologies such as blockchain have potential to further boost supply chain transparency and consumer confidence when used alongside traditional oversight such as inspections.⁷⁴² For example, major retailer in US reported that the implementation of blockchain technology reduced the time taken to track the origin of a mango from one week to 2.2 seconds.⁷⁴³

Further, traceability regulations put responsibility on FBOs to be transparent. Transparency discourages anonymity which could be detrimental to food safety. This is demonstrated by the FDA's traceability lot code system, which quickly identifies food producers and processors and protects public health.⁷⁴⁴ Epidemiologic data alone cannot identify the source of illnesses.⁷⁴⁵ Tracebacks validate the common constituents in impacted items and determine the source which prompt import alerts, product recalls, and consumer and merchant contacts. Through this lens, traceability becomes a proactive strategy rather than a reactive measure used when things go wrong.⁷⁴⁶ In a world where it is possible to track a pizza delivery in real-time, the same level of transparency should be expected from the entire food system.

5.2.4 International Development and Evolution of Food Traceability

Throughout history, food traceability systems have developed alongside global food production and trade.⁷⁴⁷ As food supply chains have become more complex, traceability has become vital for ensuring food safety and market access. In the early stages of global food trade, local food supplies were the main source, making product origins clear. However, as

⁷⁴⁰ Roberts, Viinikainen and Bullon (n 14) 23–24; Isabel Juan, ‘The Blockchain Technology and the Regulation of Traceability: The Digitization of Food Quality and Safety’ (2020) 15(6) *European Food & Feed Law Review* 563, 566; Luis Vaque, ‘Introducing the European Commission Knowledge Centre for Food Fraud and Quality’ (2018) 13(6) *European Food & Feed Law Review* 532, 535; R Berti and M Semprebon, ‘Food Traceability in China: Between Law and Technology’ (2018) 13(6) *European Food & Feed Law Review* 522; Konstantinos Karantininis and others (eds), *It's a Jungle out There - the Strange Animals of Economic Organization in Agri-Food Value Chains* (Wageningen Academic 2017); Jack (n 143) 151–152; Kapur (n 218); Lin (n 737) 590, 594–595.

⁷⁴¹ FAO, *Food Fraud – Intention, Detection and Management* (n 138) 9.

⁷⁴² *ibid* 18.

⁷⁴³ FAO, *Thinking about the Future of Food Safety* (n 91) 85; Reshma Kamath, ‘Food Traceability on Blockchain: Walmart's Pork and Mango Pilots with IBM’ (2018) 1(1) *The Journal of The British Blockchain Association* 47.

⁷⁴⁴ I Gray, ‘Public Meeting: Requirements for Additional Traceability Records for Certain Foods: Proposed Rule’ (US Food and Drug Administration (FDA) 2020) Docket No. FDA-2014-N-0053.

⁷⁴⁵ *ibid*.

⁷⁴⁶ Riefa (n 243).

⁷⁴⁷ S Gardner, ‘Consumers and Food Safety: A Food Industry Perspective’ <<https://www.fao.org/3/v2890t/v2890t05.htm>> accessed 27 January 2024.

connectivity increased and perishable goods travelled further, understanding the origin of products became important to manage risks such as pests, diseases, and contaminants.⁷⁴⁸ This requirement spurred more advanced traceability programs and legislation. Trade tariffs, an early form of government-required tracing, date back over 2,500 years.⁷⁴⁹ The rise of foodborne pathogens and contemporary food supply systems made food traceability increasingly sophisticated. By the mid-20th century, technological advances like barcodes and Radio Frequency Identification (RFID) enabled further enhancements. In 1987, this led the ISO to coin the first definition of traceability and lay the groundwork for later standards like ISO 8402:1994.⁷⁵⁰

The EU's response to the Bovine Spongiform Encephalopathy (BSE) crisis with the General Food Law 178/2002 (assimilated) in 2005 was a pivotal moment in international food trade.⁷⁵¹ It was as if a boulder had dropped in a stream which forced the course to redirect and rethink traceability entirely. Since 2005, the inclusion of traceability schemes in food safety frameworks has been mandated as a legal requirement for compliance with EU food law.⁷⁵² Just when it seemed every tributary was mapped, along came the horsemeat scandal. It revealed weaknesses in existing traceability measures as horse DNA was found in processed beef products in the UK, Ireland, and other European markets.⁷⁵³ Manning et al. use the horsemeat scandal as an example of a complex food supply chain that creates opportunities for food fraud. The supply chain included a French food processor, a Luxembourg subsidiary, a Cyprus subcontractor, a Dutch meat trader, Romanian abattoirs, and UK, Irish, and European food enterprises marketing the end products.⁷⁵⁴ The scandal also exemplifies how even existing documentation can be falsified.⁷⁵⁵ Similarly, widespread

⁷⁴⁸ OIE, 'Terrestrial Animal Health Code — Chapter 4.4. Application of Compartmentalisation' <https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2018/en_chapitre_application_compartment.htm> accessed 27 January 2024.

⁷⁴⁹ C Michel, 'The Assyrian Textile Trade in Anatolia (19th Century BCE): From Traded Goods to Prestigious Gifts' in K Dross-Krüpe, *Textile Trade and Distribution in Antiquity* (Harrassowitz Verlag Wiesbaden 2014) 14.

⁷⁵⁰ International Organisation for Standardisation (ISO 22005) (n 809).

⁷⁵¹ Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety art 3(15).

⁷⁵² Waqas Asghar and others, 'Global Perspective on Food Fraud with Special Emphasis on the Prevalence of Food Fraud Practices and Policies in Pakistan' (2023) 9(1) World Food Policy 93, 103.

⁷⁵³ Catherine Barnard and Niall O'Connor, 'Runners and Riders: The Horsemeat Scandal, EU Law and Multi-Level Enforcement' (2017) 76(1) The Cambridge Law Journal 116, 121; Sophie Meulen and others, 'Fighting Food Fraud: Horsemeat Scandal; Use of Recalls in Enforcement throughout the EU' (2015) 10(1) European Food & Feed Law Review 2, 4.

⁷⁵⁴ Louise Manning, Robert Smith and Jan Soon, 'Developing an Organizational Typology of Criminals in the Meat Supply Chain' (2016) 59 Food Policy 44, 45.

⁷⁵⁵ Barnard and O'Connor (n 835) 121.

food fraud is also common in Asia-Pacific due to long, complicated, and opaque food supply chains.⁷⁵⁶

5.2.4.1 Technology Underpinning Food Traceability in Food Fraud Detection

Yet, the beauty of technological evolution is it does not rely on a single, mighty dam to hold back the flood of food fraud. Instead, different countries created a network of solutions tailored to their environments. For example, New Zealand mandates cattle traceability,⁷⁵⁷ and Brazil's Sisbov comprehensively tracks livestock.⁷⁵⁸ Australia enforces strict tagging and identification requirements for cattle, sheep, and goats.⁷⁵⁹ Canada also adheres to mandatory animal traceability with a livestock identification tagging system.⁷⁶⁰ Meanwhile, China, though still in the early stages of developing its food traceability system, requires pigs, cattle, and sheep to be identified with an ear tag system featuring a 2-dimensional (2D) barcode.⁷⁶¹

Whilst not a technology, paper-based recordkeeping is still the usual method for traceability, especially for small and micro businesses in developing nations such as Bangladesh. Data is manually recorded on preprinted forms to track items along the supply chain.⁷⁶² Paper-based recording requires less knowledge and infrastructure but has high paper costs and is prone to errors and data loss.⁷⁶³ Though paper-based traceability generally provides a low-cost option, especially for small producers, it lacks security, accuracy, and searchability.

Thus, national governments are embracing numerous ways to help the food business fight food fraud, such as horizon scanning, which involves observation and analysis of environmental trend data to warn of potential threats.⁷⁶⁴ A pertinent example of this is the

⁷⁵⁶ Willis Gwenzi and others, 'Chicanery in the Food Supply Chain! Food Fraud, Mitigation, and Research Needs in Low-Income Countries' (2023) 136 Trends in Food Science & Technology 194; FAO, *Food Fraud – Intention, Detection and Management* (n 138) 5–6.

⁷⁵⁷ The National Animal Identification and Tracing Act (2012) introduces a scheme for identification of cattle and deer, identification devices and identifiers. It requires recording of information on the current location and movement history of the animals from birth-to-death. Ministry for Primary Industries, 'National Animal Identification and Tracing (NAIT) Programme' (6 December 2023) <<https://www.mpi.govt.nz/animals/national-animal-identification-tracing-nait-programme/>> accessed 27 January 2024.

⁷⁵⁸ Senem Kamiloglu, Tugba Ozdal and Esra Capanoglu, 'Regulatory Aspects' in Charis M Galanakis (ed), *Food Authentication and Traceability* (Academic Press 2021) 303.

⁷⁵⁹ *ibid.*

⁷⁶⁰ Safe Food for Canadians Regulations Act 2018.

⁷⁶¹ Sylvain Charlebois and others, 'Comparison of Global Food Traceability Regulations and Requirements' (2014) 13 Comprehensive Reviews in Food Science and Food Safety 1104, 1107.

⁷⁶² Samantha Islam and Jonathan Cullen, 'Food Traceability: A Generic Theoretical Framework' (2021) 123 Food Control 1, 9.

⁷⁶³ Andrea Stazi and Riccardo Jovine, 'Food Traceability in Europe, the US and China: Comparative Law and Regulatory Technology' (2022) 2 BioLaw Journal 339, 403.

⁷⁶⁴ European Food Safety Authority (EFSA) and others, 'Emerging Risks Identification on Food and Feed – EFSA' (2018) 16(7) EFSA Journal e05359.

alert issued to consumers and supply chain actors in the UK concerning the potential risk of walnuts being substituted with cheaper peanuts. The alert followed a series of walnut crop failures in Kashmir, where heavy rains severely impacted the crops.⁷⁶⁵ Horizon scanning illustrates how simple market signal monitoring can help traceability systems spot fraud early.

Establishing seafood authenticity has also been largely facilitated by technology. DNA barcoding, which uses genetic sequencing to identify species in raw and processed foods, has proven particularly effective. For instance, studies in Greece and South Korea reported mislabelling rates of 12.9% and 7.6% in seafood products, respectively.⁷⁶⁶ A broader study across 23 European countries found a 26% mislabelling rate in fish.⁷⁶⁷ DNA testing found 58% of Xue Yu fillet samples from various brands were adulterated in China.⁷⁶⁸ In Malaysia, a 2016 forensic fish survey found 16% fish product mislabelling.⁷⁶⁹ Taiwan recorded 70% mislabelling of imported fish samples, whilst India discovered 22%.⁷⁷⁰

Despite the array of tools available, from paper ledgers to genetic sequencing, food fraud still finds a way. It is a reminder that technology alone is not a magic wand. They are tools, powerful ones, certainly, but their efficacy depends entirely on the hands that wield them and the systems that support them. To this end, this thesis presents a framework for mapping available technologies and reflecting on their successful applications within food law enforcement settings. The focus here is not on the selection of the appropriate or ideal technology. This is a task that falls within the remit of food technologists. Rather, the research shows that whilst technology supports traceability and fraud detection, effective law enforcement could sometimes be achieved using relatively low-key technology.⁷⁷¹

⁷⁶⁵ Tom Bawden, 'New Food Scandal over Peanuts Is "more Serious" than the Horsemeat Crisis' (*The Independent*, 18 February 2015) <<https://www.independent.co.uk/life-style/food-and-drink/news/new-food-scandal-over-peanuts-is-more-serious-than-the-horsemeat-crisis-10045725.html>> accessed 27 January 2024; Gerard Sylvester (ed), *E-Agriculture in Action: Blockchain for Agriculture: Opportunities and Challenges* (International Telecommunication Union ; FAO 2019).

⁷⁶⁶ Stella Minoudi and others, 'Seafood Mislabeling in Greek Market Using DNA Barcoding' (2020) 113 Food Control 107213. Thinh Dinh Do and others, 'Assessment of Marine Fish Mislabeling in South Korea's Markets by DNA Barcoding' (2019) 100 Food Control 53.

⁷⁶⁷ Miguel Pardo and others, 'DNA Barcoding Revealing Mislabeling of Seafood in European Mass Caterings' (2018) 92 Food Control 7.

⁷⁶⁸ FAO, *Food Fraud – Intention, Detection and Management* (n 138) 16.

⁷⁶⁹ Too Chin and others, 'Detection of Mislabelled Seafood Products in Malaysia by DNA Barcoding: Improving Transparency in Food Market' (2016) 64 Food Control 247.

⁷⁷⁰ Chia Chang and others, 'DNA Barcode Identification of Fish Products in Taiwan: Government-Commissioned Authentication Cases' (2016) 66 Food Control 38. Kannuchamy Nagalakshmi and others, 'Mislabeling in Indian Seafood: An Investigation Using DNA Barcoding' (2016) 59 Food Control 196.

⁷⁷¹ See also, Christine Riefa and Liz Coll, 'The Transformative Potential of Enforcement Technology (EnfTech) in Consumer Law' (2024) Report funded by the UKRI Policy Support Fund, University of Reading 63.

5.3 Current Status of Food Traceability in the Bangladeshi Agri-food Industry

The focus now shifts to examine the current state of food traceability in Bangladesh in the agricultural sector, which accounts for 13% of GDP and employs nearly half the rural workforce.⁷⁷² As a major food production sector, the state of traceability in agriculture has major ramifications for food safety. A comprehensive food control system requires in-depth knowledge of the prevalence and distribution of the possible adulterants throughout the food production chain. However, Bangladesh currently lacks structured activities to monitor adulteration in primary animal and vegetable production, processed foods, and animal feed.⁷⁷³ In the absence of systematic monitoring, it is difficult to pinpoint critical points in the supply chain where traceability measures are most needed.

A review of the relevant academic and grey literature below helps explain why technology adoption to automate data recording procedures is not a viable choice in terms of legal, regulatory, and policy concerns. Instead, a sector-specific analysis of the existing state of traceability is the first step in preventing the hidden rocks of adulteration that lurk beneath the surface.

5.3.1 Aquaculture Industry

Traceability within the aquaculture industry is not quite up to the mark.⁷⁷⁴ Due to poor transit, handling, and storage, food safety and traceability are often compromised.⁷⁷⁵ Food sellers, especially in wet markets, utilise formalin to increase fish shelf life and improve appearance during domestic market shipping, which is a major concern.⁷⁷⁶ This practice contravenes section 23 of FSA (2013) which bans formalin for use in food.⁷⁷⁷ Due to the informal nature of the aquaculture network, product typically changes hands before reaching consumers,

⁷⁷² Ministry of Planning Government of the People's Republic of Bangladesh, 'Report on Agriculture and Rural Statistics' (Ministry of Planning Government of the People's Republic of Bangladesh 2019) Agriculture and Rural Statistics Survey (ARSS) Project-2017 v.

⁷⁷³ As discussed in Section 4.4.1 of this thesis, the deficiency in risk assessment practices for agricultural produce directly contributes to the absence of structured monitoring activities for food adulteration. FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (n 635) 16.

⁷⁷⁴ MZ Hoque and others, 'Consumers' Preferences for the Traceability Information of Seafood Safety' (2022) 11(2) Foods 1, 5.

⁷⁷⁵ Larive International, 'Aquaculture Sector Study Bangladesh - Commissioned by the Netherlands Enterprise Agency' (Larive International & LightCastle Partners 2021) Final Report 62. Hoque and others (n 775) 5.

⁷⁷⁶ Hoque and others (n 775); Khan and others (n 152); Hoque and others (n 449).

⁷⁷⁷ Food Safety Act s 23.

making source traceability problematic.⁷⁷⁸ This complexity heightens the likelihood of adulteration, especially with antibiotic residues in post-harvest fish and prawns.

The current traceability system, introduced in 2009 through a collaboration between the Department of Fisheries and UNIDO, has had minimal success. This paper-based method assigns prawn farms unique numeric codes but does not enable whole chain traceability and does not meet international purchasers' quality standards.⁷⁷⁹ Whilst the system meets baseline 'one up-one down' traceability requirements,⁷⁸⁰ it falls short of enabling whole chain traceability. Inefficient data gathering and analysis, difficulties keeping accurate and consistent records amongst supply chain actors, and information loss are major restrictions.⁷⁸¹

Consequently, the lack of traceability has resulted in reduced market access for Bangladeshi producers, the ripple effects of which flows through the nation's socio-economic fabric.⁷⁸² Shrimp exports were 75.8% of aquaculture product exports in 2018–19, generating US \$383 million. They directly employ 1.15 million individuals and indirectly support 5.2 million.⁷⁸³ It becomes a linchpin in the nation's economic stability, given that 24.3% of Bangladesh's population lives below the upper poverty line, with half living under USD 1.9 per day.⁷⁸⁴ The industry also advances gender inclusion, with approximately 100 seafood processing plants in the southern and coastal regions predominantly employ women.⁷⁸⁵

In response, GoB has established several testing laboratories but not addressed the legal and regulatory issues which drive these challenges.⁷⁸⁶ Thus, identifying the source of

⁷⁷⁸ Larive International (n 776) 121.

⁷⁷⁹ Williem Pijl, 'An Update of Shrimp and Prawn Supply Chain Initiatives in Bangladesh; Recommendations for Inclusive Shrimp Supply Chain Development for the STDF Project' (Wageningen, LEI Wageningen UR (University & Research centre) 2014) LEI 14-028 14.

⁷⁸⁰ 'Code of Conduct For Selected 10 Segments of the Shrimp Aquaculture Industry in Bangladesh' (Department of Fisheries Government of Bangladesh, Bangladesh Shrimp and Fish Foundation 2015).

⁷⁸¹ Pijl (n 780) 14. Samantha Islam, Louise Manning and Jonathan Cullen, 'Systematic Assessment of Food Traceability Information Loss: A Case Study of the Bangladesh Export Shrimp Supply Chain' (2022) 142 Food Control 1, 2.

⁷⁸² USAID, 'The Enabling Environment for Food Traceability System Success' (USAID 2021) 40.

⁷⁸³ Department of Fisheries, 'Yearbook of Fisheries Statistics of Bangladesh 2016-17' (Department of Fisheries, Bangladesh: Ministry of Fisheries and Livestock 2020) 36. Chinmoy Biswas and others, 'Assessment of Heavy Metals in Farmed Shrimp, *Penaeus Monodon* Sampled from Khulna, Bangladesh: An Inimical to Food Safety Aspects' (2021) 7 Heliyon 1.

⁷⁸⁴ JICA, 'JICA Country Analysis Paper for The People's Republic of Bangladesh' (JICA 2023) 9; World Bank, 'Poverty & Equity Brief Bangladesh' (World Bank 2023).

⁷⁸⁵ Department of Fisheries (n 784).

⁷⁸⁶ Toan Dao, 'Bangladesh Government Grants Permission for Vannamei Pilot Farms' (*SeafoodSource*, 2020) <<https://www.seafoodsource.com/news/aquaculture/bangladesh-government-grants-permission-for-vannamei-pilot-farms>> accessed 28 January 2024. See Section 5.4.3.2 of this thesis.

adulteration and conducting effective surveillance remain difficult.⁷⁸⁷ Experts and policymakers recommend the implementation of a whole-chain computerised traceability system to enhance efficiency, transparency, and oversight.⁷⁸⁸ Whilst upgrading to a tech-enabled system could resolve many of these issues, it faces socio-legal barriers which are discussed later in this chapter.⁷⁸⁹

5.3.2 Meat Industry

Bangladesh's meat sector lacks traceability.⁷⁹⁰ A government study found that almost 50% of poultry feed samples from 14 brands are laced with antibiotics.⁷⁹¹ Since poultry feed often contains antibiotics, antimicrobial resistance could propagate across the food chain and pose serious public health risks. This widespread adulteration points to the need for robust traceability systems that can track feed sources and antibiotic usage throughout the supply chain. The current legal restrictions on antibiotic supplementation of poultry feed are contained in section 14(1) of the Fish Feed and Animal Feed Act (2010), thereby making non-therapeutic antibiotic additive usage a criminal offence under section 14(2).⁷⁹²

Since section 14(1) says 'usage in feed', it is unclear if it restricts MIA injections.⁷⁹³ Although a literal interpretation of this section might suggest that injections are not covered, a broader understanding would include the injection of MIAs for growth purposes as a violation. The Animal Welfare Act (2019) clarifies this loophole.⁷⁹⁴ Section 6(1)(h) of Animal Welfare Act (2019) makes feeding, injecting, or putting dangerous medications or substances into an animal unnecessary cruelty and a crime under section 16(a).⁷⁹⁵ It applies to all animals, whether raised domestically or commercially. However, whilst the legal framework prohibits such actions, enforcement is difficult in the absence of a solid tracking system. Implementing complete traceability methods in Bangladesh's meat business could provide a solution by keeping a clear and detailed record of each stage of the supply chain, including the origins

⁷⁸⁷ M Molla, 'Bangladesh Struggles with Adulterated Shrimp' (*The Third Pole*, 8 February 2018) <<https://www.thethirdpole.net/en/food/bangladesh-struggles-with-adulterated-shrimp/>> accessed 28 January 2024; Larive International (n 776) 75.

⁷⁸⁸ FPMU Ministry of Food, Government of the People's Republic of Bangladesh, 'NFNSP Plan of Action (PoA) and Bangladesh Third Country Investment Plan- CIP3 (2021-2025): Monitoring Report 2023' (FPMU Ministry of Food, Government of the People's Republic of Bangladesh 2023) 119.

⁷⁸⁹ See Section 5.4 of this thesis.

⁷⁹⁰ Jinnat Ferdous and others, 'Mapping of Dressed and Processed Poultry Products in Bangladesh: Identifying the Food Safety Risks for Policy Intervention' (2023) 47 Veterinary Research Communications 1991. S Oman and Wei Liang, 'The Dairy and Beef Value Chain in Bangladesh' (FAO and UNIDO 2019).

⁷⁹¹ Mohammad Molla, 'Poultry Feed Laced with Antibiotics' *The Daily Star* (13 April 2019) <<https://www.thedailystar.net/frontpage/news/poultry-feed-laced-antibiotics-1729231>> accessed 28 January 2024.

⁷⁹² Fish Feed and Animal Feed Act 2010 s 14(1) and 14(2).

⁷⁹³ *ibid* 14(1). Ali and Solaiman (n 65) 457.

⁷⁹⁴ Animal Welfare Act 2019.

⁷⁹⁵ *ibid* 16(1)(h) and 16(a).

and administration of drugs such as antibiotics. A functioning traceability system could assure legal compliance, as well as provide transparency which would help authorities to identify and stop antibiotic abuse anywhere in the supply chain.

Field visits by food lawyers to remote rural areas reveal widespread use of antibiotic-laced feed, largely due to insufficient regulatory oversight.⁷⁹⁶ The absence of effective traceability mechanisms intensifies this problem by making it difficult to identify and hold accountable those who violate antibiotic use regulation. The lack of government monitoring has led many farmers in various districts of Bangladesh to openly use illegal fattening tablets, often smuggled from India and sold cheaply on the black market.⁷⁹⁷ This situation led the High Court to ban the use of antibiotics in cows without veterinary prescriptions in 2019.⁷⁹⁸ Yet, public unawareness and inadequate monitoring measures continue to incentivise adulteration.⁷⁹⁹ Whilst judicial activism has a role, it cannot substitute for hard legislative reforms and sustained executive action to monitor compliance and raise awareness. Traceability systems could help in monitoring and enforcing these regulations by providing a clear record of what substances are used and how they are administered.

Neither the Fish Feed and Animal Feed Act (2010) nor the Animal Welfare Act (2019) impose mandatory supply chain transparency or introduce any certification systems to enable monitoring.⁸⁰⁰ Periodic antibiotic residue testing hinders adulteration traceback due to this legislative gap. Since there is no carrot-and-stick approach to encourage food traceability, fly-by-night operations can continue to flout regulations. Researchers have found middlemen and suppliers reluctant to use tracking mechanisms.⁸⁰¹ They typically skip the extra, costly steps needed for transparent tracking, which results in uneven testing and an inability to verify safety or pinpoint wellsprings of adulteration.⁸⁰²

⁷⁹⁶ Ali and Solaiman (n 65) 454.

⁷⁹⁷ Pinaki Roy with Ahmed Topu, 'Cow Fattening out of Control' (*The Daily Star*, 29 September 2014) <<https://www.thedailystar.net/cow-fattening-out-of-control-43802>> accessed 28 January 2024; Ali and Solaiman (n 72) 454.

⁷⁹⁸ M Moneruzzaman, 'HC Bans Antibiotics for Cows without Prescription' *New Age* (2019) <<https://www.newagebd.net/article/78677/hc-bans-antibiotics-for-cows-without-prescription>> accessed 28 January 2024.

⁷⁹⁹ Ali and Solaiman (n 65) 454.

⁸⁰⁰ Fish Feed and Animal Feed Act; Animal Welfare Act.

⁸⁰¹ Ferdous and others (n 791) 1998; K Hossain, J Xue and M Rabbany, 'Consumers' Willingness to Pay for GLOBALG.A.P. Certified Chicken: Empirical Evidence from a Consumer Survey in Bangladesh' (2021) 130 *Food Control* 1, 2.

⁸⁰² Ferdous and others (n 791) 1998.

5.3.3 Vegetables and Fruits Industry

The fruits and vegetables industry lack traceability from farm to table. No system tracks the use of harmful chemicals such as calcium carbide and formalin which are commonly used to ripen fruits.⁸⁰³ Similarly, vegetables are dyed without oversight on chemical exposures.⁸⁰⁴ The chemical residues pose health risks to consumers and hinder the industry's food safety response due to this oversight gap.

The lack of robust traceability systems has had a notable impact on Bangladesh's agricultural exports. The recent failed attempt to export mangoes to UK supermarkets demonstrates the gap in traceability where the Hortex Foundation facilitated the export of 155 MT of fresh mangoes to Walmart group's supermarkets in the UK.⁸⁰⁵ However, due to the lack of a robust traceability system such as Global GAP, mango exports were halted.⁸⁰⁶ The incident illuminates a substantial decline in fruit and vegetable exports to Europe, from 54.8% in FY14 to 32% in FY23.⁸⁰⁷ Current exports are predominantly confined to ethnic markets catering to Bangladeshi expatriates due to traceability difficulties such as poor agricultural practices, packing, and technology.⁸⁰⁸ Accordingly, donor agencies have reported that Bangladesh does not prioritise traceability.⁸⁰⁹ They have also found that majority of the food processing companies lack a proper system to identify the causes of food related incidents.⁸¹⁰

Despite the existence of the Regulation on Food Safety (Chemical contamination, toxin, and harmful residue)⁸¹¹ which sets rules for agrochemical residues, food processing companies rarely test these residues in raw materials, including fruits and vegetables.⁸¹² The unchecked

⁸⁰³ A Kabir and others, 'Consumers' Interest and Willingness to Pay for Traceable Vegetables- An Empirical Evidence from Bangladesh' (2023) 7 Future Foods 1, 2. Star Business Report, 'Fruits Not Adulterated with Formalin: Experts' *The Daily Star* (1 August 2018) <<https://www.thedailystar.net/business/fruits-not-adulterated-formalin-experts-1614241>> accessed 30 July 2024.

⁸⁰⁴ Kabir and others (n 804) 2.

⁸⁰⁵ The Horticulture Export Development Foundation, in short, Hortex Foundation, was established under the patronage of the MOA, the GoB, as a nonprofit organisation to promote high-value agriproducts for export and domestic markets.

⁸⁰⁶ JICA, 'People's Republic of Bangladesh Preparatory Survey for Food Value Chain Improvement Project Final Report' (People's Republic of Bangladesh Ministry of Industries (Bangladesh Infrastructure Finance Fund Limited (BIFFL) 2021) 106.

⁸⁰⁷ Tribune Desk, 'Export of Fruits, Vegetables to Europe See Sharp Decline' *Dhaka Tribune* (21 October 2023) <<https://www.dhakatribune.com/business/328653/export-of-fruits-vegetables-to-europe-see-sharp>> accessed 31 July 2024.

⁸⁰⁸ S Ali, 'Bangladesh's Fruits, Vegetables Exports Plunge 68.7% in a Decade' *The Business Standard* (21 October 2023) <<https://www.tbsnews.net/economy/bangladeshs-fruits-vegetables-exports-plunge-687-decade-723398>> accessed 31 July 2024.

⁸⁰⁹ JICA (n 807) 112, 113.

⁸¹⁰ *ibid* 126.

⁸¹¹ Regulation on Food Safety (Chemical contamination, toxin, and harmful residue 2017).

⁸¹² JICA (n 807) 126.

use of hazardous chemicals to ripen and process produce likely exposes consumers to chemical residues. Additionally, the lack of traceability mechanisms cripples the ability to identify sources of adulteration when incidents occur and may facilitate their further spread. Hence, donor agencies recommend these enterprises to build raw material tracing procedures to avoid food safety problems and litigation.⁸¹³ However, only large food processors have implemented such systems through contract farming arrangements.⁸¹⁴ Most companies procure mixed raw materials from various suppliers that makes it tough to trace the origins.⁸¹⁵

5.3.4 Dairy Industry

The 2019 adulteration scandal revealed dairy traceability problems.⁸¹⁶ The NFSL identified high levels of various adulterants including lead, pesticides, antibiotics, and microbial elements in milk and cattle feed samples. This discovery also raised immediate health concerns. The High Court subsequently ordered the government to investigate tainted milk products in the country. Following the High Court order, the BFSA filed cases against ten prominent dairy companies, including Bangladesh Milk Producers' Cooperative Union Limited (Milk Vita), Pran Dairy, and Aarong Dairy, amongst others.⁸¹⁷ This step was taken following the presence of heavy metals such as lead and cadmium in both packaged and raw milk exceeded the prescribed limit. The samples were collected from different markets in the capital, and the findings were then submitted to the High Court. Another study conducted by in the same year by Dhaka University also reported that the packaged milk of several top brands was adulterated with detergents and human-specific antibiotics.⁸¹⁸ These findings were verified in later tests which added to the concerns regarding the safety of milk products. Due to the number of infractions, the High Court ordered the Anti-Corruption Commission with investigating adulteration rackets.

Thus, the judicial investigations suggest belated efforts at accountability, along with reminders of an absent protective shield. A robust traceability system is essential to protect the dairy supply chain from any adulteration attempts before they happen. End-to-end

⁸¹³ *ibid.*

⁸¹⁴ *ibid.*

⁸¹⁵ *ibid.*

⁸¹⁶ Neo (n 691).

⁸¹⁷ Staff Correspondent, '10 Firms Sued over Harmful Substances in Milk' *The Daily Star* (25 July 2019) <<https://www.thedailystar.net/frontpage/milk-adulteration-in-bangladesh-10-firms-sued-by-food-safety-authority-1776541>> accessed 28 January 2024.

⁸¹⁸ Neo (n 691); Holly Montgomery, Simon Haughey and Christopher Elliott, 'Recent Food Safety and Fraud Issues within the Dairy Supply Chain (2015–2019)' (2020) 26 *Global Food Security* 1, 7.

traceability involves establishing a network of sensors across the supply chain to identify anomalies at their origin and notify customers prior to the distribution of adulterated items to consumers. It differentiates reactive clean-up from proactive security. Hence, traceability functions as a robust preventive mechanism that deters possible adulterators, rather than purely focusing on post-facto responsibility. Consequently, experts advocate for a thorough traceability system to ensure the safety of Bangladesh's dairy products along the entire supply chain.⁸¹⁹

5.3.5 Recent Collaborations

Recent policies in Bangladesh have recognised the limitations of traceability and promoted its implementation and bolster private sector capabilities.⁸²⁰ This commitment is evident in the establishment of traceability systems in agricultural, animal, and fish production, which represent key components of the 'NFNSP Plan of Action'.⁸²¹ Strategy 5.1 under Area of Intervention (AOI) 5.1.2 aims to establish, improve, and implement traceability methods and enforce a regulatory framework to manage food hazards in the food supply chain.⁸²²

Recent projects demonstrate the government's initial traceability efforts. The USDA helped the Plant Quarantine Wing of the Department of Agricultural Extension (DAE) establish a mango e-traceability system in 2023.⁸²³ This pilot project aims to track mangoes from orchard to sale to assure safety and quality. Secondly, Seaqua, a blue-tech startup that raised considerable international investment in 2024 to digitise Bangladesh's fisheries and aquaculture industry.⁸²⁴ Their goal of building traceability maps for fisheries and the agricultural industry demonstrates the private sector's recognition of traceability's importance. Further, Fargo and Dutch company Saf Invest announced a 2024 partnership to combat food adulteration.⁸²⁵ Their joint company develops food manufacturing and

⁸¹⁹ Neo (n 913).

⁸²⁰ FPMU (n 682) 64. FPMU (n 789) 16, 139, 140.

⁸²¹ FPMU (n 789) XI.

⁸²² *ibid* 115.

⁸²³ J Rana, 'The Booming Export Market for Mangoes' *The Financial Express* (12 April 2023) <<https://today.thefinancialexpress.com.bd/views-opinion/the-booming-export-market-for-mangoes-1681220252>> accessed 31 July 2024.

⁸²⁴ 'Bangladeshi Blue-Tech Startup Raises Six-Figure Investment' (*The Fish Site*, 3 January 2024) <<https://thefishsite.com/articles/bangladeshi-blue-tech-startup-raises-six-figure-investment-seaqua>> accessed 31 July 2024.

⁸²⁵ TBS Report, 'Fargo and Dutch-Based Saf Invest to Jointly Invest in Local Food Processing Industry' *The Business Standard* (14 May 2024) <<https://www.tbsnews.net/economy/fargo-and-dutch-based-saf-invest-jointly-invest-local-food-processing-industry-850861>> accessed 31 July 2024.

processing technology for traceability and compliance, especially for European and Middle Eastern exports.⁸²⁶

Despite these promising developments, Bangladesh's food industry's traceability approach appears disjointed and led by private or international entities. Weak government leadership to standardise and regulate these projects runs the danger of fragmented, incompatible traceability systems developing across different sectors. A 2021 policy statement puts the responsibility to NFSAC to support BFSA in developing traceability.⁸²⁷ However, this goes back to the point discussed in the previous chapter.⁸²⁸ The term 'support' does little to resolve the underlying ambiguity in their relationship stipulated in section 3(1) of FSA (2013).⁸²⁹ If this structural ambiguity between NFSMAC and BFSA persists, it could lead to confusion in the development and implementation of traceability measures for private actors.

5.4 Addressing the Barriers in Implementing Tech Enabled Food Traceability

In response to traceability issues, Bangladeshi policymakers have shown increasing interest in adopting advanced technologies, particularly blockchain, to enhance food traceability and safety governance.⁸³⁰ However, the implementation of such technologies in a developing country context presents its own set of problems.

5.4.1 Introduction to Blockchain Technology

Before examining the barriers to implementing technology-enabled food traceability in Bangladesh, it is useful to understand the primary technology being considered for this purpose. Therefore, this section will first introduce blockchain technology and its potential applications in food traceability. This background is essential for comprehending the subsequent discussion on implementation barriers, as many of these challenges are directly related to the nature and prerequisites of blockchain technology.

To define it broadly, blockchains, also known as Distributed Ledger Technologies (DLT), are decentralised databases maintained by a network of computing nodes.⁸³¹ To put it more simply, it is a computerised ledger. This innovative technology allows untrusting parties to

⁸²⁶ Star Business Desk, 'Bangladesh, Netherlands Joint Initiative to Ensure Healthy Food' *The Daily Star* (14 May 2024) <<https://www.thedailystar.net/business/organisation-news/news/bangladesh-netherlands-joint-initiative-ensure-healthy-food-3610071>> accessed 31 July 2024.

⁸²⁷ FPMU (n 682) 106.

⁸²⁸ See Section 4.4.2.1 of this thesis.

⁸²⁹ Food Safety Act s 3(1).

⁸³⁰ FPMU (n 682) 106. FPMU (n 789) 86, 140.

⁸³¹ Primavera Filippi and Aaron Wright, *Blockchain and the Law* (Harvard University Press 2018) 13.

share data via peer-to-peer networks, cryptography, and consensus processes.⁸³² When data is added to a blockchain, it is simultaneously recorded permanently and updated across each node in the network. Cryptography enables numerical consensus, which ensures the data's consistency and authenticity throughout the network.⁸³³ In this structure, each new transaction is added as an additional 'block' and is cryptographically linked to the existing chain of blocks, forming what is known as a blockchain.⁸³⁴

Blockchain operates as a decentralised system which is not under the control of any central authority, individual, company, or government. Instead, it is governed collectively by all network nodes, including miners or participants, according to a predefined algorithm. This algorithm tracks all transactions from the origin block to the last completed block.⁸³⁵ All network participants have distinct digital signatures. The signature is affixed to every transaction they add to the blockchain, along with specific timestamps and details.⁸³⁶ Thus, the blockchain securely and precisely records all transactions. This provides a secure ledger that only people with public or private cryptographic keys can view and manage.⁸³⁷

In food law, the primary governance challenges revolve around the management of 'information' especially in addressing information asymmetry within the supply chain, which is a key factor in addressing safety and fraud. The effectiveness of traceability and outbreak response hinges on the ability to verify and share information. Blockchain ensures network data integrity without a central intermediary.⁸³⁸ It achieves this by maintaining information in a cryptographically 'tamperproof' manner, where the network automatically rejects any inconsistent or adulterated data.⁸³⁹ Notably, the characteristics of blockchain technology, including its decentralised structure and reliance on cryptographic algorithms, make it highly resistant to hacking.⁸⁴⁰

⁸³² *ibid.*

⁸³³ Karen Yeung, 'Regulation by Blockchain: The Emerging Battle for Supremacy between the Code of Law and Code as Law' (2019) 82(2) *The Modern Law Review* 207, 210–211.

⁸³⁴ UK Government Chief Scientific Adviser, 'Distributed Ledger Technology: Beyond Block Chain' (2016) 5.

⁸³⁵ Tracie Scott and others, 'Evaluating Feasibility of Blockchain Application for DSCSA Compliance' (2018) 1(2) *SMU Data Science Review* 1, 9–10.

⁸³⁶ Thomas Burke, 'Blockchain in Food Traceability' in Jennifer McEntire and Andrew W Kennedy (eds), *Food Traceability: From Binders to Blockchain* (Springer International Publishing 2019) 133.

⁸³⁷ P Paech, 'The Governance of Blockchain Financial Networks' (2017) 80(6) *Modern Law Review* 1073, 1080–82.

⁸³⁸ Jade Lindley, 'Food Regulation and Policing: Innovative Technology to Close the Regulatory Gap in Australia' (2022) 17(2) *Journal of Consumer Protection and Food Safety* 127, 131; D Dawson, 'Blockchain Technology Coming to Olive Oil, Someday' (*Olive Oil Times*, 26 February 2018) <<https://www.oliveoiltimes.com/world/blockchain-technology-coming-olive-oil-someday/62301>> accessed 28 January 2024.

⁸³⁹ Margaret Fowler, 'Linking the Public Benefit to the Corporation: Blockchain as a Solution for Certification in an Age of Do-Good Business' (2017) 20 *Vanderbilt Journal of Entertainment & Technology Law* 881, 898–900.

⁸⁴⁰ Vessio (n 163) 176.

Blockchain might improve food industry digital record-keeping and traceability, validate transactions and certifications, and boost inventory and efficiency.⁸⁴¹ FAO and the International Centre for Trade and Sustainable Development agree that DLTs can improve agricultural supply chain efficiency, transparency, and trust. Yet, it is not solely a regulatory apparatus. Instead, more ambitiously, it could be seen as a ‘technical fix’ capable of enhancing different facets of supply chain and contributing to effective governance performance.⁸⁴²

Using technology enabled traceability in enforcement practice does bring many benefits in terms of augmenting institutional capacity response and streamlining operations. However, the use of technology in enforcement also does come with pitfalls. Two main categories of risks are identified in the sections that follow. These are generic risks common to any nation adopting such technology, followed by Bangladesh-specific hurdles shaped by its socio-legal factors. These challenges are not isolated categories but are rather intertwined with issues from one domain often sprouting in the other. It is therefore perhaps more useful to think of a ‘web of interlocking problems’ to make linkages and draw implications where necessary when reflecting on how to roll out technology enabled traceability for enforcement purposes.

Now, before unpacking those risks and challenges, it is worthwhile noting that technology alone cannot fix deeper governance issues. Digitising clumsy processes rarely brings satisfactory results. The implementation of technology enabled traceability should spark more transformative thinking. Though food agencies may be constrained by legal frameworks and budgets, broader reforms may eventually be needed. In the meantime, moderate technology improvements could aid enforcement pending thorough reforms. Perhaps, it may be prudent to view progress as a journey rather than a destination by recognising that each step forward, however small, is valuable in its own right.⁸⁴³ Some technological fixes may incrementally move enforcement capabilities forward. The key is viewing technology not as an end in itself, but as a catalyst for re-evaluating and optimising current enforcement philosophies, policies, and practices. Technology enables new possibilities, yet successful adoption requires a willingness to fundamentally reimagine food systems, all whilst addressing unrealistic expectations.

⁸⁴¹ Axfoundation and others, ‘Blockchain Use Cases for Food Traceability and Control’ (Kairos Future) 24–25.

⁸⁴² Lin (n 737) 600.

⁸⁴³ See generally, Roger Brownsword, ‘Law, Authority, and Respect: Three Waves of Technological Disruption’ (2022) 14 *Law, Innovation and Technology* 5; Joshua Ellul and others, *A Pragmatic Approach to Regulating Artificial Intelligence: A Technology Regulator’s Perspective* (2021).

5.4.2 Macro-level Risks

The scope of this thesis is narrowly confined to assessing traceability technologies through the lens of food adulteration enforcement. However, it would be a remiss to not briefly feature legally salient generic risks attendant to such emerging infrastructures. This section succinctly discusses these prevalent adoption hurdles that should be acknowledged to effectively use traceability.

5.4.2.1 Premature Technological Embrace

Blockchain integration in food law echoes AI adoption for consumer enforcement's 'hype problem' when enthusiasm outpaces strategic planning.⁸⁴⁴ Blockchain adoption in Bangladesh is still early, with most applications being single-use or pilot.⁸⁴⁵ The adoption of blockchain in the aquaculture sector appears to be a clear case of premature technological embrace.⁸⁴⁶ The initiative is primarily donor-driven and aims to address low consumer trust.⁸⁴⁷ However, the blockchain solution appears to be an attempt to leapfrog more basic traceability systems and potentially overlooking fundamental issues in the food safety ecosystem that could undermine such efforts.

For instance, sections 55 and 63 of FSA (2013) show a rift between the proposed technology and the existing law.⁸⁴⁸ Section 55 grants inspectors the authority to seize adulterated food and charge violators, with cases to be heard in special food courts.⁸⁴⁹ However, section 63 has a deficit i.e., if a food operator is unaware that a food item in their possession was adulterated by a previous supplier, they have the option, not a requirement, to cooperate with authorities in identifying the actual violator.⁸⁵⁰ The discretionary nature of this cooperation in tracing adulterated food sources punches holes in any traceability system, including blockchain. Food traceability with blockchain technology requires a complete and accurate supply chain record. Section 63 essentially permits FBOs to opt out

⁸⁴⁴ Christine Riefa and Liz Coll, 'EnfTech: The Transformative Potential of Technology in Consumer Law Enforcement' (Fourteenth Meeting of the UNCTAD Research Partnership Platform, Room XVII, Palais des Nations, Geneva, 2023); Christine Riefa and Liz Coll, 'The Use of AI in the Enforcement Technology (EnfTech) Toolbox: Is AI a Friend or a Foe?' in Larry Di Matteo, C Poncibo and Geraint Howells, *AI and Consumers* (Cambridge University Press, forthcoming 2023); Liz Coll and Christine Riefa, 'Exploring the Role of Technology in Consumer Law Enforcement' (2022) 34 *Loyola Consumer Law Review* 359, 368.

⁸⁴⁵ S Karmaker, 'Where Does Bangladesh Stand on Adopting Blockchain Technology?' *The Business Standard* (19 January 2023) <<https://www.tbsnews.net/features/panorama/where-does-bangladesh-stand-adopting-blockchain-technology-570286>> accessed 31 July 2024.

⁸⁴⁶ USAID (n 783) s 9.3.

⁸⁴⁷ *ibid* 155.

⁸⁴⁸ Food Safety Act ss 55, 63.

⁸⁴⁹ *ibid* 55.

⁸⁵⁰ *ibid* 63.

of cooperating with authorities, thus creating possible breaks in this chain, which could render a blockchain system ineffective.

Moreover, the law's leniency towards FBOs who unknowingly possess adulterated food could muddle the enforcement of a strict traceability system. It widens the gap between the current regulatory environment and the requirements of an advanced blockchain system. Successful blockchain systems require dependable and uninterrupted data. The entire system could be compromised if FBOs refuse to disclose the source of adulteration, which could result in cracks in the traceability data.

Collectively, sections 55 and 63 illustrate why implementing blockchain for food traceability in Bangladesh would be premature. The basic legal infrastructure for ensuring food safety and traceability is still developing and there are gaps that need to be bridged before considering such an advanced technological solution.⁸⁵¹ The government should close this legislative loophole and make cooperation in traceability investigations mandatory, not optional. Alongside, it could also be beneficial to establish clear penalties for non-compliance and create incentives for early adopters of traceability systems. It could enable creating an environment that encourages and rewards participation in traceability efforts.

Currently, the lack of regulatory readiness in Bangladesh makes advanced traceability systems difficult to deploy and enforce. Conversely, Fiji appears to be more prepared with specific regulations for fish product traceability.⁸⁵² Whilst Colombia has a weaker regulatory framework, its smart device and cell network connectivity in farming areas makes blockchain adoption easier.⁸⁵³ Although the implementation has seen some initial benefits in Fiji and Colombia, it is too early to determine what has worked and what has not worked.

Resource constraints pose another formidable hurdle. Implementing blockchain is expensive and complex. This is especially true for authorities lacking the necessary resources, such as funds, expertise, or even basic infrastructure like reliable electricity. The high cost and the extended timeline required for setting up a blockchain-based traceability system may not justify the return on investment, particularly if the system lacks access to substantial and

⁸⁵¹ Monica Vessio and others, 'InPerpetuity {Challenging Misperceptions of the Term "Smart Contract"}' (2024) 15(2) European Journal of Law and Technology 1. The thematic connection makes the citation noteworthy here because their work addresses the obstacles associated with sophisticated technologies, such as smart contracts, in systems lacking foundational clarity and systemic coherence.

⁸⁵² Fiji Islands Food Safety Act 2003 para 70(w): the Fijian Central Board of Health is granted authority to 'regulate proper disposal of food by prescribing ways and means including but not limited to (i) keeping of records and putting batch or lot numbers to facilitate tracing the whereabouts of food'.

⁸⁵³ USAID (n 783) 38.

relevant data to work from. Bangladeshi agri-food farmers in particular use paper records and do not maintain them which results in insufficient traceability records.⁸⁵⁴ Neither will it work if its training and deployment is not well thought out.

In those situations, it may be more sensible to allocate resources towards investing in simpler and relatively low-key forms of technology,⁸⁵⁵ with the intention of transferring the data and expertise acquired to a future project. These technologies could form the foundation upon which more sophisticated systems such as blockchain can later be built by utilising the data and expertise accumulated over time. Hence, in the initial stages of technology deployment, consumer law experts generally opine that it is important to:

See past the hype, to focus on how to build effective resources to assist in enforcement tasks.⁸⁵⁶

5.4.2.2 Technological Reliability

Even amongst front-runners in utilising technology for food law enforcement, blockchain is not always the primary choice.⁸⁵⁷ It occupies a niche within a broader spectrum of technological solutions.⁸⁵⁸ Blockchain, much like AI, is often misconstrued as a catch-all solution.⁸⁵⁹ Blockchain's intrinsic technological limitations must be acknowledged, especially in its application to food traceability. A key feature of blockchain is its immutability. The network only accepts consensus-approved data and rejects conflicting data.⁸⁶⁰ This structure makes it hard to erase or change blockchain transactions.⁸⁶¹ Yet, the original data entering method may still contain errors, adulteration, or fraud. Tampering with production or sensor data perpetuates blockchain inaccuracies. For example, Walmart's private blockchain technology allows the controlling firm to edit raw data or shut the system without other

⁸⁵⁴ See Section 5.3.1.

⁸⁵⁵ See Section 5.2.4.1.

⁸⁵⁶ Riefa and Coll (n 772) 68.

⁸⁵⁷ Meta Boller, Annikka Zurwehme and Christian Krupitzer, 'Qualitative Assessment on the Chances and Limitations of Food Fraud Prevention through Distributed Ledger Technologies in the Organic Food Supply Chain' (2024) 158 Food Control 1.

⁸⁵⁸ Some recent technological innovations include, handheld portable devices can take testing from the laboratory to the field. DNA barcoding could be very effective in identifying species substitution, and has seen great success when used on difficult-to-identify fishes. FAO, *Food Fraud – Intention, Detection and Management* (n 138) 21.

⁸⁵⁹ For more on legal tech and fintech, see Martin Ebers, 'Legal Tech and EU Consumer Law' in André Janssen and others (eds), *The Cambridge Handbook of Lawyering in the Digital Age* (1st edn, Cambridge University Press 2021); Riefa and Coll (n 772) and (n 845). Clare Chambers-Jones, 'AI, Big Data, Quantum Computing, and Financial Exclusion: Tempering Enthusiasm and Offering a Human-Centric Approach to Policy' in A Lui and N Ryder (eds), *FinTech, Artificial Intelligence and the Law* (1st edn, Routledge 2021) 201, 206.

⁸⁶⁰ Yeung (n 834) 211.

⁸⁶¹ *ibid.*

parties noticing. This causes the ‘garbage in, garbage out’ problem in some blockchain platforms, where fake data can be entered.⁸⁶²

When using technology for trust management, accountability is indispensable to avoid ‘second layer information asymmetry’.⁸⁶³ This leads to debates on whether blockchain auditors are necessary and how they should function, particularly in terms of ensuring that physical product details are in line with digital blockchain information whilst simultaneously minimising human error and corruption.⁸⁶⁴ It raises questions about the kind of qualifications that an auditor should have.⁸⁶⁵ In Bangladesh, reports indicate a pre-existing shortage of auditors proficient in current certification methods.⁸⁶⁶ Without targeted training programs, efforts to adopt advanced blockchain systems may exacerbate current inefficiencies. In practical terms, therefore, the types of blockchain technologies and data structures must be clearly defined before automating processes commence.⁸⁶⁷

The IBM Food Trust platform exemplifies a case study in blockchain-based traceability, albeit within a cross-border context.⁸⁶⁸ Following a successful pilot with Walmart tracking produce in the US and pork in China, IBM partnered with prominent food producers and retailers in 2017 to increase transparency and traceability in food supply chains.⁸⁶⁹ By 2019, Walmart mandated its leafy green suppliers adopt the platform.⁸⁷⁰ The system digitally links each food item to blockchain data at every stage and cuts time to trace mangos from over

⁸⁶² M Finck, *Blockchain Regulation and Governance in Europe* (Cambridge University Press 2018) 163.

⁸⁶³ A Benedict, ‘2012 Global Congress on Intellectual Property and the Public Interest’ (*Bill of Health*, 18 December 2012) <<https://blog.petrieflom.law.harvard.edu/2012/12/18/2012-global-congress-on-intellectual-property-and-the-public-interest/>> accessed 29 January 2024; ‘The Trust Machine’ [2015] *The Economist* <<https://www.economist.com/leaders/2015/10/31/the-trust-machine>> accessed 29 January 2024; J Gomez and S Briseida, ‘Risks of Blockchain for Data Protection: A European Approach’ (2020) 36(3) *Santa Clara High Technology Law Journal* 281, 295.

⁸⁶⁴ J Galvez, J Mejuto and J Gandara, ‘Future Challenges on the Use of Blockchain for Food Traceability Analysis’ (2018) 107 *TrAC Trends in Analytical Chemistry* 222, 230.

⁸⁶⁵ Gomez and Briseida (n 864) 295–296.

⁸⁶⁶ Suman and others (n 635) 16.

⁸⁶⁷ Lin (n 737) 607.

⁸⁶⁸ Mischa Tripoli and Josef Schmidhuber, ‘Emerging Opportunities for the Application of Blockchain in the Agri-Food Industry’ (FAO and International Centre for Trade and Sustainable Development (ICTSD) 2018) 2–9.

⁸⁶⁹ R Hackett, ‘Walmart and 9 Food Giants Team Up on Blockchain Plans’ (*Fortune*, 22 August 2017) <<https://fortune.com/2017/08/22/walmart-blockchain-ibm-food-nestle-unilever-tyson-dole/>> accessed 28 January 2024; Harvard Alumni, ‘From Farm to Store: Walmart Improves Food Safety with Blockchain Technology’ (*Technology and Operations Management*, 2017) <<https://d3.harvard.edu/platform-rctom/submission/from-farm-to-store-walmart-improves-food-safety-with-blockchain-technology-2/>> accessed 28 January 2024. Roger Aitken, ‘IBM Forges Blockchain Collaboration With Nestlé & Walmart In Global Food Safety’ (*Forbes*) <<https://www.forbes.com/sites/rogeraitken/2017/08/22/ibm-forges-blockchain-collaboration-with-nestle-walmart-for-global-food-safety/>> accessed 28 January 2024.

⁸⁷⁰ A Sristy, ‘Blockchain in the Food Supply Chain - What Does the Future Look Like?’ (*Walmart Global Tech*, 2021) <https://tech.walmart.com/content/walmart-global-tech/en_us/news/articles/blockchain-in-the-food-supply-chain.html> accessed 28 January 2024.

six days to two seconds.⁸⁷¹ It allows swift access to vital information during outbreaks. Lytton referenced the Walmart-IBM collaboration as a model for an evidence-based food safety governance system supported by private oversight.⁸⁷²

IBM then expanded collaborations to include other stakeholders including JD.com, China's second-largest e-commerce company. The 'Blockchain Food Safety Alliance' between IBM, JD.com, Walmart, and Tsinghua University seeks to address traceability challenges in China. Whilst accessible to agri-food companies, these blockchain systems are often implemented centrally amongst industry stakeholders. For instance, Walmart retains the ability to shut down the entire system.⁸⁷³ Critics contend that although Walmart's system addresses supplier information asymmetry, it does not necessarily solve asymmetry between retailers and consumers.⁸⁷⁴ The case study is notable because it shows that the robustness of any blockchain system is only as strong as the weakest link in the underlying regulatory apparatus.

In Bangladesh, IBM Food Trust pilots for carp and shrimp supply chains represent donor-driven initiatives towards introducing traceability and safe fish branding in the industry. BANA reports indicate that SourceTrace developed eServices Everywhere for shrimp traceability.⁸⁷⁵ This system gathered data via a mobile app for farmers and Aquaculture for Income and Nutrition workers and a web app for access. The system tracks prawn deliveries in a central database that links to collection centres. ByteAlly is currently developing an IBM Food Trust blockchain application.⁸⁷⁶ It signifies a notable advancement in the region, being the first large-scale food traceability blockchain focused on aquaculture.⁸⁷⁷ However, its success or failure remains to be seen. There is still a long way to go for these initiatives to expand into other food sectors.

As ByteAlly Executive stated, the key objective is demonstrating traceability to obtain higher selling prices, not transforming production standards.⁸⁷⁸ If blockchain technology is employed in food traceability systems for economic advantage without improving governance, stakeholders may doubt its credibility. This concern is especially pertinent as

⁸⁷¹ Global Trade Review and Sanne Wass, 'Food Companies Unite to Advance Blockchain for Supply Chain Traceability' (*GTR*, 22 August 2017) <<https://www.gtreview.com/news/fintech/food-companies-unite-to-advance-blockchain-for-supply-chain-traceability/>> accessed 28 January 2024.

⁸⁷² Lytton (n 6) 225–228.

⁸⁷³ Berti and Semperebon (n 741) 530.

⁸⁷⁴ *ibid* 531.

⁸⁷⁵ Feed the Future Bangladesh Aquaculture and Nutrition Activity (BANA)

<<https://worldfishcenter.org/project/feed-future-bangladesh-aquaculture-activity>> accessed 2 August 2024.

⁸⁷⁶ R Fletcher, 'Blockchain Set for Bangladesh Aquaculture Launch' (*The Fish Site*, 11 September 2020)

<<https://thefishsite.com/articles/blockchain-set-for-bangladesh-aquaculture-launch>> accessed 28 January 2024.

⁸⁷⁷ USAID (n 783) 41.

⁸⁷⁸ Fletcher (n 877).

government interest in such tools grows. Reliance on technology without ensuring that it is embedded in a solid framework of regulatory oversight, data integrity, and accountability mechanisms may result in a situation where the technology is present, but the real safety outcomes remain unchanged. Therefore, before propagating blockchain solutions, policymakers must rectify root deficiencies by strengthening food safety institutions, modernising food safety infrastructure, and incentivising local compliance. Technology ought to complement, not substitute, fundamental governance reforms. Therefore, a policy review is required to comprehend the interaction between technology, its governance and its potential.

Although blockchain and other advanced technologies present interesting future possibilities, GoB must first develop a strong foundation of basic record-keeping practices. The implementation of traceability systems should follow a staged approach, beginning with basic paper-based or simple digital records before progressing to more sophisticated technologies. This realisation therefore prompts an examination of the specific problems that Bangladesh faces in deploying food traceability systems.

5.4.3 Specific Deployment Challenges

Indeed, introducing modern traceability technologies into Bangladesh's predominantly traditional agriculture and food sectors faces considerable deployment barriers. Major legal, regulatory, skills and infrastructural challenges must be addressed upfront to enable tech enabled traceability solutions to deliver intended benefits rather than collapse from lack of readiness. These are discussed next.

5.4.3.1 Skills Capacity Gap

Many food supply chain stakeholders lack the competences to implement traceability systems. After the Ministry of Fisheries and Livestock (MOFL) developed a trial e-traceability system in 2018, the skills gap became obvious in the prawn sector, which has driven traceability activities.⁸⁷⁹ The system covered hatcheries, ponds, collection centres, and processing factories, but farmers and other stakeholders lacked technical expertise and operating skills. Bangladesh Shrimp and Fish Foundation's (BSFF) hands-on

⁸⁷⁹ FE Report, 'Shrimp Sector Launches E-Traceability System' *The Financial Express* (22 May 2018) <<https://today.thefinancialexpress.com.bd/trade-market/shrimp-sector-launches-e-traceability-system-1526925549>> accessed 31 July 2024.

demonstrations of the pilot system showed technical and professional criteria that needed to be increased for success.

As indicated, farmers' poor record-keeping contributes to the skills gap.⁸⁸⁰ Agrochemical use is hardly documented by Bangladeshi farmers. This complicates training of farmers and the implementation of traceability systems, especially for smaller enterprises. GoB has defined food safety standards and enforced monitoring activities through mobile courts and financial penalties, but it has not invested enough in actor capacity.⁸⁸¹ Farmers, vendors, traders, processors, and food service establishments (hotels/restaurants) lack adequate support to produce and supply safe, traceable foods.⁸⁸² The skills gap extends to the understanding and implementation of more advanced traceability technologies. Businesses are still in the initial phases of learning about traceability systems.⁸⁸³ Whilst progressive, GoB's interest in blockchain technology for traceability may be premature given the country's rudimentary traceability expertise and practices. A more pragmatic approach would be to first focus on developing robust, basic traceability systems before contemplating the implementation of blockchain.

The skills capacity gap illustrates what sociologists refer to as 'structural strain' wherein legal frameworks fail to mesh with social realities.⁸⁸⁴ This is evident in Parmeeda Enterprise's recent project, which struggled to involve both farmers and government in traceability efforts.⁸⁸⁵ Together with World Fish-BANA, the initiative promoted safe fish farming in the southeast and developed a farmer training mobile app.⁸⁸⁶ However, sluggish adoption rates indicate that technological solutions alone cannot reconcile the disparity between required traceability abilities and conventional farming practices.⁸⁸⁷ The structural strain is further exhibited by the NFNSP which acknowledges developmental needs but falls short in promoting public-private cooperation for traceability improvements.⁸⁸⁸ The consistent

⁸⁸⁰ See Section 5.3.1.

⁸⁸¹ Mostert and others (n 219) 29.

⁸⁸² *ibid.*

⁸⁸³ Staff Correspondent, 'Food Safety Guidelines for Fresh Vegetables, Fruits Export to Europe Launched' *Daily Sun* (6 September 2022) <<https://www.daily-sun.com/printversion/details/647005>> accessed 31 July 2024. Tribune Desk, 'USAID's New Reports Help Food Exporters Meet International Standards' *Dhaka Tribune* (11 April 2023) <<https://www.dhakatribune.com/business/283365/usaids-new-reports-help-food-exporters-meet>> accessed 1 August 2024.

⁸⁸⁴ Diane Vaughan, 'Rational Choice, Situated Action, and the Social Control of Organisations' (1998) 32 *Law & Society Review* 23, 26.

⁸⁸⁵ JICA (n 807).

⁸⁸⁶ This app can be found at <https://play.google.com/store/apps/details?id=com.parmeeda.nk> which enables farmers to learn remotely.

⁸⁸⁷ Parmeeda Enterprise, 'Promotion of Safe Fish through Traceable Production System' (Parmeeda Enterprise 2019) 5; JICA (n 807) 125, 127.

⁸⁸⁸ FPMU (n 682) 105-106.

difficulty in obtaining private sector involvement in food safety capacity building shows the disparity between policy aspirations and on-the-ground realities.⁸⁸⁹

Parmeeda and JICA have acknowledged that introducing the concept of safe and traceable production systems to producers is a gradual process.⁸⁹⁰ Efforts to enhance traditional traceability mechanisms in Bangladesh are ongoing.⁸⁹¹ However, the leap to blockchain-based traceability represents a substantial technological and infrastructural turn. The readiness for such advanced technologies is dubious, especially if existing systems are not fully developed or integrated. The transition requires technology advances and a thorough understanding and integration of existing systems to use blockchain's advantages in food safety and traceability benefits.

To conclude this section, several recommendations are proposed. International institutions such as USAID, FAO, and JICA must continue to teach traceability basics before and after processing items.⁸⁹² The government's plan should focus on legally requiring government, business sector, and farmer collaboration in traceability systems.

5.4.3.2 Challenges in Traceability Implementation

The discussion now shifts to peeling back the layers of legislation to demonstrate the practical obstacles that lie beneath which hamper the implementation of traceability systems in Bangladesh.

5.4.3.2.1 Inadequate Traceability Provisions

The legal framework for food traceability in Bangladesh is not well-developed. The FSA (2013) lacks a clear statutory definition of 'traceability'. Section 38 only mandates the maintenance of basic information such as names, addresses, and transaction documents of all parties in the food chain.⁸⁹³ All parties include 'manufacture, import, processing, storage, distribution or sale of any article of food or food ingredient'.⁸⁹⁴ However, it falls short of constituting a continuous traceability mechanism.⁸⁹⁵

⁸⁸⁹ FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (n 635) 13.

⁸⁹⁰ Parmeeda Enterprise (n 888) 5; JICA (n 807) 125, 127.

⁸⁹¹ K Chun and others, 'Trade Capacity Building Case Study: Bangladesh' (USAID 2022) 11.

⁸⁹² JICA (n 807) 132.

⁸⁹³ Food Safety Act s 38.

⁸⁹⁴ *ibid.*

⁸⁹⁵ Oman and Liang (n 791) s 4.4.2.

In contrast, Brazil's dairy industry initially faced regulatory hurdles similar to Bangladesh, with paper-based record requirements initially hindering the adoption of digital traceability systems.⁸⁹⁶ However, the turning point for Brazil came with the evolution of its regulations to permit digital records. In 2020, Brazil's Ministry of Agriculture, Livestock, and Food Supply (MAPA) updated its regulations to explicitly allow the use of digital records.⁸⁹⁷ Consequently, this change spurred the implementation of advanced traceability systems in the food industry, particularly in dairy enterprises. Renowned dairy firm Languiru benefited from this regulation change. An end-to-end digital traceability system from aseptic packaging leader SIG Combibloc was adopted. This entire solution captures and maintains data from farm milk collection to manufacturing, distribution, and even customer consumption. Sensors, scanners, mechanical handling, and printers feed into a single database.⁸⁹⁸ The digital solution also allows Languiru to identify every single milk pack at any point in the supply chain. This new technology allows Languiru to reduce the time to identify where the faulty lot was in the retail from approximately five hours to a few seconds, and comply with ANVISA regulation on food recall.

Essentially, the significance of mandating granular traceability requirements and integrating digital technology is emphasised by Brazil's regulatory evolution. For instance, Brazilian law requires dairy companies to record information about each farmer supplying milk, thus achieving a level of detail that extends beyond basic record-keeping.⁸⁹⁹ It therefore appears to be a more complete approach to traceability. However, Bangladesh stands at similar crossroads to Brazil before its legislative amendment. Section 38 of the FSA (2013), though useful for basic record-keeping, does not incorporate provisions for digital systems or detailed traceability requirements.⁹⁰⁰ The absence of a comprehensive approach limits its capacity to facilitate efficient recall systems or prevent the distribution of adulterated food.

Although FSA (2013) lags in terms of comprehensive traceability requirements, progress has been made in sector-specific legislation. The Fisheries and Fisheries Inspection and Quality Control Act (2020) provides a domestic example of more detailed traceability provisions. Section 16 defines 'traceability' in the context of the fish industry which is not something that is explicitly defined in FSA (2013).⁹⁰¹ It encompasses a comprehensive process where information on all stages of fish production and distribution i.e., from fish farms and fishing

⁸⁹⁶ USAID (n 783) s 9.1.

⁸⁹⁷ Ministério da Agricultura, Pecuária e Abastecimento, Instrução Normativa N° 24, de 1º de Abril de 2020, Diário Oficial da União [DOU] de 2.4.2020 (Braz.).

⁸⁹⁸ USAID (n 783) 37.

⁸⁹⁹ *ibid* 36.

⁹⁰⁰ Food Safety Act s 38.

⁹⁰¹ Fisheries and Fisheries Inspection and Quality Control Act 2020 s 16.

grounds to processing, storing, transporting, and marketing activities is recorded. Thus, the Fisheries Act (2020) mandates the recording of information at all stages of the supply chain. This requirement exceeds the basic record-keeping requirements of names, addresses, and transaction documents stipulated in FSA (2013).

Further, section 15 of the Fisheries and Fisheries Inspection and Quality Control Act (2020) requires the registration of 'every' fish farm to ensure traceability and safe fish production domestically.⁹⁰² It creates a foundation for end-to-end traceability in the fish industry which is a feature absent in FSA (2013). Even though some progress has been made with sector-specific legislation such as Fisheries and Fisheries Inspection and Quality Control Act (2020) these isolated efforts do not constitute a nationwide traceability system. What is perhaps needed is a holistic rethink rather than small corrections around the edges that are frequently sector specific.

Therefore, several improvements are recommended to move towards an integrated, nationwide approach to traceability. The substance of this improved system should be amending the FSA (2013) to incorporate comprehensive traceability provisions for a more unified traceability system. These amendments should provide clear, legally binding definitions of 'traceability' applicable across all food sectors to resolve the current statutory ambiguity.

5.4.3.2.2 Legislative Gaps in Traceability and Due Diligence

In ensuring 'corporate accountability', the concept of due diligence requires FBOs to demonstrate that they have taken all reasonable precautions and exercised appropriate care to ensure food safety.⁹⁰³ Yet the interpretation and application of due diligence can vary significantly across different legal frameworks.⁹⁰⁴ This variability is particularly evident when comparing the legislation in Bangladesh, as exemplified by section 59 of FSA (2013), with the provisions under the English Food Safety Act (1990) and the Food Safety and Hygiene (England) Regulations 2013.

⁹⁰² *ibid* 15.

⁹⁰³ Department for Environment, Food & Rural Affairs, Food Standards Agency (UK), British Standards Institution, 'PAS 96:2017 Guide to Protecting and Defending Food and Drink from Deliberate Attack' (British Standards Institution 2017) 10.

⁹⁰⁴ Almut Vacaflor and Andrea Lenschow, 'Hardening Foreign Corporate Accountability through Mandatory Due Diligence in the European Union? New Trends and Persisting Challenges' (2023) 17(3) Regulation & Governance 677.

In Bangladesh, section 59 adapts a sweeping approach to liability and places a heavy burden on corporate officers to demonstrate the breach occurred without their knowledge or notwithstanding their due diligence.⁹⁰⁵ Yet, it offers no specific guidance on how traceability systems might be used to meet this standard. Considering traceability's role in tracking the food product journey for risk identification and management, the law's lack of specificity in this area could be seen as a potential limitation.

In contrast, section 31 of the English Food Safety Act (1990) and section 12 of the Food Safety and Hygiene (England) Regulations 2013 provide a more structured approach to due diligence.⁹⁰⁶ These provisions state that it is a defence for the person charged to prove that they took all reasonable precautions and exercised all due diligence to avoid the commission of the offence. The FSA Guide on the Food Safety Act (1990) clarifies this further by placing the burden of proof on the accused to persuade the court that they exercised due diligence, with 'reasonable care' being considered in the context of each case.⁹⁰⁷ In *Tesco Supermarkets Ltd v Natrass* (1972), the HOL distinguished between 'precautions' by setting up an effective compliance system, and 'diligence' by monitoring that system.⁹⁰⁸ The ruling emphasised that appointing a competent person does not constitute full due diligence if no subsequent steps are taken to ensure the system's effective functioning.⁹⁰⁹

The differing approaches to due diligence defences in Bangladeshi and English law reveal an opportunity to strengthen legal clarity and accountability outcomes in Bangladesh. This could be done through the introduction of explicit provisions recognising traceability systems data as valid evidence of reasonable precautions and due diligence. The approach could involve amending the FSA (2013) to incorporate these provisions. Nevertheless, crafting the legislation appropriately to incentivise traceability adoption without overburdening Bangladeshi FBOs demands care, much like walking a tightrope. The law could provide guidelines scaled to business size and resources. For instance, by stipulating baseline traceability requirements and enabling larger entities to implement more advanced systems in support of customised compliance defences. Hence, detailed traceability provisions could encourage proactive supply chain risk management and give enterprises, especially small holders, a better way to demonstrate diligence. As traceability is broadly acknowledged,

⁹⁰⁵ Food Safety Act s 59.

⁹⁰⁶ Food Safety Act s 31; 'The Food Safety and Hygiene (England) Regulations 2013' s 12 <<https://www.legislation.gov.uk/uksi/2013/2996/schedule/9/made>> accessed 29 January 2024.

⁹⁰⁷ 'The Food Safety Act 1990- A Guide for Food Businesses' (Food Standards Agency UK 2009) 14.

⁹⁰⁸ *Tesco Supermarkets Ltd v Natrass* [1972] AC 153.

⁹⁰⁹ C McDonough, 'Food Safety Law and the Defence of Due Diligence' (*William Fry*, 3 September 2017) <<https://www.williamfry.com/knowledge/food-safety-law-and-the-defence-of-due-diligence/>> accessed 29 January 2024.

targeted Bangladeshi legislative improvements could increase corporate responsibility and outcomes.

5.4.3.2.3 Regulatory Hurdles

Bangladesh's fragmented regulatory structure inhibits traceability. Fragmented governance and poor coordination make end-to-end traceability challenging.⁹¹⁰ International buyers' inability to trace shrimp (adulterated with dirty water or gelatin) to its source due to weak local regulatory frameworks spotlights the direct link between fragmented governance and traceability failures.⁹¹¹ Besides, in the adulterated dairy scandal, the Bangladesh High Court criticised the BSTI due to fragmented governance.⁹¹² The Court was perplexed by BSTI's assertion that it would only investigate 18 licensed companies, neglecting unlicensed ones, which supposedly fell under the Directorate of Agriculture Extension and MOFL. Justices Md Nazrul Islam and KM Hafizul Alam questioned BSTI's disregard for public health since unlicensed entities were still producing and supplying milk. The divide between BSTI and agencies responsible for unlicensed producers creates gaps in the traceability chain.

Further, the enforcement issues under the Fish Feed and Animal Feed Act (2010) demonstrate how fragmented governance directly impacts traceability.⁹¹³ Ali and Solaiman's empirical research shows that fragmented governance results in an ineffective approach where these agencies are neither fully independent nor unified in their responsibilities.⁹¹⁴ The MOHFW regulates pharmacies, including the unchecked sale of antibiotics. The Ministry of Industry, in collaboration with the BSTI, oversees the quality of animal feed. The MOFL manages the control and monitoring of antibiotic use in animal agriculture, whilst the Ministry of Establishment oversees the mobile courts in enforcing both Fish Feed and Animal Feed Act (2010) and the Animal Welfare Act (2019). The disjointed effort severely impacts law enforcement and the ability to implement and maintain effective traceability systems across the food supply chain.⁹¹⁵

⁹¹⁰ Jill Hobbs, Sangeeta Khorana and May Yeung, 'Moving beyond Least Developed Country Status: Challenges to Diversifying Bangladesh's Seafood Exports' (2023) 27(3) *Aquaculture Economics & Management* 498, 505.

⁹¹¹ USAID (n 892) 40. M Molla, 'Bangladesh Struggles with Adulterated Shrimp' (*Dialogue Earth*, 8 February 2018) <<https://dialogue.earth/en/food/bangladesh-struggles-with-adulterated-shrimp/>> accessed 31 July 2024.

⁹¹² P Neo, 'Safety First: Bangladesh's Adulterated Dairy, Philippines' "violative" Food Warnings, Clean Meat and More Feature in Our Round-Up' (*foodnavigator-asia.com*, 26 July 2019) <<https://www.foodnavigator-asia.com/Article/2019/07/26/Safety-First-Bangladesh-s-adulterated-dairy-Philippines-violative-food-warnings-clean-meat-and-more-feature-in-our-round-up>> accessed 30 January 2024.

⁹¹³ Fish Feed and Animal Feed Act.

⁹¹⁴ Ali and Solaiman (n 65) 459.

⁹¹⁵ See Chapter 4 of this thesis.

The 2019 case of the BFSA's failure to recall 52 substandard food products provides yet another example of the traceability challenges.⁹¹⁶ The involvement of multiple agencies (BFSA, BSTI, and DNCRP) contributed to the inability to swiftly remove various products from the markets, from drinking water to spices and oils. This case reinforces the urgent need for a coordinated traceability system that can effectively track and recall products across various supply chains.

On top of these fragmented governance issues, GoB's interest in blockchain technology for traceability creates legal and policy conundrums. The Information and Communication Technology Division of the Government of the People's Republic of Bangladesh introduced the National Blockchain Strategy in 2020 to become a blockchain-enabled nation.⁹¹⁷ However, this strategy is in its nascent stages, and efficacy is unknown currently. It identifies potential stakeholders such as the MOA, MOF, and MOFL⁹¹⁸ but fails to specify coordination mechanisms. This omission is noteworthy, especially considering the existing fragmentation in the food regulatory framework. The lack of governance and regulatory clarity may hamper blockchain technology's use in food safety management.

Therefore, based on the examination of fragmentation in Bangladesh's food safety framework and Chapter 4's recommendations, this section proposes complementary measures to enhance food traceability whilst empowering BFSA and streamlining the regulatory environment. The proposed amendments to the FSA (2013) should grant BFSA explicit legal authority to enforce coordination and oversee traceability efforts across all food sectors. This is consistent with the recommendations in Chapter 4 to position BFSA at the apex of the food safety regulatory hierarchy. Explicitly empowering BFSA to develop, implement, and enforce traceability regulations would provide the legal scaffolding required to establish a coherent, system-wide approach.

Under this expanded mandate, BFSA would develop and manage a centralised food safety information system that incorporates traceability data, thereby supporting the robust risk assessment framework proposed in the previous chapter; and create minimum traceability standards for all food businesses, particularly high-risk sectors.⁹¹⁹ These traceability-focused

⁹¹⁶ Staff Correspondent, 'HC Summons BFSA Chairman for Not Recalling 52 Products' *Dhaka Tribune* <<https://www.dhakatribune.com/bangladesh/court/177696/hc-summons-bfsa-chairman-for-not-recalling-52>> accessed 31 July 2024.

⁹¹⁷ Information and Communication Technology Division Government of the People's Republic of Bangladesh, 'National Blockchain Strategy: Bangladesh Pathway to Be a Blockchain-Enabled Nation' (Information and Communication Technology Division Government of the People's Republic of Bangladesh 2020).

⁹¹⁸ *ibid* 16.

⁹¹⁹ See Section 5.3.

regulatory recommendations are designed to reinforce the broader structural reforms proposed in Chapter 4, particularly in addressing institutional capacity and accountability. BFSA's ability to design and implement traceability laws could improve food safety governance in Bangladesh. It would also serve as a shield against adulteration. Conversely, the lack of government mandate could likely cause industries and producers to explore options to circumvent fraud.⁹²⁰

However, even with a strengthened mandate and centralised authority, BFSA's implementation of effective traceability system will be contingent upon the mitigation of risk posed by human actors at ground level. The traceability data is typically entered by individuals including farmers, processors and traders, who may, in some instances, be complicit in food adulteration. Consequently, the danger of constructing transparency on a compromised foundation is present when relying solely on these actors to maintain data integrity. Therefore, one pragmatic solution could be the deployment of government-appointed inspectors who would operate under BFSA supervision, to conduct real-time verification of traceability inputs across the supply chain. Still, to ensure coherence and minimise turf conflict, these inspectors should not be siloed within fragmented agencies and are embedded into a unified BFSA-led structure.

Nevertheless, this model entails its own set of problems. Inspectors may become another node of rent-seeking or fraud without robust controls. Hence, strong institutional controls would be imperative to guard against this. These could encompass randomised deployment schedules to prevent regulatory capture, biometric logins to verify inspector actions, digital audit trails, and periodic third-party audits conducted by donor-backed entities. Additionally, public-facing traceability dashboards could democratise oversight by enabling media scrutiny to reinforce accountability.

Given the novelty of traceability concepts in Bangladesh, phasing the implementation process is both pragmatic and useful. This might comprise a legally enforceable, multi-year strategy that starts with pilot programs in high-risk food industries to gradually embrace traceability technologies. Temporary regulatory sandboxes could support pilot projects for testing and learning without fear or punitive repercussions during the initial phase. As capacity and understanding grow, regulatory requirements can be incrementally expanded through updates to the regulations.

⁹²⁰ Lindley (n 839) 132.

To sum up this section, traceability mechanism safety dividends depend on systematic infrastructure and governance development. Thus, specific regulatory demands could expedite traceability in all domestic food sectors. Legislation should spur adoption by articulating traceability imperatives, before advancing to sophistication. The immediate priority should be a base requirement for supply chain actors to reliably track and document a product's journey at each and every stage. Although optimal platforms will be designed by technologists and industry, the law could set expectations and incentives to motivate adoption.

Accordingly, targeted legal mandates and policy incentives should aim to graduate traceability mechanisms from fragmented approaches towards integrated, industry-wide systems. Whilst more stringent rules are essential for enhancing food traceability in Bangladesh, their execution must be in tune with the nation's socio-economic status. This entails a measured tactic that progressively escalates regulatory demands whilst concurrently enhancing the capabilities of food sector players. The time for decisive action is now, and the roadmap provided in these recommendations could offer a way forward.

5.5 Conclusion

In the narrative of enhancing Bangladesh's food safety governance, food traceability may seem like a single chapter. Yet, it spearheads the battle against adulteration by aggressively targeting and exposing deception. This chapter has highlighted the legal, regulatory, technological, and skills-related barriers that currently impede the widespread adoption of effective traceability measures across the country's food sectors. Although GoB has shown forward-thinking interest blockchain, the current state of Bangladesh's food safety infrastructure necessitates a more measured, phased approach. The immediate priority should be establishing fundamental traceability practices and strengthening basic record-keeping across the food supply chain. This groundwork will be necessary for the successful implementation of more sophisticated systems in the future. Advancements have occurred in several areas, notably the fisheries industry, due to the implementation of enhanced traceability measures under the Fisheries Act (2020). Nevertheless, these discrete developments, though commendable do not yet form a cohesive, nationwide traceability framework. It is imperative to regard these sector-specific enhancements as introductory elements for a more integrated, cross-sectoral strategy for food traceability.

This chapter proposes both immediate actions and long-term strategies. In the short term, the FSA (2013) should be updated to provide explicit, legally binding definitions of

'traceability' for all food industries. Secondly, BFSA should be empowered with explicit legal authority to oversee traceability efforts and the current ambiguity in its relationship with NFSMAC would need to be clarified. Additionally, these legal and structural reforms will only work if they are enforced in a way that people trust. Traceability systems are only as strong as the integrity of their data inputs. Therefore, to reduce the likelihood of manipulation or collusion, BFSA needs operational measures to assure compliance in addition to authority. Specifically, this could involve the deployment of government-appointed inspectors who are protected by safeguarded such as biometric logins, digital audit trails, and donor-led audits. In order to reinforce trust and ensure the efficacy of traceability across all sectors, it is imperative to embed these safeguards into the institutional architecture.

The aforementioned proposals would necessitate significant investment in resources and training to build the relevant institutional capacity. Long-term strategies should focus on gradually increasing regulatory requirements whilst simultaneously legally mandating cooperation amongst food industry stakeholders. The siren call of technological quick fixes must be resisted in favour of establishing a strong foundation of basic traceability practices. The chapter argued that a review of policy needs to be undertaken should sophisticated technology such as blockchain play a part in food safety governance. The government now holds the pen to write a future where every meal is a proof of safety and transparency.

Moving forward, the success of any food traceability system is dependent on how involved and informed consumers are. An informed consumer base is key to driving demand for transparency and accountability in the food supply chain. But how can this vital data be conveyed to consumers accessibly? This is where food labelling regulations emerge as an important instrument, which the next chapter explores.

Chapter 6: Empowering Consumers through Labelling and Frontend Strategies to Combat Deceptive Adulteration

6.1 Introduction

In order to protect consumers from food adulteration, the government and the private sector ought to work together. This chapter transitions from the preceding exploration of food traceability systems, which emphasised the technical, legal, and regulatory contexts, to an examination of consumer-oriented solutions. Whilst acknowledging the older argument relating to better-informed consumers, this chapter critically examines its limitations in addressing the entrenched socio-legal and economic challenges in Bangladesh. It highlights deficiencies in existing labelling methods and provides alternatives that mitigate the socio-legal obstacles hindering their efficacy. In doing so, it aims to fill a research gap by examining food safety tactics in Bangladesh that have been overlooked. The discussion emphasises the need to move beyond simplistic assumptions about the efficacy of labelling as a stand-alone measure, especially in the face of deliberate deception. In order to achieve this, the chapter explores whether informing consumers alone is sufficient or if complementary systemic reforms are necessary. The objective is to link traceability systems with consumer empowerment to establish a more holistic governance framework. This approach facilitates a comprehensive examination of how labelling practices and consumer-focused tactics might complement traceability systems in improving food safety.

6.2 The Concept and Significance of Food Labelling

6.2.1 Understanding Food Labelling

Food labelling refers to the practice of providing information about a food product on its packaging or accompanying materials.⁹²¹ The information could include details about the product's ingredients, nutritional content, storage instructions, manufacturing details, and other relevant facts. FAO defines a food label as:

Any tag, brand, mark, pictorial or other descriptive matter, written, printed, stencilled, marked, embossed or impressed on, or attached to, a container of food or food product.⁹²²

⁹²¹ Roberts, Viinikainen and Bullon (n 14) 25.

⁹²² Food and Agriculture Organisation of the United Nations, 'Handbook on Food Labelling to Protect Consumers' (FAO 2016) 2.

Section 2(i) the Bangladeshi Packaged Food Labelling Act (2017) defines 'label' as any tag, brand, mark, image, hallmark, graphics, or descriptive instruction that is easily visible on a food wrapper.⁹²³ It can be written, printed, sealed, or added by computerised printing, stencil, emboss, or indelible ink. Section 2(j) defines 'labelling' as an introductory description of a product that is written, printed, or described in graphic form and displayed by inserting or adding it to a label.⁹²⁴

The significance of food labelling has been recognised at the highest levels of government. In his famous 'Special Message to the Congress on Protecting the Consumer Interest' of 15 March 1962, President John F. Kennedy specifically mentioned the recurring ignorance of consumers due to mass advertising and lack of information. He declared that the government would meet its responsibility to consumers in the exercise of their rights, including recognising their 'right to be informed, to be protected against fraudulent, deceitful, or grossly misleading information, advertising, labelling, or other practices, and to be given the facts...need[ed] to make an informed choice'.⁹²⁵ As stated at the time, 'Government can help consumers to help themselves by developing and making available reliable information'.⁹²⁶ Notably, a paternalistic touch was evident in this approach.

Since then, governments have continued to acknowledge the importance of food labelling in protecting consumer health and preventing fraudulent practices. Despite differences in national regulations, there is a common epistemological goal of increasing truthfulness and reducing errors in food labelling.⁹²⁷ Hence, states play a significant role in this regulatory framework, especially given the safety issues associated with the use of non-original ingredients.⁹²⁸

Therefore, the primary purposes of food labelling are to protect consumer health in terms of food safety and nutrition, prevent fraud and misleading information, and to provide consumers with the facts they need to make informed choices.⁹²⁹ In doing so, it also details production information that aids traceability along the food supply chain. Food lawyers assert

⁹²³ Packaged Food Labelling Act 2017 s 2(i).

⁹²⁴ *ibid* 2(j).

⁹²⁵ The American Presidency Project, 'Special Message to the Congress on Protecting the Consumer Interest' (15 March 1962) <<https://www.presidency.ucsb.edu/documents/special-message-the-congress-protecting-the-consumer-interest>> accessed 7 June 2024.

⁹²⁶ *ibid*.

⁹²⁷ Michael Roberts, *Food Law in the United States* (Cambridge University Press 2016) 471.

⁹²⁸ George Kimbrell, 'Cutting Edge Issues in 21st Century Animal Food Product Labelling' (2022) 27(2) *Drake Journal of Agricultural Law* 179, 222.

⁹²⁹ 'Handbook on Food Labelling to Protect Consumers' (n 922) vii, 39.

that this dual purpose could enhance transparency and supports the effectiveness of controls throughout the food chain.⁹³⁰ Thus, labelling enables authorities to perform their oversight roles more effectively by requiring producers and processors to disclose product information.

Despite the aims of food labelling, current practices often fall short of providing adequate information for consumers to make informed choices.⁹³¹ This foregrounds the need for regular improvements in labelling practices to better serve consumers and fulfil the goals of transparency and fraud prevention. Without risk level statements, consumers may struggle to understand warning labels or ignore them altogether due to overabundance, leading to confusion about food safety.⁹³² Hence, preventative health strategies require improved labelling to inform consumers.⁹³³ Whilst improving textual information is necessary, research also suggests the potential benefits of corresponding approaches. There is also a growing need to go beyond just giving textual information. Visual or graphical representations of food information can be used on digital channels to supplement physical labels and improve understanding.⁹³⁴

Notably, food fraud presents a ‘parallel’ issue to food labelling because it cannot be entirely prevented solely through modifications to the information displayed on food labels.⁹³⁵ Unscrupulous actors may deliberately misrepresent or falsify product information on labels for profit, as evidenced by the European horse meat scandal.⁹³⁶ Nonetheless, mandatory labelling could help restrict certain misleading marketing claims and unsubstantiated product information associated with food fraud. Typically, adulteration entails adding foreign substances not listed on the product’s label to lower costs or fake higher quality. In addition to safety, food must be accurately represented. Clear, standardised labelling makes it more difficult for companies to deceive consumers through vague or incomplete disclosures.⁹³⁷

⁹³⁰ Roberts, Viinikainen and Bullon (n 14) 25.

⁹³¹ Lisa Robinson, W Viscusi and Richard Zeckhauser, ‘Efficient Warnings, Not “Wolf or Puppy” Warnings’ [2016] Harvard Kennedy School Faculty Research Working Paper Series 2–3.

⁹³² *ibid* 17–21.

⁹³³ S Neitzel, ‘One Size Fits All: A Federal Approach to Accurate Labelling of Consumer Products’ (2020) 23 J Health Care Law & Policy 87, 103;

⁹³⁴ The Food & Drink Federation, ‘Food Information and Consumer Information’ (*The Food & Drink Federation*, 27 March 2020) <<https://www.fdf.org.uk/fdf/what-we-do/food-labelling-and-consumer-information/>> accessed 7 June 2024. See Section 6.5.2 below.

⁹³⁵ Maria Moreira and others, ‘Consumer Knowledge about Food Labelling and Fraud’ (2021) 10(5) Foods 1, 9.

⁹³⁶ Robert Smith, Louise Manning and Gerard McElwee, ‘The Anatomy of “So-Called Food-Fraud Scandals” in the UK 1970-2018: Developing a Contextualised Understanding Food Crimes, Food Harms and the Food System’ (2022) 78 Crime, Law and Social Change 535, 542–548.

⁹³⁷ FAO, *Food Fraud – Intention, Detection and Management* (n 138) 12.

Most food in the industrialised world and, to a lesser extent, the developing world comes with some sort of label attached. However, throughout human history, where rapid transportation was absent, most food was made from fresh ingredients and locally produced, purchased, and consumed.⁹³⁸ People did not rely on any government inspection service or labelling to ensure the quality of the food they consumed. Instead, they identified food and tested its quality by looking at it, feeling it, smelling it, and poking at it. In many farming communities, consumers bought or bartered for flour directly from the mill and thus could see first-hand whether it was produced in a satisfactory manner. If people bought rice, flour, or sugar from a store, they could witness the shopkeeper fill the bag right before their eyes, so that they had a level of trust in what they were purchasing.

Similarly, local bakers operated in a trust-based system rather than a competitive market in the modern sense. Their incentive to produce high-quality bread was rooted in the need to retain client loyalty and maintain their reputation within the community. The baker and his shop were guarantors of the bread's quality. In contrast, modern pre-packaged goods often deprive the consumer of the opportunity to inspect their weight or quality. Consumers now increasingly depend on brand reputation for purchasing decisions, with expensive brands typically representing premium quality and cheaper brands appealing to affordability. Indeed, this is not to say that humans lack a necessity for food labelling and regulation of food, in fact, food labelling has deep historical roots.⁹³⁹

6.2.2 Food Labelling Regulations in Bangladesh

As food production and distribution grew, the historical dependence on trust and direct customer interaction progressively changed into a more structured system of regulatory control. Modern regulations, such as those in early Bangladesh, are derived from common law. For instance, the PFO (1959) (repealed) was the first food labelling law in (what was then) East Pakistan to combat food adulteration.⁹⁴⁰ Section 18 prohibited deceptive food labelling and ensured the strict liability nature of the offence, which did not allow for a defence based on lack of knowledge.⁹⁴¹

⁹³⁸ G Jones and N Morgan, *Adding Value: Brands and Marketing in Food and Drink* (Routledge 1994) 18.

⁹³⁹ The history of food labelling regulations in the context of the overall historical development of food regulation is retraced in Barton and Hutt (n 30).

⁹⁴⁰ Bangladesh Pure Food Ordinance; AR Masud, *The Pure Food Laws* (1st edn, Anupam Gyan Bhandar 1995).

⁹⁴¹ Bangladesh Pure Food Ordinance s 18.

The PFO (1959) was eventually replaced by FSA (2013). Section 32 of FSA (2013) outlines food packaging and labelling requirements.⁹⁴² It prohibits certain actions by any person, whether acting directly or indirectly, by themselves or through another party. Packaged food or food ingredients that are not packaged, tagged, and labelled as required by regulations or laws are prohibited under Section 32(a). Food labels cannot contain false, misleading, or deceptive statements about content, quantity, nutritional value, medical claims, therapeutic claims, or origin under Section 32(b). Section 32(c) prohibits the manufacture, distribution, or sale of packaged food or food ingredients without regulation-mandated labelling of production information, packaging date, expiry date, and traceability information. Section 32(d) prohibits selling packaged food or ingredients with altered or removed labels.

Similar issues are also addressed in various other laws. For example, sections 5(d) and (e) of the Standards of Weights and Measures (Commodities Packaging) Rules 2007 mandate the printing of production and expiry dates on food packages.⁹⁴³ Additionally, section 29 of FSA (2013) prohibits the import, processing, storage, supply, or sale of food and food ingredients that are past their expiry dates.⁹⁴⁴

6.2.2.1 General Conditions of Packaged Food Labelling

The Packaged Food Labelling Act (2017) appears to have changed Bangladesh's packaged food labelling law.⁹⁴⁵ The general conditions outlined in section 3 of the 2017 Act set forth a range of requirements for packaged food labels.⁹⁴⁶ According to Rule 3(1)(a), labelling must be in Bengali to make information more accessible to locals. Ingredients, nutritional information, and expiration dates must be disclosed under section 3(1)(c) and (d) to help consumers make educated judgements. The emphasis on clarity and visibility of labels under section 3(1)(e) might be interpreted as an attempt to prevent inadvertent misrepresentation of product information. Moreover, section 3(1)(b)'s emphasis on imported foods could potentially be seen as an effort to ensure that foreign products meet the same standards of information disclosure as domestic ones. Additionally, section 17 addresses the issue of deceptive practices more directly. The prohibition on inserting misleading, untrue, or false information on labels could be interpreted as a measure in preventing food fraud.⁹⁴⁷

⁹⁴² Food Safety Act s 32.

⁹⁴³ Standards of Weights and Measures (Commodities Packaging) Rules 2007 s 5(d) and (e).

⁹⁴⁴ Food Safety Act s 29.

⁹⁴⁵ Packaged Food Labelling Act.

⁹⁴⁶ *ibid* 3.

⁹⁴⁷ *ibid* 17(1).

However, section 3(1)(g) exempts certain agricultural raw materials such as grains, vegetables, spices, sugar from detailed nutritional labelling requirements. The exemption is likely grounded in practical considerations in recognition of the challenges of providing detailed nutritional information for unprocessed foods, which naturally vary in their nutrient content due to factors such as growing conditions and farming practices. Although the exemption may be practical, this chapter will later reveal that in the absence of detailed labels, consumers often depend on visual and sensory cues to judge the quality of agricultural products.⁹⁴⁸ These traditional methods of assessment, though useful, may not always provide the full picture, especially in an era where deceptive practices in food adulteration are becoming more sophisticated. It results in consumers from being adequately protected and informed. Thus, fresh and unprocessed food labelling solutions must be adjusted to their distinct qualities, which will be explored further in section 6.5.2.1 below.

6.3 Limitations of Food Labelling Regulations as a Sole Defence Against Deceptive Adulteration

Building on the challenges identified in the current labelling system, this section examines the inherent limitations of relying solely on food labelling regulations to prevent adulteration, especially when deceit or fraud enters the equation. It also explains why these limitations necessitate exploring additional measures.

6.3.1 Vulnerability to Intentional Mislabelling and Deception

Firstly, these regulations do not directly ensure the truthfulness of this information or the ethical conduct of manufacturing processes. Deception, through false or misleading information on labels, is a common element in cases of intentional food adulteration.

Vulnerability is defined as:

A universal, ever-present experience, which may be exposed at any given moment by our individual circumstances or embeddedness.⁹⁴⁹

The above definition encompasses both personal characteristics such as age, literacy, and financial resources and structural conditions, including market practices and regulatory gaps.

⁹⁴⁸ See Section 6.5.1.3.

⁹⁴⁹ Martha Fineman, 'The Vulnerable Subject: Anchoring Equality in the Human Condition' (2008) 20 *Yale Journal of Law & Feminism* 1; Christine Riefa and Séverine Saintier, *Vulnerable Consumers and the Law: Consumer Protection and Access to Justice* (1st edn, Routledge 2021) 7. Martha Fineman, 'The Vulnerable Subject and the Responsive State' (2010) 60 *Emory Law Journal* 251.

Indeed, vulnerability is particularly acute in food labelling contexts, where consumers are disproportionately at risk of falling victim to intentional mislabelling and deception. Consumers rely on trust, familiarity, or price as proxies for quality, especially in low-income settings where access to information or premium goods is limited. Indeed, these vulnerabilities are not simply incidental but are structural and are embedded within the gaps in market practices and regulatory oversight. Cartwright's observation on information deficits coincide with this phenomenon, wherein consumers, deprived of accurate or sufficient information, cannot critically evaluate the claims presented on labels.⁹⁵⁰

The Bangladeshi market offers an illustration of this vulnerability. Reports have uncovered widespread deception in food labelling across multiple sectors, including spices, processed foods, and baby food.⁹⁵¹ Field studies suggest that consumers confront adulterations, deceptive advertising, packaging, branding, including labelling.⁹⁵² For example, traders duplicate branded packets and produce impure versions of sugar from the state-owned Bangladesh Sugar and Food Industries Corporation (BSFIC) by selling it at inflated prices under the guise of sugarcane sugar.⁹⁵³

Similarly, unpackaged edible oils are routinely adulterated and mislabelled. The BFSA found evidence of adulteration in unpackaged soybean and palm oil, including incorrect fatty acid measurements and the presence of cottonseed oil in some samples. The BFSA's laboratory tests across eight divisions revealed no pure samples of loose or unpackaged soybean or palm oil. They noted that edible oil standards are inadequate, and companies fail to follow proper packaging and labelling guidelines. BFSA reports that 65% of edible oil in the market is sold loose or unpackaged which are often mixed with other oils. Additionally, many companies do not comply with mandatory vitamin A fortification guidelines. The BFSA found that 87% of plastic bottled oil met vitamin A fortification standards, whilst only 47.33% of

⁹⁵⁰ P Cartwright, 'The Vulnerable Consumer of Financial Services: Law, Policy and Regulation' (2011) <<https://www.nottingham.ac.uk/business/who-we-are/centres-and-institutes/gcbfi/documents/researchreports/paper78.pdf>> accessed 12 December 2024.

⁹⁵¹ Yan (n 573); 'Safety for Baby Food Products Must Be Ensured' *NewAge* (10 June 2024) <<https://www.newagebd.net/post/editorial/233779/safety-for-baby-food-products-must-be-ensured>> accessed 10 June 2024; Nazma Shaheen and others, 'Commonly Consumed Processed Packaged Foods in Bangladesh Are Unhealthy and Their Nutrient Contents Are Not in Conformity with the Label Declaration' (2024) 12(1) *Food Science & Nutrition* 481.

⁹⁵² A Shaon, 'How Reliable Are the Expiration Dates on the Goods You Buy?' *Dhaka Tribune* (16 October 2017) <<https://www.dhakatribune.com/bangladesh/128312/how-reliable-are-the-expiration-dates-on-the-goods>> accessed 10 June 2024; F Nawaz and N Kanwal, 'Challenges of Public Policy Implementation: A Critical Analysis of Consumer Rights Protection Act in Bangladesh' (2020) 2(1) *Journal of Humanities and Social Sciences Research* 51, 58.

⁹⁵³ M Shams, 'Fake, Adulterated Sugar in Market, BSFIC Worried' *The Business Post* (14 March 2023) <<https://businesspostbd.com/front/2023-03-14/fake-adulterated-sugar-in-market-bsfic-worried-2023-03-14>> accessed 10 June 2024.

unpackaged oil did. Some brands deceive consumers by falsely claiming vitamin fortification on labels.⁹⁵⁴ Such practices disproportionately impact rural and low-income consumers, who often rely on trust or brand familiarity in their purchasing decisions. Neither do they have the means or resources to verify such claims. As Siciliani, Riefa, and Gamper highlight, these systemic barriers rationalise consumer disengagement by leaving vulnerable groups further exposed to exploitation.⁹⁵⁵

Further, the dominance of large producers exacerbates consumer vulnerability. These entities wield immense market power and shape narratives of quality safety, and value through clever branding and advertising.⁹⁵⁶ During the maturity phase of product lifecycles, producers pivot towards cultivating brand loyalty and habitual purchasing. Large producers utilise their resources to dominate markets via aggressive marketing and innovation and frequently sidelining smaller competitors who lack the means to adapt.⁹⁵⁷ The dominance likely enables them to circumvent the purpose of labelling regulations by embedding unverifiable or misleading claims that exploit consumer trust and familiarity.⁹⁵⁸

In the 'producer sovereignty' paradigm,⁹⁵⁹ the law's inability to govern truthful labelling and ethical manufacturing processes become quite evident. Regulations are designed to establish rules and standards, but they cannot directly govern the ethical behaviour or moral compass of those subject to these rules.⁹⁶⁰ This is precisely because 'the law has no independent moral authority'.⁹⁶¹ Consequently, the mismatch between the letter of the law and realities of market behaviour implies that compliance cannot be assumed, and ethical conduct cannot be legislated.

Therefore, when it comes down to it, labels can only do so much to guarantee that the information they contain is accurate and trustworthy. Rules, as a matter of fact, have their

⁹⁵⁴ N Haider, 'No Escape from the Spree of Adulteration' *The Financial Express* (24 December 2022) <<https://today.thefinancialexpress.com.bd/features-analysis/no-escape-from-the-spree-of-adulteration-1671811809>> accessed 10 June 2024; 'Food Authorities Find Adulteration in All Unpackaged Edible Oil' (*The Business Standard*, 7 December 2021) <<https://www.tbsnews.net/economy/industry/food-authorities-find-adulteration-all-unpackaged-edible-oil-340201>> accessed 2 October 2023.

⁹⁵⁵ P Sicilian, C Riefa and H Gamper, *Consumer Theories of Harm: An Economic Approach to Consumer Law Enforcement and Policy Making* (Hart 2019) 40.

⁹⁵⁶ T Cooper, 'The Value of Longevity: Product Quality and Sustainable Consumption' (Global Research Forum on Sustainable Production and Consumption, Rio de Janeiro 2012). See generally, Jurgita Malinauskaite and Fatih Erdem, 'Planned Obsolescence in the Context of a Holistic Legal Sphere and the Circular Economy' (2021) 41(3) *Oxford Journal of Legal Studies* 719, 726.

⁹⁵⁷ Malinauskaite and Erdem (n 957) 727.

⁹⁵⁸ Wood and others (n 499).

⁹⁵⁹ Cooper (n 957). Malinauskaite and Erdem (n 957) 726.

⁹⁶⁰ John Stanton-Ife, 'The Limits of Law' in Edward N Zalta (ed), *The Stanford Encyclopedia of Philosophy* (Spring 2022, Metaphysics Research Lab, Stanford University 2022).

⁹⁶¹ Jason Brennan and others, 'Addressing Moral Confusion: Ethics Isn't Law' in Jason Brennan and others (eds), *Business Ethics for Better Behavior* (Oxford University Press 2021) 81.

limits. They have no say over the actions or morals of those who choose to deceive. In order to truly protect consumers, stronger enforcement coupled with creative solutions must become integral to how the food industry operates each day.⁹⁶²

6.3.2 Insufficiency of Nutrition Labelling

Typically, most food labelling laws by design tend to place a strong emphasis on nutrition labelling and claims. Section 15 of the Packaged Food Labelling Act (2017) mandates that nutrition labels on packaged foods must include details on energy value and the amounts of fat, saturates, carbohydrates, sugar, protein, and salt. If salt is present naturally, this must be indicated separately. The section also allows for additional nutritional information to be provided, including amounts of mono-unsaturates, poly-unsaturates, trans-fat, cholesterol, poly-ols, fibre, and any related vitamins or minerals.⁹⁶³ Historically, Bangladesh's food policies have heavily emphasised nutrition.⁹⁶⁴ This focus stems from the country's persistent challenges with malnutrition, particularly in the mid-20th century. Despite progress in recent decades, malnutrition remains a pressing concern, particularly in rural areas and amongst marginalised communities, leading to the prioritisation of nutritional content in food labelling laws.⁹⁶⁵

It was not until 2006 that 'food safety' began to receive substantial policy attention in Bangladesh.⁹⁶⁶ Furthermore, Bangladesh is currently experiencing rapid urbanisation, which has brought about substantial changes in dietary patterns and lifestyle choices.⁹⁶⁷ As more people migrate to urban areas and adopt sedentary lifestyles, the risk of diet-related non-communicable diseases, such as obesity, diabetes, and cardiovascular disorders, has been reported to increase.⁹⁶⁸ Quite understandably, current food policies in Bangladesh have continued to prioritise nutrition,⁹⁶⁹ as well as targeting mandatory nutrient labelling and product information on at least 50% of all food products sold in urban market.⁹⁷⁰

Although nutrition labels are informative, they do not necessarily guarantee the safety or authenticity of the ingredients used. Adulteration often involves harmful non-nutritive

⁹⁶² See Chapter 7 and Section 6.5.2 below.

⁹⁶³ Packaged Food Labelling Act s 15.

⁹⁶⁴ Ministry of Health and Family Welfare, 'Advocacy Plan for Nutrition, Bangladesh 2019-2025' (Government of the People's Republic of Bangladesh 2021) tbl 2.

⁹⁶⁵ FPMU (n 682) 26, 45.

⁹⁶⁶ Ministry of Food and Disaster Management, 'National Food Policy 2006' 13.

⁹⁶⁷ Shaheen and others (n 952) 491; Food Planning and Monitoring Unit (FPMU) (n 782) 14, 100.

⁹⁶⁸ Shaheen and others (n 952) 482.

⁹⁶⁹ FPMU (n 789) 123.

⁹⁷⁰ *ibid* 187.

substances or undisclosed chemicals that are outside the parameters of nutritional disclosures. The systematic gap leaves consumers, particularly already vulnerable, defenceless against deceptive practices.⁹⁷¹ Further, labels presuppose trust in the accuracy and safety of their content but it is undermined when adulterants or dangerous substances are present. Indeed, the reality is that when it comes to food, all consumers are vulnerable consumers.⁹⁷² Food, as a fundamental necessity for survival, renders every individual dependent on mechanism established to ensure its safety. Yet, these systems often fall short, leaving even the most informed consumers exposed to risks. Thus, the implication being that vulnerability is universal yet stratified as infants, the elderly, and rural communities face disproportionately higher risks due to limited access to alternative diets, information, or resources.

Nutrition extends beyond dietary nutrients. It also depends on food security, which requires a sanitary environment, adequate health services, and proper care and feeding practices. According to World Food Summit's definition of food security, individuals must always have access to sufficient, safe, and nutritious food to maintain a healthy and active life.⁹⁷³ That said, food security cannot exist without food safety.⁹⁷⁴ Hence, ensuring that food is devoid of hazardous ingredients is a prerequisite for attaining genuine food security.⁹⁷⁵

Riefa and Gamper argue that reliance on information remedies, such as labelling, often places undue responsibility on consumers to safeguard their well-being by ignoring systemic barriers and the dynamic nature of vulnerability.⁹⁷⁶ The consumption of adulterated food in Bangladesh has heightened the risks of malnutrition, food poisoning, and potentially lethal diseases.⁹⁷⁷ Therefore, the integration of food safety and nutritional adequacy is not no longer simply a policy preference but is increasingly becoming a socio-legal imperative at this time. Nutrition-focused policies must evolve to address food safety comprehensively by

⁹⁷¹ Silvia Schmidt, 'Foods for Specific Consumer Groups' in Harry Bremmers and Kai Purnhagen (eds), *Regulating and Managing Food Safety in the EU: A Legal-Economic Perspective* (Springer International Publishing 2018) 142.

⁹⁷² "Vulnerable" Consumers and Food Safety Paper 3 Food and You Waves 1-3 Secondary Analysis' (Food Standards Agency and NatCen Social Research 2016) Unit Report 2016/04.3.

⁹⁷³ FAO, 'Food Security' (Food and Agricultural Organisation 2006) Policy Brief Issue 2 1.

⁹⁷⁴ FAO, 'Without Food Safety There Can Be No Right to Food' (7 June 2023) <<https://www.fao.org/right-to-food/news/news-detail/en/c/1641729/>> accessed 10 June 2024; Delia Grace, 'No Food Security without Food Safety: Lessons from Low- and Middle-Income Countries' (Australian Veterinary Association annual conference, Perth, Australia, May 2019) <<https://cgspace.cgiar.org/server/api/core/bitstreams/3dd3d387-d6dc-4856-8dcc-4dc6592aaa87/content>> accessed 10 June 2024;

⁹⁷⁵ Jody Harris and others, 'A "Right to Nutrition" in Its Social, Legal, and Political Context: How International Human Rights Translate to Zambian Realities' (2022) 14(3) *Journal of Human Rights Practice* 879.

⁹⁷⁶ Christine Riefa and Harriet Gamper, 'Economic Theory and Consumer Vulnerability: Exploring an Uneasy Relationship', *Vulnerable Consumers and the Law* (1st edn, Routledge 2020).

⁹⁷⁷ S Uttom and R Rozario, 'Unsafe Food Leaves Nasty Taste in Bangladesh' (*La croix international*, 14 June 2019) <<https://international.la-croix.com/news/world/unsafe-food-leaves-nasty-taste-in-bangladesh/10332>> accessed 13 August 2024.

incorporating robust regulatory measures to detect and prevent adulteration and ensuring the authenticity of food products.

6.3.3 Challenges in Harmonising National Food Labelling Regulations with International Standards

The BFSA has recently issued the 'Draft Food Safety (Labelling of Packaged Food)' Regulation (2023).⁹⁷⁸ It has been formulated to enhance consumer protection by requiring that all packaged food products sold carry labels that provide accurate, clear, and comprehensive information.⁹⁷⁹ Notably, the drafting process of these draft regulations has been informed by a comparative analysis with both the existing national guidelines and the internationally recognised standards set forth by the Codex Alimentarius, as well as labelling regulations currently enforced in India and EU.⁹⁸⁰ Included in the draft regulation are detailed requirements concerning various aspects of food labelling. These include, but are not limited to, the proper naming of food products, a complete list of ingredients, the declaration of food additives, quantitative ingredient declarations (QUID), specific labelling requirements for foods that may trigger allergies or intolerances, nutritional information, and the full disclosure of manufacturer or FBO's details. Additionally, the regulations stipulate the inclusion of the country of origin for imported foods and clear date marking to guide consumer usage.

Whilst acknowledging that the proposed labelling regulations are still in draft notification form and thus subject to revision before gazetting, providing a preliminary critique at this stage is vital nonetheless. The discussion below will systematically unpack the implications of such harmonisation.

6.3.3.1 Alignment with Codex

The Codex Committee on Food Labelling (CCFL) provides an internationally recognised standards for food labelling practices which guides governments in unifying their policies.⁹⁸¹ The CCFL has adopted various texts and guidelines on food labelling that assist in defining and prosecuting food fraud. The primary instrument for conveying food information to

⁹⁷⁸ Draft Food Safety (Labelling of Packaged Food) Regulation 2023.

⁹⁷⁹ Food Compliance, 'BFSA Publishes New Draft Labeling Regulation' (29 August 2023) <<https://foodcomplianceinternational.com/industry-insight/news/3676-bfsa-publishes-new-draft-labeling-regulation>> accessed 10 June 2024; Food Safety Act s 87.

⁹⁸⁰ *ibid.*

⁹⁸¹ Codex Alimentarius, 'Codex Committee on Food Labelling (CCFL)' <<https://www.fao.org/fao-who-codexalimentarius/committees/committee/en/?committee=CCFL>> accessed 11 June 2024.

consumers is the Codex General Standard for Labelling of Pre-packaged Foods (CXS 1-1985).⁹⁸² It stipulates that:

Pre-packaged food shall not be described or presented on any label or in any labelling in a manner that is false, misleading, or deceptive or is likely to create an erroneous impression regarding its character in any respect.⁹⁸³

Similarly, the General Standard for the Labelling of Food Additives When Sold As Such (CXS 107-1981) states that 'food additives shall not be described or presented on any label or in any labelling in a manner that is false, misleading, or deceptive or is likely to create an erroneous impression regarding their character in any respect'.⁹⁸⁴ These two provisions mutually prohibit false, misleading, or deceptive labelling of foods and food ingredients. The Codex General Guidelines on Claims (CXG 1-1979) provide further examples of descriptions or presentations that the Codex Standard refers to.⁹⁸⁵ Therefore, deception is a common element of misleading labels in Codex texts.

Perhaps, if the required information for a food item is true, lawful, and clear, there is no room for fraud.⁹⁸⁶ FAO recommends that one effective method for measuring suspected food fraud is adopting food standards for specific products and commodities to ensure they reflect international best practices as set by the Codex Alimentarius Commission.⁹⁸⁷ For instance, if a product labelled 'edible sago flour' fails to meet the Codex Alimentarius Regional Standard for Edible Sago Flour (Asia) CXS 301R-2011, proving deception would be relatively straightforward.⁹⁸⁸ In this sense, Codex provides governments with a powerful tool to ensure that food labelling is truthful, lawful, and clear.

Whilst acknowledging its benefits, food lawyers also warn that national governments should avoid 'simplistic thinking' that labelling alone can resolve all food fraud issues, as food fraud can take diverse practices not directly reflected in labelling.⁹⁸⁹ For instance, adulteration, substitution, and dilution of food products may not always be evident through labelling alone. Also, imposing stricter labelling requirements to prevent fraud could create difficulties for

⁹⁸² Codex Alimentarius, 'Codex General Standard for Labelling of Pre-Packaged Foods CXS 1-1985' (Codex Alimentarius 1985) 1–1985.

⁹⁸³ *ibid* 3.

⁹⁸⁴ Codex Alimentarius, 'General Standard for the Labelling of Food Additives When Sold As Such (CXS 107-1981)' (Codex Alimentarius 1981) 2.

⁹⁸⁵ Codex Alimentarius, 'Codex General Guidelines on Claims (CXG 1-1979)' (Codex Alimentarius 1979).

⁹⁸⁶ Roberts, Viinikainen and Bullon (n 14) 25.

⁹⁸⁷ FAO, *Food Fraud – Intention, Detection and Management* (n 138) 11.

⁹⁸⁸ Codex Alimentarius, 'Regional Standard for Edible Sago Flour (Asia) CXS 301R-2011' (Codex Alimentarius 2011).

⁹⁸⁹ Roberts, Viinikainen and Bullon (n 14) 25.

monitoring and enforcement. They recommend that ‘additional labelling requirements should be justified by the need for consumers to receive the appropriate information’ to make informed choices, not as a strategy to prevent fraud.⁹⁹⁰ For example, US FDA denied a petition for a standard of identity for honey to combat honey fraud.⁹⁹¹ It maintained that existing labelling requirements sufficiently addressed consumer confusion about the nature and composition of honey, obviating the need for additional regulatory standards. Indeed, honey fraud persists which confirms that using labelling is not a standalone solution.⁹⁹² Rather it could be viewed as part of an overall regulatory strategy rather than the sole defence against food fraud.⁹⁹³

Notably, Jack observes that ‘.. as with all labelling requirements, food origin labels can only be effective if they are supported by adequate measures to ensure the veracity of their claims’.⁹⁹⁴ This veracity, in turn, hinges on robust enforcement mechanisms that verify compliance and deter violations. The GoB may need to consider whether prohibitions against false and misleading labelling are sufficient or if additional measures are needed to address food products with reduced or omitted valuable ingredients, which can inherently deceive or mislead consumers. Otherwise, without consistent monitoring, labelling risks becoming a passive tool, offering information without ensuring its accuracy. Control points such as regular inspections, compliance audits, and traceability systems are important to preserve the integrity of labelling regimes.

6.3.3.2 Alignment with EU

One could imagine that aligning Bangladesh’s food labelling regulations with the EU’s legal framework carries a certain appeal, particularly given the EU’s reputation for having one of the most stringent regulatory regimes internationally.⁹⁹⁵ If examined at face value, the EU seemingly appears to have established a comprehensive legal framework to address food fraud.⁹⁹⁶ Regulation 178/2002 (assimilated) aims to prevent fraudulent practices and ensure

⁹⁹⁰ *ibid.*

⁹⁹¹ Roberts, *Food Law in the United States* (n 928) 471.

⁹⁹² Michael Roberts, ‘A “Food Systems Thinking” Roadmap for Policymakers and Retailers to Save the Ecosystem by Saving the Endangered Honey Producer from the Devastating Consequences of Honey Fraud’ (2019) UCLA School of Law, Public Law Research Paper No 20-02. T Duchene and others, ‘Honey Adulteration and the Precarity of the U.S. Beekeeper’ (*On Food Law*, 24 May 2021) <<https://onfoodlaw.org/2021/05/24/honey-adulteration-and-the-precarity-of-the-u-s-beekeeper/>> accessed 11 June 2024.

⁹⁹³ Roberts, Viinikainen and Bullon (n 14) 26.

⁹⁹⁴ Alan Reilly, ‘Overview of Food Fraud in the Fisheries Sector’ (FAO 2018) FAO Fisheries and Aquaculture Circular No. 1165 FIAM/C1165 14–15; Jack (n 143) 151.

⁹⁹⁵ See Chapter 4 of this thesis. Lydgate and Anthony (n 617) 1177; BEUC, ‘Keeping Food in Check: A Snapshot of National Official Food Controls – and What This Means for Consumers’ (BEUC 2019) 4.

⁹⁹⁶ Jack (n 143) 167; Reilly (n 995) 14.

that food labelling is not misleading.⁹⁹⁷ Moreover, Article 7(1)(a) of the Food Information Regulation (Regulation 1169/2011) further specifies that labels should accurately reflect the characteristics of the food, including its nature, identity, properties, and origin.⁹⁹⁸

Despite strong regulations on paper, enforcement gaps allow fraud and mislabelling. The horsemeat scandal, which involved the fraudulent mislabelling of horsemeat as beef, revealed the extent of these vulnerabilities.⁹⁹⁹ Despite the comprehensive legal standards, the scandal came to light only through a random inspection conducted by the Irish Food Safety Authority. The reactive discovery exposed the absence of a proactive, systematic approach to monitoring and verifying label compliance along the supply chain.¹⁰⁰⁰

Although labelling compliance may not seem as pressing as other control obligations, the lack of adequate verification mechanisms along the supply chain can allow fraudulent practices to persist. Post scandal reports by BEUC have uncovered various misleading tactics, such as labelling industrial products as 'artisanal' or using images of fruits on products with little or no fruit content and wholegrain claims on products with low wholegrain content.¹⁰⁰¹ The report also highlighted budget cuts and other issues deprioritised labelling audits in multiple member states.¹⁰⁰²

According to another investigation, EU labelling audits are low priority, so 'misleading food labels pass beneath the radar'.¹⁰⁰³ Labelling controls have been severely reduced in several nations, and these inspections are regularly overlooked.¹⁰⁰⁴ The Netherlands, for instance, acknowledged that its Food and Consumer Product Safety Authority's food labelling efforts were 'limited due to budget cuts' between 2013 and 2015, with only 'small supervision projects'.¹⁰⁰⁵ After an undercover media investigation in September 2017, one of the UK's major poultry processors, which produces 6 million birds each week, was questioned about its factory procedures. Secretly recorded footage of operations in the plant showed that food

⁹⁹⁷ Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety art 8.

⁹⁹⁸ Regulation 1169/2011 of the European Parliament and of the Council of 25 Oct. 2011 on the provision of food information to consumers, [2011] OJ L304/18 art 7(1)(a).

⁹⁹⁹ Barnard and O'Connor (n 754).

¹⁰⁰⁰ 'Keeping Food in Check: A Snapshot of National Official Food Controls – and What This Means for Consumers' (n 996) 16.

¹⁰⁰¹ BEUC, 'Food Labels: Tricks of the Trade Our Recipe for Honest Labels in the EU' (BEUC 2018) 4.

¹⁰⁰² *ibid* 4, 13.

¹⁰⁰³ 'Keeping Food in Check: A Snapshot of National Official Food Controls – and What This Means for Consumers' (n 996) 16.

¹⁰⁰⁴ *ibid* 5.

¹⁰⁰⁵ *ibid* 13, 16.

safety records were being tampered with through the falsification of use-by labels.¹⁰⁰⁶ These examples jointly exemplify that the mere adoption of stringent regulations on paper do not solve deceptive adulteration. They show how enforcement and financing shortages can have serious repercussions, even in developed jurisdictions with strict standards.

Conceptual shortcomings also impede the EU's regulatory approach. EU labelling regulations are predicated on the construct of the 'average consumer' who is assumed to be rational, informed, and capable of discerning misleading claims.¹⁰⁰⁷ Although this assumption holds limited validity in literate, economically stable populations, the horsemeat scandal exposed its inherent fragility i.e., no consumer is truly immune to systemic vulnerabilities in the food supply chain. Riefa further critiques the EU's dependence on the 'average consumer' standard by describing it as overly idealised and rooted in the free trade agenda rather than consumer protection.¹⁰⁰⁸ She observes that this model presupposes a hypothetical consumer who is 'reasonably well-informed', reasonably observant, and 'circumspect'.¹⁰⁰⁹ However, she cautions that such assumptions disregard the structural vulnerabilities and socio-economic inequalities inherent in actual consumer markets, and notes that 'consumers are a heterogeneous bunch' whose capacities to digest information vary widely.¹⁰¹⁰

The implication is that systemic flaws render the notion of an 'average consumer' not just illusory but, at times, detrimental. In the Bangladeshi context, widespread adulteration coupled with low literacy rates, fragmented supply chains, and deep scepticism of regulatory authorities render the 'average consumer' an abstract construct. If applied, even tangentially, it does not account for these layered realities. In any case, structural accountability ought to take precedence over reductive behavioural assumptions. The key here is for regulators to recognise that effective protection lies strengthening systems that underpin consumers' choices.

In sum, the alignment with EU standards constitutes a preliminary phase, not an end goal. GoB's approach to addressing deceptive adulteration must surpass the simplistic notion of just emulating the EU's regulatory framework. The EU examples of deceptive labelling demonstrates the need for government-mandated label verification mechanisms to prevent

¹⁰⁰⁶ *ibid* 14.

¹⁰⁰⁷ Schmidt (n 972).

¹⁰⁰⁸ Sicilian, Riefa and Gamper (n 956) ch 2.

¹⁰⁰⁹ *ibid* 32.

¹⁰¹⁰ Geraint Howells and Stephen Weatherill, *Consumer Protection Law* (2nd edn, Farnham, Ashgate 2005) 5.

consumers from being deceived.¹⁰¹¹ Thus, adopting EU-style regulations alone would be insufficient for Bangladesh if the enforcement challenges are not prioritised simultaneously.

Consequently, prioritising enforcement is important. GoB could consider developing clearly defined protocols for regular verification of label claims across the supply chain. A potential strategy is to target one specific food product category that is highly susceptible to adulteration each year. For instance, recent initiatives by the Food Standards Agency (FSA) in England included checking 600 samples' labels for correctness, food information standards, authenticity, and allergens/contaminants in 2022.¹⁰¹² Particularly, the survey focused on goods at high risk for composition standard or authenticity labelling violations, such as oregano, which has encountered international authenticity difficulties.¹⁰¹³ Notably, some of the tested food items were carried over from previous years, thereby enabling the FSA to monitor how labelling failures may change over time and identify emerging issues.¹⁰¹⁴ The survey encompassed commonly consumed foods and items that might be susceptible to corner-cutting due to economic pressures.

6.4 International Case Studies: Consumer-Driven Traceability Initiatives

Although the challenges of food labelling in preventing deceptive practices appear evident, it is important to consider that labelling might only be one piece of a larger puzzle. In order to further understand how to enhance these efforts, it is instructive to review international case studies where consumer-driven traceability initiatives have complemented labelling efforts.

6.4.1 Dairy Initiative in Brazil

Brazil's dairy industry could exemplify how consumer-driven efforts, thoroughly supported by legal frameworks, could improve food safety via enhanced traceability. The dairy sector has historically encountered issues with adulteration, which reportedly contributed to a crisis of consumer trust.¹⁰¹⁵ In response, the Brazilian government introduced evolved regulations mandating digital traceability under the Brazilian Consumer Code (Law n. 8.078/90).¹⁰¹⁶

¹⁰¹¹ 'Food Labels: Tricks of the Trade Our Recipe for Honest Labels in the EU' (n 1002) 6.

¹⁰¹² Food Standards Agency, 'Our Food 2022 - An Annual Review of Food Standards across the UK' (Food Standards Agency 2023) HC 1859 SG/2023/139 95.

¹⁰¹³ *ibid.*

¹⁰¹⁴ *ibid.*

¹⁰¹⁵ Tibola and others (n 139) 2028; Raquel Breitenbach, Heber Rodrigues and Janaina Brandão, 'Whose Fault Is It? Fraud Scandal in the Milk Industry and Its Impact on Product Image and Consumption – The Case of Brazil' (2018) 108 Food Research International 475.

¹⁰¹⁶ Brazilian Consumer Code Law n 8078/1990 (Brazil).

Although government regulation was undoubtedly important as discussed in the previous chapter, it appears that consumer behaviour also had a key contribution in driving change.¹⁰¹⁷ Brazilian consumers reduced their milk purchases following the scandal which pushed at least one national milk producer (named Languiru) towards adopting a digital traceability system.¹⁰¹⁸ A unique QR code with fraud-proof ink put on each Languiru product unit during production enables consumers to follow milk goods from farm to shelf.¹⁰¹⁹ The initiative allows consumers to immediately access key production data, including lab tests and other relevant data from the web by scanning the QR code on Languiru's products.

Although initially adopted by only one producer, it was largely aligned with consumer demand and may have contributed to reinstating a degree of confidence in the dairy sector.¹⁰²⁰ Irrespective of its initial success, this case study could be viewed as an illustration of how legal structures and consumer behaviour might work together. The government's digital traceability laws exceeded mere compliance. They may also have empowered consumers by making sure their demands were met with clear, verifiable actions.

The key takeaway here is that, in contexts where consumer influence is less pronounced, as detailed in Bangladesh (see section 6.5 below), governmental leadership will be pivotal in driving similar changes. Essentially, the Brazilian model indicates that legal frameworks supporting consumer-driven initiatives, they could boost the efficacy of food traceability systems.

6.4.2 Coffee Initiative in Colombia

Colombia's coffee industry shows how consumer-driven initiatives could contribute to improvements in traceability and food safety. According to Article 304 of Title V of Law No. 9 of 1979, foods or beverages that are altered, adulterated, counterfeit, or contaminated, or those that may pose a risk to consumer health, are not deemed fit for human consumption.¹⁰²¹ Although Colombia's regulatory environment is supportive but it is not fully prescriptive for food traceability systems as compared to Brazil's. The primary regulatory

¹⁰¹⁷ USAID (n 783) 37.

¹⁰¹⁸ *ibid.*

¹⁰¹⁹ *ibid.*

¹⁰²⁰ J Eagle, 'Brazilian Dairy Boosts Sales with SIG's QR Connected Pack' (*Daily Reporter*, 26 July 2018) <<https://www.dairyreporter.com/Article/2018/07/26/Brazilian-dairy-boosts-sales-with-SIG-s-QR-connected-pack>> accessed 9 August 2024.

¹⁰²¹ Ley 9 de 1979 (24 January 1979) (Colombia) art 304.

framework provides guidelines on food safety but does not strictly enforce traceability across all sectors, only the ones based on risk.¹⁰²² This leads to customer demand and market forces driving traceability projects, rather than regulatory compulsion.¹⁰²³

Consumer initiatives have driven food traceability in Colombia, especially in the coffee industry. The ‘Thank My Farmer’ initiative, for instance, is a consumer-facing platform that connects end consumers with coffee farmers.¹⁰²⁴ This blockchain-based venture lets users scan QR codes on coffee items with their smartphones to track their origin to specific farms.¹⁰²⁵ Such initiatives demonstrate the impact of customer desire for transparency on the market, even without strict regulations. However, since the initiative began in 2020, it is too soon to definitively determine what has worked and what has not.¹⁰²⁶

Yet, the early impetus is partly attributed to rising consumer base that values traceability and is willing to pay for it.¹⁰²⁷ The regulatory framework, though not a driving incentive, does not inhibit it either which allowed the consumer-driven initiative to thrive. For Bangladesh, similar accomplishment would likely depend on analysing the socio-legal variables first and then modifying these approaches to local conditions.

6.4.3 Tuna Initiative in Fiji

Consumer demand for environmental sustainability primarily drove the adoption of the food in Fiji. Despite robust regulations under the Food Safety Act (2003) and the subsequent 2008 Standard on Good Hygienic Practices for Fish and Fisheries Products, enforcement in surrounding waters remains weak, as is typically the case in developing countries.¹⁰²⁸ The high value of tuna justifies the investment in food traceability. The initiative utilises blockchain technology to track food from capture to consumption, which addresses concerns over food fraud and illegal fishing practices.¹⁰²⁹

¹⁰²² Resolution 2674 of 2013, issued by the Minister of Health and Social Protection (Colombia).

¹⁰²³ USAID (n 783) 39.

¹⁰²⁴ ‘Thank My Farmer’ (*ThankMyFarmer*) <<https://www.thankmyfarmer.com/>> accessed 9 August 2024.

¹⁰²⁵ USAID (n 783) 38.

¹⁰²⁶ IBM, ‘Farmer Connect Uses IBM Blockchain to Bridge the Gap Between Consumers and Smallholder Coffee Farmers’ (IBM, 6 January 2020) <<https://newsroom.ibm.com/2020-01-06-Farmer-Connect-Uses-IBM-Blockchain-to-Bridge-the-Gap-Between-Consumers-and-Smallholder-Coffee-Farmers>> accessed 9 August 2024.

¹⁰²⁷ USAID (n 783) 38.

¹⁰²⁸ *ibid* 43. Fiji Islands Food Safety Act para 70(w); Standard on Specific Good Hygienic Practices for Fish and Fisheries Products (Fiji) 2008 art 19(I).

¹⁰²⁹ F Blaha and K Katafono, ‘Blockchain Application in Seafood Value Chains’ (FAO 2020) FAO Fisheries and Aquaculture Circular, no. 1207 32.

Again, the key message deriving from the Fiji's case study is the same as Brazil's and Columbia's. Since consumer influence is weak, government leadership could be the air that ignites consumer influence. The government may help educate consumers about traceability so they are better positioned to demand transparency from food producers.¹⁰³⁰ It could then act as an incentive to encourage the adoption of traceability systems that would complement food labelling efforts.

6.5 Leveraging Food Labelling for Safer Practices through Consumer Empowerment

The aforementioned studies function as a bridge between the theoretical discussion of food labelling and traceability and the specific context of Bangladesh. They provide examples of how various approaches have been implemented in practice, which informs the current understanding of what might be feasible and effective in Bangladesh. Hence, in order to fully leverage food labelling and traceability in countering deceptive practices, it is imperative to address the underlying socio-legal challenges whilst concurrently exploring avenues for consumer empowerment. Section 6.5.1 will first discuss the various socio-legal barriers. Subsequently, Section 6.5.2 will explore practical solutions as to how GoB could address these challenges and utilise consumer empowerment strategies to enhance food labelling as well as drive broader traceability improvements.

6.5.1 Barriers to Effective Food Labelling in Bangladesh

In any consumer context, a multitude of factors, including broader socio-cultural values, norms, and economic circumstances, influence choice behaviour besides product labelling.¹⁰³¹ Although labelling holds potential as a tool, several socio-legal barriers impede its effectiveness in shaping consumer behaviour towards food adulteration in Bangladesh. These encompass information asymmetries, behavioural tendencies and socioeconomic disparities, which must be addressed in tandem with enhancing labelling practices to maximise impact. Whilst overlapping, these barriers are explored separately below to delineate the distinct factors involved.

¹⁰³⁰ See Section 6.5.2.2.

¹⁰³¹ M Osman and S Jenkins, 'Consumer Responses to Food Labelling: A Rapid Evidence Review' (Food Standards Agency UK 2021) 7.

6.5.1.1 Information Asymmetry and Consumer Vulnerability

A major barrier is the information asymmetry between producers/manufacturers and consumers. Consumers often lack the technical expertise or resources to verify the authenticity and quality of food products which makes them vulnerable to exploitation by unscrupulous actors. The resultant asymmetry undermines consumer sovereignty, which depends on the ability of consumers to make informed choices based on accurate information.¹⁰³² Economic theories, such as Adam Smith's invisible hand and Ludwig von Mises' consumer sovereignty theory, assume ideal conditions of perfect information, but these are rarely attainable in practice.¹⁰³³ Behavioural economics provides further insights into consumer vulnerability by highlighting the concept of 'bounded rationality', where cognitive limitations impede individuals' ability to process complex or overwhelming information.¹⁰³⁴ This dynamic might be especially relevant in food labelling contexts. For instance, Siciliani, Riefa, and Gamper describe 'confusopoly', whereby excessive or unclear information discourages consumers from engaging with available options.¹⁰³⁵

Some evidence from the Dhaka consumer experience study indicates similar patterns. It was found that certain consumers held inaccurate beliefs, such as wrongly assuming all foreign food products are adulterated or that all locally produced foods are safe, including misconceptions about the absence of antibiotics in broiler chicken production.¹⁰³⁶ These generalised beliefs exemplify cognitive biases and oversimplified heuristics that consumers may develop due to information scarcity. It is problematic as they can promote discriminatory choices detached from objective product qualities.

Moreover, certain foods were perceived as immune to adulteration due to their nature. For example, some consumers believed that eggs cannot be adulterated because they are encased.¹⁰³⁷ Even green leafy vegetables were mentioned as foods that cannot be

¹⁰³² Martínez Alles and María Guadalupe, 'Reducing Inequality in Consumer Transactions: The Significance of Aggravated Vulnerabilities' forthcoming in K Davis and M Pargendler, *Legal Heterodoxy in the Global South: Adapting Private Laws to Local Contexts* (Cambridge University Press 2024).

¹⁰³³ Adam Smith, *An Inquiry Into the Nature and Causes of the Wealth of Nations*, vol I (3rd edn, Methuen 1922) 58–59. Jeffrey Herbener, 'Ludwig von Mises and the Austrian School of Economics' (1991) 5 *The Review of Austrian Economics* 33.

¹⁰³⁴ Bryan Jones, *Politics and the Architecture of Choice: Bounded Rationality and Governance* (University of Chicago Press 2001). Malinauskaite and Erdem (n 957) 725.

¹⁰³⁵ Sicilian, Riefa and Gamper (n 956) 141–145.

¹⁰³⁶ Harriëtte Snoek and others, 'Consumers' Health and Food Safety Perceptions in the Dhaka Metropolitan Area' (Wageningen University & Research and Agriculture Organisation of the United Nations (FAO), FAO Representation in Bangladesh 2021) 80 <<https://research.wur.nl/en/publications/bec48212-f716-4608-bd06-d0dba73611f9>> accessed 18 June 2024.

¹⁰³⁷ *ibid.*

adulterated which is a misconception.¹⁰³⁸ These findings feature the knowledge gaps consumers may harbour regarding food safety and the potential for adulteration. Furthermore, the observation that even after purchasing adulterated foods, the substandard taste persists despite cooking further highlights the tangible dangers of lax labelling practices. When consumers cannot reliably assess a product's integrity pre-purchase, they remain susceptible to ingesting potentially unsafe or undesirable ingredients. Failure to ensure accuracy on labels amounts to a violation of the consumer's right to safety and satisfaction.¹⁰³⁹

These findings represent foreseeable yet preventable consumer harms or detriment resulting from inadequate labelling regimes. The issues identified above, including taste degradation, health risks from hidden adulterants, and the perpetuation of misconceptions, violate the basic protections and reasonable expectations consumers should have under the CRPA (2009).

6.5.1.2 Socioeconomic Disparities

The laws mandates consumer education¹⁰⁴⁰ and associated rules mandating labelling requirements for pre-packaged foods.¹⁰⁴¹ However, as per information asymmetry theory, these measures may fail to achieve their public welfare objectives if there are knowledge deficits amongst certain population segments regarding their rights under such laws.¹⁰⁴² Evidence from Bangladesh illustrates this phenomenon as discussed below.

Literacy and Language Barriers

Bangladesh's literacy rate of approximately 75%, with notable urban-rural disparities, highlights an important issue in the effectiveness of food labeling. For the quarter of the population with limited literacy, food labels, regardless of their accuracy, may be ineffective tools for making informed decisions.¹⁰⁴³ This vulnerability is evident in consumer statements such as:

¹⁰³⁸ *ibid.*

¹⁰³⁹ *ibid* 104.

¹⁰⁴⁰ Food Safety Act s 13(3)(m); Consumer Rights Protection Act s 8(e).

¹⁰⁴¹ Packaged Food Labelling Act.

¹⁰⁴² Riefa and Saintier (n 950) 76.

¹⁰⁴³ BBS, 'Bangladesh Statistics 2020' (BBS 2020) 13; 'Bangladesh Education Fact Sheets' (BBS, UNICEF New York and UNICEF Bangladesh 2020);

We do not understand, we are not educated; 'As we have no education the sellers give us over dated food and thus, they cheat us.'¹⁰⁴⁴

On the other hand, more educated consumers, particularly in urban areas, find value in clear and comprehensive labelling.¹⁰⁴⁵ As one Dhaka resident Dhaka remarked:

I am shopping for my family, and I think I have everything I need. The products are fresh, and the prices are good for me. I could easily see and get all the information I need about the products from the labelling and grading.¹⁰⁴⁶

Hence, the pronounced disparity in experiences exposes the socioeconomic divide in consumer protection and food safety awareness. Additionally, the problem of label accuracy exacerbates this situation. Even if labels are accurate and verified, their effectiveness is limited for those who cannot read or understand them. Conversely, inaccurate or unverified labels pose risks to all consumers, regardless of literacy levels.

Awareness and Education

Another factor is the general awareness and education of food safety and traceability amongst Bangladeshi consumers which is limited. A survey found that 85.45% of respondents did not have a good understanding of traceability systems.¹⁰⁴⁷ A study on low-income consumers involving 100 consumers from various grocery stores in Dhaka presented that low-income respondents were less educated and appeared to lack awareness of the risks associated with adulterated food.¹⁰⁴⁸ This group showed a significant need for continuous education on food safety and labelling.¹⁰⁴⁹ Another study revealed that rural consumers had 'very little knowledge' of government regulations regarding food quality and labelling.¹⁰⁵⁰

¹⁰⁴⁴ Snoek and others (n 1037) 108; Abu Shahiduzzaman and Manas Naskar, 'Consumer Perception of Food Quality, and Packaged Food Labelling: A Study in Lalmonirhat District, Bangladesh' (2022) 11(09) Paripax Indian Journal of Research 34.

¹⁰⁴⁵ A Shahiduzzaman, 'Customer Satisfaction on the Labelling of Packaged Food Products in Bangladesh' (2023) 3(1) International Journal of Innovations & Research Analysis 30, 33.

¹⁰⁴⁶ Herman Mostert and others (n 219) 48.

¹⁰⁴⁷ Kabir and others (n 804) 6.

¹⁰⁴⁸ Aishawarya Arefin and others, 'Study on Awareness about Food Adulteration and Consumer Rights among Consumers in Dhaka, Bangladesh' (2020) 5(2) Journal of Health Science Research 69, 74.

¹⁰⁴⁹ Marion Herens, 'Improving Dhaka's Food System' (WUR, 15 October 2019) <<https://www.wur.nl/en/research-results/research-institutes/centre-for-development-innovation/show-cdi/improving-dhakas-food-system.htm>> accessed 18 June 2024 Theme 5.

¹⁰⁵⁰ Md. Shahiduzzaman and Naskar (n 1045).

Willingness to Pay for Food Safety

Income inequalities also play a role. Research shows that consumers in Dhaka are willing to pay a premium for food products that are labelled as safe, such as 'formalin-free' fish.¹⁰⁵¹ For example, high-income consumers were willing to pay a price premium of BDT 71.785/kg for formalin-free fish, whereas low-income consumers demonstrated less willingness to pay additional costs for such labelling.¹⁰⁵² Thus, higher-income, better-educated consumers are more likely to seek and afford safer options.

Overall, the barriers of information asymmetry and socioeconomic disparities are not separate from one another but rather intersect and compound each other. Indeed, the evidence supports that the potential of labelling regulations to combat food adulteration is undermined by socioeconomic disparities that create pockets of vulnerability for underprivileged consumer segments. Despite efforts to enhance labelling transparency adulteration practices may persist in these areas. The resultant information asymmetry renders underprivileged groups susceptible to deceptive practices, from a consumer vulnerability perspective.

6.5.1.3 Consumer Priorities and Perceptions

Various consumer behaviour-related characteristics undermine the effectiveness of labelling. This section discusses these challenges and reinforces the need for a holistic policy strategy that considers the cognitive realities of consumers in Bangladesh.

Price Sensitivity and Economic Necessity

Financial limitations influence food choices in Bangladesh. Consumers tend to equate affordability with quality, as evident from statements such as, 'If the income is good, then the food is good as well'.¹⁰⁵³ The necessity to purchase affordable food often results in compromised choices regarding freshness and quality. Some consumers admit to buying fish later in the day when it is less fresh but more affordable.¹⁰⁵⁴ Despite being aware of potential adulteration, many knowingly purchase lower-quality food due to 'lack of money'.¹⁰⁵⁵ Consumers' comments such as, 'I can't find any good things in the market, so I

¹⁰⁵¹ MZ Hoque and others, 'Consumers' Preferences for the Traceability Information of Seafood Safety' (2022) 11(2) *Foods* 1, 14.

¹⁰⁵² *ibid.*

¹⁰⁵³ Snoek and others (n 1037) 43.

¹⁰⁵⁴ *ibid.*

¹⁰⁵⁵ *ibid.*

have to buy the less expensive food' further accentuate that economic constraints and perceived adulteration lead to a preference for cheaper options.¹⁰⁵⁶

Hence, economic necessity overrides the quality information provided by labels. Indeed, consumers knowingly purchase adulterated or less fresh food because it is the only option within their financial reach. Certain varieties of fish and pulses are more expensive, and these higher costs make them less accessible to low-income consumers, regardless of their labelled quality.¹⁰⁵⁷ This suggests that in price-sensitive markets, the perceived value of labels diminishes when economic factors heavily influence food choices.

Consequently, price sensitivity and economic necessity limit the effectiveness of labelling in promoting unadulterated products. Despite the presence of labels, financial constraints force consumers to prioritise affordability, often leading to the purchase of lower-quality, adulterated, or less fresh food. This situation lends credence to the claims made by food lawyers who argue that labels alone would not sway consumers' decisions, especially when economic factors dominate food choices.

Availability and Perceived Adulteration

The widespread belief that all food is adulterated also undermines the effectiveness of labelling.¹⁰⁵⁸ Statements such as:

All foods are adulterated, we have to find out which is with less chemical and formalin, whatever product we purchase, we think it mixed with chemical.

There are no foods you can find without adulteration. I know formalin is used in fish, vegetables, and fruits. Day by day there is an increasing rate of food adulteration as we watched it on TV programmes and heard from neighbours, relatives. Sometimes newspapers/Facebook published articles regarding food adulteration with toxic artificial colours. Moreover, anxiety has increased due to increasing rate of adulterated foods which has negative impacts on health.

¹⁰⁵⁶ *ibid* 104–105.

¹⁰⁵⁷ *ibid* 43.

¹⁰⁵⁸ Huda, 'Adulterated-Food Culture in Bangladesh' (n 577); TBS Report '45 Lakh People at Health Risks for Consuming Adulterated Food' *The Business Standard* (5 February 2020) <<https://www.tbsnews.net/bangladesh/health/45-lakh-people-health-risks-consuming-adulterated-food-42257>> accessed 18 June 2024.

I am sure that all we eat contains poison, deadly dangerous substances which have negative impacts on human health. We also buy fruits for children: bananas, apples, grapes, oranges, aside from baby foods and milk. Due to the use of particular substances (like-formalin), all foods are fresh and shiny to look at, but you know each fruit is a source of poison.

Indeed, all these statements reveal a profound mistrust in the overall food supply.¹⁰⁵⁹ As a result, labels do not reassure consumers or alter their purchasing behavior because they automatically assume all available options are compromised.

Consumer Information Overload

The notion of consumer information overload posits that in an environment saturated with information, consumers' attentional resources are overwhelmed. This causes selective attention, where only certain cues are noticed whereas others are ignored.¹⁰⁶⁰ Selective attention prevents consumers from fully utilising label information. Instead, they are more likely to attend to visually salient cues such as freshness, colours, and ripeness that resonate with their immediate concerns and perceptions.¹⁰⁶¹ For instance, Bangladeshi consumers look for signs of formalin, insecticides, chemical fertilisers, and other adulterants that are visually detectable. Statements such as, 'If it looks stale that means they have added medicines to it' reflect the dependence on visual cues rather than label information.¹⁰⁶²

Indeed, there is a disconnect between what is required by law regarding labels and how people actually use them. Although labelling aims to provide important data, but consumers who rely more on visual and sensory cues to judge food quality and safety often disregard it. This divergence indicates that labelling needs to be a part of a broader approach that accommodates for Bangladeshi consumers' cognitive realities. Perhaps then, socio-legal instruments and strategies may need to be re-evaluated and re-conceptualised to make labelling requirements more salient and resonant with consumers' pre-existing mental models and concerns.

¹⁰⁵⁹ Snoek and others (n 1037) 104–105. Dalia Yeasmin and others, 'Exploring Customers' Perceptions of Food Adulteration at Bazaars and Supermarkets in Dhaka, Bangladesh; a Qualitative Exploration' (2023) 23 BMC Public Health 1, 8.

¹⁰⁶⁰ Hans-W Micklitz and Christian Twigg-Flesner, *The Transformation of Consumer Law and Policy in Europe* (1st edn, Hart Publishing 2023) 92 142; Kai Purnhagen and Hanna Schebesta, 'Food Labelling for Consumers – EU Law, Regulation and Policy Options' (Policy Department for Citizens' Rights and Constitutional Affairs Directorate General for Internal Policies of the Union 2019) PE 608.871 38–39.

¹⁰⁶¹ Herman Mostert and others (n 219) 48; Snoek and others (n 1037) 43–44.

¹⁰⁶² Snoek and others (n 1037) 103.

6.5.2 Practical Measures for Enhancing Labelling and Consumer Empowerment

Given that socio-legal barriers tend to undermine food labelling and traceability efforts, overcoming these challenges may require more than just regulatory changes. The following section discusses ways to overcome these difficulties and improve labelling as well as complement the traceability efforts.

6.5.2.1 Standardised Visual Cues

The introduction of a standardised system of visual cues and symbols could correspond with consumers' existing perceptions of freshness, ripeness, and adulteration.¹⁰⁶³ As shown above, consumers often rely on immediate visual indicators to assess food quality. At other times, it also happens that consumers may be acting out of habit and make food handling mistakes because they lack 'cues to action'.¹⁰⁶⁴ The integration of these cues into labelling standards could render the labelling system more intuitive and accessible by capturing consumer attention.

Typically, text is often more challenging to process than images.¹⁰⁶⁵ The success of social media platforms based on pictures or visual content partially corroborates this view.¹⁰⁶⁶ Similarly, eco-labelling and eco-design demonstrate that pictograms can be more effective than text.¹⁰⁶⁷ Pictograms provide a quick shortcut to understanding, even though they can sometimes oversimplify information. Throughout Covid-19 pandemic, EU authorities used pictograms for rapid communication of essential information, which proved highly effective.¹⁰⁶⁸ This approach reshaped how information is conveyed and understood, with consumer lawyers noting its success in transforming communication methods.¹⁰⁶⁹

Currently, the exemption for agricultural goods under section 3(1)(g) of the Packaged Food Labelling Act (2017) presents a substantial gap in consumer protection.¹⁰⁷⁰ The exemption

¹⁰⁶³ Kai Purnhagen, Erica Herpen and Ellen Kleef, 'The Potential Use of Visual Packaging Elements as Nudges' in Klaus Mathis and Avishalom Tor (eds), *Nudging - Possibilities, Limitations and Applications in European Law and Economics* (Springer International Publishing 2016).

¹⁰⁶⁴ Snoek and others (n 1037) 22.

¹⁰⁶⁵ Pascal Pichonnaz, 'Information Duties' in Hans-W Micklitz and Christian Twigg-Flesner (eds), *The Transformation of Consumer Law and Policy in Europe* (1st edn, Hart Publishing 2023) 92.

¹⁰⁶⁶ *ibid.*

¹⁰⁶⁷ Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel [2009] OJ L27/1;

¹⁰⁶⁸ Pichonnaz (n 1066) 92.

¹⁰⁶⁹ Micklitz and Twigg-Flesner (n 1061) 92, 100.

¹⁰⁷⁰ Packaged Food Labelling Act s 3(1)(g).

leaves fresh produce and other agricultural goods susceptible to deceptive practices as mentioned in Section 6.2.2.1 above. Therefore, as a necessary first step, it is recommended to amend the Act to remove this exemption to extend labelling requirements to all agricultural goods. Such an amendment, if pursued, could be followed by further changes which could potentially include provisions for standardised visual cues for all food products, including previously exempt agricultural goods. The amendment might also need to consider establishing clear legal guidelines for the implementation of these visual cues to ensure they are prominently displayed and easily visible to consumers at the point of purchase. Additionally, regular inspections would also need to be conducted to verify that food producers and retailers adhere to the visual cue requirements.

The successful execution of this system necessitates cooperation with specialists from other disciplines. Graphic designers and user experience specialists are necessary for creating intuitive visual cues that consumers can readily comprehend. Consumer psychologists and behavioural economics may offer insights into the influence of these cues on markets and decision-making. Moreover, inputs from food scientists are required to guarantee that visual indicators appropriately reflect food quality and safety across various agricultural goods.

6.5.2.2 Consumer Information and Education

The twofold strategy of consumer education and information dissemination is not simply an auxiliary tool, but more importantly, it works alongside regulations to help people become informed and empowered.¹⁰⁷¹ Nevertheless, awareness without the capability to act is futile. Education transforms static information into actionable knowledge which could enable consumers to critically assess label claims and identify deceptive practices.¹⁰⁷² Informed and empowered consumers could thus complement regulatory efforts by making conscious choices based on accurate label information.¹⁰⁷³ Though a major challenge here lies in closing the information gap between consumers and producers. Consumers often lack the requisite knowledge to critically evaluate label claims and identify potential deceptive practices. Research suggests consumers are particularly unaware about credible sources of information on food risks and safety.¹⁰⁷⁴ Urban and rural communities trust government

¹⁰⁷¹ E Poillot, 'Consumer Education in the EU' in Hans-W Micklitz and Christian Twigg Flesner, *The Transformation of Consumer law and Policy in Europe* (1st edn, Bloomsbury 2023) 109.

¹⁰⁷² *ibid* 136.

¹⁰⁷³ FAO and WHO, 'The Future of Food Safety: Transforming Knowledge into Action for People, Economies and the Environment' (Food and Agriculture Organisation of the United Nations World Health Organisation 2020) Technical summary by FAO and WHO 30–35.

¹⁰⁷⁴ Hoque and others (n 441) 48–61.

sources,¹⁰⁷⁵ yet contrasting evidence suggest a need for consistent and reliable information dissemination channels.¹⁰⁷⁶

On a positive note though, the BFSA's leaflets, posters, banners, newspapers, pamphlets, and dramas reach diverse segments of the population.¹⁰⁷⁷ Traditional media, including newspapers and pamphlets, appeals to a wider audience, whereas drama series make food safety information engaging and accessible.¹⁰⁷⁸ Campaigns during Ramadan and the dedicated Food Safety Awareness Week are laudable,¹⁰⁷⁹ but they ought to remain on-going and not sporadic. Despite good reach, their ability in aiding consumers assess label claims and make educated decisions requires further investigation.

Therefore, it may be necessary for GoB to define a comprehensive consumer education strategy, as recommended by the OECD.¹⁰⁸⁰ Such a strategy should not be confined to simply disseminating information and focus on equipping consumers with the skills and knowledge to critically evaluate label claims, identify potential deceptive practices, and make informed decisions. As the OECD points, consumer education aims to transform and empower individuals to adeptly navigate the complex marketplace effectively.

A notable instance of how collaborative, targeted initiatives could improve consumer literacy is the intervention to reduce lead chromate adulteration in turmeric. This effort was conducted between 2017 and 2021 and it demonstrated the power of collaborations between researchers, the BFSA, business stakeholders, including the Prime Minister's Office. Through the utilisation of 50,000 public notices, media campaigns, and rapid testing, it educated consumers about visual cues, such as unnaturally bright yellow turmeric, that signalled adulteration. It equipped them with practical tools to address food safety where labels are often absent or unreliable. The results were notable because the proportion of turmeric samples containing measurable lead decreased from 47% in 2019 to 0% by 2021,

¹⁰⁷⁵ *ibid* 52.

¹⁰⁷⁶ Staff Correspondent, 'Food Safety Must Be Ensured, Consumer Rights Protected' *New Age* (18 April 2022) <<https://www.newagebd.net/article/168354/food-safety-must-be-ensured-consumer-rights-protected>> accessed 18 June 2024; JICA (n 629) 61.

¹⁰⁷⁷ USAID, 'Reflections from Food Safety Influencers in Bangladesh' (*USAID Policy LINK Program*, 25 February 2024) <<https://policylinkglobal.org/newsroom/reflections-from-food-safety-influencers-in-bangladesh>> accessed 19 June 2024; Codex Alimentarius, 'Food Industry Experts Debate the Challenges of Food Safety in Bangladesh World Food Safety Day Event' (*Codex Alimentarius*, 6 2023) <<https://www.fao.org/fao-who-codexalimentarius/news-and-events/news-details/en/c/1641913/>> accessed 19 June 2024.

¹⁰⁷⁸ M Wakefield and others, 'Use of Mass Media Campaigns to Change Health Behaviour' [2019] 376 1261.

¹⁰⁷⁹ Staff Correspondent, 'BFSA Holds Safe Iftar for All Campaign' *Business Post BD* (22 April 2022) <<https://businesspostbd.com/news/2022-04-22/bfsa-holds-safe-iftar-for-all-campaign-2022-04-22>> accessed 19 June 2024.

¹⁰⁸⁰ OECD, 'Promoting Consumer Education: Trends, Policies and Good Practices' (OECD 2009) 39.

and the prevalence of lead chromate usage in polishing mills fell from 30% to 0% within the same period.¹⁰⁸¹

Furthermore, FBOs and mill operators who attended educational workshops reported improved understanding of the legal and financial risks of adulteration, with many discontinuing the use of lead chromate as a direct outcome of these sessions. Indeed, this accomplishment highlights the importance of well-coordinated, multi-channel education campaigns in altering both consumer behaviour and industry practices. Notwithstanding its success, the intervention was a one-time effort that was constrained by resource limitations. The lack of continuity diminishes the overall potential of such efforts. Indeed, consumer education ought to be institutionalised to ensure knowledge dissemination is continuous, accessible and actionable. This echoes the necessity for sustainable governance structures observed in other regulatory contexts.¹⁰⁸²

Hence, BFSA's efforts could be complemented by more specific initiatives aimed at enhancing consumer literacy regarding label comprehension, quality indicators, regulatory requirements, and legal mechanisms for recourse in cases of mislabelling or deception. Alongside, it may be beneficial to incorporate targeted educational campaigns that emphasise the importance of traceability in countering adulteration. By doing so, consumers might be better equipped to demand transparency (as illustrated in the case studies presented in section 6.4) from food producers and make more informed purchasing decisions.

However, the weak presence of consumer advocacy organisations is symptomatic of a broader institutional failure to prioritise consumer protection. Notably, a large proportion of consumers (78.4%) were unaware of the CAB as an information provider, potentially due to the organisation's unfamiliarity in the consumer sphere.¹⁰⁸³ The unfamiliarity further positions the CAB's position as one of the weakest sources of information on food risks for consumers.

The criticisms raised by CAB regarding the DNCRP and BFSA deemed them inadequate for curbing fraud, corruption, and irregularities by unscrupulous traders who understand and

¹⁰⁸¹ Forsyth and others (n 53) 2,8.

¹⁰⁸² Jurgita Malinauskaite, 'Competition Law and Sustainability: EU and National Perspectives' (2022) 13 *Journal of European Competition Law & Practice* 336. Malinauskaite and Erdem (n 957). A Lui and N Ryder, *FinTech, Artificial Intelligence and the Law: Regulation and Crime Prevention* (Routledge 2021).

¹⁰⁸³ M Hoque and others (n 441) 48. 'Bangladesh Consumer Protection in The Digital Age' (*The Daily Star*, 26 September 2021) <<https://www.thedailystar.net/round-tables/news/bangladesh-consumer-protection-the-digital-age-2183966>> accessed 19 June 2024.

exploit institutional blind spots.¹⁰⁸⁴ Periodic enforcement measures such as market inspections, fines, and warnings imply dishonest business practices and market manipulation persist unabated.¹⁰⁸⁵ According to CAB, the prevailing institutional inertia is compounded by powerful networks of influence, including government bureaucrats, law enforcement, and media outlets, which shield corrupt actors from accountability and perpetuate consumer exploitation.

In order to rectify this, the CAB has urged the government to establish a dedicated consumer rights department or ministry to formulate policies and coordinate administrative efforts to protect consumer interests effectively.¹⁰⁸⁶ Additionally, the organisation has expressed its willingness to file criminal cases against corrupt traders if provided with evidence of malpractices from consumers across different districts.¹⁰⁸⁷

Strengthening consumer advocacy groups such as the CAB including Bangladesh Food Safety Network (BFSN) and Bangladesh Food Safety Foundation could be beneficial for a functional consumer protection ecosystem.¹⁰⁸⁸ Typically, consumer organisations work to hold governments accountable through product testing for fraud, campaigning for standards adoption, inspecting facilities, and educating handlers and the public.¹⁰⁸⁹ Their independence and grassroots connections ability to mobilise public opinion places them as vital counterbalances to regulatory shortcomings. Some prominent examples include Which?'s extensive citizen engagement exercises following the horsemeat scandal in the UK to assess public attitudes and priorities for the nation's food system.¹⁰⁹⁰ Even amidst active conflicts, groups including the Yemen Association for Consumer Protection have continued awareness-raising efforts on issues such as pesticide use and access to clean water.¹⁰⁹¹ Indeed, these organisations thrive when positioned as equal partners in governance, not peripheral actors.

¹⁰⁸⁴ 'CAB Demands Dedicated Consumer Rights Department' *The Business Standard* (23 May 2022) <<https://www.tbsnews.net/bangladesh/cab-demands-dedicated-consumer-rights-department-425522>> accessed 19 June 2024.

¹⁰⁸⁵ Consumer Rights Protection Act s 21.

¹⁰⁸⁶ 'CAB Demands Dedicated Consumer Rights Department' (n 1167).

¹⁰⁸⁷ Consumers International, 'CI Member Promotes Food Safety in Bangladesh' (*Consumers International*, 22 March 2015) <<https://www.consumersinternational.org/news-resources/news/releases/ci-member-promotes-food-safety-in-bangladesh/>> accessed 19 June 2024.

¹⁰⁸⁸ BFSN, 'About Bangladesh Food Safety Network (BFSN)' (5 November 2019) <<https://ubinig.org/index.php/campaigndetails/showArticle/33/96/english>> accessed 19 June 2024; 'Bangladesh Food Safety Foundation' <<https://fsfd.org/>> accessed 19 June 2024. BSS, 'Safe Food Consumption to Ensure Sound Health Underscored' *BSS* (Rajshahi, 7 June 2022) <<https://www.bssnews.net/district/65075>> accessed 19 June 2024.

¹⁰⁸⁹ Consumers International, 'How Consumer Organisations Can Contribute to Sustainable Food Systems' (Consumers International) 18 <<https://www.consumersinternational.org/media/314552/how-consumer-organisations-can-contribute-to-more-sustainable-food-systems.pdf>> accessed 19 June 2024.

¹⁰⁹⁰ *ibid.*

¹⁰⁹¹ *ibid.*

Therefore, GoB could centralise consumer protection within a dedicated consumer rights ministry to advance the prioritisation of consumer protection.¹⁰⁹² Such a body could function as a hub for policy innovation, enforcement, advocacy etc. Equally important is for its agencies (including the CAB) to be provided with visibility, greater resources and institutional support to enable them to function as effective watchdogs and partners in governance. Although informed consumers play a complementary role, the primary burden of ensuring safety and compliance must rest respectively on fair governance and ethical industry practices, as:

It should be for businesses to behave more than consumers to beware.¹⁰⁹³

6.6 Conclusion

This chapter has critically examined the role of food labelling as a mechanism for addressing food adulteration in Bangladesh by demonstrating its potential and limitations. Although labelling is indispensable for promoting transparency and consumer awareness, it cannot operate effectively in isolation. Socio-legal barriers such as information asymmetry, economic pressures, and ingrained behavioural patterns significantly diminish its efficacy as these are particularly pronounced in the country. The analysis demonstrates that simply increasing consumer information will not resolve these challenges without systemic reforms and strong regulatory backing. Additionally, international case studies indicate that consumer-driven initiatives could complement food labelling efforts, but their success hinges on strong government leadership and coherence with broader traceability and enforcement measures. Hence, these examples illustrate how systemic reforms, when paired with consumer empowerment, could improve food safety.

In wrapping up, food labelling constitutes an important component of food safety, but its efficacy depends on its integration with broader enforcement mechanisms and structural interventions. This sets the stage for the next chapter, which will delve into the importance of labelling enforcement in mitigating food adulteration and ensuring the reliability of food labelling. This chapter's findings suggest that labelling enforcement is perhaps the missing piece that could bring together the various strategies discussed.

¹⁰⁹² Jaffee and others (n 92) 153.

¹⁰⁹³ Paolo Siciliani, Christine Riefa and Harriet Gamper, 'Fairness by Design: The Introduction of a Positive Duty to Trade Fairly', *Consumer Theories of Harm: An Economic Approach to Consumer Law Enforcement and Policy Making* (1st edn, Bloomsbury 2019) 179.

Chapter 7: Class Actions in Bangladesh: Constraints and Alternative Interventions for Food Adulteration and Labelling

7.1 Introduction

This chapter investigates the interplay between food adulteration and labelling enforcement by pointing out their often-overlooked interdependency. It explores how adulteration practices can drive misleading labelling, as producers of adulterated food may intentionally misrepresent their products to evade scrutiny, thereby perpetuating a cycle of deception. This emphasises the necessity of a more comprehensive governance framework that combines precise labelling practices with stronger enforcement mechanisms. It might require a reconsideration to advance beyond traditional enforcement mechanisms. Among these, class action litigation emerges as a prospective tool for tackling food fraud on a larger scale. This chapter critically evaluates the viability of class actions and recommends alternative legal and regulatory pathways that may offer more practical solutions. Whilst primarily focused on systemic problems in Bangladesh, this discussion also gently draws on international insights. It acknowledges that although such ideas cannot be directly imported into the local setting, they could offer useful perspectives for designing context-sensitive reforms.

7.2 Challenges in Food Labelling Regulation and Enforcement

As discussed in Chapter 4, BSTI and DNCRP's overlapping responsibilities impair overall food safety governance. This section discusses how institutional and jurisdictional conflicts specifically impede the effective enforcement of food labelling standards.

BSTI certifies food quality under section 6(g) of the BSTI Act (2018).¹⁰⁹⁴ However, its role is hampered by several factors. For example, BSTI does not prescribe specific methods for determining food expiry dates or provide clear terminology on whether these dates pertain to safety or quality.¹⁰⁹⁵ Due to this confusion, producers established production and expiry dates without consulting BSTI.¹⁰⁹⁶ According to a BSTI official, business reputations and ethical standards are not always effective in preventing improper date labelling, especially if manufacturers engage in corrupt practices.¹⁰⁹⁷

¹⁰⁹⁴ BSTI's functions are laid out in BSTI Act 2018 s 6(g); BSTI, 'BSTI Product Certification Scheme' (Bangladesh Standards and Testing Institution 2014) Q/F01/LA 2.

¹⁰⁹⁵ Ali and Shahnewaj (n 177) 31; Shaon (n 1035).

¹⁰⁹⁶ Ali and Shahnewaj (n 177) 31.

¹⁰⁹⁷ *ibid.*

Moreover, the BSTI only investigates licensed companies,¹⁰⁹⁸ which makes it difficult to hold offenders accountable. BSTI's regulatory scope appears to be limited to only 155 products which leaves a vast array of food items outside its jurisdiction.¹⁰⁹⁹ Hence, BSTI's restricted regulatory reach hinders food adulteration prevention and labelling accuracy. Unscrupulous producers can exploit gaps in BSTI's jurisdiction to adulterate large food product categories. Officials have admitted that there is no mechanism to check for improper or false date labelling.¹¹⁰⁰ Although BSTI does not oversee date labelling during manufacturing, it does inspect retailers to ensure they do not sell expired food. BSTI's oversight is reportedly minimal with city retailers indicating that out of the approximately 900 items they sell, only about 9% are monitored by BSTI.¹¹⁰¹ This leaves the door wide open for bad actors to flood the market with mislabelled goods.

Furthermore, BSTI's reliance on manufacturers to conduct their own research into the shelf life of products further suggests possible regulatory oversights.¹¹⁰² Food products vary in durability depending on ingredients, weather, packaging, and storage circumstances, so shelf life must be researched.¹¹⁰³ Since BSTI does not have an independent research centre to determine these aspects, it relies on manufacturer-submitted data, which may or may not be accurate.¹¹⁰⁴ This reliance is particularly problematic for smaller enterprises, which often resort to estimating shelf life based on competitor data or anecdotal advice (traditions and past examples) which further jeopardises labelling accuracy.¹¹⁰⁵

Additionally, shelf life is not specified under the BSTI Act (2018).¹¹⁰⁶ No accurate scientific data on local circumstances and food products exists to determine food shelf life.¹¹⁰⁷ Experts recommend a national database to create minimum levels of shelf life for various foods.¹¹⁰⁸ This is because without a national database to guide expiry determinations, labels often reflect market-driven estimates rather than objective safety thresholds. This ambiguity

¹⁰⁹⁸ Neo (n 772); Neo (n 928).

¹⁰⁹⁹ Ali and Shahnewaj (n 177) 31.

¹¹⁰⁰ *ibid*; Shaon (n 1035). M Billa and A Mithu, 'Is the Consumer Rights Body Overreaching with Mobile Court Raids?' *The Business Standard* (18 April 2023) <<https://www.tbsnews.net/features/panorama/consumer-rights-body-overreaching-mobile-court-raids-618662>> accessed 12 June 2024.

¹¹⁰¹ E Hossain, 'Unregulated Products Rule Markets in Bangladesh' *New Age* (22 March 2021) <<https://www.newagebd.net/article/133376/unregulated-products-rule-markets-in-bangladesh>> accessed 12 June 2024.

¹¹⁰² Shaon (n 1035).

¹¹⁰³ *ibid*; Canadian Food Inspection Agency, 'Date Markings and Storage Instructions on Food Labels' (6 July 2022) <<http://inspection.canada.ca/en/food-labels/labelling/industry/date-markings-and-storage-instructions>> accessed 12 June 2024.

¹¹⁰⁴ Shaon (n 1035).

¹¹⁰⁵ Ali and Shahnewaj (n 177) 34.

¹¹⁰⁶ BSTI Act.

¹¹⁰⁷ Suman and others (n 635) 25.

¹¹⁰⁸ *ibid*.

complicates enforcement efforts as mobile courts and magistrates conducting raids on shops and food factories depend heavily on printed expiry dates without the means to substantiate their validity.¹¹⁰⁹ Without specific allegations or evidence to the contrary, products with seemingly valid expiry dates could be deemed safe, even when this might not necessarily be the case.

Meanwhile, DNCRP's primary function is to protect consumer rights from anti-consumer practices.¹¹¹⁰ Its activities include supervising food outlets, processing consumer complaints about expired food, and raising awareness amongst consumers not to buy expired food.¹¹¹¹ Notably, however, DNCRP officials, like their BSTI counterparts, do not verify the accuracy of production, packaging, and expiry dates added by food manufacturers.¹¹¹² Their focus is largely reactive by mainly ensuring retailers do not display or sell expired foods instead of ensuring upstream compliance labelling practices.

Despite the 2017 labelling regulation which specifically defines and governs the use of 'Best Before' and 'Expiry Date/Use By Date' labels, compliance is reported to remain low due to confusion around proper date labelling.¹¹¹³ Food items have an 'array of date labels' such as 'best before,' 'use by,' 'sell by,' 'expiry,' which contributes to broad-based confusion and wariness about which dates relate to food quality and which to safety. Consequently, this confusion may lead to perishable food being stored longer than necessary, thereby contributing to food waste.¹¹¹⁴

Food lawyers' empirical research also found that both sellers and buyers are unclear about the meaning of the food expiry terminology and sometimes throw out food after it has passed the expiry date.¹¹¹⁵ Both sales staff and consumers simply look at the date rather than the meanings of expiration date terms. The failure to enforce strict labelling regulations misleads consumers and allows adulterated products into the market with minimal to no

¹¹⁰⁹ Billa and Mithu (n 1183).

¹¹¹⁰ Consumer Rights Protection Act s 8.

¹¹¹¹ TBS Report, 'DNCRP to Introduce Hotline March 15' *The Business Standard* (12 March 2020) <<https://www.tbsnews.net/bangladesh/dncrp-introduce-hotline-march-15-55486>> accessed 12 June 2024.

¹¹¹² Ali and Shahnawaj (n 177) 31.

¹¹¹³ Packaged Food Labelling Act s 2. FPMU Ministry of Food, Government of the People's Republic of Bangladesh (n 789) 72.

¹¹¹⁴ Packaged Food Labelling Act s 2. WRAP, 'Labelling Guidance: Best Practice on Food Date Labelling and Storage Advice' (WRAP, UK FSA, DEFRA 2019). Norbert Wilson, Ruiqing Miao and Carter Weis, 'Seeing Is Not Believing: Perceptions of Date Labels over Food and Attributes' (2018) 24 *Journal of Food Products Marketing* 611. See generally, N Spencer, J Malinauskaite and H Jouhara, 'Waste Prevention and Technologies in the Context of the EU Waste Framework Directive: Lost in Translation?' (2017) 26 *European Energy and Environmental Law Review* 66.

¹¹¹⁵ Ali and Shahnawaj (n 177) 32–34.

accountability. Without accurate labels, consumers are left unaware of the potential dangers hidden in their food.

Due to inadequate regulation of expiry dates and the inclusion of production and packaging dates, fraudulent FBOs are able to exploit this loophole by printing false or misleading dates on packaging and deceiving consumers. Some food manufacturers have been reported to use BSTI seals on their packaging without registering.¹¹¹⁶ They also lacked the requisite laboratory facilities required for their operations. Despite the absence of proper registration and testing, these manufacturers distributed oil to Sylhet.

In a related incident, an unapproved animal feed factory in Kishoreganj was fined and destroyed 3,000 sacks of banned and decomposed meat and bone meal. It also adulterated wheat bran, rice, and flour, produced feed in unsanitary conditions, sold counterfeit products, and manipulated weights. The factory, which was not approved by BSTI, was fined, and 3,000 sacks of banned and decomposed meat and bone meal were destroyed.¹¹¹⁷ Similarly, penalties have been imposed on various hotels and shops selling stale or expired food items, with significant quantities of date-expired food being seized from cold storages.¹¹¹⁸ These incidents are all examples of regulatory failure in both food labelling and food adulteration enforcement. They illustrate how misleading labels and lax control allowed adulterated products to reach consumers.

Essentially, in practice, no government organisations or private institutions can certify that food manufacturers have provided true and accurate information about production, packaging, and expiry dates.¹¹¹⁹ The systemic barriers to effective food labelling enforcement directly contribute to food adulteration by allowing adulterated products to enter

¹¹¹⁶ Staff Correspondent, 'BSTI Prosecutes Sweets Makers Alibaba, Muslim for Selling Yogurt without Licence' *BD News 24* (15 May 2019) <<https://bdnews24.com/bangladesh/bsti-prosecutes-sweets-makers-alibaba-muslim-for-selling-yogurt-without-licence>> accessed 12 June 2024.

¹¹¹⁷ Editor, 'DNCRP Drives in Fake Animal Feed Factory in Kishoreganj, Fined' *Daily Country Today* (1 April 2024) <<https://dailycountrytodaybd.com/story/dncrp-drives-in-fake-animal-feed-factory-in-kishoreganj,-fined>> accessed 12 June 2024.

¹¹¹⁸ Staff Correspondent, '31 Tons of Dates Seized from Narayanganj Cold Storage' *Dhaka Tribune* (12 March 2024) <<https://www.dhakatribune.com/bangladesh/crime/341669/31-tons-of-dates-seized-from-cold-storage-in>> accessed 12 June 2024; Staff Correspondent, 'DNCRP Fines RU Shop for Selling Expired Food' *The Financial Express* (24 April 2018) <<https://thefinancialexpress.com.bd/national/crime/dncrp-fines-ru-shop-for-selling-expired-food-1524582278>> accessed 12 June 2024; Star Digital Report, 'Bogura's Akbaria Hotel Fined Tk 3 Lakh for Selling Stale, Expired Food' *The Daily Star* (26 April 2023) <<https://www.thedailystar.net/news/bangladesh/crime-justice/news/boguras-akbaria-hotel-fined-tk-3-lakh-selling-stale-expired-food-3304916>> accessed 12 June 2024; Star Business Report, 'Doreen Hotel Fined Tk 3.5 Lakh for Keeping Date-Expired Food' *The Daily Star* (19 October 2022) <<https://www.thedailystar.net/business/news/doreen-hotel-fined-tk-35-lakh-keeping-date-expired-food-3146816>> accessed 12 June 2024; Staff Correspondent, 'DNCRP Fines 79 Shops, Outlets for Adulteration' *Bangladesh Sangbad Sangstha (BSS)* (21 October 2019) <<https://wp.bssnews.net/?p=290513>> accessed 12 June 2024.

¹¹¹⁹ Ali and Shahnewaj (n 177) 32.

the market without appropriate checks. The ambiguity and inconsistency in food labelling, particularly concerning expiry dates, leave consumers vulnerable to purchasing and consuming adulterated or expired food products.

Therefore, legislative and structural reforms are imperative to rectify these shortcomings. Firstly, legislative amendments to the BSTI Act (2018) should establish clear standards for labelling, including scientifically validated methodologies for expiry determination. Secondly, BSTI's jurisdiction must be expanded to cover all food products to ensure comprehensive market oversight. An independent research center should be established to standardise shelf-life data and validate claims. In addition, BSTI should be mandated to conduct regular audits of manufacturers' labelling processes to ensure ongoing compliance with the established standards. Also, a harmonised labelling lexicon might be necessary to eliminate consumer confusion. Collaborative efforts between BSTI and DNCRP are imperative to streamline enforcement and reduce jurisdictional redundancies.¹¹²⁰

The proposed role of BSTI in this regard would be more proactive by ensuring that food products are properly labelled according to the legal requirements from the outset. This approach aims to address several key issues identified above. First, it would provide clear guidelines for determining expiry dates and shelf life, addressing the current lack of specific methods. Second, it would broaden BSTI's oversight responsibility beyond the existing limited range of 155 products. Third, it would reduce reliance on manufacturer-submitted data by requiring BSTI to independently verify claims. The idea is for its role to be a pre-market checkpoint to prevent mislabelled or adulterated products from reaching consumers by implementing pre-market certification.

7.3 Evaluating the Potential of Class Action Litigation

Having identified the underlying regulatory problems, the next section investigates the potential utility of class action lawsuits. The first two subsections will examine international case studies in which misleading labelling concealed adulterated products and how collective legal actions could deter adulteration. Select American examples illustrate the promise and pitfalls of collective consumer litigation. It is hereby acknowledged that these are at best cautionary tales rather than reform templates for direct adoption.

¹¹²⁰ See Section 7.4.2.1 of this thesis.

7.3.1 Lessons from the US Class Action Framework: Cautionary Insights for Bangladesh

Discussions on class actions, irrespective of jurisdiction, inevitably references US precedents because of their historical influence in shaping international dialogue on collective redress. The Food, Drug, and Cosmetic Act (FDCA 1938) does not grant individuals a private right of action,¹¹²¹ but litigants often use state consumer protection legislation, known as ‘Little-FTC Acts,’ to sue.¹¹²² Consequently, many food labelling cases are litigated in federal courts, thereby establishing an active arena of consumer-led litigation.¹¹²³

Class actions have been famously characterised as an ‘ingenious procedural innovation’ that enables individuals to seek relief as a group, particularly when individual claims are ‘too small to justify the expense of a separate suit, so that without a class action there would be no relief, however meritorious the claims’.¹¹²⁴ Numerous examples show how it has been applied in food labelling disputes. In *Moore v. Trader Joe’s Co.* (2021), the plaintiffs claimed the label ‘100% New Zealand Manuka Honey’ was misleading. However, the court ruled that a reasonable consumer would not interpret the label to mean the honey came solely from manuka nectar.¹¹²⁵ Similarly, in *Swearingen v. Frito-Lay* (2014), the labelling of pretzels as ‘Made with All Natural Ingredients’ was contested due to the inclusion of synthetic substances such as ammonium bicarbonate.¹¹²⁶ Further, one of the most prominent class actions was filed in 2017 against producers of grated Parmesan cheese.¹¹²⁷ The plaintiffs alleged that calling the product ‘100% Grated Parmesan Cheese’ was deceptive because it contained synthetic cellulose powder.¹¹²⁸ Yet, the court dismissed the case because consumers generally expect processed cheese to include preservatives for freshness.¹¹²⁹

¹¹²¹ Food, Drug, and Cosmetic Act 1938.

¹¹²² Unfair Trade Practices and Consumer Protection Act 1967.

¹¹²³ Federal Rules of Civil Procedure r 23. T Tobin, ‘Class Action Litigation Targeting the Food Industry: U.S. and International Perspectives in: Research Handbook on International Food Law’ in Michael T Roberts (ed), *Research Handbook on International Food Law* (Edward Elgar 2023) 411.

¹¹²⁴ *Eubank v Pella Corp* 753 F3d 718, 719 (7th Cir 2014). M Redish and M Kiernan, ‘Avoiding Death by a Thousand Cuts: The Relitigation of Class Certification and the Realities of the Modern Class Action’ (2014) 99 Iowa Law Review 1659, 1660.

¹¹²⁵ *Moore v Trader Joe’s Co* No 19-16618 (9th Cir 2021).

¹¹²⁶ *Swearingen v Frito-Lay North America, Inc* 67 F Supp 3d 1075, 1080 (ND Cal 2014).

¹¹²⁷ C Morran, ‘Judge Throws Out Dozens Of Lawsuits Over Cellulose In “100% Grated Parmesan Cheese”’ (*Consumerist*, 24 August 2017) <<https://consumerist.com/2017/08/24/judge-throws-out-dozens-of-lawsuits-over-cellulose-in-100-grated-parmesan-cheese/>> accessed 12 June 2024; *re 100% Grated Parmesan Cheese Mktg & Sales Practices Litig* 275 F Supp 3d 910 (ND Ill 2017).

¹¹²⁸ Tina Bellon, ‘U.S. Judge Tosses Lawsuits about Labels on Parmesan Cheese’ *Reuters* (24 August 2017) <<https://www.reuters.com/article/idUSKCN1B429F/>> accessed 12 June 2024.

¹¹²⁹ *re 100% Grated Parmesan Cheese Mktg. & Sales Practices Litig.* (n 1152).

Goodman discusses critics concerns that many plaintiffs in these cases are not individuals who have suffered tangible harm but rather opportunistic litigants participating in actions driven by lawyers seeking substantial financial rewards.¹¹³⁰ For example, in the 2012 class action against Kashi over its 'all natural' cereal claims, the \$3.99 million settlement allotted \$1.5 million to legal fees, whereas consumers earned only \$27.50 per family.¹¹³¹ In Bangladesh, where legal literacy and access to justice remain low,¹¹³² such trends risk reproducing an exploitative dynamic by arming legal intermediaries more than the affected consumers. Conversely, others contend that deceptive food labelling is 'not a victimless crime', as it could cause chronic diseases by misrepresenting the nutritional value or healthiness of food.¹¹³³ Interestingly, Strom observes that lawyers who previously spearheaded class action lawsuits against tobacco companies have now redirected their attention towards food labelling disputes and view them as a lucrative avenue for substantial payouts.¹¹³⁴

As most food class actions settle without reaching a ruling, and never go to trial, thus appellate court rulings are relatively rare. When cases do occasionally reach an appellate court, the decision may end or further incentivise the litigation. Overall, US examples illustrates why class actions are an enticing but contentious mechanism for resolving systematic consumer grievances. FDA historians and scholars argue that the FDA is better qualified than the courts to define 'natural' because it has the regulatory expertise, congressional authority, and ability to ensure consistency, whereas judicially defined terms would result in disjointed and inconsistent patchwork of laws that Congress sought to avoid through the FDCA.¹¹³⁵

¹¹³⁰ Amy-Lee Goodman, 'A "Natural" Stand Off Between the Food and Drug Administration and the Courts: The Rise in Food-Labeling Litigation & the Need for Regulatory Reform' (2019) 60(1) Boston College Law Review 271, 296. Redish and Kiernan (n 1125) 1660.

¹¹³¹ Goodman (n 1131) 296.

¹¹³² See Section 7.3.3 of this thesis.

¹¹³³ Goodman (n 1131) 296.

¹¹³⁴ Stephanie Strom, 'Lawyers From Suits Against Big Tobacco Target Food Makers' *The New York Times* (18 August 2012) <<https://www.nytimes.com/2012/08/19/business/lawyers-of-big-tobacco-lawsuits-take-aim-at-food-industry.html>> accessed 13 June 2024.

¹¹³⁵ Federal Food, Drug, and Cosmetic Act, 21 USC §§ 301–399f (2012). Wallace Janssen, 'The Story of the Laws Behind the Labels' (US FDA 1981) FDA Consumer magazine 32. Goodman (n 1131) 309–312. Erik Benny, "'Natural' Modifications: The FDA's Need to Promulgate an Official Definition of "Natural" That Includes Genetically Modified Organisms' (2012) 80 George Washington Law Review 1504, 1514–1517.

7.3.2 Class Actions Outside the US

Despite being a ‘uniquely American procedural device’, class actions are rarely used elsewhere.¹¹³⁶ However, Canada and Australia especially have class-action systems that closely resemble the US model. In Canada, ‘copycat class actions that mimic US litigation are common’, with an active plaintiffs’ bar often collaborating with US-based counsel.¹¹³⁷ A recent example is the Canada Dry class action, which demonstrates this trend. The manufacturer of Canada Dry ginger ale faced legal action over the labelling claim that the product was ‘Made with Real Ginger’. The plaintiffs argued that the amount of ‘real ginger’ in the product was so minimal that the claim was false or misleading. What is noteworthy is not merely the legal theory advanced but the bifurcated resolution of the claim. Whilst in US, similar settlements on this ‘real ginger’ theory were valued at approximately \$11.2 million,¹¹³⁸ in Canada, the two class action settlements, one in Quebec and one in British Columbia, reached a combined total settlement value of only \$850,000 CAD.¹¹³⁹ In British Columbia, \$200,000 of the settlement funds were allocated directly to the Law Foundation of British Columbia, whereas Quebec claimants were eligible to receive up to \$7.50 in settlement awards.

Australia’s adoption of class actions has been modest yet deliberate, reflecting its common law tradition.¹¹⁴⁰ Empirical data reveals that between 1992 and 2018, a total of 563 class actions were filed, averaging about 21 cases annually.¹¹⁴¹ Consumer class actions are amongst the most frequently filed claims. The number of class actions in Australia is anticipated to increase due to the ‘entrepreneurial pursuits of both plaintiff law firms and third-party funders’, although the expected surge in class filings has not yet materialised.¹¹⁴²

¹¹³⁶ EF Sherman, ‘Group Litigation under Foreign Legal Systems: Variations and Group Litigation under Foreign Legal Systems: Variations and Alternatives to American Actions Alternatives to American Actions’ (2002) 52(2) DePaul Law Review 401, 401.

¹¹³⁷ Borden Zakaib and others, ‘Class and Collective Actions in Canada’ (*Lexology*, 1 March 2019) <<https://www.lexology.com/library/detail.aspx?g=df53fca8-7604-4ecb-91b6-bf039a0159fb>> accessed 13 June 2024.

¹¹³⁸ *Fitzhenry-Russell et al v Keurig Dr Pepper, Inc* No 5:17-cv-00564, 2017 WL 4224723 (ND Cal).

¹¹³⁹ *Cardoso v Canada Dry Mott’s Inc* No S190672, 2020 BCSC 1569 (Can BC SC): approximately CAD \$200,000 settlement value; *Zouzout v Canada Dry Motts Inc, et al* No 500-06- 000968-194 (Can Qc C S): approximately CAD \$650,000 settlement value.

¹¹⁴⁰ Robert Carson, Olivia Dixon and Jessica Harding, ‘U.S. Guide to Class Actions in Canada’ 4; Note that Quebec is an exception, given that it continues to follow many civil law traditions. Linklaters, ‘Australia- Collective Redress’ (*Linklaters*, 1 July 2020) <<https://www.linklaters.com/en/insights/publications/collective-redress/global-guide-collective-redress/australia>> accessed 13 June 2024.

¹¹⁴¹ Vince Morabito, ‘An Evidence-Based Approach to Class Action Reform in Australia: Competing Class Actions and Comparative Perspectives on the Volume of Class Action Litigation in Australia’ (11 July 2018) 8 <<https://papers.ssrn.com/abstract=3212527>> accessed 13 June 2024.

¹¹⁴² ‘Australia- Collective Redress’ (n 1141).

As for the UK, some media sources acclaimed the governing law as introducing US-style class actions.¹¹⁴³ Certain critics have observed that the EU's General Data Protection Regulation prompted several high-profile group suits in British courts before Brexit.¹¹⁴⁴ Additionally, the UK adopted the Consumer Rights Act (2015), which allows for opt-out collective actions.¹¹⁴⁵ Previously, group actions were restricted to those who actively opted into a lawsuit. Under the new law, claimants are included in the action unless they choose to opt out. The UK's legislative service explained that the 'purpose of introducing opt-out collective actions is to enable consumers and businesses to easily achieve redress for losses' resulting from breaches of competition law.¹¹⁴⁶ This change may increase the participant count in lawsuits and the size of awards, attracting interest in third-party litigation funding in the UK.¹¹⁴⁷

However, the UK Consumer Rights Act (2015) does not currently permit large-scale opt-out class action claims for consumer law breaches unless linked to a competition law breach, as evidenced by the Apple iPhone case.¹¹⁴⁸ Despite this, solicitors assert that it is not uncommon to see large group litigation claims brought on an express opt-in basis.¹¹⁴⁹ According to food lawyers, in the absence of punitive damages, it is improbable that class actions similar to those in the US will proliferate in the UK.¹¹⁵⁰ In any case, individual claims for products not meeting specifications, particularly in B2B contexts, would fall under

¹¹⁴³ Jones Day, 'The Rise of US-Style Class Actions in the UK and Europe' (Jones Day 2023) White Paper; Jean-Pierre Henry and others, 'Is the Door Re-Opening for US-Style Class Actions in England and Wales?' (*DLA Piper*, 16 March 2023) <<https://www.dlapiper.com/en/insights/publications/2023/03/is-the-door-reopening-for-usstyle-class-actions-in-england-and-wales>> accessed 13 June 2024; J Croft, 'UK Moves Closer to US-Style Class Actions' *Financial Times* (3 July 2022) <<https://www.ft.com/content/97df2830-1008-49f1-a3e7-5c0d818a545c>> accessed 13 June 2024.

¹¹⁴⁴ Robert Weekes, 'Class Actions: A New Era in the UK?' (Crowell & Moring LLP 2020) 32 <<https://www.crowell.com/a/web/dxqP5WtkFE8KTK2EymPeg/4TtiyZ/Litigation-Forecast-2020-UK-Litigation-Crowell-Moring.pdf>> accessed 13 June 2024.

¹¹⁴⁵ Consumer Rights Act 2015 s 81.

¹¹⁴⁶ *ibid.*

¹¹⁴⁷ K Sein, 'The Growing Interplay of Consumer and Data Protection Law' in Hans-W Micklitz and Christian Twigg-Flesner (eds), *The Transformation of Consumer Law and Policy in Europe* (1st edn, Hart Publishing 2023) 146–149; Weekes (n 1145) 32; Matthew O'Regan, 'United Kingdom: Consumer Rights Act 2015 Introduces New Procedures for Competition Litigation, Including Collective Follow-on Damages Actions' (*Kluwer Competition Law Blog*, 5 October 2015) <<https://competitionlawblog.kluwercompetitionlaw.com/2015/10/05/united-kingdom-consumer-rights-act-2015-introduces-new-procedures-for-competition-litigation-including-collective-follow-on-damages-actions/>> accessed 13 June 2024.

¹¹⁴⁸ *Mr Justin Gutmann v Apple Inc, Apple Distribution International Limited, and Apple Retail UK Limited*; Competition Appeal Tribunal, 'Mr Justin Gutmann v Apple Inc., Apple Distribution International Limited, and Apple Retail UK Limited' (*Competition Appeal Tribunal*, 2022) <<https://www.catribunal.org.uk/cases/14687722-mr-justin-gutmann>> accessed 13 June 2024.

¹¹⁴⁹ R Collie, 'Consumer Law: Yet More Regulatory Change on the Way?' (*TLT Solicitors*, 13 September 2023) <<https://www.tlt.com/insights-and-events/insight/consumer-law-yet-more-regulatory-change-on-the-way/>> accessed 13 June 2024.

¹¹⁵⁰ J Burt, 'Shrinkflation,' Class Actions and Misrepresentation' (8 September 2023) <<https://www.mills-reeve.com/insights/blogs/food-and-agribusiness/september-2023/shrinkflation-class-actions-and-misrepresentation>> accessed 13 June 2024.

commercial contract law. Generally, the price on a consumer basis would make any individual contract claim on food products *de minimis*.¹¹⁵¹

7.3.3 Suitability of Class Actions in Bangladesh

Although class action lawsuits offer significant potential in holding large-scale offenders accountable in jurisdictions such as the US, the socio-legal context in Bangladesh presents limit its effectiveness. This section discusses factors to demonstrate that the current socio-legal context in Bangladesh is not conducive to the proper implementation of class actions. It is acknowledged though that this list is non-exhaustive.

7.3.3.1 Uncertainty of Legal Costs Allocation and Case Resolution

Cost rules are important for financing litigation, especially for litigants who bear their own expenses. The Civil Procedure Code (CPC 1908) and the Civil Rules and Orders (CRO) discourages collective actions due to the complexity and unpredictability of litigation costs. This discussion below examines the complexities of cost allocation and the ensuing difficulties for justice seekers, especially in instances of deceptive adulteration of food.

To begin with, Bangladesh generally follows a cost allocation framework consistent with the 'loser pays' principle found in English law. It differs from the 'American Rule' where litigants generally bear their own legal fees which ostensibly facilitates greater access to justice by not discouraging individuals from filing suits. This is especially the case in class action contexts where the defendant's legal expenses could be exorbitant. However, in England and Wales, '[g]iven that the unsuccessful party will ordinarily be ordered to pay the other side's costs, unmeritorious class actions have traditionally been restrained,' especially in large and complex class actions.¹¹⁵²

Although Bangladeshi law does not officially use the term 'loser pays', the CPC (1908) requires courts to provide reasons if the principle of 'cost follows the event' is not applied,¹¹⁵³ implicitly endorsing the 'loser pays' rule. Specifically, Section 35(2) of the CPC (1908) mandates that generally 'costs follow the event' meaning the losing party typically bears the

¹¹⁵¹ *ibid.*

¹¹⁵² C Sanger and others, 'England and Wales' in C Sanger, *The Class Action Law Review* (6th edn, Law Business Research Ltd 2022) 57.

¹¹⁵³ Civil Procedure Code 1908 s 35(2).

costs of litigation.¹¹⁵⁴ If a court decides otherwise, it must provide written justification which reflects a clear rationality towards cost imposition similar to the English rule. This provision discourages unmeritorious claims, as the losing party is typically responsible for the opposing party's costs.

Nevertheless, the theoretical alignment with the English 'loser pays' rule is neither absolute nor consistent. Rule 165 of the CRO provides for proportional cost allocation in cases of partial success which actually deviates from the rigid application of the 'loser pays' rule.¹¹⁵⁵ In practice, the 'user pays' rule often prevails.¹¹⁵⁶ Judicial discretion compounds this inconsistency, with terms such as 'necessary or proper' costs left undefined which introduces significant subjectivity into the cost determination process. Specifically, Rule 164 states:

Costs in decrees should be very carefully calculated. A party who has been awarded costs in the judgment or order shall be allowed all such costs, charges, and expenses, as shall appear to have been necessary or proper for the attainment of justice or for defending his rights; no costs shall be allowed that appear to the Court to have been incurred or increased unnecessarily or through procrastination, negligence, or mistake.¹¹⁵⁷

It could be argued that the Bangladeshi judiciary lacks the tools and clarity needed to implement cost rules effectively. This is because the law specifies 'necessary or proper' costs but do not clearly define them. Instead they list exclusions.¹¹⁵⁸ Further, the absence of a specific procedure for obtaining the costs from the opposite party, the winner generally does not execute the procedure. The law also indicates that even if the court awards a cost order, the party will have to file a separate case to recover the money, a process so cumbersome that many litigants abandon recovery efforts altogether.¹¹⁵⁹

In reality, from the moment a case is filed, hundreds of petitions are submitted until the case is disposed of. Some of them are allowed and some not. Therefore, it is unclear how to deduct all unsuccessful petitions and determine their necessity to estimate expenditures.¹¹⁶⁰

¹¹⁵⁴ *ibid.* 'Global Litigation Guide: Country Insight' (DLA Piper, 22 September 2023)

<<https://www.dlapiperintelligence.com/litigation/insight/index.html?t=09-costs>> accessed 14 June 2024.

¹¹⁵⁵ Civil Rules and Orders (Bangladesh) r 165.

¹¹⁵⁶ Ummei Tahura, 'Facilitating Access to Justice: Managing the Cost of Litigation in the Subordinate Courts of Bangladesh' (PhD Thesis, Macquarie University 2021) 87.

¹¹⁵⁷ Civil Rules and Orders (Bangladesh) r 164(1).

¹¹⁵⁸ *ibid* 164(2).

¹¹⁵⁹ Civil Procedure Code pt XXI, rules 10–12.

¹¹⁶⁰ Civil Rules and Orders (Bangladesh) r 164(2)(ii).

It appears to be an unreasonable and time-consuming process. For class actions, which involve larger, more complex claims, these issues are magnified, thereby rendering them impractical for addressing food adulteration cases in Bangladesh.

Moreover, the calculation of litigation costs in Bangladesh is inherently opaque. Court fees, witness expenses, and commissioner fees are documented (as per Volume II of the CRO), but decrees do not account for lawyer fees, which make up a large amount of litigation costs.¹¹⁶¹ The per-appearance billing model prevalent amongst lawyers¹¹⁶² makes it difficult to estimate and recover these costs accurately. Thus, there is no effective way of calculating the lawyer fees. Additionally, the law does not specify how to determine litigation costs. Neither are there any models for assessing expenses or any specific provisions for recovering money if any cost award is ordered. This may be regarded as a major deficiency of the CPC (1908).¹¹⁶³ The lack of predictability renders the principle of proportionality ineffective, particularly in cases requiring substantial evidence collection or expert testimony.

Unlike countries such as US and Australia, where contingency fees are commonly used to fund litigation, Bangladesh lacks such provisions. In US, contingency fees allow lawyers to take a percentage of the recovered amount, thereby eliminating the need for upfront legal costs for the plaintiffs. Usually, the percentage ranged between one-third to 40 percent¹¹⁶⁴ Australia uses 'no win - no fee' speculative, particularly in personal injury cases.¹¹⁶⁵ Bangladesh, in contrast, does not recognise class actions or contingency fee systems.¹¹⁶⁶ As mentioned, lawyers work on a daily appearance basis with no fixed rates which makes it difficult to manage the financial burden of prolonged litigation.¹¹⁶⁷ The absence of funding options for evidence collecting and expert testimony in misleading adulteration cases could increase the financial burden on persons taking legal action against adulterated food products.

¹¹⁶¹ *ibid* II.

¹¹⁶² Tahura, 'Facilitating Access to Justice: Managing the Cost of Litigation in the Subordinate Courts of Bangladesh' (n 1157) ch 7.

¹¹⁶³ *ibid* 88.

¹¹⁶⁴ 'Fees and Expenses' (*American Bar Association*, 3 December 2020)

<https://www.americanbar.org/groups/legal_services/milvets/aba_home_front/information_center/working_with_lawyer/fees_and_expenses/> accessed 14 June 2024.

¹¹⁶⁵ 'Personal Injury Claims: Finding The Best No Win No Fee Lawyer For Your Case' (*Stacks Goudkamp*, 21 July 2023) <<https://stacksgoudkamp.com.au/blog/personal-injury-claims-finding-the-best-no-win-no-fee-lawyer/>> accessed 14 June 2024.

¹¹⁶⁶ Rahman, 'Consumer Protection in Bangladesh: Present Status and Some Thoughts for the Future' (n 40) s 3.2.

¹¹⁶⁷ Ummey Tahura, 'Can Technology Be a Potential Solution for a Cost-Effective Litigation System in Bangladesh?' (2021) 42(2) *Justice System Journal* 180, 9.

Consequently, litigation costs hinder access to justice in Bangladesh. Although these costs are expected to be just and proportional to the disputed amount, research indicates that they often exceed or consume a substantial portion of the claim which renders litigation futile. Evidence shows that each party spends on average 34,500 BDT per year on litigation costs, with lawyer's fees alone constituting 72% (25,050 BDT) of those expenses.¹¹⁶⁸ Notably, the lawyer's fees are estimated to be around 24% of the average per-capita income in Bangladesh.¹¹⁶⁹ It therefore inadvertently alienates those it seeks to protect.

The difficulties of cost allocation are not standalone problems. Instead, they are intertwined with structural inefficiencies inside the Bangladeshi judiciary. Excessive delays and uncertainty regarding case resolution times, compounded by extreme backlogs in the Bangladeshi judiciary increase litigants' financial hardships.¹¹⁷⁰ Bangladesh's judiciary is plagued by a multitude of problems besides just delays and backlogs. These include high litigation costs, lack of transparency, unpredictability in court decisions, absence of formal court management and case management systems, mismanagement of case records, shortage of judges, and limited access to justice for many citizens.¹¹⁷¹

The landmark *Masdar Hossain* (1999) case illuminated some of these structural deficiencies, such as the judiciary's dependence on executive-controlled budgets, lack of administrative autonomy, and absence of effective case management systems.¹¹⁷² Although the judgment outlined a roadmap for reform, including directives to establish a separate judicial secretariat and streamline judicial administration, the majority of these measures remain unimplemented.¹¹⁷³ The incomplete implementation has intensified existing problems. For instance, the judiciary's reliance on executive-controlled budgets perpetuates administrative bottlenecks, prolonging the resolution of cases and increasing associated litigation costs.¹¹⁷⁴ The lack of effective case and court management systems exacerbates the backlog by amplifying delays and costs for litigants. In instances of deceptive adulteration, where

¹¹⁶⁸ Ummey Tahura, 'Role of Clients, Lawyers, Judges, and Institutions in Hiking Litigation Costs in Bangladesh: An Empirical Study' (2022) 9(1) *Asian Journal of Law and Society* 59, 64–65.

¹¹⁶⁹ *ibid.*

¹¹⁷⁰ *ibid.* 62.

¹¹⁷¹ Khadiza Nasrin, 'Aspirations of Court Excellence and Challenges of Case Backlogs in Bangladesh Judiciary' (4 September 2023) <<https://papers.ssrn.com/abstract=4652863>> accessed 14 June 2024; SM Solaiman, 'Prevention of Judicial Corruption in Bangladesh: Cutting the Gordian Knot by Ensuring Accountability' (2023) 19(1) *University of Pennsylvania Asian Law Review* 28, 70.

¹¹⁷² *Masdar Hossain v Secretary, Ministry of Finance* [1999] 52 DLR (AD) 82.

¹¹⁷³ Rafiqul Islam, 'Independence of the Judiciary- the Masdar Case' *The Daily Star* (10 March 2014) <<https://www.thedailystar.net/independence-of-the-judiciary-the-masdar-case-14760>> accessed 27 December 2024. Md Hossain, 'Separation of Judiciary in Bangladesh-Constitutional Mandates and Masdar Hossain Case's Directions: A Post Separation Evaluation' (2020) 11 *International Journal for Court Administration* 1, 18–19.

¹¹⁷⁴ Hossain, 'Separation of Judiciary in Bangladesh-Constitutional Mandates and Masdar Hossain Case's Directions' (n 1174) 18–19.

prompt action is imperative, these delays compromise the very purpose of seeking legal redress.

Notably, the statutory timelines for concluding cases are 340 days for civil cases, 180 days for judicial magistrate-triable criminal cases, and 360 days for session-triable criminal cases.¹¹⁷⁵ In practice, the average time for trial completion is five years or more as per data obtained from the Supreme Court.¹¹⁷⁶ The subordinate courts have a substantial backlog over 3 million pending cases, approximately 600,000 of which have been unresolved for over 5 years, while the disposal rate remains at a mere 87.15% despite the presence of 1,800 judges.¹¹⁷⁷ New courts and tribunals have been instituted but are unable to alleviate this mounting burden.¹¹⁷⁸

The issue of litigation costs also touches on deeper concerns about fairness and access to justice. It could be observed that the way litigation costs are structured draws a line between who can actually afford to seek justice and who might be left out. When the costs of going to court are too high, and there are no alternative avenues to seek help, it may appear that the system is set up in a way that shuts people out, particularly those without the financial means to access it. This is particularly evident in Bangladesh, where high litigation costs and long delays render justice feel like something that is out of reach for many people, especially in deceptive adulteration cases, where time is of the essence.

If and when a consumer discovers that a food item they have purchased has been adulterated, they should ideally be able to seek timely and effective legal redress. However, the heavy backlog in Bangladeshi courts could mean their case gets stuck in the system for years. During that time, the adulterated product might still be out there and put more people at risk. On top of this, the cost of pursuing legal action, court fees, witness expenses, and especially the high fees charged by lawyers could quickly become prohibitive. In a country where numerous individuals have limited disposable income, these costs can make it almost impossible for someone to afford to fight their case. Even if they win in the end, the financial strain might be so great that any compensation they receive feels like too little, too late.

¹¹⁷⁵ The Code of Criminal Procedure 1898 ss 339C, 6, 39C.

¹¹⁷⁶ BRAC, 'Delayed Justice: How Long Is Too Long?' (BRAC, 29 October 2017) <<https://www.brac.net/program/delayed-justice-how-long-is-too-long/>> accessed 14 June 2024; Tahura, 'Role of Clients, Lawyers, Judges, and Institutions in Hiking Litigation Costs in Bangladesh' (n 1169) 62;

¹¹⁷⁷ Surendra Kumar Sinha (Chief Justice of Bangladesh), 'Judicial Reforms in Developing Countries' (29 March 2015) <https://www.supremecourt.gov.bd/resources/contents/Speech_by_HCJ_SK_Sinha_on_Judicial_Reforms.pdf> accessed 14 June 2024; Staff Correspondent, 'Case Backlog Caught in Warp of Inaction on Several Fronts' *New Age* (14 June 2024) <<https://www.newagebd.net/post/editorial/234652/case-backlog-caught-in-warp-of-inaction-on-several-fronts>> accessed 14 June 2024.

¹¹⁷⁸ Tahura, 'Role of Clients, Lawyers, Judges, and Institutions in Hiking Litigation Costs in Bangladesh' (n 1169) 62.

Such failures contribute to perpetuating a climate where wrongdoers feel emboldened to continue their harmful practices.

Therefore, there might be a better way to handle deceptive food cases, especially when public health is on the line. The current system could end up reinforcing inequalities if it continues to be overly expensive and time-consuming, thereby leaving justice accessible exclusively to the well-off. The foregoing analysis calls for changes that make the system more timely, accessible and fair to ensure that everyone has a real chance at justice, not just those who can afford it.

7.3.3.2 Incompatibility with the Socio-legal Infrastructure

Unlike US, where Federal Rule 23 offers a robust procedural framework for class action lawsuits including elaborate judicial opinions, Bangladesh's legal system evidently does not have a similar structure. Rule 23 outlines clear criteria for class certification, including numerosity, commonality, typicality, and adequacy.¹¹⁷⁹ Rule 23(b)(3) allows for the certification of classes that can prove common legal or factual questions predominate and that a class action is superior to individual lawsuits. As Rule 23(b)(3) emphasises, such classes are favoured because they 'achieve economies of time, effort, and expense, and promote ... uniformity of decision as to persons similarly situated, without sacrificing procedural fairness or bringing about other undesirable results'.¹¹⁸⁰

Conversely, class action laws are not less advanced in developing countries. For example, South Africa's constitution and statute laws allow class action lawsuits, yet for decades there were no defined criteria for establishing and sustaining them.¹¹⁸¹ This lack of explicit standards prompted landmark decisions in 2012 and 2013, which highlighted the suitability of class actions to uphold certain constitutional rights, and its utility in cases involving mass personal injury or consumer litigation.¹¹⁸² Lawyers suggest that further clarification of class action standards and procedures through continued litigation in South Africa could potentially benefit both its litigants and jurists.¹¹⁸³

¹¹⁷⁹ Federal Rules of Civil Procedure r 23(a).

¹¹⁸⁰ *ibid* 23(b)(3).

¹¹⁸¹ Constitution of the Republic of South Africa 1966 s 38(c); Companies Act 71 of 2008 s 157.

¹¹⁸² *Children's Resource Centre Trust v Pioneer Food (Pty) Ltd (50/2012)* [2012] ZASCA 182 (29 November 2012) [21]; *Mukaddam and Others v Pioneer Foods (Pty) Ltd and Others* [2013] (5) SA 89 (CC).

¹¹⁸³ N Alp and P Soni, 'South Africa - Collective Redress' (*Linklaters*)

<<https://www.linklaters.com/en/insights/publications/collective-redress/global-guide-collective-redress/south-africa>> accessed 15 June 2024.

Although CRPA (2009) addresses consumer protection and unfair trade practices in Bangladesh, it does not provide a specific mechanism for class actions.¹¹⁸⁴ Consequently, consumers seeking collective recourse for food adulteration may encounter significant obstacles. Without a formal process for class certification, cases must be pursued either individually or through ad-hoc collective efforts, which could be inefficient and burdensome for plaintiffs. The absence of a well-defined class action framework in Bangladesh has several likely implications for deceptive adulteration cases. This is discussed below.

Firstly, it hinders collective redress. As mentioned above, without the ability to certify a class, consumers harmed by food adulteration must file individual lawsuits. The negligible economic damages in each case do not warrant the substantial litigation expenses and efforts which makes this unfeasible. Thus, numerous instances of food adulteration may remain unchallenged in court. Quite possibly, it perpetuates cycles of impunity by enabling corporate wrongdoers to exploit the absence of meaningful legal deterrence. In contrast, US courts recognise the utility of class actions as a pragmatic solution to this dilemma by enabling consumers to collectively recover small financial losses whilst avoiding the economic and logistical burdens of isolated litigation.¹¹⁸⁵

Secondly, it may induce inefficiencies in legal proceedings. When multiple individual lawsuits are filed over similar claims, it may lead to inconsistent judgments and unnecessary duplication of legal efforts. Legal scholars have pointed out that parallel litigation taxes judicial resources and potentially lead to conflicting outcomes.¹¹⁸⁶ Lord Briggs JSC expressed concerns regarding the potential for inconsistent judgements that may arise from the existence of multiple proceedings on the same issues.¹¹⁸⁷ Duplicative litigation prejudices the defendant, due to the wasted time, resources and effort, and it is also contrary to the public interest.¹¹⁸⁸ In US, class actions offer a solution by consolidating numerous similar claims into a single proceeding, thereby promoting judicial 'efficiency and economy of litigation'.¹¹⁸⁹ Bangladesh's lack of such a mechanism means that each case must be litigated separately which strains the judicial system and perhaps resulting in disparate outcomes.

¹¹⁸⁴ Consumer Rights Protection Act.

¹¹⁸⁵ *Goldemberg v Johnson & Johnson Consumer Cos, Inc* 317 FRD 374, 397 (SDNY 2016).

¹¹⁸⁶ James George, 'Parallel Litigation' (1999) 51 Baylor Law Review 769, 958.

¹¹⁸⁷ *Dhan Kumar Limbu & 23 Others v Dyson Technology Ltd and others* [2023] EWHC 2592 (KB) [30]:

¹¹⁸⁸ Melissa Worth, 'Tinkler v Ferguson: Avoiding Duplicate Litigation' (*Dispute Resolution blog*, 20 July 2020) <<http://disputeresolutionblog.practicallaw.com/tinkler-v-ferguson-avoiding-duplicate-litigation/>> accessed 16 June 2024.

¹¹⁸⁹ *Catholic Soc Servs, Inc v INS* 232 F3d 1139, 1146-1147 (9th Cir 2000): Congressional Research Service, 'Class Action Lawsuits: A Legal Overview for the 115th Congress' (Congressional Research Service 2018) R45159 2.

Furthermore, Bangladesh's economic and social realities accentuate the unsuitability of class actions in deceptive adulteration cases. A major portion of the population resides in rural areas, including 113,063,587 people, in contrast to 52,009,072 in urban areas.¹¹⁹⁰ Rural consumers often have limited awareness of their legal rights or financial means to participate in prolonged litigation. With 18.7% of the population living below the national poverty line, as of 2022, these challenges are exacerbated by economic precarity.¹¹⁹¹ Class actions often necessitate substantial coordination and resources which may not be readily accessible to these consumers.

Organisations such as Bangladesh Legal Aid and Services Trust (BLAST) have been instrumental in increasing awareness of legal rights, but access to justice remains hindered by discriminatory social norms and practices.¹¹⁹² *BLAST v Bangladesh* (2008) showed that legal education is linked to justice, demonstrating the need for governmental legal help for economically disadvantaged petitioners.¹¹⁹³ Similarly, *Bangladesh Bar Council v State* (2015) stressed the necessity for an organised legal curriculum to raise legal understanding.¹¹⁹⁴ The *Salma v State* (2012) decision legal systems must be linguistically accessible,¹¹⁹⁵ and *Ahmed v Bangladesh* (2020) demonstrated that community-based legal awareness programs work.¹¹⁹⁶ Collectively, by extension, these cases which span from societal conventions to financial limitations, render class actions impractical for handling food adulteration.

In addition, Bangladesh's legal community lacks the precedent and expertise necessary for effectively litigating class actions.¹¹⁹⁷ In jurisdictions with well-established class actions, there exists a body of legal precedent and a cadre of specialised lawyers who can handle the

¹¹⁹⁰ Bangladesh Bureau of Statistics, 'Population & Housing Census 2022: Preliminary Report' (Bangladesh Bureau of Statistics 2022) tbl 2.6.

¹¹⁹¹ Asian Development Bank, 'Bangladesh: Poverty' (5 December 2022) <<https://www.adb.org/where-we-work/bangladesh/poverty>> accessed 16 June 2024.

¹¹⁹² Bangladesh Legal Aid and Services Trust (BLAST), 'Access to Justice for All' (Bangladesh Legal Aid and Services Trust (BLAST) 2017) Annual Report; Md Islam, Masahiro Suzuki and Nurunnahar Mazumder, 'Promoting Access to Justice in Bangladesh: Towards a Hybrid Justice Model' (2024) 77 International Journal of Law, Crime and Justice 1, 3; M Rahim, 'Justice for All: The Poor and the Rich' (*The Daily Star*, 28 April 2021) <<https://www.thedailystar.net/opinion/news/justice-all-the-poor-and-the-rich-2084825>> accessed 16 June 2024.

¹¹⁹³ *Bangladesh Legal Aid and Services Trust (BLAST) v Bangladesh* (2008). A Amin, 'Is Lack of Legal Knowledge a Barrier to Justice in Bangladesh?' *The Business Standard* (26 January 2024) <<https://www.tbsnews.net/thoughts/lack-legal-knowledge-barrier-justice-bangladesh-781742>> accessed 16 June 2024.

¹¹⁹⁴ *Bangladesh Bar Council v State* (2015). Amin (n 1194).

¹¹⁹⁵ *Salma v State* 2012. Amin (n 1194).

¹¹⁹⁶ *Ahmed v Bangladesh* 2020. Amin (n 1194).

¹¹⁹⁷ C Farid, 'New Paths to Justice: A Tale of Social Justice Lawyering in Bangladesh' (2013) 31 Wisconsin International Law Journal 421, 429–430.

sophistications of such cases.¹¹⁹⁸ However, in Bangladesh, the legal system has yet to develop the requisite expertise or infrastructure. Hence, entrusting the defence of a class action to lawyers who are not class action experts involves unnecessary risk.¹¹⁹⁹

Moreover, legal aid and pro bono services, which are necessary for supporting large-scale litigations ‘has remained a niche idea’.¹²⁰⁰ The remuneration for legal aid lawyers is much lower compared to private practice, which discourages skilled professionals from taking up such work.¹²⁰¹ For instance, lawyers appointed by the National Legal Aid Services Organisation receive only BDT 900 for a bail hearing and BDT 800 for filing cases such as dowry or rape, whereas similar services for private clients can earn between BDT 8,000 and BDT 10,000.¹²⁰² The substantial disparity in compensation leads to an insufficient talent pool for managing high-stakes litigation. Additionally, despite efforts to digitalise the judiciary, substantial challenges remain, including inadequate training and technical knowledge amongst court officers, which further complicates the handling of intricate legal procedures required in class action suits.¹²⁰³

Although there are some well-regarded law firms and lawyers in Bangladesh, the overall governance infrastructure is not adequately equipped to deal with the high demands of class action litigations.¹²⁰⁴ Food adulteration cases are difficult to prove due to the necessity for substantial documentation and credible expert testimony. The recent milk adulteration incident shows these deficiencies. Following a High Court directive, the BFSA filed cases against ten companies after detecting harmful substances in pasteurised milk. Concurrently, Dhaka University researchers found detergents and antibiotics in products from prominent brands.¹²⁰⁵ Despite these findings, an additional secretary threatened the researchers with legal action unless their study underwent peer review which shows the pressures faced by

¹¹⁹⁸ ‘Country Comparative Guides - Class Actions’ (*The Legal 500*, 2024)

<<https://www.legal500.com/guides/guide/class-actions/>> accessed 17 June 2024; Farid (n 1264) 426–429.

¹¹⁹⁹ ‘Service: Class Actions’ (*Allens*) <<https://www.allens.com.au/sectors-services/services/disputes-investigations/class-actions/>> accessed 17 June 2024.

¹²⁰⁰ AS Associates, ‘Pro Bono Yet to Go Mainstream in Bangladesh’ (*Thomson Reuters Foundation*) <<http://www.trust.org/i/?id=21dbb0a3-56bf-4f63-be22-74132411387a>> accessed 16 June 2024.

¹²⁰¹ Fatima Raisa, ‘The Dynamics of Legal Aid: Pro Bono Advocacy in Bangladesh’s Jurisprudence’ (*Oxford Human Rights Hub*, 25 April 2024) <<https://ohrh.law.ox.ac.uk/the-dynamics-of-legal-aid-pro-bono-advocacy-in-bangladeshs-jurisprudence/>> accessed 17 June 2024.

¹²⁰² S Salman, ‘Skilled Lawyers Show Reluctance in Legal Aid’ *New Age* (16 June 2024) <<https://www.newagebd.net/post/country/233784/skilled-lawyers-show-reluctance-in-legal-aid>> accessed 16 June 2024.

¹²⁰³ M Hassan and F Rupa, ‘Digitalization of Bangladesh Judiciary and Access to Justice’ (2021) 3(3) *Asian Journal of Social Sciences and Legal Studies* 49, 52; Editor, ‘Digital Transformation in Justice System in Bangladesh’ *The Daily Star* (7 July 2022) <<https://www.thedailystar.net/round-tables/news/digital-transformation-justice-system-bangladesh-3065971>> accessed 17 June 2024.

¹²⁰⁴ ‘The 10 Best Class Action Lawyers in Dhaka, Bangladesh (2024)’ (*Lawzana*) <<https://lawzana.com/class-action-lawyers/dhaka>> accessed 17 June 2024.

¹²⁰⁵ Correspondent, ‘10 Firms Sued over Harmful Substances in Milk’ (n 818).

experts. Regulatory agencies were also reluctant to provide evidence, thereby further stalling legal processes.

It should be noted that though class action lawsuits are uncommon in Bangladesh, there is a notable precedent. In 2018, a group of garment workers successfully filed a class action lawsuit against their employer for unpaid wages and overtime, resulting in \$2.3 million in compensation.¹²⁰⁶ Although the garment workers' case demonstrates that class actions are possible, it is likely an outlier rather than indicative of something that is well-established.

7.4 Exploration of Alternative Legal Instruments

Given these challenges, whilst class actions have theoretical appeal, but socio-economically relevant legal avenues may be more effective. This section explores the legal avenues to combat both food adulteration and ensure accurate food labelling to provide a comprehensive approach to consumer protection. Each tool discussed below is targeted toward different stakeholders and addresses specific needs within the legal and regulatory framework.

7.4.1 Public Interest Litigation (PIL) as a Proxy for Regulatory Accountability

PIL allows individuals or organisations without a direct stake in the case to engage in legal proceedings, aiming to influence judicial decisions for the greater public good.¹²⁰⁷ PIL's capacity to act as a 'ladder to justice' for marginalised sections of society, many of whom may not be well informed about their rights.¹²⁰⁸ This could challenge the broader regulatory lapses that allow adulteration and deceptive labelling to persist by enabling NGOs and consumer advocacy groups to take legal action. For instance, if regulatory authorities do not implement regulations to prohibit the sale of adulterated food, especially in cases where misleading labelling masks the fact, then a PIL could be filed against them. Two interrelated cornerstones in the battle against economically driven adulteration, namely, stricter enforcement of labelling requirements and food safety standards might be imposed by such a judicial intervention.

¹²⁰⁶ Robayet Syed, 'Compliance with and Enforcement Mechanism of Labor Law: Cost-Benefits Analysis from Employers' Perspective in Bangladesh' (2023) 12(2) Asian Journal of Business Ethics 395, 401.

¹²⁰⁷ L Bartholomeusz, 'The Amicus Curiae before International Courts and Tribunals' (2005) Non-State Actors and International Law 5 209, 279.

¹²⁰⁸ Sheikh Mohammad and Towhidul Karim, 'Role of NGOs in Developing Public Interest Litigation: An Analytical Study' (2019) 49 Environmental Policy and Law 145, 151.

PIL is a relatively new but influential mechanism that has arisen to promote social justice and protect public interests in Bangladesh. When the government fails to address violations of Economic, Social, and Cultural (ESC) rights, the Supreme Court may intervene by issuing directives to relevant government agencies, either on its own initiative or through writ petitions filed under Article 102 of the Constitution.¹²⁰⁹ For any breach of fundamental rights under Part III of the Constitution, Article 102 empowers the court to pass orders requiring the government to act in accordance with the law.

Traditionally, only an 'aggrieved person' could seek remedy under Article 102. However, the Supreme Court has gradually relaxed this requirement by allowing any person or organisation to seek remedy on behalf of impacted communities.¹²¹⁰ Since Bangladesh's independence, PILs have been filed addressing various issues, including environmental concerns, arbitrary arrest and detention, custodial torture and deaths, police brutality during remand, violations of children's rights (including those in conflict with the law), delays in prisoner trials, and women's rights.¹²¹¹

Human rights and environmental lawyers, along with consumer activists, have brought several landmark public interest cases before the Supreme Court over the right to safe food. The Court has interpreted the right to food as an integral part of the right to life. For example, in *Rabia Bhuiyan MP v Ministry of LGRD & Others* (2007), the Supreme Court ruled that the government's failure to seal arsenic-contaminated tube wells and ensure water quality violated the right to life guaranteed by Articles 31 and 32 of the Constitution, when read in conjunction with Articles 15 and 18.¹²¹² The Court ordered the implementation of the National Arsenic Mitigation Policy (2004) and the National Action Plan for Arsenic Mitigation, along with other corrective measures.

In 2004, the High Court examined the matter of non-iodised salt in *BLAST v Bangladesh* (1999).¹²¹³ The Court found the Ministry of Health in violation of the Iodine Deficiency Diseases Prevention Act (1989) and ordered the enforcement of quality standards, registration of manufacturers, and regular reporting to the Court. Also, Bangladesh

¹²⁰⁹ The Constitution of the People's Republic of Bangladesh art 102.

¹²¹⁰ R Barhey and MH Tushi, 'The Right to Food: Legal Protection in Bangladesh' (Bangladesh Legal Aid and Services Trust (BLAST) and Campaign for Right to Food & Social Security (RtF&SS) 2015) 51–52; Md Hossaini and Md Mahmud, 'Public Interest Litigation in Bangladesh: A Long Way to Go' (2019) 9(1) Social Change 61, 65.

¹²¹¹ S Naznin, 'Women's Right to Access to Justice: The Role of Public Interest Litigation in Bangladesh' (2021) 21(2) Australian Journal of Asian Law 99; Jobair Alam and Ali Mashraf, 'Fifty Years of Human Rights Enforcement in Legal and Political Systems in Bangladesh: Past Controversies and Future Challenges' (2023) 24 Human Rights Review 121, 127.

¹²¹² *Rabia Bhuiyan, MP v Ministry of LGRD & Others* [2007] 59 DLR (AD) 176.

¹²¹³ *BLAST v Bangladesh Writ Petition No 1043 of 1999*, 25 BLD (HCD) (2005) 83.

Environmental Lawyers Association (BELA) successfully prevented the import and sale of radiated milk powder through PIL.¹²¹⁴ Notably, the High Court ruling that access to safe food is a fundamental component of the right to life under Articles 31 and 32 of the Constitution.¹²¹⁵ In *Human Rights and Peace for Bangladesh v Bangladesh* (2009), the High Court directed the government to establish food courts and appoint adequate food analysts and inspectors in each district as per the PFO (1959).¹²¹⁶ Notwithstanding these directives, the effectiveness of such measures has been impeded by insufficient public awareness and the non-appointment of necessary personnel till date.¹²¹⁷

The landmark 'Flood Action Plan' (FAP)-20 case illustrates how the courts can use PIL to address public wrongs, even when those wrongs impact large, indeterminate groups of people.¹²¹⁸ In this case, the Court adopted a more liberal interpretation of the requirement for standing by allowing an environmental activist to challenge government actions that posed a risk to the community. This precedent expanded the scope of who could bring a PIL and enabled organisations and individuals to litigate on behalf of the public interest, particularly in instances where widespread harm is evident.

However, the journey does not end with a court ruling. The effectiveness of PIL is often hampered by the very nature of the legal system and the challenges in enforcing court orders. Although PIL can shine a spotlight on food adulteration and even prompt immediate action, it cannot replace the need for a robust and proactive regulatory framework. Indeed, to effectuate lasting change, it is necessary to strengthen enforcement mechanisms and explore judicial tools such as rolling or continuing mandamus, where the courts keep a watchful eye on the implementation of their orders. This approach could ensure that the wheels of justice keep turning even after a judgment is passed.

The future of PIL in Bangladesh offers some promise of accountability and reform. Nevertheless, PIL cannot operate in a vacuum. It needs to be part of a broader effort that includes accessible legal aid, public awareness, and proactive governance. Although PIL has made some strides, it has not yet fully realised its potential in Bangladesh, partly due to administrative inertia and a lack of judicial activism.¹²¹⁹ Moreover, the Fundamental Principles of State Policy as specified in Article 8(2) of the Constitution are not directly enforceable through legal action.¹²²⁰ The non-enforceability poses a barrier because it

¹²¹⁴ *Farooque v Bangladesh* 48 DLR (HCD) (1996) 438.

¹²¹⁵ The Constitution of the People's Republic of Bangladesh arts 31 and 32.

¹²¹⁶ *Human Rights and Peace for Bangladesh v Ministry of LGRD* [2009] HCD Writ Petition No. 324 of 2009.

¹²¹⁷ Dave (n 632).

¹²¹⁸ *Dr Mohiuddin Farooque v Bangladesh* 17 BLD (AD) (1997) 1.

¹²¹⁹ Hossaini and Mahmud (n 1211) 69.

¹²²⁰ The Constitution of the People's Republic of Bangladesh art 8(2).

restricts citizens and the judiciary from holding the government accountable for not fulfilling the extensive policy pledges, relating to social justice, economic welfare, including environmental protection. Hence, the 'ladder to justice' is evidently unstable, and its potential is contingent upon the resolution of the aforementioned concerns.

7.4.2 Enabling DNCRP with Verification and Litigation Powers

In order to complement the overall advocacy of PIL, the onus is on the policymakers to strengthen the institutional authority of the DNCRP to effectively tackle food adulteration and deceptive labelling. Currently, the CRPA (2009) stops short of empowering the DNCRP with the necessary tools for thorough enforcement. The most noteworthy deficiencies lie in the absence of express authority for post-market verification of goods and the inability to initiate legal proceedings on behalf of consumers. In the absence of these powers, the DNCRP remains reactive as it is reliant on short complaint windows and administrative penalties, rather than being able to intervene pre-emptively or secure compensatory remedies through litigation. This is explored below.

Section 21 provides the DG of the DNCRP with broad administrative and investigatory powers, including the ability to monitor adulteration, inspect product labelling, and respond to various anti-consumer right practices.¹²²¹ However, these powers are functionally limited to administrative enforcement and are not supplemented by an independent mandate to initiate legal action in civil or criminal courts. Although section 66 permits an affected consumer to file a civil suit for damages of up to five times the actual loss, CRPA (2009) does not allow the DNCRP to represent such consumers in a collective or representative capacity.¹²²² Consequently, even when consumer harm is widespread, litigation remains disjointed and onerous wherein individual claimants are required to independently navigate the legal system.

Furthermore, the procedural constraints exacerbate this gap. Under section 60, complaints must be submitted within thirty days of the cause of action, and section 61 requires a charge sheet to be filed within ninety days.¹²²³ These timelines are impractically short for complex cases involving laboratory testing or large product distribution. Additionally, section 71 explicitly prohibits consumers from filing criminal cases directly in court, thereby channelling all such complaints through the DNCRP.¹²²⁴ Whilst section 70 permits administrative

¹²²¹ Consumer Rights Protection Act s 21.

¹²²² *ibid* 66.

¹²²³ *ibid* 60, 61.

¹²²⁴ *ibid* 71.

penalties, such as fines and temporary business closures, these remedies are inherently limited in scope and cannot substitute for formal legal redress.¹²²⁵

Moreover, the DNCRP faces an uphill battle. Despite the DNCRP settling approximately 71% and 73% of complaints in 2021 and 2022 respectively, these procedural constraints limit its capacity for broader systemic impact.¹²²⁶ Nonetheless, the Directorate handled nearly 22,500 consumer complaints and resolved approximately 92,000 cases through fines or business closures between 2014 and 2024.¹²²⁷ The DNCRP's extensive enforcement footprint is signalled by these data and the pervasive nature of consumer rights violations (e.g. adulteration including unhygienic food preparation and overpricing) that it is tasked with on a national scale.

Hence, a two-step approach that recognises the regulatory environment's complexity and builds on the DNCRP's capabilities without aggravating institutional disputes is suggested to meet the demands of its enforcement context. The steps are discussed next.

7.4.2.1 Expanding DNCRP's Post-Market Enforcement Authority

At present, the CRPA (2009) does not explicitly authorise the DNCRP to verify the accuracy of food labelling or inspect adulteration at the retail or consumer level once products have entered the market. Although section 21 grants the DG broad administrative powers, including monitoring adulteration, deceptive practices, and unsafe goods.¹²²⁸ However, it does not explicitly mandate a system of ongoing post-market surveillance for food products which are already in circulation. The provision is framed in generic terms and makes no reference to structured verification mechanisms at the distribution or retail stages.

In addition, sections 30 and 31 empower authorised officers to enter premises, inspect goods, and collect samples for examination. However, these powers are typically discretionary and are often triggered by specific complaints rather than institutionalised as routine and proactive surveillance.¹²²⁹ The Act does not impose a regular duty on the DNCRP to routinely monitor labelling accuracy or detect adulteration or relabelling that may occur during storage and distribution. The resultant gap reduces the Directorate's ability to

¹²²⁵ *ibid* 70.

¹²²⁶ Azmin Azran, 'Why Must Consumers Always Get the Short End of the Stick?' *The Daily Star* (15 March 2024) <<https://www.thedailystar.net/opinion/views/news/why-must-consumers-always-get-the-short-end-the-stick-3566921>> accessed 17 June 2024.

¹²²⁷ S Ali, 'Poor Regulation, Lack of Awareness Impact Implementation of Consumer Rights' *The Business Standard* (14 March 2020) <<https://www.tbsnews.net/bangladesh/poor-regulation-lack-awareness-impact-implementation-consumer-rights-56263>> accessed 17 June 2024.

¹²²⁸ Consumer Rights Protection Act s 21.

¹²²⁹ *ibid* 30, 31.

spot violations that manifest post-certification, such as dilution, substitution, or misrepresentation at the consumer-facing end of the supply chain.

Although the CRPA (2009) does penalise certain forms of misrepresentation and labelling violations, it does not specifically define product labelling as a form of advertisement. Section 44 penalises false or untrue advertisements aimed at deceiving buyers, but it does not expressly include labelling or packaging under its scope.¹²³⁰ Separately, section 37 penalises the failure to label goods with required details, such as weight, ingredients, expiry dates, and price.¹²³¹ Yet, it does not address deceptive labelling (i.e., labels that are factually false yet formally compliant). Meanwhile, sections 41 and 42 impose harsher penalties for knowingly selling adulterated goods or food items containing prohibited substances.¹²³²

When taken together, these provisions suggest that while penalties exist, their enforceability may depend heavily on the ability to detect violations in the first place. In the absence of a structured system for label verification and post-market checks, many instances of misrepresentation or post-certification adulteration might escape regulatory scrutiny. Thus, the challenge may lie less in the absence of legal sanctions and more in the lack of institutional mechanisms to uncover such violations in real time.

In particular, this is relevant for consumer-facing products where the label operates as the primary indicator of authenticity and safety. Inaccurate labelling on products like diluted honey, contaminated cooking oil, or synthetic juice can pose serious health risks while misleading consumers. Therefore, by verifying whether the actual content of a product aligns with its declared composition, DNCRP could potentially improve its capacity to uncover harmful or fraudulent practices that would otherwise remain undetected

The importance of institutionalising post-market verification is evident in the practices of the United States Food and Drug Administration (FDA). For instance, in one case, the FDA found that 3% of imported honey samples were adulterated with hidden sugars. The agency responded by restricting entry, requiring third-party lab tests, and placing violators on an import alert list. The FDA's ability to act swiftly and decisively demonstrates the value of regulatory powers that extend beyond initial product approval and into the retail market.

If the DNCRP were granted analogous authority through statutory reform, it could play a stronger role in monitoring the quality and accuracy of goods already in the marketplace. For

¹²³⁰ *ibid* 44.

¹²³¹ *ibid* 37.

¹²³² *ibid* 41, 42.

example, it might be empowered to conduct random retail inspections, mandate independent laboratory tests (possibly through the CAB), and take enforcement action where deception or adulteration is identified. However, to support such functions, the CRPA (2009) may need to be amended to include clear, dedicated provisions authorising structured post-market verification.

The suggested reform ought to be accompanied by a clearly defined protocol between the DNCRP and the BSTI. As previously noted in section 7.2, BSTI should retain responsibility for pre-market certification, including standard-setting, manufacturer audits, and verification of labelling accuracy at the point of production and packaging.¹²³³ In contrast, the DNCRP should be authorised to monitor compliance with those standards once the products are on the market. This includes inspection of sales outlets, seizure of non-compliant food products, imposition of penalties, and initiating enforcement where necessary. Although CAB would operate independently, its findings, provided they are methodologically sound, could expand the evidentiary basis for enforcement and inform regulatory follow-up.

To conclude, the recommended division of labour between BSTI and DNCRP could be perceived as practical and mutually supportive. It encompasses both pre-market and in-market phases which might establish a thorough regulatory safety net by ensuring products are vetted before entering the market and are continuously monitored thereafter. Some examples of coordination mechanisms such as MOU, shared data platforms, or joint enforcement teams may help reduce duplication, streamline workflows, and clarify jurisdictional boundaries. Apart from safeguarding against deceptive labelling, the post-market verification could be a key tool against adulterated items masquerading themselves as real products, thereby creating a more complete consumer protection framework.

7.4.2.2 Gradually Empowering DNCRP with Litigation Authority

In addition to its verification mandate, there appears to be a strong basis for considering whether the DNCRP should be progressively empowered with statutory authority to initiate civil and criminal proceedings on behalf of consumers. Under the existing provisions of the CRPA (2009), litigation rights are confined to individual consumers through section 66.¹²³⁴ As it currently stands, the DNCRP does not appear to have the legal standing to bring actions in its own name or to represent collective consumer interests.

¹²³³ See Section 7.2 of this thesis.

¹²³⁴ Consumer Rights Protection Act s 66.

It could be argued that providing the DNCRP with some form of litigation authority may allow the institution to evolve from a primarily administrative regulator into a more comprehensive enforcement body. Instead of implementing such a shift in a sweeping or immediate fashion, a phased and capacity-sensitive strategy would likely be more appropriate. In the initial stages, litigation authority might be restricted to high-risk food categories where the evidence of consumer harm is both substantive and recurring. A targeted, gradual rollout of litigation powers may enable the Directorate to develop institutional expertise and credibility without placing undue pressure on its existing infrastructure.

In particular, the role of the Australian Competition and Consumer Commission (ACCC) under the Australian Consumer Law (ACL) could serve as a comparative reference point. The ACCC has the legal authority to pursue civil actions and seek compensation on behalf of consumers who have experienced loss due to misleading conduct, including false or deceptive food labelling.¹²³⁵ Such actions are often initiated following written applications or complaints from affected individuals.¹²³⁶

Several cases from the ACCC's enforcement history may be illustrative. In 2016, following a complaint lodged by consumer advocacy group *Choice*, the ACCC launched an investigation into oregano products sold by ALDI Foods and Menora Foods.¹²³⁷ Testing revealed that the products, labelled as 100% oregano, contained other substances. Both companies acknowledged that their labelling likely misled consumers and subsequently entered into court-enforceable undertakings to improve product authenticity through regular testing.¹²³⁸

Comparable outcomes were observed in 2014, when Bera Foods was penalised for misrepresenting its 'Hi Honey' product, which was found to be largely composed of imported plant sugars rather than Australian honey.¹²³⁹ In another instance, Basfoods Australia was found to have marketed 'Victoria Honey', which similarly lacked actual honey content.¹²⁴⁰ Both cases involved enforceable undertakings and penalties.

¹²³⁵ s 29(1)(a) of the Australian Consumer Law (ACL). 29(1)(k) of the ACL makes it an offence for food businesses to 'make a false or misleading representation concerning the place of origin of goods'.

¹²³⁶ Australian Consumer Law (ACL) s 149.

¹²³⁷ ACCC, 'ALDI Foods Pty Limited - s.87B Undertaking'

(Australian Competition & Consumer Commission, 8 November 2016) <<https://www.accc.gov.au/publicregisters/undertakings-registers/section-87b-undertakings-register/aldi-foods-pty-limited-s87b-undertaking>> accessed 17 June 2024.

¹²³⁸ 'ACCC Acts on Product Misrepresentation from Aldi and Menora Foods' (TimeBase, 23 November 2016) <<https://www.timebase.com.au/news/2016/AT3991-article.html>> accessed 17 June 2024.

¹²³⁹ Australian Consumer Law (ACL) s 29(1)(a). ACCC, 'ACCC Acts on "Hi Honey" Misrepresentations' (1 December 2014) <<https://www.accc.gov.au/media-release/accc-acts-on-hi-honey-misrepresentations>> accessed 17 February 2025.

¹²⁴⁰ 'Competition and Consumer Act 2010 - Undertaking by the Australian Competition and Consumer Commission given for the purposes of section 87B by Basfoods (Aust) Pty Ltd' ACN 115 242 281 paras 9–12

Another noteworthy case is *ACCC v Nudie Foods Australia Pty Ltd*, where misleading packaging and advertising led consumers to believe that a fruit juice product was predominantly made of cranberries, when it actually contained only 20% cranberry juice.¹²⁴¹ This case shows the necessity for regulatory systems to evolve alongside emerging deceptive practices. It also emphasises the importance of precision in regulatory action, thereby reflecting the necessity for interdisciplinary strategies that bridge consumer law and public policy to address new forms of commercial representation. Yet, some authors propose that deceptive food credibility claims ought to be treated as CSR rather than as part of ACCC enforcement and compliance initiatives.¹²⁴²

Although the regulatory environment in Australia differs in scale and maturity, the aforementioned cases collectively suggest that targeted litigation, particularly when it functions both as a deterrent and a remedial measure, could contribute meaningfully to consumer protection. It may also highlight the potential value of granting enforcement agencies the ability to act on behalf of affected consumers, especially in markets where individual legal action may be infeasible.

For Bangladesh, any effort to develop a similar framework would likely require clear legislative changes to the CRPA (2009). One option might be to introduce a new section to provide the DNCRP with representative standing in civil litigation and to permit it to act in its own name in appropriate cases. In parallel, the Directorate's role in criminal proceedings could be clarified through statutory language, mainly in relation to systematic deception. Such changes would need to be accompanied by procedural safeguards, especially concerning evidence collection under sections 31 and 62 of the Act for ensuring legal and evidentiary integrity.¹²⁴³

That said, whilst the ACCC model provides a useful reference point, the Australian regulatory regime benefits from a longstanding legal culture, high levels of institutional capacity, and significant public awareness, all of which may take time to develop in Bangladesh. Therefore, any extension of litigation authority to the DNCRP should be

<<https://www.accc.gov.au/system/files/public-registers/undertaking/1179354-1-Undertaking.PDF>> accessed 17 June 2024.

¹²⁴¹ ACCC, 'ACCC Court Action against Nudie Foods Australia Pty Ltd' (*Australian Competition and Consumer Commission*, 15 February 2008) <<https://www.accc.gov.au/media-release/accc-court-action-against-nudie-foods-australia-pty-ltd>> accessed 17 June 2024. Julian Lee, 'Nudie's Labels Bare-Faced Cheek' (*The Sydney Morning Herald*, 21 June 2008) <<https://www.smh.com.au/national/nudies-labels-bare-faced-cheek-20080621-gdsiwt.html>> accessed 17 June 2024.

¹²⁴² S Hobill and J Sanderson, 'Not Free to Roam: Misleading Food Credence Claims, the ACCC and the Need for Corporate Social Responsibility' (2017) 43(1) *Monash University Law Review* 114, 137.

¹²⁴³ Consumer Rights Protection Act ss 31, 62.

implemented incrementally, with due regard for capacity, legal preparedness, and institutional coordination.

In sum, granting the DNCRP litigation authority on a limited, evidence-based, and sector-specific basis could help address a substantial gap in Bangladesh's current consumer protection framework. If introduced carefully, and in conjunction with improvements in verification powers alongside inter-agency coordination, such a reform could meaningfully enhance the state's ability to respond to systemic consumer harms and reinforce accountability across the marketplace.

7.5 Conclusion

This chapter has critically examined the intertwined challenges of food adulteration and misleading labelling within Bangladesh's food safety framework by examining how these issues mutually reinforce one another and collectively subject consumers to considerable risks of deception and harm. Whilst there is no one-size-fits-all solution to these complex problems, the analysis suggests that any meaningful intervention must employ a multidimensional approach that integrates strong regulatory reforms with innovative legal instruments. Although class action litigation has proven effective in other jurisdictions, this chapter has demonstrated that its applicability in Bangladesh is highly constrained by its socio-legal environment. The structural obstacles, including exorbitant litigation costs, protracted judicial delays, and the lack of a procedural framework for collective actions, render this approach ill-equipped for addressing food safety concerns at scale.

Nevertheless, the discussion has also highlighted promising alternatives that could markedly improve consumer protection. PIL presents an avenue for widespread advocacy by enabling stakeholders to hold regulatory bodies accountable for lapses in enforcement. Thus, PIL could function as a watchdog with teeth. It could push for systemic changes, not just one-off fixes. Additionally, empowering BSTI and DNCRP with clearly delineated roles and enhanced authority could establish a more cohesive and efficient regulatory framework. Whilst BSTI could focus on pre-market certification, DNCRP's efforts could be tactically directed towards post-market enforcement and consumer-level violations. It resembles designating one individual guard the gates and another patrol the grounds i.e., two roles, one goal.

In essence, addressing food adulteration effectively demands a parallel focus on ensuring that labels accurately convey what consumers are buying. These interconnected issues

must be treated as two sides of the same coin and necessitates stronger enforcement mechanisms. Hence, both the BSTI and DNCRP must be equipped with the requisite authority and resources to enforce standards that ensure food products are both safe and honestly labelled. Here, incremental capacity-building and gradual deployment are likely to yield more viable results. Overall, these solutions line up with this thesis's overarching focus on developing a cohesive, government-led strategy to food safety governance.

Chapter 8: Conclusion

This thesis systematically examined how the GOB could strengthen its food safety governance framework to address the pervasive issue of food adulteration in a post-2015 regulatory environment. It traced the historical roots of the problem, critiqued the limitations of existing legal mechanisms, and reimagined alternative models of governance through systemic, technological, and consumer-centric lenses. Each chapter builds on the previous one and unpacks distinct facets of the overarching regulatory challenge.

8.1 Summary of Contribution

What was uncovered was that food adulteration in Bangladesh goes beyond just violating consumer rights or public health standards. In fact, it is also a significant deficiency in the legal, regulatory, and institutional structures. This governance gap was approached through a critical evaluation of private and public law frameworks by assessing their effectiveness in combating the clandestine practice of adulteration. A mix of doctrinal and socio-legal methodologies were adopted to interrogate the status quo. This research found that whilst legal reform is indispensable, enforcement, civic awareness, and regulatory design need to undergo stronger structural adjustments in tandem with it.

Initially, the substantive inquiry commenced by tracing the legal underpinnings of Bangladesh's private law, which were heavily influenced by colonial-era statutes such as the Indian Contract Act (1872) and the Sale of Goods Act (1930). Early doctrines such as *caveat emptor*, privity of contract, and misrepresentation were found to be remnants of a legal system that was designed for a much simpler market structure. Although the doctrines were originally conceived to maintain commercial order, they had not evolved in step with the complexity of contemporary food systems.

As such, the private legal doctrines provided only narrow avenues for redress. In contractual disputes, implied conditions such as merchantable quality or fitness for purpose were available in theory but proved difficult to enforce in practice. Their interpretation remained rigid and required consumers to demonstrate breach, detect adulteration, and often confront powerful corporate actors. Tort law was also subject to similar constraints despite offering potential remedies under negligence or deceit. There were few precedents and limited judicial engagement which resulted in its rare application. This thesis mostly utilised English jurisprudence due to the lack of pertinent Bangladeshi case law on food adulteration under private law. The continued dependence is also indicative of a jurisprudential colonial hangover, wherein legal reasoning remains tethered to imported doctrines.

In fact, the very architecture of private law which is centred on bilateral harms and retrospective liability was proved to be an ill-fitting tool for tackling the systemic and often latent dangers of food adulteration. Consumers harmed by invisible adulterants or delayed health effects found little refuge in a legal system bound by clear causation and individualised injury. The privity of contract shielded manufacturers from accountability, whilst stringent evidentiary thresholds rendered success in fraud or negligence claims vanishingly rare.

Even where harm was demonstrable, legal remedies often arrived too late to matter. Once adulterated food had been consumed, or where injury emerged over time, restitution lost its meaning. The legal impasses observed in international tobacco and asbestos litigation were mirrored by the evidentiary burden, particularly in cases involving chronic illness or population-level exposure.

Therefore, what emerged was a legal framework that was suspended in a reactive posture, thereby addressing discrete violations whilst ignoring cumulative risk. Procedurally, consumers were left stranded by the uncritical application of colonial scaffolding to drastically altered socio-economic conditions. These findings reframed food adulteration as a public health crisis that necessitates systemic governance solutions which extend far beyond the remit of classical private law.

Next, the analysis turned to Bangladesh's public regulatory framework for food safety and evaluated both its legal architecture and the institutional machinery tasked with enforcement. This thesis assessed how effectively the system responded to the risks posed by food adulteration by utilising Bazzan's governance model which is anchored in principles of independence, transparency, scientific integrity, and accountability.

It was found that the Bangladeshi food law framework resembled a regulatory archipelago that consisted of a scattered collection of overlapping statutes. The post-colonial legal bricolage that came from using both old and new laws at the same time, without any effort to make them work together, was marked by a lot of new laws being added on top of old ones faster than strategic reform could keep up. In contrast to more integrated models, Bangladesh's framework was devoid of internal cohesion.

Institutional performance disclosed further fault lines. Even though the BFSA was designated to be the nation's food safety watchdog, it continued to be institutionally impeded by chronic underfunding, limited enforcement muscle, and poor inter-agency coordination. Parallel actors, including the BSTI and various line ministries operated in bureaucratic silos,

regularly duplicating functions or issuing contradictory standards. Particularly notable was the erosion of scientific reliability and regulatory credibility because of the lack of a functional distinction between risk assessment and risk management.

Also, an institutional entropy pattern was observed. Systemic accountability failings, such as data falsification, evidentiary destruction, and tacit collusion between regulators and industry exposed the fragility of enforcement. The deterrent effect was neutralised by political interference, regulatory capture, and a culture of opacity. Despite high-profile scandals, government responses were cosmetic and episodic which indicates a system that was complacent in practice and reactive by design.

Hence, this thesis proposed a governance architecture which was reimagined to address the regulatory vacuum perpetuated by fragmented mandates and siloed institutions. Central to this vision was a BFSA that was operationally autonomous and strengthened, functioning as a unified coordinating body with clear statutory authority. Institutional consolidation was not presented as a technocratic solution, but rather as part of a more comprehensive governance recalibration. This framework was designed to integrate legal reform, a robust scientific infrastructure, and citizen engagement in a mutually reinforcing manner, thereby allowing it to anticipate adulteration crises rather than simply respond to them.

In the face of institutional shortcomings and fragmented enforcement, technology emerged as a potentially transformative force to shift the emphasis from reactive enforcement to anticipatory oversight. This research explored traceability systems as a means of injecting transparency and accountability into supply chains. Traceability altered the temporal logic of regulation by establishing intervention points prior to the arrival of adulterated food to consumers through the implementation of real-time tracking from production to distribution.

The investigation concentrated on four high-risk sectors where the absence of verifiable tracking measures enabled adulteration to thrive beneath the regulatory radar. Despite the significance of aquaculture for exports, traceability was hamstrung by analogue, paper-based systems and dispersed oversight. The meat sector remained opaque, with the undisclosed use of hormones and antibiotics shielded by an absence of record-keeping. The widespread use of hazardous substances such as formalin and carbide caused health risks and compromised trade credibility of fruits and vegetables. A chronic monitoring vacuum harmed dairy products, which were historically susceptible to adulteration with lead, antibiotics, and microbial contaminants.

International models provided instructive contrasts, some of which used blockchain to secure tamper-proof records and decentralised data control. However, the translation of these models to the Bangladeshi context was hindered by infrastructural shortfalls including a digital divide, low institutional literacy in data governance, and an absence of regulatory scaffolding capable of supporting such sophisticated technologies.

Additionally, the statutory framework continued to be inadequately outfitted to facilitate traceability, as confirmed by legal analysis. Sectoral legislation incorporated traceability clauses, but the FSA (2013) did not provide a clear enough mandate. Weak due diligence standards, a lack of incentives for adoption, and a legal void, all contributed to making broad deployment seem quite unlikely.

This thesis resists the allure of techno-solutionism. Traceability was advanced as a component of a gradual approach rather than a panacea. Its efficacy depended on simultaneous investments in legal reform, institutional coordination, and stakeholder capability. Importantly, the promise of traceability also served as a redistributive function by equipping regulators with oversight tools and empowering consumers in a marketplace that had been long skewed by information asymmetry.

The human dimension of food safety was interwoven throughout this thesis by foregrounding the centrality of consumer empowerment. In Bangladesh, labelling practices embodied a paradox that promises clarity whilst often delivering confusion. Labels were present in form but often hollow in substance as many were demonstrably false, unverifiable, or misleading. Regulatory focus skewed toward nutritional content, whilst key indicators of safety, such as adulteration, or deceptive marketing, remained conspicuously absent. Terms such as ‘fresh’, ‘organic’, and ‘safe’ operated in a semantic free-for-all, devoid of enforceable legal definitions and ripe for exploitation by food producers.

Moreover, consumers' capacity to evaluate or act upon the information presented was undermined by structural inequalities, including pervasive food insecurity, low legal and digital literacy, and entrenched poverty. The belief that individual choices were futile within a dysfunctional system was reinforced by a prevalent fatalism about food safety that cut across socio-economic levels. Alongside, the CAB operated with limited effect. It was structurally marginalised due to its lack of institutional collaboration, limited statutory authority, and lack of funding. The BFSA's public awareness campaigns were also inconsistent and short-lived.

Meanwhile, retailers were unable to establish clear labelling standards, which led to a pervasive lack of adherence or neglect. Consequently, small and medium-sized enterprises were caught in a haze of regulatory ambiguity which was hampered by vague guidance and inadequate institutional support. Overall, labelling emerged not as a standalone solution but as one node within a wider ecosystem. Labelling was at risk of becoming a symbolic governance artefact, as it was present but politically inert in the absence of credible enforcement, civic engagement, and institutional accountability.

Finally, the judicial sphere was the focus of attention, wherein the feasibility of class actions for systemic food fraud and consumer deception was critically examined. Evidently, their transposability to Bangladesh proved highly constrained. Bangladesh's access to justice is largely aspirational due to the prohibitive cost of legal proceedings combined with the absence of contingency fee structures. The judiciary is inadequately prepared to manage the procedural and evidentiary complexities of consumer class actions due to its limited institutional bandwidth and case backlog. Also, the number of practitioners who possess the doctrinal or strategic expertise to pursue collective redress is limited, and legal literacy regarding food rights remains low. Besides, the spectre of lawyer-driven litigation theatre in which high-profile cases eclipse community-centred remedies poses concerns about its instrumentalisation.

In contrast, PIL emerged as a more contextually resonant and constitutionally implanted tool. Bangladesh's PIL jurisprudence has demonstrated impact in areas such as environmental protection and public health. Its flexibility permits structural critique, institutional accountability, and the inclusion of non-state actors. Nevertheless, for PIL to serve as a robust instrument in food safety governance, it must evolve.

Additionally, the role of the DNCRP was brought under scrutiny. It lacked investigative authority and often functioned in institutional isolation, rarely coordinating with entities such as BSTI. DNCRP's ability to resolve systemic violations was at best marginal in the absence of a coherent legal mandate and inter-agency collaboration.

Overall, the analysis confirmed that sustainable reform depends on making legal remedies socially accessible, politically anchored, and institutionally enforceable. Only then will accountability mechanisms transcend legal formalism and serve the public interest in meaningful ways.

Therefore, in addressing the central research question, this thesis reframed food adulteration as a manifestation of a deeper systemic malfunction, rather than as an isolated

enforcement lapse. The findings culminated in a vision of integrated governance, which is grounded in the recognition that fragmented interventions and piecemeal reforms are insufficient to disrupt entrenched patterns of risk. Indeed, what surfaced was the need for a structural recalibration, an ecosystemic response that connects the dots between legal reform, institutional coherence, technological advancement, and civic agency. This research illustrated how food safety governance could develop into a more resilient, transparent, and adaptive architecture by interlacing these dimensions. Both imminent threats and the embedded asymmetries that perpetuate adulteration could be addressed by this design. This reimagining portrayed the state as the leader of a collaborative effort that benefits from digital infrastructure and empowered consumers. In doing so, this thesis produced a policy blueprint for incremental change instead of a utopian fix.

8.2 Recommendations

8.2.1 Strengthening Internal Governance

8.2.1.1 Legal Reforms

The governance of food safety in Bangladesh appears to be characterised by overlapping and, at times, contradictory statutes, which may hinder enforcement efforts. In order to address this, specific amendments to clarify agency mandates could be an effective starting point. Over the medium term, consolidating these laws into a more unified framework might offer a pathway to improved coherence and enforcement.

At the core of these reforms lies the need to strengthen the BFSA whose legal authority remains limited. Legal reforms that gradually expand the BFSA's enforcement powers, including the ability to impose penalties and mandate inter-agency cooperation, may improve its efficacy. Furthermore, enabling the BFSA to report directly to the Prime Minister's Office could potentially enhance its operational autonomy.

In parallel, introducing independent oversight mechanisms could enhance transparency and accountability. Oversight units, possibly reporting to parliamentary committees or inter-ministerial councils, may help monitor the BFSA's activities and audit enforcement measures.

Finally, to begin addressing the institutional ambiguities and implementation gaps identified in this thesis, it may be necessary to revisit the mandate of NFSMAC. The language of 'advice and direction' in the FSA (2013) appears to create a degree of structural overlap with

the BFSA's regulatory functions, which could compromise institutional autonomy and coherence. The prevailing ambiguity has already been linked to operational tensions and may contribute to further uncertainty, particularly in technically demanding areas such as traceability, where private actors require unambiguous regulatory signals. Thus, a more clearly defined separation of roles, where NFSMAC is repositioned as a strategic advisory forum and BFSA retains operational leadership could help reduce duplication, clarify accountability, and support the progressive implementation of traceability systems.

8.2.1.2 Operational Improvements

A key challenge is the need to resolve capacity constraints faced by the BFSA and related agencies. Addressing these issues might involve targeted recruitment and training programs, investment in laboratory infrastructure, and the development of digital systems for data collection and analysis.

Equally important is improving risk assessment and reinforcing scientific integrity. This could be achieved by enhancing the independence of technical committees which could lead to more evidence-based decision-making. Enhanced risk assessment frameworks could support compliance with Codex Alimentarius standards.

Another vital area for reform is inter-agency collaboration, which has historically been hampered by jurisdictional ambiguities and overlapping responsibilities. Improved coordination could resolve these inefficiencies. For example, formalising inter-agency roles through enforceable agreements, beginning with the BSTI might reduce redundancies and streamline enforcement. Also, establishing a permanent coordination mechanism under the BFSA could further institutionalise this collaboration.

Regulatory capture by industry actors could jeopardise effective governance. Strengthening conflict of interest rules and introducing independent reviews of certification processes could help safeguard the integrity of regulatory actions.

Indeed, a phased approach may be most appropriate for implementing the aforementioned reforms. In the short-term, legal reforms ought to prioritise low-hanging fruits and address immediate gaps by formalising inter-agency agreements, piloting digital initiatives, and incrementally enhancing the BFSA's enforcement powers. Over the medium-term, expanding institutional capacity, refining risk assessment frameworks, and consolidating existing laws would likely contribute to building long-term resilience. The more long-term

goal would ideally be to develop a unified legal framework and establish comprehensive oversight mechanisms. Any investment in long-term infrastructure, such as state-of-the-art food testing facilities, would require consistent political will and strategic deployment of resources. It is also important to continually assess the impact of these reforms.

8.2.2 Developing Food Traceability Frameworks

8.2.2.1 Legal Reforms

It would be prudent to consider amendments to the FSA (2013) by defining ‘traceability’ explicitly and establish requirements for comprehensive tracking systems across all stages of production, processing, and distribution across key sectors. Such amendments may strengthen the legislative framework by positioning traceability systems as integral tools for demonstrating ‘due diligence’ and ‘reasonable precautions’ in food safety compliance. Moreover, it might be beneficial to ensure that traceability data is recognised as admissible evidence in legal contexts to potentially improve prosecution or dispute resolution outcomes.

Sector-specific traceability challenges could merit targeted legal interventions. For instance, encouraging the aquaculture sector to transition from manual systems to digital tools might improve real-time monitoring and compliance. Similarly, promoting end-to-end traceability in the dairy industry could help bolster oversight from production to retail, particularly in the event of safety breaches. In the meat sector, the introduction of stronger mechanisms to monitor feed sources and antibiotic usage could enhance food safety. Additionally, the fruits and vegetables sector might benefit from systems to document chemical usage, ensuring more transparent supply chains.

In order to address governance challenges, it might be advantageous to consider enhancing the authority of the BFSA by potentially positioning it as the lead agency for traceability initiatives. Establishing a centralised traceability database under BFSA’s oversight might further streamline data collection and enforcement activities.

Given the potential of advanced technologies such as blockchain in food law, introducing regulatory sandboxes may offer a pragmatic way to test these innovations in controlled environments. A phased implementation strategy, beginning with simpler systems such as paper-based or basic digital tools, might ease the transition and mitigate challenges for small-scale actors before the gradual adoption of more sophisticated solutions.

8.2.2.2 Operational Improvements

Apart from legislative changes, practical measures may also be necessary to ensure effective implementation. Again, one key area in this sphere is capacity building. Stakeholders such as farmers, vendors, processors, and regulators might benefit from specialised training programs designed to equip them with the skills and knowledge required to operate traceability systems. Forming lasting collaborations with international development partners could enhance this effort.

Simultaneously, consumer education initiatives could play an important role in driving consumer demand for traceable and transparent food products. Customers may be more likely to give preference to items with transparent supply chains if the advantages of traceability, including increased safety and accountability, are made obvious.

One overlooked but vital aspect of effective implementation is the integrity of the data entered into traceability systems. The accuracy of data inputs determines how effective traceability methods are. In some contexts, it is not uncommon for the individuals responsible for data entry to be implicated in intentional acts of food adulteration as well. As such, combating this threat will need BFSA to take on the role of both coordinator and enforcer, with the authority to send out government-appointed inspectors who have received proper training.

Yet, to prevent local interests from capturing these inspectors, stringent accountability measures should be put in place, such as digital audit trails, biometric logins, and random deployment. Donor agencies might undertake or commission audits on a periodic basis to further improve transparency and compliance. Another way to make supervision more accessible is to create public traceability dashboards.

8.2.3 Enhancing Consumer Protection

8.2.3.1 Legal Reforms

From a consumer-centric standpoint, the implementation of ADR mechanisms could significantly enhance accessibility and practicality in resolving food safety disputes. Considering the existing system, traditional litigation may frequently be insufficient, particularly in instances of minor claims, which is a persistent concern in food adulteration

disputes. Mediation and arbitration could therefore provide a more affordable and efficient means of settling disputes. These may also enable the consolidation of individual claims into collective actions, thereby aiding in the resolution of systemic concerns more thoroughly. ADR approaches could give consumers more power and make the food supply chain more accountable by making it easier for them to get what they want.

Additionally, the exclusion of key agricultural products, including grains, vegetables, and spices, in the Packaged Food Labelling Act (2017), seems to create regulatory gaps that could benefit from legislative expansion. Including these categories might enhance oversight across the food supply chain by potentially mitigating risks associated with adulteration.

Further advancements could involve the adoption of intuitive visual labelling systems, such as pictograms for freshness and safety which may empower consumers and address literacy barriers. More importantly, legal mechanisms for verifying product authenticity and origin across all products could help reinforce consumer confidence.

Enforcement mechanisms, as they currently stand, appear insufficient to address systemic issues. Regularised audits, transparent enforcement actions, and randomised sampling of high-risk products could provide more robust regulatory oversight. Public disclosure of violations might also deter malpractice whilst contributing to the restoration of trust in regulatory bodies.

Weak institutional capacity and systemic corruption seem to significantly hinder the effective enforcement of food safety laws. The establishment of a dedicated consumer rights ministry could potentially centralise enforcement efforts, thereby improving policy coherence, and enhancing accountability. Addressing corruption, however, is expected to be an ongoing process. Transparent reporting mechanisms and independent oversight bodies could provide valuable tools for combating corruption.

The CAB and BFSN appear to hold considerable yet untapped potential as watchdogs and educators in the food safety ecosystem. If they were better equipped and more visible, they could be able to take a more active role in public awareness campaigns, fraud detection, and independent testing.

8.2.3.2 Operational Improvements

Here, the non-legal interventions are necessary for driving consumer empowerment and producer accountability. Although, these strategies operate outside the primary remit of the

legal discipline but are nonetheless integral to the holistic approach required to tackle systemic issues. For instance, education campaigns may demystify food labelling and empower consumers to make informed choices, a process that requires expertise in public health and communication. Technological interventions such as QR code-based traceability systems, whilst legally mandated, are the domain of technologists and data governance experts. In order to create subsidies or tax breaks that are in line with larger market forces, economists and policymakers must work together to incentivise safer habits.

Indeed, the recommendations herein reaffirm the necessity of interdisciplinary collaboration in food law. Legal practitioners and scholars could support these broader interventions by advocating for enabling legislation, ensuring compliance through robust enforcement mechanisms, and safeguarding equitable access. Nonetheless, experts in fields such as public health, technology, economics, sociology, etc., are likely to be needed for the development, execution, and operationalisation of these non-legal initiatives.

8.2.4 Advancing Food Safety Governance

8.2.4.1 Legal Reforms

Bangladesh's food law framework could benefit from carefully crafted legislative reforms to address gaps in governance and enforcement. The BSTI Act (2018) might be revised to incorporate scientifically validated labelling standards, potentially clarifying terms such as 'expiry' and 'best before' to reduce ambiguities. Additionally, establishing a national database for shelf-life determination may help provide a reliable reference point for regulators and manufacturers.

Institutional alignment appears to be a pressing concern. It might be advantageous to explicitly define the responsibilities of BSTI (pre-market certification) and DNCRP (post-market enforcement). This could be supported by formalised inter-agency coordination mechanisms, such as shared digital platforms and joint task forces, which may reduce overlaps and inefficiencies. Furthermore, empowering the DNCRP with litigation rights and enhanced verification powers might improve its ability to address consumer grievances effectively.

Thus, a phased deployment plan that focuses on high-risk food categories that are prone to adulteration could be a good way to start, since it would allow institutions to gradually increase capacity while reducing immediate risks.

With regards to PIL, courts might consider adopting mechanisms such as rolling mandates to ensure sustained oversight. Although PIL is not a substitute for strong governance, but it could serve as a corrective mechanism.

8.2.4.2 Operational Improvements

In order to strengthen institutional capacity, regulatory agencies might benefit from modernised equipment and independent research facilities. Also, enhanced training programs are important for enabling regulators to interpret and enforce the scientifically validated labelling standards recommended under the revised BSTI Act (2018) above. These measures could subsequently help generate credible data for more effective policymaking and enforcement.

8.3 Future Research Suggestions

Given the evolving nature of food policies, future research could build on the foundations laid by this thesis. The potential avenues for further study are outlined below.

Firstly, future research could empirically assess the execution and practical impact of food traceability pilot schemes in Bangladesh. Empirical studies could analyse the effectiveness of traceability in improving compliance, reducing adulteration, and affect consumer trust, perhaps starting with the dairy sector first.

Secondly, future research might examine the intersection between food fraud and sustainability-related legal standards in Bangladesh. Food fraud usually circumvents sustainable production requirements, such as organic certification, fair trade claims, and pesticide use regulations. This tendency undercuts the environmental and ethical objectives inherent in national food policies. Thus, examining how fraudulent practices interact with these sustainability norms, alongside evaluating the potential restructuring of existing legal frameworks to incorporate safety and sustainability imperatives, may yield a more holistic model of food governance.

8.4 Final Reflection: Slow but Steady Progress on the Long Road Towards Holistic Food Safety Reform

It is improbable that a single measure will be sufficient to improving food safety governance in Bangladesh, neither is there a blanket solution. Instead, what is probably required is a series of thoughtfully implemented legal, institutional, and operational reforms over time.

These reforms must address systemic inefficiencies while building on existing frameworks to ensure meaningful progress.

Instead of designing an entirely new system, this thesis concludes that reinforcing and optimising the present governance structure could be the most effective way forward. The foundations of an effective food safety governance model include preventive regulation, multi-stakeholder collaboration, and incremental improvements.

Whilst grounded in policy and practical objectives, this research recognises that no single entity can resolve food safety challenges alone. The complexity of the issue necessitates a collaborative framework between the government, industry stakeholders, consumers, and civil society actors. This is because each of these stakeholders contributes distinct perspectives and capabilities to the table. Inclusive dialogue amongst all stakeholders is therefore vital for ensuring that solutions are effective, equitable, and widely supported.

Lastly, this research conceives that transformative progress will require decisive government leadership across three interconnected spheres: internal governance reforms, collaborative partnerships with industry, and proactive consumer empowerment. However, it is equally important to remain adaptive to new problems that might crop up, including technological breakthroughs, climate change impacts, or shifting consumer expectations. Yet, changes cannot occur overnight. Hence, a gradual strategy that starts with foundational reforms and then progresses to extensive systemic recalibration could provide the resilience needed to deal with both immediate risks and long-term vulnerabilities. Indeed, the realisation that regulatory systems will always need to be continuously adjusted, iterated and improved upon rather than striving for perfection tempers the idealistic goal of eradicating food adulteration.

Table of Cases

UK

A v National Blood Authority [2001] 3 All ER 289
Albright & Wilson UK Ltd v Biachem Ltd [2002] UKHL 37, [2003] 2 AC 48 (HL)
Alcock v Chief Constable of South Yorkshire Police [1992] 1 AC 310
Anns v Merton London Borough Council [1978] AC 728
Archer v Brown [1985] QB 401, [1984] 2 All ER 267
Arcos Ltd v E A Ronaassen Son [1933] AC 470
Ashington Piggeries Ltd v Christopher Hill Ltd [1969] 3 All ER 1496
Ashington Piggeries Ltd v Christopher Hill Ltd [1971] 2 WLR 1051 (HL)
Ashington Piggeries Ltd v Christopher Hill Ltd [1972] AC 441
Aswan Engineering Establishment Co v Lupdine Ltd [1987] 1 All ER 135
Axa Insurance UK Plc v Financial Claims Solutions Ltd [2018] EWCA Civ 1330, [2019] RTR 1
Balmoral Group Ltd v Borealis UK Ltd [2006] 2 Lloyds Rep 629
Barker v Corus UK Ltd [2006] 2 AC 572
Barnett v Chelsea and Kensington Hospital Management Committee [1969] 1 QB 428
Barrow; Lane and Ballard Ltd v Philip Philips & Co Ltd [1929] 1KB 574
BAT v UK Department of Health [2016] EWHC 1169 (Admin)
Beale v Taylor [1967] 1 WLR 1193 (CA)
Bernstein v Pamson Motors (Golders Green) Ltd [1987] 2 All ER 220
Bhamra v Dubb [2010] EWCA Civ 13
Bisset v Wilkinson [1927] AC 177
Bristol Tramways etc Carriage Co Ltd v Fiat Motors Ltd [1910] 2 KB 831
Britvic Soft Drinks Ltd v Messer UK Ltd [2002] EWCA Civ 548 (2 All ER (Comm) 321)
Brown v Edgington [1841] 133 ER 751
BS Brown & Sons v Craiks Ltd [1970] 1 WLR 752 (HL)
Caparo Industries plc v Dickman [1990] 2 AC 605
Chandelor v Lopus [1603] Cro Jac 4
Clegg v Andersson (t/a Nordic Marine) [2003] EWCA Civ 320
Competition Appeal Tribunal, 'Mr Justin Gutmann v Apple Inc., Apple Distribution International Limited, and Apple Retail UK Limited' (Competition Appeal Tribunal, 2022)
<<https://www.catribunal.org.uk/cases/14687722-mr-justin-gutmann>> accessed 13 June 2024
Daniels v R White and Sons and Tarbard [1938] 4 All ER 258
David Jones Ltd v Willis [1934] 52 CLR 110

Derry v Peek [1889] 14 App Cas 337, 54 JP 148, 58 LJ Ch 864, 1 Meg 292, 38 WR 33,
 [1886-90] All ER Rep 1, 61 LT 265, 5 TLR 625
 Donoghue v Stevenson [1932] AC 562 (SC (HL))
 Dooley v Cammell Laird [1971] 1 Lloyd's Rep 271
 Doyle v Olby (Ironmongers) Ltd [1969] 2 QB 158
 Drummond v Van Ingen [1887] 12 App Cas 284 (HL)
 Dunlop Pneumatic Tyre Co Ltd v Selfridge & Co Ltd [1915] AC 847
 Eco 3 Capital Ltd v Ludsin Overseas Ltd [2013] EWCA Civ 413
 Edgington v Fitzmaurice [1885] 29 Ch D 459, 50 JP 52
 Evans v Triplex Safety Glass [1936] 1 All ER 283
 Fairchild v Glenhaven Funeral Services Ltd [2003] 1 AC 32
 Fitzgerald v Lane [1988] 2 All ER 961
 Frost v Aylesbury Dairy Co [1905] 1 KB 608, CA
 Gardiner v Gray [1815] 171 E R 46
 Gill & Duffus SA v Berger & Co Inc
 Glossop Cartons and Print Ltd v Contact (Print & Packaging) Ltd [2021] EWCA Civ 639
 Grant v Australian Knitting Mills Ltd [1936] AC 85
 H Beecham & Co Pty Ltd v Francis Howard & Co Pty Ltd [1921] VLR 428
 Hadley v Baxendale (1854)
 Halpern v Halpern [2006] EWHC 1728 (Comm)
 Hamilton v Papakura DC [2002] UKPC 9
 Harlington & Leinster v Christopher Hull Fine Art [1991] 1 QB 564
 Henry Kendall & Sons v William Lillico & Sons Ltd [1969] 2 AC 31
 Holtby v Brigham and Cowan [2000] 3 All ER 423
 Horn v Minister of Food [1948] 2 All ER 1036, 65 TLR 106
 Jackson v Rotax Motor & Cycle Co [1910] 2 KB 937, CA
 Jewson Ltd v Boyhan [2003] EWCA Civ 1030
 Jones v Bright [1829] 5 Bing 531
 Jones v Just [1868] 3 LR 203 (QB)
 Laing v Fidgeon [1815] 6 Taunt 108
 Lee v York Coach & Marine [1977] RTR 35
 Lowe v W Machell Joinery Ltd [2011] EWCA Civ 794
 McGhee v National Coal Board [1973] 1 WLR 1
 McLoughlin v O'Brian [1983] 1 AC 410
 Niblett v Confectioners' Materials Co Ltd [1921] 3 KB 387
 Ollivant v Bayley [1843] 114 ER 1258 (QB)
 Page v Smith [1996] 1 AC 155

Parkinson v Lee [1802] 2 East 314
 Pears (Newark) Ltd v Omega Proteins Ltd [2009] EWHC 1070
 Pinnock Bros v Lewis and Peat Ltd [1923] 1 KB 690
 Polhill v Walter (1832) 3 B & Ad 114, 123 ER 43
 Priest v Last [1903] 2 KB 148, CA
 R (British American Tobacco & Ors) v Secretary of State for Health [2016] EWHC 1169 (Admin)
 R (On the Application Of) British American Tobacco UK Limited & Others v The Secretary of State for Health [2016] EWCA Civ 1182
 R v Barnard [1837] 7 C & P 784, 173 ER 342
 Re Creutzfeldt-Jakob Disease Litigation [1998] 41 BMLR 157
 Re Moore & Landauer [1921] 2 KB 519 (CA)
 Rookes v Barnard [1964] AC 1129
 Savings Bank v Ward 100 US 195 (1879)
 Schneider v Heath [1813] 3 Camp 506
 Shelley v Paddock [1979] QB 120, [1978] 3 All ER 129
 Steel & Morris v United Kingdom [2005] EMLR 314
 Steels & Busks Ltd v Bleecker Bik & Co Ltd [1956] 1 Lloyd's Rep 228 (Queen's Bench Division)
 Stuart v Wilkins [1778] 1 Doug KB 18
 Sumner Permain & Co v Webb & Co [1922] 1 KB 55
 Tesco Supermarkets Ltd v Natrass [1972] AC 153
 Toepfer v Continental Grain Co [1974] 1 Lloyd's Rep 11
 Tomlinson v Congleton Borough Council [2003] UKHL 47
 Varley v Whipp [1900] 1 QB 513
 Wallis v Russell [1902] 2 IR 585
 Watts and another v Morrow [1991] 4 All ER 939, [1991] 1 WLR 1421, [1991] EWCA Civ 9
 Watts v Morrow [1991] 4 ER 937 (CA)
 White v Chief Constable of South Yorkshire [1999] 2 AC 455
 White v Jones [1995] 2 AC 207
 Wilsher v Essex Area Health Authority [1988] AC 1074
 Worsley v Tambrands Ltd [2000] PIQR P95
 Wren v Holt [1903] 1 KB 610 (CA)
 Zurich v Hayward [2016] UKSC 48

US

Briseño v Henderson 998 F3d 1014, 1028 (9th Cir 2021)

Catholic Soc Servs, Inc v INS 232 F3d 1139, 1146-1147 (9th Cir 2000)
 Escola v Coca Cola Bottling Co, 24 Cal2d 453 (1944)
 Eubank v Pella Corp 753 F3d 718, 719 (7th Cir 2014)
 Fitzhenry-Russell et al v Keurig Dr Pepper, Inc No 5:17-cv-00564, 2017 WL 4224723 (ND Cal)
 Goldemberg v Johnson & Johnson Consumer Cos, Inc 317 FRD 374, 397 (SDNY 2016)
 Hisley v General Mills, Inc No 3:18-cv-00395 (SD Cal June 4, 2021)
 In re 100% Grated Parmesan Cheese Mktg & Sales Practices Litig 275 F Supp 3d 910 (ND Ill 2017)
 Moore v Trader Joe's Co No 19-16618 (9th Cir 2021)
 Pelayo v Nestle USA, Inc 989 F Supp 2d 973 (CD Cal 2013)
 Savings Bank v Ward 100 US 195 (1879)
 Swearingen v Frito-Lay North America, Inc 67 F Supp 3d 1075, 1080 (ND Cal 2014)
 United States v Two Bags, Each Containing 110 Pounds, Poppy Seeds 147 F2d 123 (6th Cir 1945)
 Warren v Coca-Cola Bottling Co of Chicago 519 NE2d 1197 (Ill App Ct 1988)

Ireland

James Elliot Construction Ltd v Irish Asphalt Ltd [2011] IEHC 269

New Zealand

Cotter v Luckie [1918] NZLR 811

Bangladesh

Abed Khan v The Government of Bangladesh and another (2015)
 Ahmed v Bangladesh (2020)
 Anwar Hossain Chowdhury v Government of the People's Republic of Bangladesh [1989]
 AD 165, 9 BCR, 41 DLR
 Bangladesh and another v Mashiur Rahman and others [1998] 50 DLR(AD) 205
 Bangladesh Bar Council v State (2015)
 Bangladesh Beverage Industries Limited v Rawshan Aktar and Ors [2016] 4 CLR 411 (AD)
 Bangladesh Legal Aid and Services Trust (BLAST) v Bangladesh (2008)
 BLAST v Bangladesh Writ Petition No 1043 of 1999, 25 BLD (HCD) (2005) 83
 British American Tobacco Bangladesh Company Ltd v Begum Shamsun Nahar [2014] 66 DLR 80 (AD)
 Catherine Masud and others v Md Kashed Miah and others [2015] 67 DLR 523
 Dr Mohiuddin Farooque v Bangladesh 17 BLD (AD) (1997) 1

Ebrahim Salah Mayat v Ghulam Hussain

Farooque v Bangladesh 48 DLR (HCD) (1996) 438

Government of Bangladesh, represented by the Secretary, Ministry of Land, Bangladesh Secretariat, Dhaka and others v Sadeque Ahmed Nipu, son of late Mohiuddin Ahmed and another Writ Petition No 6053 of 2008 (High Court Division)

HRPB v Jatiyo Sangsad [2015] HCD 191, 67 DLR

Human Rights and Peace for Bangladesh v Ministry of LGRD [2009] HCD Writ Petition No. 324 of 2009

Karnaphuli Paper Mills Ltd V Amanullah (1971) 23 DLR 150

Masdar Hossain v Secretary, Ministry of Finance [1999] 52 DLR (AD) 82

Md Abdul Hye v Government of Bangladesh [2017] HCD Writ Petition No. 8932 of 2011

Mohammad Nazrul Islam v The State [1983] BLD 65 (HCD)

Rabia Bhuiyan, MP v Ministry of LGRD & Others [2007] 59 DLR (AD) 176

Salma v State (2012)

The Government of the People's Republic of Bangladesh v Chairman, The First Court of Settlement, Segunbagicha, Dhaka and another

Wahid Mia alias Abdul Wahid Bhuiyan v Dr Rafiqul Islam and others [1997] 49 DLR 302

Canada

Cardoso v Canada Dry Mott's Inc No S190672, 2020 BCSC 1569 (Can BC SC)

Zouzout v Canada Dry Motts Inc, et al No 500-06-000968-194 (Can Qc C S)

South Africa

Children's Resource Centre Trust v Pioneer Food (Pty) Ltd (50/2012) [2012] ZASCA 182 (29 November 2012)

Mukaddam and Others v Pioneer Foods (Pty) Ltd and Others [2013] (5) SA 89 (CC)

Table of Legislation

Bangladesh

Animal Welfare Act (2019)
Bangladesh Biggan O Shilpo Gobeshona Porishod Ain (2013)
Bangladesh Pure Food Ordinance (1959) (repealed)
BSTI Act (2018)
Cantonments Pure Food Act (1924)
Cantonments Pure Food Act (1966)
Civil Rules and Orders
Consumer Rights Protection Act (2009)
Control of Essential Commodities Act (1956)
Draft Food Safety (Labelling of Packaged Food) Regulation (2023)
Edible Oils Packaging (Regulation) Order (1998)
Essential Commodities Act (1955)
Fish Feed and Animal Feed Act (2010)
Fisheries and Fisheries Inspection and Quality Control Act (2020)
Food (Special Courts) Act (1956)
Food Safety Act (2013)
Formalin Control Act (2015)
Iodised Salt Act (2021)
Packaged Food Labelling Act (2017)
Penal Code (1860)
Regulation on Food Safety (Chemical contamination, toxin, and harmful residue (2017)
Sale of Goods Act (1930)
Special Powers Act (1974)
Standards of Weights and Measures (Commodities Packaging) Rules (2007)
The Code of Criminal Procedure (1898)
The Constitution of the People's Republic of Bangladesh (1972)
The Contract Act (1872)

Canada

Safe Food for Canadians Regulations Act (2018)

South Africa

Companies Act 71 of 2008
Constitution of the Republic of South Africa (1966)

Australia

Australian Consumer Law (2010)

Food Act (2003)

Food Standards Australia New Zealand Act (1991)

New Zealand

Sale of Goods Act (1908)

Fiji Islands

Fiji Islands Food Safety Act (2003)

Standard on Specific Good Hygienic Practices for Fish and Fisheries Products (Fiji) 2008

Brazil

Brazilian Consumer Code Law n 8078/1990 (Brazil)

Ministério da Agricultura, Pecuária e Abastecimento, Instrução Normativa No 24, de 1o de Abril de 2020, Diário Oficial da União [DOU] de 2.4.2020 (Braz.).

Colombia

Ley 9 de 1979 (24 January 1979)

Resolution 2674 of 2013, issued by the Minister of Health and Social Protection

India

Civil Procedure Code (1908)

Food Safety and Standards Act (2006)

Fruit Products Order (1955) (repealed)

Meat Food Products Order (1973) (repealed)

Milk and Milk Products Order (1992) (repealed)

Prevention of Food Adulteration Act (1954) (repealed)

Solvent Extracted Oil, Deoiled Meal, Edible Flour and (Control) Order (1967) (repealed)

The Indian Contract Act (1872)

Vegetable Oil Products (Control) Order (1947) (repealed)

UK

Compensation Act (2006)

Consumer Rights Act (2015)

Contracts (Rights of Third Parties) Act (1999)

Food Safety Act (1990)
Food Safety and Hygiene (England) Regulations 2013
Sale of Goods Act (1893)
Sale of Goods Act (1979)
Standardised Packaging of Tobacco Products Regulations (2015)
The Adulteration of Food or Drink Act (1860)
The Food Safety and Hygiene (England) Regulations (2013)
Unfair Contract Terms Act (1977)

EU

Directive (EU) 2024/1069 of the European Parliament and of the Council of 11 April 2024 on protecting persons who engage in public participation from manifestly unfounded claims or abusive court proceedings ('Strategic lawsuits against public participation') [2024] OJ L1069/16.

Regulation (EC) 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs 2004 OJL139/1

Regulation (EC) 853/2004 of the European Parliament and of the Council of 29 April 2004 laying down specific hygiene rules for food of animal origin 2004 OJL138/55

Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety 2002 OJ L 031

Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel [2009] OJ L27/1

Regulation 1169/2011 of the European Parliament and of the Council of 25 Oct. 2011 on the provision of food information to consumers, [2011] OJ L304/18

US

Federal Rules of Civil Procedure
Food, Drug, and Cosmetic Act (1938)
The Uniform Commercial Code (1952)
Unfair Trade Practices and Consumer Protection Act (1967)

China

Food Safety Law of the People's Republic of China (2015)

International Guidelines

Codex Alimentarius Commission, 'General Principles of Food Hygiene' (Food and Agriculture Organisation of the United Nations/World Health Organisation (FAO/WHO) 1969) CXC 1-1969

Codex Alimentarius Commission, 'Principles and Guidelines For National Food Control Systems' (Food and Agricultural Organisation) CAC/GL 82-2013

Codex Alimentarius, 'Codex General Guidelines on Claims (CXG 1-1979)' (Codex Alimentarius 1979)

Codex Alimentarius, 'Codex General Standard for Labelling of Pre-Packaged Foods CXS 1-1985' (Codex Alimentarius 1985)

Codex Alimentarius, 'General Standard for the Labelling of Food Additives When Sold As Such (CXS 107-1981)' (Codex Alimentarius 1981)

Codex Alimentarius, 'Regional Standard for Edible Sago Flour (Asia) CXS 301R-2011' (Codex Alimentarius 2011)

Constitution of the World Health Organisation (1948)

FAO and WHO, Codex Alimentarius Commission Procedural Manual, Revised (28th edn, FAO, WHO 2023)

FAO, 'Principles for Traceability/Product Tracing as a Tool within a Food Inspection and Certification System' (2006) CAC/GL 60-2006

FAO, Basic Texts of the Food and Agriculture Organisation of the United Nations. 2017 Edition: Volumes I and II (FAO 2017)

<<https://www.fao.org/documents/card/en?details=15a5abdf-16a6-4c6a-9427-01a8e6b34157>> accessed 31 December 2023

International Organisation for Standardisation (ISO 22005), 'Traceability in the Feed and Food Chain — General Principles and Basic Requirements for System Design and Implementation' (International Organisation for Standardisation (ISO) 2007)

UNCTAD, 'United Nations Guidelines for Consumer Protection' (United Nations 2016)

UNCTAD/DITC/CPLP/MISC/2016/1

Bibliography

- 'ACCC Acts on Product Misrepresentation from Aldi and Menora Foods' (TimeBase, 23 November 2016) <<https://www.timebase.com.au/news/2016/AT3991-article.html>> accessed 17 June 2024
- Commission AC and C, 'ACCC Acts on "Hi Honey" Misrepresentations' (1 December 2014) <<https://www.accc.gov.au/media-release/accc-acts-on-hi-honey-misrepresentations>> accessed 17 February 2025
- 'Bangladesh Consumer Protection in The Digital Age' (The Daily Star, 26 September 2021) <<https://www.thedailystar.net/round-tables/news/bangladesh-consumer-protection-the-digital-age-2183966>> accessed 19 June 2024
- 'Bangladesh Education Fact Sheets' (Bangladesh Bureau of Statistics (BBS), UNICEF New York and UNICEF Bangladesh 2020)
- 'Bangladesh Food Safety Foundation' <<https://fsfd.org/>> accessed 19 June 2024
- 'Bangladesh Statistics 2020' (Bangladesh Bureau of Statistics (BBS) 2020)
- 'Bangladeshi Blue-Tech Startup Raises Six-Figure Investment' (The Fish Site, 3 January 2024) <<https://thefishsite.com/articles/bangladeshi-blue-tech-startup-raises-six-figure-investment-seaqua>> accessed 31 July 2024
- Benny E, "Natural" Modifications: The FDA's Need to Promulgate an Official Definition of "Natural" That Includes Genetically Modified Organisms' (2012) 80 George Washington Law Review 1504
- 'CAB Demands Dedicated Consumer Rights Department' The Business Standard (23 May 2022) <<https://www.tbsnews.net/bangladesh/cab-demands-dedicated-consumer-rights-department-425522>> accessed 19 June 2024
- 'Code of Conduct For Selected 10 Segments of the Shrimp Aquaculture Industry in Bangladesh' (Department of Fisheries Government of Bangladesh, Bangladesh Shrimp and Fish Foundation 2015)
- 'Competition and Consumer Act 2010 - Undertaking by the Australian Competition and Consumer Commission given for the purposes of section 87B by Basfoods (Aust) Pty Ltd' ACN 115 242 281 <<https://www.accc.gov.au/system/files/public-registers/undertaking/1179354-1-Undertaking.PDF>> accessed 17 June 2024
- 'Country Comparative Guides - Class Actions' (The Legal 500, 2024) <<https://www.legal500.com/guides/guide/class-actions/>> accessed 17 June 2024
- 'Fees and Expenses' (American Bar Association, 3 December 2020) <https://www.americanbar.org/groups/legal_services/milvets/aba_home_front/information_center/working_with_lawyer/fees_and_expenses/> accessed 14 June 2024

'Food Authorities Find Adulteration in All Unpackaged Edible Oil' (The Business Standard, 7 December 2021) <<https://www.tbsnews.net/economy/industry/food-authorities-find-adulteration-all-unpackaged-edible-oil-340201>> accessed 2 October 2023

'Global Litigation Guide: Country Insight' (DLA Piper, 22 September 2023) <<https://www.dlapiperintelligence.com/litigation/insight/index.html?t=09-costs>> accessed 14 June 2024

'HC Rebukes BFSA over Banned Food Items in Market' Bangla Tribune <<https://en.banglatribune.com/national/news/48861/HC-raps-BSFA-over-banned-food-items-in-market>> accessed 16 September 2024

'National Food Safety Laboratory' (Institute of Public Health - IPH) <<https://iph.gov.bd/national-food-safety-laboratory/>> accessed 18 July 2024

'Personal Injury Claims: Finding The Best No Win No Fee Lawyer For Your Case' (Stacks Goudkamp, 21 July 2023) <<https://stacksgoudkamp.com.au/blog/personal-injury-claims-finding-the-best-no-win-no-fee-lawyer/>> accessed 14 June 2024

'Police in Spain and Italy Seize 5,000 Litres of Adulterated Olive Oil in Raids | Europe' The Guardian (Europe, 4 December 2023) <<https://www.theguardian.com/world/2023/dec/04/police-in-spain-and-italy-seize-5000-litres-of-adulterated-olive-oil-in-raids>> accessed 23 April 2024

'Safety for Baby Food Products Must Be Ensured' NewAge (10 June 2024) <<https://www.newagebd.net/post/editorial/233779/safety-for-baby-food-products-must-be-ensured>> accessed 10 June 2024

'Service: Class Actions' (Allens) <<https://www.allens.com.au/sectors-services/services/disputes-investigations/class-actions/>> accessed 17 June 2024

'Thank My Farmer' (ThankMyFarmer) <<https://www.thankmyfarmer.com/>> accessed 9 August 2024

'The 10 Best Class Action Lawyers in Dhaka, Bangladesh (2024)' (Lawzana) <<https://lawzana.com/class-action-lawyers/dhaka>> accessed 17 June 2024

'The Food Safety Act 1990- A Guide for Food Businesses' (Food Standards Agency UK 2009)

'The Trust Machine' [2015] The Economist <<https://www.economist.com/leaders/2015/10/31/the-trust-machine>> accessed 29 January 2024

'World Population Dashboard -Bangladesh' (United Nations Population Fund, 2024) <<https://www.unfpa.org/data/world-population/BD>> accessed 19 July 2024

Akerlof G, 'The Market for 'Lemons': Quality Uncertainty and the Market Mechanism' (1970) 84(3) The Quarterly Journal of Economics 488

Accum FC, *A Treatise on Adulterations of Food and Culinary Poisons: Exhibiting the Fraudulent Sophistications of Bread, Beer, Wine, Spirituous Liquors, Tea, Coffee, Cream, Confectionery, Vinegar, Mustard, Pepper, Cheese, Olive Oil, Pickles and Other Articles Employed in Domestic Economy; and Methods of Detecting Them* (J Mallett, Sold by Longman, Hurst, Rees, Orme, and Brown 1820)

Agency CFI, 'Date Markings and Storage Instructions on Food Labels' (6 July 2022) <<http://inspection.canada.ca/en/food-labels/labelling/industry/date-markings-and-storage-instructions>> accessed 12 June 2024

Ahmad R, 'Ensuring Safe Food a Far Cry' *The Daily Star* (24 September 2016) <<https://www.thedailystar.net/frontpage/ensuring-safe-food-far-cry-1288846>> accessed 27 August 2024

Ahmed A, 'Food Adulteration and Right to Food Safety in Bangladesh: An Analysis of Legal Frameworks' (2019) xiii(2) *Society & Change* 7

Ahmed A, 'Islam, Neoliberalism and Social Inequality in Bangladesh: A Social Policy Perspective' in A Tajmazinani (ed), *Social Policy in the Islamic World* (1st edn, Springer 2021) <https://doi.org/10.1007/978-3-030-57753-7_13> accessed 29 December 2023

Ahmed F, 'The Struggle in Bangladesh' (1972) 4(1) *Bulletin of Concerned Asian Scholars* 2

Aitken R, 'IBM Forges Blockchain Collaboration With Nestlé & Walmart In Global Food Safety' (*Forbes*) <<https://www.forbes.com/sites/rogeraitken/2017/08/22/ibm-forges-blockchain-collaboration-with-nestle-walmart-for-global-food-safety/>> accessed 28 January 2024

Aiyar A and Pingali P, 'Pandemics and Food Systems - towards a Proactive Food Safety Approach to Disease Prevention & Management' (2020) 12 *Food Security* 749

Aktar S, 'Food Adulteration and Awareness of Consumer Right Protection: An Empirical Study in Sutrapur and Dhupkhola Area of Dhaka City' (2019) 9(2) *Jagannath University Journal of Arts* 194

Alam J and Mashraf A, 'Fifty Years of Human Rights Enforcement in Legal and Political Systems in Bangladesh: Past Controversies and Future Challenges' (2023) 24 *Human Rights Review* 121

Alam K, 'Bureaucracy in Bangladesh Is Transactional, Not Rational, in Nature' (*South Asia@LSE*, 25 April 2022) <<https://blogs.lse.ac.uk/southasia/2022/04/25/bureaucracy-in-bangladesh-is-transactional-not-rational-in-nature/>> accessed 18 July 2024

Alemanno A and Gabbi S, 'The Stakeholders' Perspective', *Foundations of EU Food Law and Policy* (1st edn, Routledge 2016)

Alexander LA, 'Causation and Corrective Justice: Does Tort Law Make Sense?' (1987) 6 *Law and Philosophy* 1

Ali A and Shahnewaj, 'Improper Labelling of Manufacturing and Expiry Dates of Food: A Legal and Regulatory Study of Food Quality and Food Waste in Bangladesh' (2017) 18(1) Australian Journal of Asian Law 27

Ali A and Solaiman SM, 'Dishonest and Excessive Use of Antibiotics in Meat Producing Animals in Bangladesh: A Regulatory Review' (2020) 15(5) European Food and Feed Law Review 449

Ali A, 'Application of the Responsive Regulation Theory in the Food Safety Regulatory Regime in Bangladesh' (2013) 1(1) Journal of South Asian Studies 1

Ali A, 'Food Safety and Public Health Issues in Bangladesh: A Regulatory' (2013) 8(1) European Food & Feed Law Review 31

Ali ANMA, 'Manufacturing Unsafe Foods in Bangladesh: A Legal and Regulatory Analysis' (PhD thesis, University of Wollongong 2013)

Ali S, 'Bangladesh's Fruits, Vegetables Exports Plunge 68.7% in a Decade' The Business Standard (21 October 2023) <<https://www.tbsnews.net/economy/bangladeshs-fruits-vegetables-exports-plunge-687-decade-723398>> accessed 31 July 2024

Ali S, 'Poor Regulation, Lack of Awareness Impact Implementation of Consumer Rights' The Business Standard (14 March 2020) <<https://www.tbsnews.net/bangladesh/poor-regulation-lack-awareness-impact-implementation-consumer-rights-56263>> accessed 17 June 2024

Alles M and Guadalupe M, 'Reducing Inequality in Consumer Transactions: The Significance of Aggravated Vulnerabilities' in K Davis and M Pargendler, Legal Heterodoxy in the Global South: Adapting Private Laws to Local Contexts (Cambridge University Press 2024)

Alp N and Soni P, 'South Africa - Collective Redress' (Linklaters) <<https://www.linklaters.com/en/insights/publications/collective-redress/global-guide-collective-redress/south-africa>> accessed 15 June 2024

Alumni H, 'From Farm to Store: Walmart Improves Food Safety with Blockchain Technology' (Technology and Operations Management, 2017) <<https://d3.harvard.edu/platform-rctom/submission/from-farm-to-store-walmart-improves-food-safety-with-blockchain-technology-2/>> accessed 28 January 2024

Amin A, 'Is Lack of Legal Knowledge a Barrier to Justice in Bangladesh?' The Business Standard (26 January 2024) <<https://www.tbsnews.net/thoughts/lack-legal-knowledge-barrier-justice-bangladesh-781742>> accessed 16 June 2024

Amin N and Abdul Aziz N, 'The Liability of the Producer of False Halal Products under Product Liability Law' (2015) 11 Asian Social Science 295

Amnesty International, 'Trafigura: A Toxic Journey' (Amnesty International, 11 April 2016) <<https://www.amnesty.org/en/latest/news/2016/04/trafigura-a-toxic-journey/>> accessed 3 December 2024

Andaleeb Z and Ali A, 'The Development of Consumer Protection Law in Bangladesh: A Critical Comparative Study' (131AD) 2(1) Independent Business Review

Andrée P, Coulas M and Ballamingie P, 'Governance Recommendations from Forty Years of National Food Strategy Development in Canada and Beyond' (2018) 5(3) Canadian Food Studies / La Revue canadienne des études sur l'alimentation 6

Anima MT, 'Legacy of Colonialism: Colonized Laws Which Holds Back for Reformation and Liberal Criminological Perspective in Bangladesh', 1st Decolonization and Justice Conference at University of Regina (2022)

Ansell C and Gash A, 'Collaborative Governance in Theory and Practice' (2008) 18(4) Journal of Public Administration Research and Theory 543

Arefin A and others, 'Study on Awareness about Food Adulteration and Consumer Rights among Consumers in Dhaka, Bangladesh' (2020) 5(2) Journal of Health Science Research 69

Asghar W and others, 'Global Perspective on Food Fraud with Special Emphasis on the Prevalence of Food Fraud Practices and Policies in Pakistan' (2023) 9(1) World Food Policy 93

Asian Development Bank, 'Bangladesh: Poverty' (5 December 2022)
<<https://www.adb.org/where-we-work/bangladesh/poverty>> accessed 16 June 2024

Askew K, "'We Have Heard the Call for Greater Transparency": Europe Boosting Trust in the Science of Food Safety' (Food Navigator, 13 February 2019)
<<https://www.foodnavigator.com/Article/2019/02/13/We-have-heard-the-call-for-greater-transparency-Europe-boosting-trust-in-the-science-of-food-safety>> accessed 17 July 2024

Associates AS, 'Pro Bono Yet to Go Mainstream in Bangladesh' (Thomson Reuters Foundation) <<http://www.trust.org/i/?id=21dbb0a3-56bf-4f63-be22-74132411387a>> accessed 16 June 2024

Atiyah PS and others, Atiyah and Adams' Sale of Goods (13th edn, Pearson 2016)

Aucoin P and Heintzman R, 'The Dialectics of Accountability for Performance in Public Management Reform' (2000) 66(1) International Review of Administrative Sciences 45

Australian Competition and Consumer Commission, 'ALDI Foods Pty Limited - s.87B Undertaking' (Australian Competition & Consumer Commission, 8 November 2016)
<<https://www.accc.gov.au/public-registers/undertakings-registers/section-87b-undertakings-register/aldi-foods-pty-limited-s87b-undertaking>> accessed 17 June 2024

Authority (EFSA) EFS and others, 'Emerging Risks Identification on Food and Feed – EFSA' (2018) 16(7) EFSA Journal e05359

Axfoundation, SKL Kommentus, Swedish county councils and regions, and Martin & Servera, and Kairos Future., 'Blockchain Use Cases for Food Traceability and Control' (Kairos Future)

Ayyub S, Asif M and Nawaz MA, 'Drivers of Organic Food Purchase Intention in a Developing Country: The Mediating Role of Trust' (2021) 11 Sage 1

Azran A, 'Why Must Consumers Always Get the Short End of the Stick?' The Daily Star (15 March 2024) <<https://www.thedailystar.net/opinion/views/news/why-must-consumers-always-get-the-short-end-the-stick-3566921>> accessed 17 June 2024

Baker JH, 'The Law Merchant and the Common Law Before 1700' (2009) 38(2) The Cambridge Law Journal 295

Baker K, 'Illegal Dyes in the Food Industry: Colouring Our Judgment' (foodmanufacture.co.uk, 17 July 2021) <<https://www.foodmanufacture.co.uk/Article/2021/07/17/Food-safety-and-illegal-dyes-colouring-our-judgment>> accessed 23 April 2024

Bangladesh Bureau of Statistics, 'Bangladesh: An Overview' (2020)

Bangladesh Bureau of Statistics, 'Population & Housing Census 2022: Preliminary Report' (Bangladesh Bureau of Statistics 2022)

Bangladesh Food Safety Foundation, 'List of the Food Safety Related Regulations Administered by the Ministry of Food' (Science & Resources, 2024) <<https://fsfbd.org/science-resources/>> accessed 16 July 2024

Bangladesh Legal Aid and Services Trust (BLAST), 'Access to Justice for All' (Bangladesh Legal Aid and Services Trust (BLAST) 2017) Annual Report

Bangladesh National Portal, 'Training Manual for Different Food Safety Hazards Identification' <https://dls.portal.gov.bd/sites/default/files/files/dls.portal.gov.bd/publications/3bc1d85e_2a65_4597_a3c4_fc26bd863825/2023-03-18-08-16-42fa65f553c797e1a16afacc9fad9d27.pdf>

Barhey R and Tushi MH, 'The Right to Food: Legal Protection in Bangladesh' (Bangladesh Legal Aid and Services Trust (BLAST) and Campaign for Right to Food & Social Security (RtF&SS) 2015)

Barling D, 'Regulating GM Foods in the 1980s and 1990s', Food, Science, Policy and Regulation in the Twentieth Century (1st edn, Routledge 2000)

Barnard C and O'Connor N, 'Runners and Riders: The Horsemeat Scandal, EU Law and Multi-Level Enforcement' (2017) 76(1) The Cambridge Law Journal 116

Barnes V and Whewell E, 'English Contract Law Moves East: Legal Transplants and the Doctrine of Misrepresentation in British Consular Courts' (2019) 7(1) The Chinese Journal of Comparative Law 26

Barnes V and Whewell E, 'Judicial Biography in the British Empire' (2021) 28 Indiana Journal of Global Legal Studies 1

Barnett K, 'The Surprising Indian Influence on English Contractual Remoteness Rules, by Katy Barnett' (British Association of Comparative Law, 27 January 2023) <<https://british->

association-comparative-law.org/2023/01/27/the-surprising-indian-influence-on-english-contractual-remoteness-rules-by-katy-barnett/> accessed 10 April 2024

Barnett K, 'The Surprising Indian Influence on English Contractual Remoteness Rules' in KV Krishnaprasad, N Venkatesan and S Swaminathan, *Foundations of Indian Contract Law* (Oxford: Oxford University Publishing 2024)

Bartholomeusz L, 'The Amicus Curiae before International Courts and Tribunals' (2005) *Non-State Actors and International Law* 5 209

Barton P and Hutt PB, 'A History of Government Regulation of Adulteration and Misbranding of Food' (1984) 39(1) *Food, Drug, Cosmetic Law Journal* 2

Baskind E, Osborne G and Roach L, 'An Introduction to the Sale of Goods', *Commercial Law* (4th edn, Oxford University Press 2022)

Baskind E, Osborne G and Roach L, 'Product Liability', *Commercial Law* (4th edn, Oxford University Press 2022)

Basma N, 'Addressing the Human Rights Violation of Food Adulteration in Bangladesh' (2017) ii(ii) *Journal of Global Health* 52

Bawden T, 'New Food Scandal over Peanuts Is "more Serious" than the Horsemeat Crisis' (The Independent, 18 February 2015) <<https://www.independent.co.uk/life-style/food-and-drink/news/new-food-scandal-over-peanuts-is-more-serious-than-the-horsemeat-crisis-10045725.html>> accessed 27 January 2024

Baxi U, 'Law and Social Change: The Colonial Experience', *Towards Sociology of Law* (1st edn, Satvahan 1986)

Baxter C, *Bangladesh: From A Nation To A State* (Taylor & Francis 2018)

Bazzan G, 'Effective Governance of Food Safety Regulation across EU Member States: Towards Operationalisation' (2017) 8 *European Journal of Risk Regulation* 565

Bazzan G, *Effective Governance Designs of Food Safety Regulation in the EU: Do Rules Make the Difference?* (Springer International Publishing 2021)

Beatson J, Burrows A and Cartwright J, 'Introduction', *Anson's Law of Contract* (31st edn, Oxford University Press 2020)

Beatson J, Burrows A and Cartwright J, 'Misrepresentation and Non-Disclosure', *Anson's Law of Contract* (31st edn, Oxford University Press 2020)

Beheshti R, Saintier S and Thomas S, *Bradgate's Commercial Law* (4th edn, Oxford University Press 2024)

Bellon T, 'U.S. Judge Tosses Lawsuits about Labels on Parmesan Cheese' Reuters (24 August 2017) <<https://www.reuters.com/article/idUSKCN1B429F/>> accessed 12 June 2024

Benedict A, '2012 Global Congress on Intellectual Property and the Public Interest' (Bill of Health, 18 December 2012) <<https://blog.petrieflom.law.harvard.edu/2012/12/18/2012-global-congress-on-intellectual-property-and-the-public-interest/>> accessed 29 January 2024

Benny E, 'Essay, Natural Modifications: The FDA's Need to Promulgate an Official Definition of "Natural" That Includes Genetically Modified Organisms' (2012) 80 *George Washington Law Review* 1504

Benöhr I, 'The United Nations Guidelines for Consumer Protection: Legal Implications and New Frontiers' (2020) 43 *Journal of Consumer Policy* 105

Berti R and Semprebon M, 'Food Traceability in China: Between Law and Technology' (2018) 13(6) *European Food & Feed Law Review* 522

BEUC, 'Food Labels: Tricks of the Trade Our Recipe for Honest Labels in the EU' (BEUC 2018)

BEUC, 'Keeping Food in Check: A Snapshot of National Official Food Controls – and What This Means for Consumers' (BEUC 2019)

BFSA Ministry of Food, Govt. of Bangladesh Dhaka, 'Harmonization of Bangladesh's Food Safety Standards with Codex Standards and Other International Best Practices' (BFSA Ministry of Food, Govt of Bangladesh Dhaka 2019)

BFSN, 'About Bangladesh Food Safety Network (BFSN)' (5 November 2019) <<https://ubinig.org/index.php/campaigndetails/showArticle/33/96/english>> accessed 19 June 2024

Billa M and Mithu A, 'Is the Consumer Rights Body Overreaching with Mobile Court Raids?' *The Business Standard* (18 April 2023) <<https://www.tbsnews.net/features/panorama/consumer-rights-body-overreaching-mobile-court-raids-618662>> accessed 12 June 2024

Biswas C and others, 'Assessment of Heavy Metals in Farmed Shrimp, *Penaeus Monodon* Sampled from Khulna, Bangladesh: An Inimical to Food Safety Aspects' (2021) 7 *Heliyon* 1

Black J, 'Decentring Regulation: Understanding the Role of Regulation and Self-Regulation in a "Post-Regulatory" World' (2001) 54(1) *Current Legal Problems* 103

Blaha F and Katafono K, 'Blockchain Application in Seafood Value Chains' (FAO 2020) FAO Fisheries and Aquaculture Circular, no. 1207

Boer A, 'The Role of Scientific Evidence in European Food Assessments' in Ching-Fu Lin and Kuei-Jung Ni, *Food Safety and Technology Governance* (1st edn, Routledge 2023)

Bold T and others, 'Lemon Technologies and Adoption: Measurement, Theory and Evidence from Agricultural Markets in Uganda' (2017) 132(3) *The Quarterly Journal of Economics* 1055

Boller ML, Zurwehme A and Krupitzer C, 'Qualitative Assessment on the Chances and Limitations of Food Fraud Prevention through Distributed Ledger Technologies in the Organic Food Supply Chain' (2024) 158 *Food Control* 1

Börzel TA and Risse T, 'Governance without a State: Can It Work?' (2010) 4(2) *Regulation & Governance* 113

Bovens M, 'Two Concepts of Accountability: Accountability as a Virtue and as a Mechanism' (2010) 33(5) West European Politics 946

BRAC, 'Delayed Justice: How Long Is Too Long?' (BRAC, 29 October 2017) <<https://www.brac.net/program/delayed-justice-how-long-is-too-long/>> accessed 14 June 2024

Bradney A, 'Law as a Parasitic Discipline' (1998) 25(1) Journal of Law and Society 71

Brauw A and others, 'Food Systems for Healthier Diets in Bangladesh Towards a Research Agenda' (International Food Policy Research Institute and CGIAR 2019) IFPRI Discussion Paper 01902

Breitenbach R, Rodrigues H and Brandão JB, 'Whose Fault Is It? Fraud Scandal in the Milk Industry and Its Impact on Product Image and Consumption – The Case of Brazil' (2018) 108 Food Research International 475

Brennan C, 'Negligence: Duty of Care', Tort Law Directions (8th edn, Oxford University Press 2022)

Brennan C, 'Negligence: Duty of Care Problem Areas', Tort Law Directions (9th edn, Oxford University Press 2024)

Brennan J and others, 'Addressing Moral Confusion: Ethics Isn't Law' in Jason Brennan and others (eds), Business Ethics for Better Behaviour (Oxford University Press 2021)

Bridge MG, 'The Performance Obligations of Seller and Buyer in English Law' in MG Bridge (ed), The International Sale of Goods (4th edn, Oxford University Press 2017)

Bridge MG, The Sale of Goods (Oxford University Press 1998)

Broad Leib, Emily M.; Pollans, Margot J., 'The New Food Safety' (2019) 107 California Law Review 1173

Brouwer O, 'Free Movement of Foodstuffs and Quality Requirements: Has the Commission Got It Wrong' (1988) 25 Common Market Law Review 237

Brownsword R, 'Law, Authority, and Respect: Three Waves of Technological Disruption' (2022) 14 Law, Innovation and Technology 5

Brudner A, *The Unity of the Common Law* (2nd edn, Oxford University Press 2013)

BSS, 'Safe Food Consumption to Ensure Sound Health Underscored' BSS (Rajshahi, 7 June 2022) <<https://www.bssnews.net/district/65075>> accessed 19 June 2024

Buckland WW and McNair AD, Roman Law and Common Law (Cambridge University Press 1952)

Bukeviciute L, Dierx A and Ilzkovitz F, 'The Functioning of the Food Supply Chain and Its Effect on Food Prices in the European Union' (European Commission 2009) Occasional Papers 47

Búrca G de and Scott J, *Law and New Governance in the EU and the US* (Bloomsbury Publishing 2006)

Burke T, 'Blockchain in Food Traceability' in Jennifer McEntire and Andrew W Kennedy (eds), *Food Traceability: From Binders to Blockchain* (Springer International Publishing 2019)

Burt J, "'Shrinkflation,' Class Actions and Misrepresentation' (8 September 2023) <<https://www.mills-reeve.com/insights/blogs/food-and-agribusiness/september-2023/shrinkflation-class-actions-and-misrepresentation>> accessed 13 June 2024

Caballero-Anthony M, Teng P and Montesclaros JML, 'COVID-19 and Food Security in Asia: How Prepared Are We?' (2020) IN20-03

Cadieux B, Goodridge LD and Spink J, 'Gap Analysis of the Canadian Food Fraud Regulatory Oversight and Recommendations for Improvement' (2019) 102 *Food Control* 46

Calnan A, 'Torts as Systems' (2018) 28(2) *Southern California Interdisciplinary Law Journal* 301

Cane P, 'Justice and Justifications for Tort Liability' (1982) 2(1) *Oxford Journal of Legal Studies* 30

Capano G and Howlett M, *A Modern Guide to Public Policy* (Edward Elgar 2020)

Carpenter CE, 'The Doctrine of Res Ipsa Loquitur' (1934) 1(4) *University of Chicago Law Review* 519

Carson R, Dixon O and Harding J, 'U.S. Guide to Class Actions in Canada'

Cartwright P, 'The Vulnerable Consumer of Financial Services: Law, Policy and Regulation' (2011) <<https://www.nottingham.ac.uk/business/who-we-are/centres-and-institutes/gcbfi/documents/researchreports/paper78.pdf>> accessed 12 December 2024

Casey D, *The Changing Landscape of Food Governance: Public and Private Encounters* (Edward Elgar Publishing 2015)

Chachan S and others, 'Trends of Food Adulteration in Developing Countries and Its Remedies' in Mousumi Sen (ed), *Food Chemistry* (1st edn, Wiley 2021)

Chambers-Jones C, 'AI, Big Data, Quantum Computing, and Financial Exclusion: Tempering Enthusiasm and Offering a Human-Centric Approach to Policy' in A Lui and N Ryder (eds), *FinTech, Artificial Intelligence and the Law* (1st edn, Routledge 2021)

Chanda T and others, 'Adulteration of Raw Milk in the Rural Areas of Barisal District of Bangladesh' (2013) 41(2) *Bangladesh Journal of Animal Science* 112

Chandan MSK, "'If I Don't Enjoy Independence to Enforce the Law, I Shall Quit'" *The Daily Star* (14 June 2019) <<https://www.thedailystar.net/star-weekend/news/if-i-dont-enjoy-independence-enforce-the-law-i-shall-quit-1756384>> accessed 16 September 2024

Chang C-H and others, 'DNA Barcode Identification of Fish Products in Taiwan: Government-Commissioned Authentication Cases' (2016) 66 *Food Control* 38

Chapon J, 'Food Safety Standards: Is Bridging the International Divide Possible?' (Food Safety News, 9 November 2023) <<https://www.foodsafetynews.com/2023/11/food-safety-standards-is-bridging-the-international-divide-possible/>> accessed 17 July 2024

Charlebois S and others, 'Comparison of Global Food Traceability Regulations and Requirements' (2014) 13 Comprehensive Reviews in Food Science and Food Safety 1104

Chen-Wishart M, Loke A and Ong B, *Studies in the Contract Laws of Asia I: Remedies for Breach of Contract*, vol I (Oxford University Press 2016)

Chin Chin T and others, 'Detection of Mislabeled Seafood Products in Malaysia by DNA Barcoding: Improving Transparency in Food Market' (2016) 64 Food Control 247

Choudhury KB, 'Rampant Food Adulteration and Its Impacts' Daily Sun (2019) <<https://www.daily-sun.com/post/409855>> accessed 24 October 2023

Chowdhury AR, 'The Consumer Rights Protection Act 2009 in Bangladesh: Revisiting with Reformatory Approach' (2016) 2(1) Premier Critical Perspective 153

Chowdhury AR, 'The Food Safety Act of 2013: A Critical Analysis and Reform Proposals' (2018) 3(1) Premier Critical Perspective 21

Chowdhury M, 'Harmful Bromate and Iodate in Bread: Bakers Are "in the Dark"' Harmful bromate and iodate in bread: Bakers are 'in the dark' (10 September 2021) <<https://bdnews24.com/health/bakers-unsure-if-harmful-bromates-and-iodates-are-used-in-bread>> accessed 18 July 2024

Chowdhury OH, *The Contract Act (IX of 1872), with up-to-Date Amendments & Case-Law* (First edition, Dacca Law Reports Office 1975)

Chowdhury S and others, 'An Empirical Study on the Factors Affecting Organic Food Purchasing Behavior in Bangladesh: Analyzing a Few Factors' (2021) (4) Academy of Strategic Management Journal 1

Christensen T and Laegreid P, 'Regulatory Agencies—The Challenges of Balancing Agency Autonomy and Political Control' (2007) 20(3) Governance 499

Christie L and Mountcastle S, 'Food Fraud' <<https://post.parliament.uk/research-briefings/post-pn-0624/>> accessed 25 April 2024

Chun K and others, 'Trade Capacity Building Case Study: Bangladesh' (USAID 2022)

Code NY (State) C of the, *Draft of a Civil Code for the State of New York* (Weed, Parsons 1862)

Codling K and others, 'The Legislative Framework for Salt Iodization in Asia and the Pacific and Its Impact on Programme Implementation' (2017) 20(16) Public Health Nutrition 3008

Coll L and Riefa C, 'Exploring the Role of Technology in Consumer Law Enforcement' (2022) 34 Loyola Consumer Law Review 359

Collie R, 'Consumer Law: Yet More Regulatory Change on the Way?' (TLT Solicitors, 13 September 2023) <<https://www.tlt.com/insights-and-events/insight/consumer-law-yet-more-regulatory-change-on-the-way/>> accessed 13 June 2024

Commission AC and C, 'ACCC Court Action against Nudie Foods Australia Pty Ltd' (Australian Competition and Consumer Commission, 15 February 2008) <<https://www.accc.gov.au/media-release/accc-court-action-against-nudie-foods-australia-pty-ltd>> accessed 17 June 2024

Commission L, 'Sale and Supply of Goods: Report by the Law Commission and the Scottish Law Commission...' (1987) (Scot Law Com No 104) (Cmnd 137)

Commission of India L, 'Eighth Report - Sale of Goods Act, 1930' (1958) Law Commission Report 8

Compliance F, 'BFSA Publishes New Draft Labeling Regulation' (29 August 2023) <<https://foodcomplianceinternational.com/industry-insight/news/3676-bfsa-publishes-new-draft-labeling-regulation>> accessed 10 June 2024

Congressional Research Service, 'Class Action Lawsuits: A Legal Overview for the 115th Congress' (Congressional Research Service 2018) R45159

Congressional Research Service, 'Introduction to Tort Law' (2023) <<https://crsreports.congress.gov/product/pdf/IF/IF11291>> accessed 17 April 2024

Consumers International, 'CI Member Promotes Food Safety in Bangladesh' (Consumers International, 22 March 2015) <<https://www.consumersinternational.org/news-resources/news/releases/ci-member-promotes-food-safety-in-bangladesh/>> accessed 19 June 2024

Consumers International, 'How Consumer Organisations Can Contribute to Sustainable Food Systems' (Consumers International) <<https://www.consumersinternational.org/media/314552/how-consumer-organisations-can-contribute-to-more-sustainable-food-systems.pdf>> accessed 19 June 2024

Contreras JL, *The Cambridge Handbook of Technical Standardization Law: Further Intersections of Public and Private Law* (1st edn, Cambridge University Press 2019)

Cooper T, 'The Value of Longevity: Product Quality and Sustainable Consumption' (Global Research Forum on Sustainable Production and Consumption, Rio de Janeiro 2012)

Cooter R and Ullen T, 'An Economic Theory of Contract Law', *Law & Economics* (6th edn, Pearson 2011)

Correspondent S, '10 Firms Sued over Harmful Substances in Milk' *The Daily Star* (25 July 2019) <<https://www.thedailystar.net/frontpage/milk-adulteration-in-bangladesh-10-firms-sued-by-food-safety-authority-1776541>> accessed 28 January 2024

Correspondent S, '31 Tons of Dates Seized from Narayanganj Cold Storage' Dhaka Tribune (12 March 2024) <<https://www.dhakatribune.com/bangladesh/crime/341669/31-tons-of-dates-seized-from-cold-storage-in>> accessed 12 June 2024

Correspondent S, 'BFSA Holds Safe Iftar for All Campaign' Business Post BD (22 April 2022) <<https://businesspostbd.com/news/2022-04-22/bfsa-holds-safe-iftar-for-all-campaign-2022-04-22>> accessed 19 June 2024

Correspondent S, 'BSTI Facing Criticism for Soliciting Public Opinion on Energy Drinks' Dhaka Tribune (28 July 2018) <<https://www.dhakatribune.com/bangladesh/144457/bsti-facing-criticism-for-soliciting-%E2%80%98public>> accessed 18 July 2024

Correspondent S, 'BSTI Prosecutes Sweets Makers Alibaba, Muslim for Selling Yogurt without Licence' BD News 24 (15 May 2019) <<https://bdnews24.com/bangladesh/bsti-prosecutes-sweets-makers-alibaba-muslim-for-selling-yogurt-without-licence>> accessed 12 June 2024

Correspondent S, 'Cabinet Clears New Law on Ensuring Food Safety' Dhaka Tribune (Dhaka, 10 April 2023) <<https://www.dhakatribune.com/bangladesh/308707/cabinet-clears-new-law-on-ensuring-food-safety>> accessed 16 January 2024

Correspondent S, 'Case Backlog Caught in Warp of Inaction on Several Fronts' New Age (14 June 2024) <<https://www.newagebd.net/post/editorial/234652/case-backlog-caught-in-warp-of-inaction-on-several-fronts>> accessed 14 June 2024

Correspondent S, 'DNCRP Fines 79 Shops, Outlets for Adulteration' Bangladesh Sangbad Sangstha (BSS) (21 October 2019) <<https://wp.bssnews.net/?p=290513>> accessed 12 June 2024

Correspondent S, 'DNCRP Fines RU Shop for Selling Expired Food' The Financial Express (24 April 2018) <<https://thefinancialexpress.com.bd/national/crime/dncrp-fines-ru-shop-for-selling-expired-food-1524582278>> accessed 12 June 2024

Correspondent S, 'Food Safety Guidelines for Fresh Vegetables, Fruits Export to Europe Launched' Daily Sun (6 September 2022) <<https://www.daily-sun.com/printversion/details/647005>> accessed 31 July 2024

Correspondent S, 'Food Safety Must Be Ensured, Consumer Rights Protected' New Age (18 April 2022) <<https://www.newagebd.net/article/168354/food-safety-must-be-ensured-consumer-rights-protected>> accessed 18 June 2024

Correspondent S, 'HC Summons BFSA Chairman for Not Recalling 52 Products' Dhaka Tribune <<https://www.dhakatribune.com/bangladesh/court/177696/hc-summons-bfsa-chairman-for-not-recalling-52>> accessed 31 July 2024

Correspondent S, 'New Tests Find Lead in Milk' The Daily Star (17 July 2019) <<https://www.thedailystar.net/frontpage/bangladesh-food-safety-authority-new-tests-find-lead-milk-1772533>> accessed 29 January 2024

Correspondent S, 'Removal of 52 Food Items: HC Rebukes Food Authority for Inaction' The Daily Star (24 May 2019) <<https://www.thedailystar.net/frontpage/news/removal-52-food-items-hc-rebukes-food-authority-inaction-1748110>> accessed 16 September 2024

Correspondent S, 'Use of Chemicals in Fruits: Recent Drives Draw Flak' The Daily Star (24 May 2018) <<https://www.thedailystar.net/backpage/use-chemicals-fruits-recent-drives-draw-flak-1580713>> accessed 19 July 2024

Cotterrell R, 'A Socio-Legal Quest: From Jurisprudence to Sociology of Law and Back Again' (2023) 50(1) *Journal of Law and Society* 3

Cotterrell R, 'Why Must Legal Ideas Be Interpreted Sociologically?' (1998) 25 *Journal of Law and Society* 171

Cotterrell R, *Law, Culture and Society: Legal Ideas in the Mirror of Social Theory* (1st edn, Routledge 2017)

Cranston R, *Regulating Business* (Palgrave Macmillan UK 1979)

Creutzfeldt N, Mason M and McConnachie K, *Routledge Handbook of Socio-Legal Theory and Methods* (1st edn, Routledge 2019)

Creydt M and Fischer M, 'Blockchain and More - Algorithm Driven Food Traceability' (2019) 105 *Food Control* 45

Croall H, 'Food Crime', *Routledge International Handbook of Green Criminology* (Taylor & Francis 2013)

Croft J, 'UK Moves Closer to US-Style Class Actions' *Financial Times* (3 July 2022) <<https://www.ft.com/content/97df2830-1008-49f1-a3e7-5c0d818a545c>> accessed 13 June 2024

Cruse C, 'Food Fraud and the Food, Drug, and Cosmetic Act: Bridging a Disconnect' (2019) 74(2) *Food and Drug Law Journal* 322

D'Alessio A, 'The Second Slice of the Cake Liability for Defective Food Products between Tradition and Innovation' in Salvatore Mancuso, *Law and Food: Regulatory Recipes of Culinary Issues* (1st edn, Routledge 2021)

Dal Bó E, 'Regulatory Capture: A Review' (2006) 22(2) *Oxford Review of Economic Policy* 203

Dao T, 'Bangladesh Government Grants Permission for Vannamei Pilot Farms' (SeafoodSource, 2020) <<https://www.seafoodsource.com/news/aquaculture/bangladesh-government-grants-permission-for-vannamei-pilot-farms>> accessed 28 January 2024

Dave S, 'Ensuring Food Safety in Bangladesh' *Dhaka Tribune* (10 February 2024) <<https://www.dhakatribune.com/opinion/op-ed/339056/ensuring-food-safety-in-bangladesh>> accessed 17 July 2024

Dawkins KE, 'Recent Developments in the Law: Commercial Law' [1972] *Otago Law Review* 482

Dawson D, 'Blockchain Technology Coming to Olive Oil, Someday' (Olive Oil Times, 26 February 2018) <<https://www.oliveoiltimes.com/world/blockchain-technology-coming-olive-oil-someday/62301>> accessed 28 January 2024

Day J, 'The Rise of US-Style Class Actions in the UK and Europe' (Jones Day 2023) White Paper

de Boer A, 'Scientific Assessments in European Food Law: Making It Future-Proof' (2019) 108 *Regulatory Toxicology and Pharmacology* 1

de Bruijn (Niels) CJ, 'Historical Perspectives on the Remedies' in ALM Keirse and MBM Loos (eds), *Alternative Ways to Ius Commune* (Intersentia 2012)

Deakin S and Adams Z, 'Establishing Liability in Principle: Duty of Care', Markesinis & Deakin's *Tort Law* (8th edn, Oxford University Press 2019)

Deakin S and Adams Z, 'Product Liability', Markesinis & Deakin's *Tort Law* (8th edn, Oxford University Press 2019)

Decolonising Law in the Post-Colony: Colonial Laws and Social Change (Directed by South Asia Centre LSE, 2020) <<https://www.youtube.com/watch?v=VeeMmBJT4fg>> accessed 22 April 2024

Denis A and Fishman K-F, *The ISA Handbook in Contemporary Sociology: Conflict, Competition, Cooperation* (1st edn, Sage 2009)

Department for Environment, Food & Rural Affairs, Food Standards Agency (DEFRA UK), British Standards Institution, 'PAS 96:2017 Guide to Protecting and Defending Food and Drink from Deliberate Attack' (British Standards Institution 2017)

Department of Fisheries, 'Yearbook of Fisheries Statistics of Bangladesh 2016-17' (Department of Fisheries, Bangladesh: Ministry of Fisheries and Livestock 2020) 36

Department of Livestock Services (DLS, 'Food Safety and Food Hygiene: Bangladesh and Global Context' (2023)

Desk N, 'Adulteration in 52 Food Items' *The Asian Age* (10 May 2019) <<http://dailyasianage.com/news/177072/?regenerate>> accessed 19 July 2024

Desk SB, 'Bangladesh, Netherlands Joint Initiative to Ensure Healthy Food' *The Daily Star* (14 May 2024) <<https://www.thedailystar.net/business/organisation-news/news/bangladesh-netherlands-joint-initiative-ensure-healthy-food-3610071>> accessed 31 July 2024

Desk SO, 'High Court Seeks List of Companies Involved in Milk Adulteration' *Daily Sun* (8 May 2019) <<https://www.daily-sun.com/post/390819>> accessed 18 July 2024

Desk T, 'USAID's New Reports Help Food Exporters Meet International Standards' *Dhaka Tribune* (11 April 2023) <<https://www.dhakatribune.com/business/283365/usaids-new-reports-help-food-exporters-meet>> accessed 1 August 2024

Desk T, 'Who Is Poisoning Our Milk Products?' Dhaka Tribune (8 May 2019) <<https://www.dhakatribune.com/bangladesh/court/176318/who-is-poisoning-our-milk-products>> accessed 18 July 2024

Detwiler D, 'Food Fraud and Food Defense: Food Adulteration Law and the Sustainable Development Goals (SDGs)', Food System Transparency Law, Science and Policy of Food and Agriculture (CRC Press 2021)

Devaney L, 'Good Governance? Perceptions of Accountability, Transparency and Effectiveness in Irish Food Risk Governance' (2016) 62 Food Policy 1

DNI, 'Five-Year Regional Outlook South Asia' (Office of the Director of National Intelligence 2021) NIC-2021-02484 <https://www.dni.gov/files/images/globalTrends/GT2040/GT2040-5-YR-Regional-2021317-South_Asia.pdf> accessed 22 April 2024

Do TD and others, 'Assessment of Marine Fish Mislabeling in South Korea's Markets by DNA Barcoding' (2019) 100 Food Control 53

Downey G, Advances in Food Authenticity Testing - Google Books (Woodhead Publishing 2016)

Drew CA and Clydesdale FM, 'New Food Safety Law: Effectiveness on the Ground' (2015) 55 Critical Reviews in Food Science and Nutrition 689

Duchene T and others, 'Honey Adulteration and the Precarity of the U.S. Beekeeper' (On Food Law, 24 May 2021) <<https://onfoodlaw.org/2021/05/24/honey-adulteration-and-the-precary-of-the-u-s-beekeeper/>> accessed 11 June 2024

Dudeja P and Singh A, Food Safety in the 21st Century (Rajul Kumar Gupta, Dudeja, and Singh Minhas eds, Academic Press 2017)

Duncan J and Claeys P, 'Politicizing Food Security Governance through Participation: Opportunities and Opposition' (2018) 10 Food Security 1411

Dutfield G and Suthersanen U, 'Responding to the Global Food Fraud Crisis: What Is the Role of Intellectual Property and Trade Law?' in Giuliana Ziccardi Capaldo, The Global Community Yearbook of International Law and Jurisprudence (Oxford University Press 2021)

Eagle J, 'Brazilian Dairy Boosts Sales with SIG's QR Connected Pack' (Daily Reporter, 26 July 2018) <<https://www.dairyreporter.com/Article/2018/07/26/Brazilian-dairy-boosts-sales-with-SIG-s-QR-connected-pack>> accessed 9 August 2024

Ebers M, 'Legal Tech and EU Consumer Law' in André Janssen and others (eds), The Cambridge Handbook of Lawyering in the Digital Age (1st edn, Cambridge University Press 2021)

Editor, 'Digital Transformation in Justice System in Bangladesh' The Daily Star (7 July 2022) <<https://www.thedailystar.net/round-tables/news/digital-transformation-justice-system-bangladesh-3065971>> accessed 17 June 2024

Editor, 'DNCRP Drives in Fake Animal Feed Factory in Kishoreganj, Fined' Daily Country Today (1 April 2024) <<https://dailycountrytodaybd.com/story/dncrp-drives-in-fake-animal-feed-factory-in-kishoreganj,-fined>> accessed 12 June 2024

Ehmke MD and others, 'Food Fraud: Economic Insights into the Dark Side of Incentives' (2019) 63(4) Australian Journal of Agricultural and Resource Economics 685

Eisenberg MA, 'Third Party Beneficiaries' (1992) 92 Colum L. Rev 1358

Elliot C and Quinn F, Tort Law (7th edn, Pearson 2009)

Elliott C, 'Elliott Review into the Integrity and Assurance of Food Supply Networks: Final Report' (2014) <<https://www.gov.uk/government/publications/elliott-review-into-the-integrity-and-assurance-of-food-supply-networks-final-report>> accessed 31 December 2023

Ellul J and others, A Pragmatic Approach to Regulating Artificial Intelligence: A Technology Regulator's Perspective (2021)

Ervine W, 'Satisfactory Quality: What Does It Mean?' (2004) 684 Journal of Business Law 1

European Anti-Fraud Office, '(No) Sugar for My Honey: OLAF Investigates Honey Fraud - European Commission' <https://anti-fraud.ec.europa.eu/media-corner/news/no-sugar-my-honey-olaf-investigates-honey-fraud-2023-03-23_en> accessed 23 April 2024

European Commission, 'The Refit Evaluation of the General Food Law (Regulation (EC) No 178/2002)' (European Commission 2018) Commission Staff Working Document {SWD (2018) 37 final}

European Commission. Directorate General for Research and Innovation., Food 2030: Pathways for Action 2.0: R&I Policy as a Driver for Sustainable, Healthy, Climate Resilient and Inclusive Food Systems. (Publications Office 2023)

<<https://data.europa.eu/doi/10.2777/365011>> accessed 27 January 2024

Evershed R and Temple N, Sorting the Beef from the Bull: The Science of Food Fraud Forensics (1st edn, Bloomsbury Publishing 2017)

Everstine K, Spink J and Kennedy S, 'Economically Motivated Adulteration (EMA) of Food: Common Characteristics of EMA Incidents' (2013) 76(4) Journal of Food Protection 723

Ewick P and Silbey S, The Common Place of Law (University of Chicago Press 1998)

F Martha, 'The Vulnerable Subject and the Responsive State' (2010) 60 Emory Law Journal 251

F T Zohra and Uddin MM, 'Economic Reasons behind Adulteration Issues in Fish Supply Chain in Bangladesh' XXXVII Journal of Business Studies 145

Fairclough G, 'Tainting of Milk Is Open Secret in China' Wall Street Journal (4 November 2008) <<https://www.wsj.com/articles/SB122567367498791713>> accessed 23 April 2024

FAO and WHO, 'The Future of Food Safety: Transforming Knowledge into Action for People, Economies and the Environment' (Food and Agriculture Organisation of the United Nations World Health Organisation 2020) Technical summary by FAO and WHO

FAO in Bangladesh, 'Huge Pile of Toxic Pesticide DDT Cleared after Nearly Four Decades' <<https://www.fao.org/bangladesh/news/detail-events/en/c/1623736/>> accessed 17 January 2024

FAO, 'Codex Committee on Food Labelling (CCFL)' <<https://www.fao.org/fao-who-codexalimentarius/committees/committee/en/?committee=CCFL>> accessed 11 June 2024

FAO, 'Evaluation of the Project "Institutionalisation of Food Safety in Bangladesh for Safer Food"' (FAO 2022) Project Evaluation Series, 05/2022

FAO, 'Food Industry Experts Debate the Challenges of Food Safety in Bangladesh World Food Safety Day Event' (Codex Alimentarius, 6 2023) <<https://www.fao.org/fao-who-codexalimentarius/news-and-events/news-details/en/c/1641913/>> accessed 19 June 2024

FAO, 'Food Security' (Food and Agricultural Organisation 2006) Policy Brief Issue 2

FAO, 'Food Traceability Guidance' (2017)

FAO, 'Without Food Safety There Can Be No Right to Food' (7 June 2023) <<https://www.fao.org/right-to-food/news/news-detail/en/c/1641729/>> accessed 10 June 2024

FAO, Food Fraud – Intention, Detection and Management: Food Safety Technical Toolkit for Asia and the Pacific (FAO 2021)

FAO, Thinking about the Future of Food Safety: A Foresight Report (FAO 2022)

Farid C, 'New Paths to Justice: A Tale of Social Justice Lawyering in Bangladesh' (2013) 31 Wisconsin International Law Journal 421

Fassam L and Dani S, 'A Conceptual Understanding of Criminality and Integrity Challenges in Food Supply Chains' (2017) 119(1) British Food Journal 67

FDA, 'FY22/23 Sample Collection and Analysis of Imported Honey for Economically Motivated Adulteration' (FDA, 2024) <<https://www.fda.gov/food/economically-motivated-adulteration-food-fraud/fy2223-sample-collection-and-analysis-imported-honey-economically-motivated-adulteration>> accessed 11 June 2024

Fede A, 'Legal Protection for Slave Buyers in the U. S. South: A Caveat Concerning Caveat Emptor' (1987) 31 The American Journal of Legal History 322

Ferdous J and others, 'Mapping of Dressed and Processed Poultry Products in Bangladesh: Identifying the Food Safety Risks for Policy Intervention' (2023) 47 Veterinary Research Communications 1991

Ferrari M, Risk Perception, Culture, and Legal Change: A Comparative Study on Food Safety in the Wake of the Mad Cow Crisis (Routledge 2016)

Filippi PD and Wright A, Blockchain and the Law (Harvard University Press 2018)

Finck M, Blockchain Regulation and Governance in Europe (Cambridge University Press 2018)

Fineman MA, 'The Vulnerable Subject: Anchoring Equality in the Human Condition' (2008) 20 Yale Journal of Law & Feminism 1

Fletcher R, 'Blockchain Set for Bangladesh Aquaculture Launch' (The Fish Site, 11 September 2020) <<https://thefishsite.com/articles/blockchain-set-for-bangladesh-aquaculture-launch>> accessed 28 January 2024

Food and Agriculture Organisation of the United Nations, 'Bangladesh Takes a Big Step towards International Food Standards' (FAO in Bangladesh, 03 2023) <<https://www.fao.org/bangladesh/news/detail-events/en/c/1635207/>> accessed 23 July 2024

Food and Agriculture Organisation of the United Nations, 'Handbook on Food Labelling to Protect Consumers' (FAO 2016)

Food Planning and Monitoring Unit (FPMU) Ministry of Food, Government of the People's Republic of Bangladesh, 'Bangladesh National Food and Nutrition Security Policy (NFNSP) Plan of Action (PoA) and Bangladesh Third Country Investment Plan- CIP3 (2021-2025): Monitoring Report 2023' (Food Planning and Monitoring Unit (FPMU) Ministry of Food, Government of the People's Republic of Bangladesh 2023)

Food Planning and Monitoring Unit (FPMU), 'National Food and Nutrition Security Policy Plan of Action (2021-2030)' (Food Planning and Monitoring Unit (FPMU) 2021)

Food Standards Agency, "'Vulnerable" Consumers and Food Safety Paper Safety Paper 3 Food and You Waves 1-3 Secondary Analysis' (Food Standards Agency 2016) Unit Report 2016/04.3

Food Standards Agency, 'Key Regulations' (2024) <<https://www.food.gov.uk/about-us/key-regulations>> accessed 29 January 2024

Food Standards Australia New Zealand, 'Food Standards Code Legislation' (10 January 2024) <<https://www.foodstandards.gov.au/food-standards-code/legislation>> accessed 16 January 2024

Foras E and others, 'State of Traceability in the Norwegian Food Sectors' (2015) 57 Food Control 65

Forsyth J and others, 'Food Safety Policy Enforcement and Associated Actions Reduce Turmeric Lead Chromate Adulteration Across Bangladesh' (2023) 232(1) Environmental Research 1

Forsyth J and others, 'Turmeric Means "Yellow" in Bengali: Lead Chromate Pigments Added to Turmeric Threaten Public Health across Bangladesh' (2019) 179(A) Environmental Research 1

Fortin ND, Food Regulation: Law, Science, Policy and Practice (1st edn, Wiley)

Fowler MD, 'Linking the Public Benefit to the Corporation: Blockchain as a Solution for Certification in an Age of Do-Good Business' (2017) 20 Vanderbilt Journal of Entertainment & Technology Law 881

Fox D and others, 'Seller's Obligations as to Quality' in D Fox and others, Sealy and Hooley's Commercial Law (Oxford University Press 2020)

Francis M, 'FAIRS Annual Country Report' (United States Department of Agriculture 2023) BG2023-0014

FSA, 'Our Food 2022 - An Annual Review of Food Standards across the UK' (Food Standards Agency 2023) HC 1859 SG/2023/139

FSANZ, 'Food Standards Australia New Zealand' (8 December 2023) <<https://www.foodstandards.gov.au/about-us>> accessed 16 January 2024

Furmston MP, 'Historical Introduction', Cheshire, Fifoot, and Furmston's Law of Contract (Oxford University Press 2017)

Galvez JF, Mejuto JC and Simal-Gandara J, 'Future Challenges on the Use of Blockchain for Food Traceability Analysis' (2018) 107 TrAC Trends in Analytical Chemistry 222

Garcia Martinez M and others, 'Co-Regulation as a Possible Model for Food Safety Governance: Opportunities for Public–Private Partnerships' (2007) 32(3) Food Policy 299

Gardazi SMF, Iqbal MA and Arif MA, 'The Inception of Caveat Venditor Doctrine in Sales Law of Pakistan from an Islamic Perception' (2022) 4(2) Research Journal Al-Meezan 1

Gardner S, 'Consumers and Food Safety: A Food Industry Perspective' <<https://www.fao.org/3/v2890t/v2890t05.htm>> accessed 27 January 2024

Gaur RM and Khan A, 'An Analysis on the Existing Food Laws in India with Special Reference to the Food Safety and Standards Act, 2006 (FSSAI)' (2022) 17(6) European Food & Feed Law Review 414

George JP, 'Parallel Litigation' (1999) 51 Baylor Law Review 769

Ghazi-Tehrani AK and Pontell HN, 'Corporate Crime and State Legitimacy: The 2008 Chinese Melamine Milk Scandal' (2015) 63 Crime, Law and Social Change 247

Giacalone M, Abignente I and Salehi SS, 'Small in Value, Important in Essence: Lessons Learnt from a Decade of Implementing the European Small Claims Procedure in Italy and Belgium' (2021) 17(2) Journal of Private International Law 308

Giannakas K and Yiannaka A, 'Food Fraud: Causes, Consequences, and Deterrence Strategies' (2023) 15(1) Annual Review of Resource Economics 85

Gilardi F, 'Policy Credibility and Delegation to Independent Regulatory Agencies: A Comparative Empirical Analysis' (2002) 9(6) Journal of European Public Policy 873

Gilardi F, 'The Institutional Foundations of Regulatory Capitalism: The Diffusion of Independent Regulatory Agencies in Western Europe' (2005) 598 The Annals of the American Academy of Political and Social Science 84

Gilboa M, 'Multiple Reasonable Behaviors Cases: The Problem of Causal Underdetermination in Tort Law' (2019) 25(2) Legal Theory 77

Gilead I, 'Non-Consensual Liability of a Contracting Party: Contract, Negligence, Both, or In-Between?' (2002) 3 Theoretical Inquiries in Law 511

Gill M, Hasan M and Feed the Future Policy LINK, 'Bringing Everyone to the Table to Strengthen Food Safety Policy in Bangladesh' (Agrilinks, 10 June 2024) <<https://agrilinks.org/post/bringing-everyone-table-strengthen-food-safety-policy-bangladesh>> accessed 19 June 2024

Gizaw Z, 'Public Health Risks Related to Food Safety Issues in the Food Market: A Systematic Literature Review' (2019) 24 Environmental Health and Preventive Medicine 1

Glamann J and others, 'The Intersection of Food Security and Biodiversity Conservation: A Review' (2017) 17 Regional Environmental Change 1303

Golan E and others, 'Economics of Food Labeling' (2001) 24(2) Journal of Consumer Policy 117

Goldberg J and Zipursky B, 'The Easy Case for Products Liability Law: A Response to Professors Polinsky and Shavell' (2010) 123(8) Harvard Law Review 1919

Goldberg J and Zipursky B, 'Tort Law and Moral Luck' (2007) 92(6) Cornell Law Review 1123

Goldberg JCP and Zipursky BC, Recognizing Wrongs (Harvard University Press 2020)

Goldman KA, 'Labeling of Genetically Modified Foods: Legal and Scientific Issues' (1999) 12 Georgetown International Environmental Law Review 717

Gomez J and Briseida S, 'Risks of Blockchain for Data Protection: A European Approach' (2020) 36(3) Santa Clara High Technology Law Journal 281

Goode RM and McKendrick E, Goode and McKendrick on Commercial Law (6th edn, Penguin Books 2020)

Goodman A-L, 'A "Natural" Stand Off Between the Food and Drug Administration and the Courts: The Rise in Food-Labeling Litigation & the Need for Regulatory Reform' (2019) 60(1) Boston College Law Review 271

Goodwin D, 'Foreign Body Contamination Implications for Food Manufacturing' (New Food Magazine) <<https://www.newfoodmagazine.com/article/13789/foreign-body-contamination-and-the-implications-for-the-food-manufacturing-sector/>> accessed 25 April 2024

Gostin L and others, 'The Legal Determinants of Health: Harnessing the Power of Law for Global Health and Sustainable Development' (2019) 393(10183) Georgetown Law Faculty Publications and Other Works 1857

Government of the People's Republic of Bangladesh, 'Eighth Five Year Plan (2020-2025)' <<https://oldweb.lged.gov.bd/UploadedDocument/UnitPublication/1/1166/8FYP.pdf>> accessed 17 July 2024

Grace D, 'Food Safety Metrics Relevant to Low- and Middle-Income Countries' (Agriculture, Nutrition & Health Academy 2018) Working Paper

Graham C, 'Improving Courts and ADR to Help Vulnerable Consumers Access Justice', Vulnerable Consumers and the Law (1st edn, Routledge 2020)

Gray I, 'Public Meeting: Requirements for Additional Traceability Records for Certain Foods: Proposed Rule' (US Food and Drug Administration (FDA) 2020) Docket No. FDA-2014-N-0053

Gupta SK, Tiwary A and Gupta N, Business Law (Rajeev Bansal 2021)

Gussow KE and Mariët A, 'Fault Lines of Food Fraud: Key Issues in Research and Policy' (2022) 78 Crime, Law and Social Change 577

Gussow KE and Mariët A, 'The Scope of Food Fraud Revisited' 78 Crime, Law and Social Change 621

Gussow KE, 'Finding Food Fraud: Explaining the Detection of Food Fraud in the Netherlands' (PhD Thesis, Vrije Universiteit Amsterdam 2020)

Gwenzi W and others, 'Chicanery in the Food Supply Chain! Food Fraud, Mitigation, and Research Needs in Low-Income Countries' (2023) 136 Trends in Food Science & Technology 194

Habib MA and others, 'Commercially Available Iodised Salts in Noakhali, Bangladesh: Estimation of Iodine Content, Stability, and Consumer Satisfaction Level' (2023) 2 Food Chemistry Advances 1

Hackett R, 'Walmart and 9 Food Giants Team Up on Blockchain Plans' (Fortune, 22 August 2017) <<https://fortune.com/2017/08/22/walmart-blockchain-ibm-food-nestle-unilever-tyson-dole/>> accessed 28 January 2024

Haider N, 'Development of the Laws of Tortious Liability in Bangladesh' (2022) 32 Dhaka University Law Journal 196

Haider N, 'No Escape from the Spree of Adulteration' The Financial Express (24 December 2022) <<https://today.thefinancialexpress.com.bd/features-analysis/no-escape-from-the-spree-of-adulteration-1671811809>> accessed 10 June 2024

Halder S, 'Harmful Sodium Compound Found in Molasses' The Daily Star (25 December 2022) <<https://www.thedailystar.net/news/bangladesh/news/harmful-sodium-compound-found-molasses-3204446>> accessed 18 July 2024

Halperin J-L, 'Law in Books and Law in Action: The Problem of Legal Change' (2011) 64 Maine Law Review 45

Hamilton WH, 'The Ancient Maxim Caveat Emptor' (1931) 40 Yale Law Journal 1133

Han Y, 'A Legislative Reform for the Food Safety System of China: A Regulatory Paradigm Shift and Collaborative Governance' (2015) 70(3) Food and Drug Law Journal 453

Handel LE, 'A Practitioner's Guide to Defending "Natural" Food Labelling Litigation' (2015) 7(2) Kentucky Journal of Equine, Agriculture, & Natural Resources Law 255

Harrington J, Series L and Ruck-Keene A, 'Law and Rhetoric: Critical Possibilities' (2019) 46(2) Journal of Law and Society 302

Harris J and others, 'A "Right to Nutrition" in Its Social, Legal, and Political Context: How International Human Rights Translate to Zambian Realities' (2022) 14(3) *Journal of Human Rights Practice* 879

Hassan M and Rupa F, 'Digitalization of Bangladesh Judiciary and Access to Justice' (2021) 3(3) *Asian Journal of Social Sciences and Legal Studies* 49

Hatch P, 'There's No Way to Be Sure Honey Isn't Fake, Says ACCC' *The Sydney Morning Herald* (2018) <<https://www.smh.com.au/business/consumer-affairs/there-s-no-way-to-be-sure-honey-isn-t-fake-says-acc-20181116-p50gk0.html>> accessed 30 January 2024

Havinga T and others, 'Regulation of Food Safety in the EU: Explaining Organisational Diversity among Member States' in Gabriele Abels and Alexander Kobusch, *The Changing Landscape of Food Governance* (Edward Elgar 2015)

Havinga T, 'Private Food Safety Standards in the EU' in Harry Bremmers and Kai Purnhagen (eds), *Regulating and Managing Food Safety in the EU: A Legal-Economic Perspective* (Springer International Publishing 2018)

Havinga T, 'The Influence of Liability Law on Food Safety on Preventive Effects of Liability Claims and Liability Insurance' (2012) *Nijmegen Sociology of Law Working Papers Series* 2010/02

Henderson B, 'FAO Evaluates Food Safety in Bangladesh' [2022] *Food Safety Magazine* <<https://www.food-safety.com/articles/7768-fao-evaluates-food-safety-in-bangladesh>> accessed 19 June 2024

Hennessy M, 'Slowdown in Natural Claims "Inevitable", Say Market Researchers' (foodnavigator-usa.com, 18 August 2014) <<https://www.foodnavigator-usa.com/Article/2014/08/19/Mintel-Datamonitor-Slowdown-in-natural-claims-inevitable>> accessed 13 June 2024

Henry J-P and others, 'Is the Door Re-Opening for US-Style Class Actions in England and Wales?' (DLA Piper, 16 March 2023) <<https://www.dlapiper.com/en/insights/publications/2023/03/is-the-door-reopening-for-usstyle-class-actions-in-england-and-wales>> accessed 13 June 2024

Herbener J, 'Ludwig von Mises and the Austrian School of Economics' (1991) 5 *The Review of Austrian Economics* 33

Herens M, 'Improving Dhaka's Food System' (WUR, 15 October 2019) <<https://www.wur.nl/en/research-results/research-institutes/centre-for-development-innovation/show-cdi/improving-dhakas-food-system.htm>> accessed 18 June 2024

Hines T and Murphy L, 'Combatting Food Fraud with Due Diligence' (2016) 25(8) *World Food Regulation Review* 3

Hobbs JE and Goddard E, 'Consumers and Trust' (2015) 52 *Food Policy* 71

Hobbs JE, Khorana S and Yeung MT, 'Moving beyond Least Developed Country Status: Challenges to Diversifying Bangladesh's Seafood Exports' (2023) 27(3) *Aquaculture Economics & Management* 498

Hobill S and Sanderson J, 'Not Free to Roam: Misleading Food Credence Claims, the ACCC and the Need for Corporate Social Responsibility' (2017) 43(1) *Monash University Law Review* 114

Hoffmann V, Moser C and Saak A, 'Food Safety in Low and Middle-Income Countries: The Evidence through an Economic Lens' (2019) 123 *World Development* 1

Holmes OW, *The Common Law* (Boston: Little, Brown 1881)

Holtkamp N, Liu P and McGuire W, 'Regional Patterns of Food Safety in China: What Can We Learn from Media Data?' (2014) 30 *China Economic Review* 459

Hong E and others, 'Modern Analytical Methods for the Detection of Food Fraud and Adulteration by Food Category' (2017) 97(12) *Journal of the Science of Food and Agriculture* 3877

Hoque MdS and others, 'Quantitative Risk Assessment for Formalin Treatment in Fish Preservation: Food Safety Concern in Local Market of Bangladesh' (2016) 6 *Procedia Food Science* 151

Hoque MdS and others, 'Quantitative Risk Assessment for Formalin Treatment in Fish Preservation: Food Safety Concern in Local Market of Bangladesh' (2016) 6 *Procedia Food Science* 151

Hoque MZ and others, 'Consumers' Preferences for the Traceability Information of Seafood Safety' (2022) 11(2) *Foods* 1

Hoque MZ and Myrland Ø, 'Consumer Preference for Fish Safety Inspection in Bangladesh' (2022) 551 *Aquaculture* 737911

Hoque MZ and others, 'Consumers' Preferences for the Traceability Information of Seafood Safety' (2022) 11(2) *Foods* 1

Hoque MZ, Alam MN and Nahid KA, 'Health Consciousness and Its Effect on Perceived Knowledge, and Belief in the Purchase Intent of Liquid Milk: Consumer Insights from an Emerging Market' (2018) 7 *Foods* 150

Horsley K and Rackley E, 'Breach of Duty: The Standard of Care' in Kirsty Horsley and Erika Rackley, *Tort Law* (8th edn, Oxford University Press 2023)

Horsley K and Rackley E, 'Product Liability' in Kirsty Horsley and Erika Rackley, *Tort Law* (8th edn, Oxford University Press 2023)

Hossain A and others, 'The Role of Private Companies in Improving Nutrition of Consumer Groups in a Developing Country: A Hedonic Analysis of Tilapia Attributes in Bangladesh' (2022) 34 *Journal of Applied Aquaculture* 598

Hossain CF, 'Contract Fraud And Its Consequences In Bangladesh - White Collar Crime,

Hossain E, 'BSTI Destroys Evidence, Frames Innocents: Court' New Age (21 January 2020) <<https://www.newagebd.net/article/97234/bsti-destroys-evidence-frames-innocents-cou>> accessed 27 April 2024

Hossain E, 'Food Safety Drive in Bangladesh Falts as Big Violators Go Scot-Free' New Age (19 July 2024) <<https://www.newagebd.net/article/97543/campaign-grinds-to-a-halt-as-big-violators-go-unpunished>> accessed 19 July 2024

Hossain E, 'Law Gives BSTI Limited Jurisdiction: Muazzem Hossain' New Age (24 January 2020) <<https://www.newagebd.net/article/97541/law-gives-bsti-limited-jurisdiction-muazzem-hossain>> accessed 18 July 2024

Hossain E, 'Unregulated Products Rule Markets in Bangladesh' New Age (22 March 2021) <<https://www.newagebd.net/article/133376/unregulated-products-rule-markets-in-bangladesh>> accessed 12 June 2024

Hossain KZ, Xue J and Rabbany MG, 'Consumers' Willingness to Pay for GLOBALG.A.P. Certified Chicken: Empirical Evidence from a Consumer Survey in Bangladesh' (2021) 130 Food Control 1

Hossain M, 'Separation of Judiciary in Bangladesh-Constitutional Mandates and Masdar Hossain Case's Directions: A Post Separation Evaluation' (2020) 11 International Journal for Court Administration 1

Hossain MdM and Islam KMZ, 'Consumption of Foods and Foodstuffs Processed with Hazardous Chemicals: A Case Study of Bangladesh' (2008) 32(6) International Journal of Consumer Studies 588

Hossain ME, 'A Focus on the Legal Framework of Consumer Protection: Bangladesh Perspective' (2020) 5 Ideas 134

Hossain N, 'Companies in Trouble as Various Food Products Have No BSTI Standards' Jago News 24 (14 June 2024) <<https://www.jagonews24.com/en/business/news/75023>> accessed 17 July 2024

Hossain T, 'Food and Agricultural Import Regulations and Standards Country Report' (United States Department of Agriculture 2020) BG2019-0010

Hossaini M and Mahmud M, 'Public Interest Litigation in Bangladesh: A Long Way to Go' (2019) 9(1) Social Change 61

Howells G and Weatherill S, Consumer Protection Law (2nd edn, Farnham, Ashgate 2005)

Howlett M and Ramesh M, 'Achilles' Heels of Governance: Critical Capacity Deficits and Their Role in Governance Failures' (2016) 10(4) Regulation & Governance 301

Huda M, 'Adulterated-Food Culture in Bangladesh: A New Form of Epidemic' Dhaka Tribune (8 June 2023) <<https://www.dhakatribune.com/bangladesh/284997/adulterated-food-culture-in-bangladesh-a-new-form>> accessed 11 June 2024

Huda MN, 'Behind the Pre-Eminence of Bureaucrats' The Daily Star (11 March 2023) <<https://www.thedailystar.net/opinion/views/straight-line/news/behind-the-pre-eminence-bureaucrats-3268506>> accessed 18 July 2024

Huda T, 'Bangladesh' in E Aristova and K O'Regan, A Handbook for Practitioners: Civil Liability for Human Rights Violations (Bonavero Institute for Human Rights 2022)

Hutchinson T and Duncan N, 'Defining and Describing What We Do: Doctrinal Legal Research' (2012) 17 Deakin Law Review 83

Hutt P, 'Food Law & Policy: An Essay' (2005) 1(1) Journal of Food Law and Policy 1

IBM, 'Farmer Connect Uses IBM Blockchain to Bridge the Gap Between Consumers and Smallholder Coffee Farmers' (IBM, 6 January 2020) <<https://newsroom.ibm.com/2020-01-06-Farmer-Connect-Uses-IBM-Blockchain-to-Bridge-the-Gap-Between-Consumers-and-Smallholder-Coffee-Farmers>> accessed 9 August 2024

ICLEI South Asia, 'Tackling Food Adulteration as a Measure to Ensure Access to Safe Food in Dhaka, Bangladesh' (2021) <https://southasia.iclei.org/tackling-food-adulteration-as-a-measure-to-ensure-access-to-safe-food-in-dhaka-bangladesh/#_heading=h.3dy6vkm> accessed 24 October 2023

Industries M for P, 'National Animal Identification and Tracing (NAIT) Programme' (6 December 2023) <<https://www.mpi.govt.nz/animals/national-animal-identification-tracing-nait-programme/>> accessed 27 January 2024

Information and Communication Technology Division Government of the People's Republic of Bangladesh, 'National Blockchain Strategy: Bangladesh Pathway to Be a Blockchain-Enabled Nation' (Information and Communication Technology Division Government of the People's Republic of Bangladesh 2020)

Ishra R, Khanam R and Soar J, 'Influence of Food Safety Concerns on Safe Food Purchasing at Rural and Urban Consumers in Bangladesh' (2022) 179(1) Appetite 1

Islam M, Principles of Commercial Law (MA Hannan ed, 5th edn, Shams Publications 2010)

Islam MJ, Suzuki M and Mazumder N, 'Promoting Access to Justice in Bangladesh: Towards a Hybrid Justice Model' (2024) 77 International Journal of Law, Crime and Justice 1

Islam R, 'Bureaucracy and Administrative Culture in Bangladesh' in Ali Farazmand (ed), Global Encyclopedia of Public Administration, Public Policy, and Governance (Springer 2022)

Islam R, 'Independence of the Judiciary- the Masdar Case' The Daily Star (10 March 2014) <<https://www.thedailystar.net/independence-of-the-judiciary-the-masdar-case-14760>> accessed 27 December 2024

Islam S and Cullen JM, 'Food Traceability: A Generic Theoretical Framework' (2021) 123 Food Control 1

Islam S and others, 'Dreadful Practices of Adulteration in Food Items and Their Worrisome Consequences for Public Health: A Review' (2022) 8(1) Journal of Food Safety and Hygiene 1

Islam S, Manning L and Cullen JM, 'Systematic Assessment of Food Traceability Information Loss: A Case Study of the Bangladesh Export Shrimp Supply Chain' (2022) 142 Food Control 1

Islam T, 'Food Safety Authority yet to Start Functioning' (Prothomalo, 26 June 2015) <<https://en.prothomalo.com/bangladesh/Food-safety-authority-yet-to-start-functions>> accessed 17 July 2024

Islam U, 'Too Many Laws on Adulteration Creating Confusion' (Bangla Tribune, 20 June 2019) <<https://en.banglatribune.com/others/news/54913/Too-many-laws-on-adulteration-creating-confusion>> accessed 16 July 2024

Izzo U, 'Awakening the Sleeping Dog: The Promises and Pitfalls of Enforcing Food Information Rules via Tort Law', *Le regole del mercato agroalimentare tra sicurezza e concorrenza* (2020)

Jack B, 'Food Fraud: Protecting European Consumers Through Effective Deterrence' (2018) 24(1) European Public Law 147

Jaffee S and others, *The Safe Food Imperative: Accelerating Progress in Low-And Middle-income Countries* (International Bank for Reconstruction and Development / The World Bank 2019)

Jahan R, 'The Parliament of Bangladesh: Representation and Accountability' (2015) 21(2) The Journal of Legislative Studies 250

Jain MP, 'The Law of Contract Before Its Codification' [1972] Journal of the Indian Law Institute 178

Japan International Cooperation Agency (JICA), 'Data Collection Survey on Food Hygiene and Food Safety in Bangladesh' (IC Net Limited 2019) Final Report

Japan International Cooperation Agency (JICA), 'People's Republic of Bangladesh Preparatory Survey for Food Value Chain Improvement Project Final Report' (People's Republic of Bangladesh Ministry of Industries (Bangladesh Infrastructure Finance Fund Limited (BIFFL) 2021)

Janssen W, 'The Story of the Laws Behind the Labels' (US FDA 1981) FDA Consumer magazine

Jeroen CLJ, 'Food Security Governance: A Systematic Literature Review' (2014) 6 Food Security 585

JICA, 'JICA Country Analysis Paper for The People's Republic of Bangladesh' (Japan International Cooperation Agency 2023)

Jingjing A, 'International Law and Food Adulteration in China: Innovation of Remedy Mechanisms' (2018) 15 *Manchester Journal of International Economic Law* 238

Jones B, *Politics and the Architecture of Choice: Bounded Rationality and Governance* (University of Chicago Press 2001)

Jones G and Morgan N, *Adding Value: Brands and Marketing in Food and Drink* (Routledge 1994)

Jr JAH, Twerski AD and Kysar DA, *Products Liability: Problems and Process* (4th edn, Aspen Publishing 2000)

Juan I, 'The Blockchain Technology and the Regulation of Traceability: The Digitization of Food Quality and Safety' (2020) 15(6) *European Food & Feed Law Review* 563

Julian Lee, 'Nudie's Labels Bare-Faced Cheek' (The Sydney Morning Herald, 21 June 2008) <<https://www.smh.com.au/national/nudies-labels-bare-faced-cheek-20080621-gdsiwt.html>> accessed 17 June 2024

Justice Surendra Kumar Sinha Chief Justice of Bangladesh., 'Judicial Reforms in Developing Countries' (29 March 2015) <https://www.supremecourt.gov.bd/resources/contents/Speech_by_HCJ_SK_Sinha_on_Judicial_Reforms.pdf> accessed 14 June 2024

Kabir ANMF and others, 'Consumers' Interest and Willingness to Pay for Traceable Vegetables- An Empirical Evidence from Bangladesh' (2023) 7 *Future Foods* 1

Kabir GMS and others, 'The Role of Training in Building Awareness about Formalin Abuse: Evidence from Bangladesh' (2018) 11 *International Journal of Islamic and Middle Eastern Finance and Management* 96

Kabir R, 'Food Adulteration a Cause of Concern' (Dhaka Tribune, 28 June 2016) <<https://www.dhakatribune.com/bangladesh/1179/food-adulteration-a-cause-of-concern>> accessed 24 October 2023

Kailemia MW, "'Peeling Back the Mask": Sociopathy and the Rhizomes of the Eu Food Industry' (2016) 24(2–3) *European Journal of Crime, Criminal Law and Criminal Justice* 176

Kamath R, 'Food Traceability on Blockchain: Walmart's Pork and Mango Pilots with IBM' (2018) 1(1) *The Journal of The British Blockchain Association* 47

Kamiloglu S, Ozdal T and Capanoglu E, 'Regulatory Aspects' in Charis M Galanakis (ed), *Food Authentication and Traceability* (Academic Press 2021)

Kang Y, 'Food Safety Governance in China: Change and Continuity' (2019) 106 *Food Control* 2

Kapur S, 'The Regulation of Agri-Food Safety by Regulations: Utilising Traceability and Recalls in India and USA' in Güner Koç Aytekin and Çağlar Doğru (eds), *Handbook of Research on Recent Perspectives on Management, International Trade, and Logistics*: (IGI Global 2021)

Karantininis K and others (eds), *It's a Jungle out There - the Strange Animals of Economic Organisation in Agri-Food Value Chains* (Wageningen Academic 2017)

Karmaker S, 'Where Does Bangladesh Stand on Adopting Blockchain Technology?' *The Business Standard* (19 January 2023) <<https://www.tbsnews.net/features/panorama/where-does-bangladesh-stand-adopting-blockchain-technology-570286>> accessed 31 July 2024

Kasaj M and Knezevic N, 'Food Frauds - Legislative Framework and Consumer Perception' 17(6) *European Food and Feed Law Review* 407

Kemsawasd V, Jayasena V and Karnpanit W, 'Incidents and Potential Adverse Health Effects of Serious Food Fraud Cases Originated in Asia' (2023) 12 *Foods* 1

Kendall H and others, 'Chinese Consumer's Attitudes, Perceptions and Behavioural Responses towards Food Fraud' (2019) 95 *Food Control* 339

Khan MdA and others, 'A Systematic Review of Fish Adulteration and Contamination in Bangladesh: A Way Forward to Food Safety' (2023) 15 *Reviews in Aquaculture* 1574

Khatun MA and others, 'Detection of Species Adulteration in Meat Products and Mozzarella-Type Cheeses Using Duplex PCR of Mitochondrial Cyt b Gene: A Food Safety Concern in Bangladesh' (2021) 30(2) *Food Chemistry* 1

Khilnani S and others, *Comparative Constitutionalism in South Asia* (2nd edn, Oxford University Press 2016)

Kimbrell GA, 'Cutting Edge Issues in 21st Century Animal Food Product Labeling' (2022) 27(2) *Drake Journal of Agricultural Law* 179

Kolarek L, 'An Assessment of the Limitations and Strengths of Existing Product Liability Protections' (QUBSLJ, 16 June 2017) <<https://blogs.qub.ac.uk/studentlawjournal/2017/06/16/an-assessment-of-the-limitations-and-strengths-of-existing-product-liability-protections/>> accessed 25 April 2024

Koop C and Hanretty C, 'Political Independence, Accountability, and the Quality of Regulatory Decision-Making' (2018) 51 *Comparative Political Studies* 38

Krebs J, 'Establishing a Single, Independent Food Standards Agency: The United Kingdom's Experience' (2004) 59 *Food & Drug Law Journal* 387

Larive International, 'Aquaculture Sector Study Bangladesh - Commissioned by the Netherlands Enterprise Agency' (Larive International & LightCastle Partners 2021) Final Report

Lasa H-C, 'Free Movement of Foodstuffs, Consumer Protection and Food Standards in the European Community: Has the Court of Justice Got It Wrong?' [1991] *European Law Review* 391

Lawrence F, *Not On the Label: What Really Goes into the Food on Your Plate* (Penguin UK 2013)

Le Vallée J-C and Charlebois S, 'Benchmarking Global Food Safety Performances: The Era of Risk Intelligence' (2015) 78 *Journal of Food Protection* 1896

League BA, 'Food Adulteration Is a Corruption Too: HPM Sheikh Hasina' Bangladesh Awami League (Dhaka, 3 February 2019) <<https://albd.org/articles/news/32373/Food-adulteration-is-a-corruption-too:-HPM-Sheikh-Hasina>> accessed 1 January 2024

Levi-Faur D, 'Regulation and Regulatory Governance', *Handbook on the Politics of Regulation* (Edward Elgar 2011)

Levi-Faur D, *Handbook on the Politics of Regulation* (Edward Elgar 2011)

Lin C-F, 'Blockchainizing Food Law: Promises and Perils of Incorporating Distributed Ledger Technologies to Food Safety, Traceability, and Sustainability Governance' (2020) 74 *Food and Drug Law Journal*

Lindley J, 'Food Regulation and Policing: Innovative Technology to Close the Regulatory Gap in Australia' (2022) 17(2) *Journal of Consumer Protection and Food Safety* 127

Lindley JA, 'Shifting the Focus of Food Fraud: Confronting a Human Rights Challenge to Deliver Food Security' (2020) 5 *Perth International Law Journal* 117

Linklaters, 'Australia- Collective Redress' (Linklaters, 1 July 2020) <<https://www.linklaters.com/en/insights/publications/collective-redress/global-guide-collective-redress/australia>> accessed 13 June 2024

Lipp M, 'A Closer Look at Chemical Contamination' [2011] *Food Safety Magazine* <<https://www.food-safety.com/articles/3759-a-closer-look-at-chemical-contamination>> accessed 2 January 2024

Lipp M, 'Ingredient Adulteration Undermines Food Safety' <<https://www.food-safety.com/articles/3803-ingredient-adulteration-undermines-food-safety>> accessed 25 April 2024

Locke J, *Two Treatises of Government* (Awnsham and John Churchill 1698)

Lodge M and Wegrich K, 'Governance as Contested Logics of Control: Europeanized Meat Inspection Regimes in Denmark and Germany' (2011) 18 *Journal of European Public Policy* 90

Lord N and others, 'Fault Lines of Food Fraud: Key Issues in Research and Policy' (2022) 78(5) *Crime, Law and Social Change* 577

Lord N, Flores Elizondo CJ and Spencer J, 'The Dynamics of Food Fraud: The Interactions between Criminal Opportunity and Market (Dys)Functionality in Legitimate Business' (2017) 17(5) *Criminology & Criminal Justice* 605

Lui A and Ryder N, *FinTech, Artificial Intelligence and the Law: Regulation and Crime Prevention* (Routledge 2021)

Lydgate E and Anthony C, 'Brexit, Food Law and the UK's Search for a post-EU Identity' (2022) 85(5) *Modern Law Review* 1168

Lytton TD, *Outbreak: Foodborne Illness and the Struggle for Food Safety* (University of Chicago Press 2019)

M M H and others, 'Baseline Survey on Consumer Confidence and Awareness of Food Safety and Food Safety Act/Regulations Bangladesh' (Bangladesh Food Safety Authority 2018)

Mac Amhlaigh C, 'Legal Pluralism Explained: History, Theory, Consequences' (2022) 49(2) *Journal of Law and Society* 430

MacDonald C, 'Not "All Natural": Modernizing Privity to Allow Breach of Contract Claims for Mislabeled Food Products' (2018) 103 *Iowa Law Review* 785

MacMaoláin C, 'History and Development of Food Law', *Food Law: European, Domestic and International Frameworks* (1st edn, Bloomsbury Publishing 2015)

MacMaoláin C, *Food Law: European, Domestic and International Frameworks* (1st edn, Bloomsbury Publishing 2015)

Maggetti M and Gilardi F, 'The Policy-Making Structure of European Regulatory Networks and the Domestic Adoption of Standards' (2011) 18 *Journal of European Public Policy* 830

Maggetti M, 'The Role of Independent Regulatory Agencies in Policy-Making: A Comparative Analysis' (2009) 16(3) *Journal of European Public Policy* 450

Mahbub AR and Rahman BT, 'The Legal Doctrine of Privity of Contract Under the Bangladeshi Contract Law' (Advocates in Bangladesh, 10 December 2022) <<https://adv.com.bd/the-legal-doctrine-of-privity-of-contract-under-the-indian-contract-law/>> accessed 26 April 2024

Mahmud I, 'Bottled Soybean Oil Contains Harmful "Trans Fat"' Prothomalo (15 January 2024) <<https://en.prothomalo.com/bangladesh/pjjwuqc8if>> accessed 19 July 2024

Mahmud I, 'Harmful Ingredients in Bread' Prothomalo (7 June 2021) <<https://en.prothomalo.com/bangladesh/harmful-ingredients-in-bread>> accessed 18 July 2024

Majone G, 'The Rise of the Regulatory State in Europe' (1994) 17(3) *West European Politics* 77

Malik SA and Hingley MK, 'Consumer Demand Information as a Re-Balancing Tool for Power Asymmetry between Food Retailers and Suppliers' (2021) 23(2) *Economia agro-alimentare* 1

Malinauskaite J and Erdem F, 'Planned Obsolescence in the Context of a Holistic Legal Sphere and the Circular Economy' (2021) 41(3) *Oxford Journal of Legal Studies* 719

Malinauskaite J, 'Competition Law and Sustainability: EU and National Perspectives' (2022) 13 *Journal of European Competition Law & Practice* 336

Manning L and Mei Soon J, 'Food Safety, Food Fraud, and Food Defense: A Fast Evolving Literature' (2016) 81(4) *Journal of food science* 823

Manning L and others, 'Dietary Supplements, Harm Associated with Synthetic Adulterants and Potential Governance Solutions' (2022) 78 *Crime, Law and Social Change* 507

Manning L and Soon JM, 'Developing Systems to Control Food Adulteration' (2014) 49 *Food Policy* 23

Manning L and Soon JM, *A Handbook of Food Crime: Immoral and Illegal Practices in the Food Industry and What to Do About Them* (1st edn, Bristol University Press 2019)

Manning L, 'Food Fraud: Policy and Food Chain' (2016) 10 *Current Opinion in Food Science* 16

Manning L, Smith R and Soon JM, 'Developing an Organisational Typology of Criminals in the Meat Supply Chain' (2016) 59 *Food Policy* 44

Markesinis B, *Markesinis's German Law of Torts* (4th edn, Bloomsbury Publishing 2002)

Marks AB, 'A New Governance Recipe for Food Safety Regulation' (2016) 47(3) *Loyola University Chicago Law Journal* 907

Masud AR, *The Pure Food Laws* (1st edn, Anupum Gyan Bhandar 1995)

Mathieu D, 'Introduction: Sociology, Society, Law', *Sociology of Law: Visions of a Scholarly Tradition* (1st edn, Cambridge University Press 2008)

Matnuh H, 'Rectifying Consumer Protection Law and Establishing of a Consumer Court in Indonesia' (2021) 44(3) *Journal of Consumer Policy* 483

Max Planck Lawcast, 'The Law of Unjust Enrichment in India' (22 May 2024) <<https://open.spotify.com/episode/4CZFyBXV35US7a8vo2uPpT?si=8mpGIOL4QpG-bxdzc6dUrg>> accessed 13 February 2025

McCluskey JJ, Kalaitzandonakes N and Swinnen J, 'Media Coverage, Public Perceptions, and Consumer Behavior: Insights from New Food Technologies' (2016) 8(1) *Annual Review of Resource Economics* 467

McDonough C, 'Food Safety Law and the Defence of Due Diligence' (William Fry, 3 September 2017) <<https://www.williamfry.com/knowledge/food-safety-law-and-the-defence-of-due-diligence/>> accessed 29 January 2024

Md. Shahiduzzaman AS and Naskar M, 'Consumer Perception of Food Quality, and Packaged Food Labelling: A Study in Lalmonirhat District, Bangladesh' (2022) 11(09) *Paripax Indian Journal of Research* 34

Mechem FL, 'Implied Warranties in the Sale of Goods by Trade Name' (1927) 11(6) *Minnesota Law Review* 486

Meerza SIA, Giannakas K and Yiannaka A, 'Markets and Welfare Effects of Food Fraud' (2019) 63 *Australian Journal of Agricultural and Resource Economics* 759

Meulen B van der and Wernaart B, 'Comparative Food Law' in Michael T Roberts, *Research Handbook on International Food Law* (Edward Elgar Publishing 2023)

Meulen B van der, 'The Functional Field of Food Law: The Emergence of a Functional Discipline in the Legal Sciences' (European Institute for Food Law Working Paper Series 2018/02)

Meulen S van der and others, 'Fighting Food Fraud: Horsemeat Scandal; Use of Recalls in Enforcement throughout the EU' (2015) 10(1) European Food & Feed Law Review 2

Mia B and Mallick S, 'Protection of Consumers' Rights in Bangladesh: Law and Reality' (2021) 4(3) International Journal of Law Management & Humanities 4789

Michael T Roberts and Lin C-F, '2016 China Food Law Update' (2016) 12(2) Journal of Food Law & Policy 238

Michel C, 'The Assyrian Textile Trade in Anatolia (19th Century BCE): From Traded Goods to Prestigious Gifts' in K Dross-Krüpe, Textile Trade and Distribution in Antiquity (Harrassowitz Verlag Wiesbaden 2014)

Micklitz H-W and Twigg-Flesner C, The Transformation of Consumer Law and Policy in Europe (1st edn, Hart Publishing 2023)

Mildred M, 'Pitfalls in Product Liability' [2007] JBL 141

Minarelli F and others, 'Asymmetric Information along the Food Supply Chain: A Review of the Literature' 1

Ministry of Food and Disaster Management, 'National Food Policy 2006'

Ministry of Health and Family Welfare, 'Advocacy Plan for Nutrition, Bangladesh 2019-2025' (Government of the People's Republic of Bangladesh 2021)

Ministry of Planning Government of the People's Republic of Bangladesh, 'Report on Agriculture and Rural Statistics' (Ministry of Planning Government of the People's Republic of Bangladesh 2019) Agriculture and Rural Statistics Survey (ARSS) Project-2017

Minoudi S and others, 'Seafood Mislabeling in Greek Market Using DNA Barcoding' (2020) 113 Food Control 107213

Mizan AS, 'Continuing the Colonial Legacy in the Legislative Drafting in Bangladesh: Impact on the Legal Consciousness and the Rule of Law and Human Rights' (2017) 5(1) International Journal of Legislative Drafting and Law Reform 1

Mizan AS, 'The Law of Language and the Language of the Law: A Sociolegal Appraisal of Colonial Legal Language in Bangladesh' (2021) 32(2) Dhaka University Law Journal 119

Mohammad S and Karim T, 'Role of NGOs in Developing Public Interest Litigation: An Analytical Study' (2019) 49 Environmental Policy and Law 145

Molla M, 'Bangladesh Struggles with Adulterated Shrimp' (Dialogue Earth, 8 February 2018) <<https://dialogue.earth/en/food/bangladesh-struggles-with-adulterated-shrimp/>> accessed 31 July 2024

Molla M, 'Bangladesh Struggles with Adulterated Shrimp' (The Third Pole, 8 February 2018) <<https://www.thethirdpole.net/en/food/bangladesh-struggles-with-adulterated-shrimp/>> accessed 28 January 2024

Molla MA-M, 'BSTI Tests Well below Par' The Daily Star (13 July 2019) <<https://www.thedailystar.net/frontpage/bangladesh-standards-and-testing-institution-tests-well-below-par-1770778>> accessed 18 July 2024

Molla MA-M, 'Poultry Feed Laced with Antibiotics' The Daily Star (13 April 2019) <<https://www.thedailystar.net/frontpage/news/poultry-feed-laced-antibiotics-1729231>> accessed 28 January 2024

Montaz M, Bubli SY and Khan MS, 'Mechanisms and Health Aspects of Food Adulteration: A Comprehensive Review' (2023) 12(1) Foods 1

Moneruzzaman M, 'HC Bans Antibiotics for Cows without Prescription' New Age (2019) <<https://www.newagebd.net/article/78677/hc-bans-antibiotics-for-cows-without-prescription>> accessed 28 January 2024

Montanari F, Varallo C and Pisanello D, 'Food Fraud in the EU' (2016) 7 European Journal of Risk Regulation 197

Montgomery H, Haughey SA and Elliott CT, 'Recent Food Safety and Fraud Issues within the Dairy Supply Chain (2015–2019)' (2020) 26 Global Food Security 1

Moore MS, Causation and Responsibility: An Essay in Law, Morals, and Metaphysics (Oxford University Press 2009)

Morabito V, 'An Evidence-Based Approach to Class Action Reform in Australia: Competing Class Actions and Comparative Perspectives on the Volume of Class Action Litigation in Australia' (11 July 2018) <<https://papers.ssrn.com/abstract=3212527>> accessed 13 June 2024

Moreira MJ and others, 'Consumer Knowledge about Food Labeling and Fraud' (2021) 10(5) Foods 1

Morran C, 'Judge Throws Out Dozens Of Lawsuits Over Cellulose In “100% Grated Parmesan Cheese”' (Consumerist, 24 August 2017) <<https://consumerist.com/2017/08/24/judge-throws-out-dozens-of-lawsuits-over-cellulose-in-100-grated-parmesan-cheese/>> accessed 12 June 2024

Mostert RH and others, 'Dhaka Food Agenda 2041 Foresight and Scenario Development' (Wageningen Centre for Development Innovation Wageningen 2022) Workshop Report Dhaka Food Systems project WCDI-22-207

Mumford D, Grant T, Civil Fraud: Law, Practice & Procedure (1st edn, Sweet & Maxwell 2022)

Munir Z, 'Bangladesh: The Surging Consumer Market Nobody Saw Coming' (BCG Global, 2015) <<https://www.bcg.com/publications/2015/bangladesh-the-surging-consumer-market-nobody-saw-coming>> accessed 23 April 2024

Nagalakshmi K and others, 'Mislabeling in Indian Seafood: An Investigation Using DNA Barcoding' (2016) 59 Food Control 196

Nahar P, 'Invisible Women in Bangladesh: Stakeholders' Views on Infertility Services' (2012) 4(3) Facts, Views & Vision in ObGyn 149

Naidoo A, 'Misrepresentation', Complete Contract Law: Text, Cases and Materials (1st edn, Oxford University Press 2021)

Nasreen S and Ahmed T, 'Food Adulteration and Consumer Awareness in Dhaka City, 1995-2011' (2014) 32(3) Journal of Health, Population, and Nutrition 452

Nasrin K, 'Aspirations of Court Excellence and Challenges of Case Backlogs in Bangladesh Judiciary' (4 September 2023) <<https://papers.ssrn.com/abstract=4652863>> accessed 14 June 2024

National Audit Office, 'Country Paper on Audit on Implementation of Environmental Policy & Role of SAIs in Promoting National Sustainable Development' (Office of the Comptroller and Auditor General (OCAG), the Supreme Audit Institution (SAI) of Bangladesh)

Nations F and AO of the U and others, The State of Food Security and Nutrition in the World 2019: Safeguarding against Economic Slowdowns and Downturns (Food & Agriculture Org 2019)

Nawaz F and Kanwal N, 'Challenges of Public Policy Implementation: A Critical Analysis of Consumer Rights Protection Act in Bangladesh' (2020) 2(1) Journal of Humanities and Social Sciences Research 51

Nayak R and Jespersen L, 'Development of a Framework to Capture the Maturity of Food Safety Regulatory and Enforcement Agencies: Insights from a Delphi Study' (2022) 142 Food Control 109220

Naznin SMA, 'Women's Right to Access to Justice: The Role of Public Interest Litigation in Bangladesh' (2021) 21(2) Australian Journal of Asian Law 99

Neo P, 'Dangerous Dairy: Bangladesh High Court Orders Investigation into Adulterated Milk Products in the Country' Food Navigator (26 February 2019) <<https://www.foodnavigator-asia.com/Article/2019/02/26/Dangerous-dairy-Bangladesh-High-Court-orders-investigation-into-adulterated-milk-products-in-the-country>> accessed 28 January 2024

Neo P, 'Safety First: Bangladesh's Adulterated Dairy, Philippines' "violative" Food Warnings, Clean Meat and More Feature in Our Round-Up' (foodnavigator-asia.com, 26 July 2019) <<https://www.foodnavigator-asia.com/Article/2019/07/26/Safety-First-Bangladesh-s-adulterated-dairy-Philippines-violative-food-warnings-clean-meat-and-more-feature-in-our-round-up>> accessed 30 January 2024

Nestle M, *Safe Food: The Politics of Food Safety* (University of California Press 2010)

Newby K, 'Turmeric's Unexpected Link to Lead Poisoning in Bangladesh' (Stanford Medicine Magazine, 2 June 2023) <<https://stanmed.stanford.edu/turmeric-lead-risk-detect/>> accessed 11 September 2024

News U, 'HC Seeks Report on Adulterated Milk, Curd-Producing Companies' UNB (15 May 2019) <<https://unb.com.bd/category/Bangladesh/hc-seeks-report-on-adulterated-milk-curd-producing-companies/18367>> accessed 18 July 2024

Nyqvist B and others, 'The Market for (Fake) Antimalarial Medicine: Evidence from Uganda' (Centre for International Development at Harvard University 2013) CID Working Paper No. 242

O'Regan M, 'United Kingdom: Consumer Rights Act 2015 Introduces New Procedures for Competition Litigation, Including Collective Follow-on Damages Actions' (Kluwer Competition Law Blog, 5 October 2015) <<https://competitionlawblog.kluwercompetitionlaw.com/2015/10/05/united-kingdom-consumer-rights-act-2015-introduces-new-procedures-for-competition-litigation-including-collective-follow-on-damages-actions/>> accessed 13 June 2024

OECD, 'Promoting Consumer Education: Trends, Policies and Good Practices' (OECD 2009)

OIE, 'Terrestrial Animal Health Code — Chapter 4.4. Application of Compartmentalisation' <https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2018/en_chapitre_application_compartment.htm> accessed 27 January 2024

Oman S and Liang W, 'The Dairy and Beef Value Chain in Bangladesh' (FAO and UNIDO 2019)

Osman M and Jenkins S, 'Consumer Responses to Food Labelling: A Rapid Evidence Review' (Food Standards Agency UK 2021)

Paech P, 'The Governance of Blockchain Financial Networks' (2017) 80(6) *Modern Law Review* 1073

Palmer V, 'Why Privity Entered Tort-An Historical Reexamination of Winterbottom v. Wright' (1983) 27(1) *The American Journal of Legal History* 85

Pardo MÁ and others, 'DNA Barcoding Revealing Mislabelling of Seafood in European Mass Caterings' (2018) 92 *Food Control* 7

Parmeeda Enterprise, 'Promotion of Safe Fish through Traceable Production System' (Parmeeda Enterprise 2019)

Patay D and others, 'Whole-of-Food System Governance for Transformative Change' [2025] *Nature Food* 1

Patwari ABMMI, *Legal System of Bangladesh* (Humanist and Ethical Association of Bangladesh 1991)

Pearson S and others, 'Are Distributed Ledger Technologies the Panacea for Food Traceability?' (2019) 20 *Global Food Security* 145

Peel E and Treitel GH, *The Law of Contract* (Sweet & Maxwell 2007)

Pervin D, 'Rediscovering the Rules for Communication of Contract Law in Bangladesh: Legal and Philosophical Perspective' (2015) 26(2) *Dhaka University Studies Part F* 47

Peters BG and others, *Designing for Policy Effectiveness: Defining and Understanding a Concept* (1st edn, Cambridge University Press 2018)

Pichonnaz P, 'Information Duties' in Hans-W Micklitz and Christian Twigg-Flesner (eds), *The Transformation of Consumer Law and Policy in Europe* (1st edn, Hart Publishing 2023)

Pierre J and Peters BG, *Governance, Politics and the State* (2nd edn, Macmillan UK 2020)

Plessis PJ du, 'Obligations: Common Principles and Obligations Arising from Contracts', *Borkowski's Textbook on Roman Law* (Oxford University Press)

Poillot E, 'Consumer Education in the EU' in Hans-W Micklitz and Christian Twigg Flesner, *The Transformation of Consumer law and Policy in Europe* (1st edn, Bloomsbury 2023)

Polinsky AM and Shavell S, 'The Uneasy Case for Product Liability' (2009) 123 *Harvard Law Review* 1438

Pollock and Mulla, *Indian Contract and Specific Relief Act* (11th edn, India 1994)

Pollock F and Mulla DF, *The Sale of Goods Act* (11th edn, LexisNexis India 2021)

Posner RA, *Economic Analysis of Law* (9th edn, Wolters Kluwer 2014)

Pothier RJ and Evans WD, *A Treatise on the Law of Obligations, Or Contracts*, vol I (A Strahan 1806)

Pound R, 'Law in Books and Law in Action' (1910) 44 *American Law Review* 12

Prescott SL and others, 'The Intersection of Ultra-Processed Foods, Neuropsychiatric Disorders, and Neurolaw: Implications for Criminal Justice' (2024) 5 *NeuroSci* 354

Purnhagen K, van Herpen E and van Kleef E, 'The Potential Use of Visual Packaging Elements as Nudges' in Klaus Mathis and Avishalom Tor (eds), *Nudging - Possibilities, Limitations and Applications in European Law and Economics* (Springer International Publishing 2016)

Purnhagen KP and Schebesta H, 'Food Labelling for Consumers – EU Law, Regulation and Policy Options' (Policy Department for Citizens' Rights and Constitutional Affairs Directorate General for Internal Policies of the Union 2019) PE 608.871

Purshouse C, *Essential Cases: Tort Law* (6th edn, Oxford University Press 2023)

Qc RM and Saintier S, *Poole's Casebook on Contract Law* (Oxford University Press 2021)

Rabbi MF and others, 'Food Security and the COVID-19 Crisis from a Consumer Buying Behaviour Perspective—The Case of Bangladesh' (2021) 10 *Foods* 1

Rahim ME, 'Justice for All: The Poor and the Rich' (The Daily Star, 28 April 2021) <<https://www.thedailystar.net/opinion/news/justice-all-the-poor-and-the-rich-2084825>> accessed 16 June 2024

Rahman B, 'Food Safety in Bangladesh: Challenges and Concerns' Daily Sun (29 August 2017) <<https://www.daily-sun.com/post/251275>> accessed 18 July 2024

Rahman K, 'Understanding the Consumer Behaviour towards Organic Food: A Study of the Bangladesh Market' (2015) 17(4) Journal of Business and Management 49

Rahman M, 'Consumer Protection in Bangladesh: Law and Practice' (1994) 17(3) Journal of Consumer Policy 349

Rahman M, 'Consumer Protection in Bangladesh: Present Status and Some Thoughts for the Future' (2009) 3(1) Prime University Journal 1

Rahman MS, 'Ensuring Safe Food: Challenges of Good Governance and Ways to Overcome Them' (Transparency International Bangladesh (TIB) 2014)

Rahman S and others, 'The Extent and Magnitude of Formalin Adulteration in Fish Sold in Domestic Markets of Bangladesh: A Literature Review' (2016) 40 International Journal of Consumer Studies 152

Rahman S, 'Adulterated Food Poses Threat to Public Health' The Financial Express (15 October 2021) <<https://www.thefinancialexpress.com.bd/national/adulterated-food-poses-threat-to-public-health-1634265786>> accessed 26 August 2024

Rahman S, 'BFSA to Widen Dragnet as Food Adulteration Persists' (The Financial Express, 28 September 2019) <<https://thefinancialexpress.com.bd/trade/bfsa-to-widen-drag-net-as-food-adulteration-persists-1569644632>> accessed 17 July 2024

Raisa FZA, 'The Dynamics of Legal Aid: Pro Bono Advocacy in Bangladesh's Jurisprudence' (Oxford Human Rights Hub, 25 April 2024) <<https://ohrh.law.ox.ac.uk/the-dynamics-of-legal-aid-pro-bono-advocacy-in-bangladeshs-jurisprudence/>> accessed 17 June 2024

Rana J, 'The Booming Export Market for Mangoes' The Financial Express (12 April 2023) <<https://today.thefinancialexpress.com.bd/views-opinion/the-booming-export-market-for-mangoes-1681220252>> accessed 31 July 2024

Rawls J, A Theory of Justice (Revised edition, Harvard University Press 1999)

Raynil LK and others, '2020 Findings from the Diary of Consumer Payment Choice' (2020) <<https://www.frbsf.org/research-and-insights/publications/fed-notes/2020/07/2020-findings-from-the-diary-of-consumer-payment-choice/>> accessed 23 April 2024

Razzak MA, 'Formation of a Contract and Its Technicalities: Bangladesh Perspectives' (2008) 19(2) Dhaka University Studies Part F 159

Redish M and Kiernan M, 'Avoiding Death by a Thousand Cuts: The Relitigation of Class Certification and the Realities of the Modern Class Action' (2014) 99 Iowa Law Review 1659

Rees J, Food Adulteration and Food Fraud (Reaktion Books 2020)

Reilly A, 'Overview of Food Fraud in the Fisheries Sector' (FAO 2018) FAO Fisheries and Aquaculture Circular No. 1165 FIAM/C1165

Reimann M and Zimmermann R, *The Oxford Handbook of Comparative Law* (Oxford University Press 2006)

Release P, 'I Want to Achieve This Authority by Working Exceptionally: Newly Appointed BFSA Chairman' *The Business Standard* (14 March 2024)
<<https://www.tbsnews.net/economy/corporates/i-want-achieve-authority-working-exceptionally-newly-appointed-bfsa-chairman>> accessed 17 July 2024

Renn O and Dreyer M (eds), *Food Safety Governance: Integrating Science, Precaution and Public Involvement*, vol 15 (Springer Berlin Heidelberg 2009)

Renn O, 'Essay 1 A Guide to Interdisciplinary Risk Research 8', *Risk Governance* (1st edn, Routledge 2008)

Report F, 'Shrimp Sector Launches E-Traceability System' *The Financial Express* (22 May 2018) <<https://today.thefinancialexpress.com.bd/trade-market/shrimp-sector-launches-e-traceability-system-1526925549>> accessed 31 July 2024

Report SB, 'Doreen Hotel Fined Tk 3.5 Lakh for Keeping Date-Expired Food' *The Daily Star* (19 October 2022) <<https://www.thedailystar.net/business/news/doreen-hotel-fined-tk-35-lakh-keeping-date-expired-food-3146816>> accessed 12 June 2024

Report SB, 'Fruits Not Adulterated with Formalin: Experts' *The Daily Star* (1 August 2018) <<https://www.thedailystar.net/business/fruits-not-adulterated-formalin-experts-1614241>> accessed 30 July 2024

Report SD, 'Bogura's Akbaria Hotel Fined Tk 3 Lakh for Selling Stale, Expired Food' *The Daily Star* (26 April 2023) <<https://www.thedailystar.net/news/bangladesh/crime-justice/news/boguras-akbaria-hotel-fined-tk-3-lakh-selling-stale-expired-food-3304916>> accessed 12 June 2024

Review GT and Wass S, 'Food Companies Unite to Advance Blockchain for Supply Chain Traceability' (*Global Trade Review (GTR)*, 22 August 2017)
<<https://www.gtreview.com/news/fintech/food-companies-unite-to-advance-blockchain-for-supply-chain-traceability/>> accessed 28 January 2024

Riaz A and Rahman MS (eds), *Routledge Handbook of Contemporary Bangladesh* (Routledge, Taylor & Francis Group 2016)

Riefa C and Coll L, 'EnfTech: The Transformative Potential of Technology in Consumer Law Enforcement' (Fourteenth Meeting of the UNCTAD Research Partnership Platform, Room XVII, Palais des Nations, Geneva, 2023)

Riefa C and Coll L, 'The Transformative Potential of Enforcement Technology (EnfTech) in Consumer Law' (2024) Report funded by the UKRI Policy Support Fund, University of Reading

Riefa C and Coll L, 'The Use of AI in the Enforcement Technology (EnfTech) Toolbox: Is AI a Friend or a Foe?' in Larry Di Matteo, C Poncibo and Geraint Howells, *AI and Consumers* (Cambridge University Press, forthcoming 2023)

Riefa C and Gamper H, 'Economic Theory and Consumer Vulnerability: Exploring an Uneasy Relationship', *Vulnerable Consumers and the Law* (1st edn, Routledge 2020)

Riefa C and Saintier S, *Vulnerable Consumers and the Law: Consumer Protection and Access to Justice* (1st edn, Routledge 2021)

Riefa C, 'Transforming Consumer Law Enforcement with Technology: From Reactive to Proactive?' (2023) 12(3) *Journal of European Consumer and Market Law* 97

Rioux S, 'Capitalist Food Production and the Rise of Legal Adulteration: Regulating Food Standards in 19th-century Britain' (2019) 19(1) *Journal of Agrarian Change* 64

Ripstein A and Zipursky BC, 'Corrective Justice in an Age of Mass Torts' in Gerald J Postema (ed), *Philosophy and the Law of Torts* (Cambridge University Press 2001)

Ripstein A, 'Closing the Gap' (2007) 9(1) *Theoretical Inquiries in Law* 61

Ripstein A, 'Some Recent Obituaries of Tort Law' (1998) 48(4) *The University of Toronto Law Journal* 561

Ripstein A, 'Theories of the Common Law of Torts' in Edward N Zalta (ed), *The Stanford Encyclopedia of Philosophy* (Summer 2022, Metaphysics Research Lab, Stanford University 2022)

Ripstein A, 'Theories of the Common Law of Torts' in Edward N Zalta (ed), *The Stanford Encyclopedia of Philosophy* (Summer 2022, Metaphysics Research Lab, Stanford University 2022)

Roberts M and Turk W, 'The Pursuit of Food Authenticity: Recommended Legal and Policy Strategies to Eradicate Economically Motivated Adulteration (Food Fraud)' (28 March 2017)

Roberts M, *Food Law in the United States* (Cambridge University Press 2016)

Roberts MT, 'A "Food Systems Thinking" Roadmap for Policymakers and Retailers to Save the Ecosystem by Saving the Endangered Honey Producer from the Devastating Consequences of Honey Fraud' (2019) *UCLA School of Law, Public Law Research Paper No 20-02*

Roberts MT, 'Introduction: Making a Case for International Food Law' in Michael T Roberts (ed), *Research Handbook on International Food Law* (Edward Elgar Publishing 2023)

Roberts MT, 'Understanding Modern History of International Food Law Is Key to Building a More Resilient and Improved Global Food System' (2021) 17(1) *Journal of Food Law & Policy* 57

Roberts MT, Viinikainen T and Bullon C, 'International and National Regulatory Strategies to Counter Food Fraud' (FAO and UCLA 2022)

Robinson LA, Viscusi WK and Zeckhauser RJ, 'Efficient Warnings, Not "Wolf or Puppy" Warnings' [2016] Harvard Kennedy School Faculty Research Working Paper Series

Robson K and others, 'A Comprehensive Review of Food Fraud Terminologies and Food Fraud Mitigation Guides' (2021) 120 Food Control 1

Rotberg RI, 'Good Governance Means Performance and Results' (2014) 27(3) Governance 511

Rothstein H, 'Domesticating Participation: Participation and the Institutional Rationalities of Science-Based Policy-Making in the UK Food Standards Agency' (2013) 16(6) Journal of Risk Research 771

Rousseau JJ, The Social Contract (A Amsterdam: Chez Marc-Michel Rey 1762)

Rouvière E and Caswell JA, 'From Punishment to Prevention: A French Case Study of the Introduction of Co-Regulation in Enforcing Food Safety' (2012) 37(3) Food Policy 246

SAFE, 'Transparency of Food Risk Affairs' (SAFE - Safe Food Advocacy Europe, 27 September 2022) <<https://www.safefoodadvocacy.eu/actions/transparency-of-food-risk-affairs/>> accessed 17 July 2024

Sales Law Review Group, 'Report on the Legislation Governing the Sale of Goods and Supply of Services' (Dublin 2011) (Prn. A11/1576)

Salman S, 'Skilled Lawyers Show Reluctance in Legal Aid' New Age (16 June 2024) <<https://www.newagebd.net/post/country/233784/skilled-lawyers-show-reluctance-in-legal-aid>> accessed 16 June 2024

Sanger C and others, 'England and Wales' in C Sanger, The Class Action Law Review (6th edn, Law Business Research Ltd 2022)

Sangstha BS, 'PM Orders Stern Action against Food Adulteration' New Age (Dhaka, 18 February 2021) <<https://www.newagebd.net/article/130531/pm-orders-stern-action-against-food-adulteration%20accessed%2025%20March%202022>> accessed 1 January 2024

Sarkar P, 'Food Safety Authority: How Effective Is It in Ensuring Safe Food?' Prothomalo (3 February 2024) <<https://en.prothomalo.com/bangladesh/uwd8k4vucq>> accessed 18 July 2024

Sarma P, 'Investigating Consumers' Preference on Fresh Vegetables in Bangladesh: Best-Worst Scaling Approach' (2020) 24(1) Bangladesh Agricultural University 0015

Sawyer W and Izah S, 'Unmasking Food Adulteration: Public Health Challenges, Impacts and Mitigation Strategies' [2024] ES General 1

Schebesta H and Purnhagen K, EU Food Law (Oxford University Press 2024)

Scheltema M, 'Balancing Public and Private Regulation' (2016) 12 Utrecht Law Review 16

Schilling-Vacaflor A and Lenschow A, 'Hardening Foreign Corporate Accountability through Mandatory Due Diligence in the European Union? New Trends and Persisting Challenges' (2023) 17(3) Regulation & Governance 677

Schmidt SL, 'Foods for Specific Consumer Groups' in Harry Bremmers and Kai Purnhagen (eds), *Regulating and Managing Food Safety in the EU: A Legal-Economic Perspective* (Springer International Publishing 2018)

Schwemer SF, 'Food for Thought- Revisiting the Rationale of Law-Based Food Origin Protection' (2012) 7(3) *European Food and Feed Law Review* 134

Scott C and Black J, *Cranston's Consumers and the Law* (2nd edn, Cambridge University Press 2000)

Scott CA and others, 'Water Security and the Pursuit of Food, Energy, and Earth Systems Resilience' (2018) 43 *Water International* 1055

Scott T and others, 'Evaluating Feasibility of Blockchain Application for DSCSA Compliance' (2018) 1(2) *SMU Data Science Review* 1

Sedgwick W, Conley S and Sleight R, 'Products Liability: Implied Warranties' (1964) 48(2) *Marquette Law Review* 139

Sein K, 'The Growing Interplay of Consumer and Data Protection Law' in Hans-W Micklitz and Christian Twigg-Flesner (eds), *The Transformation of Consumer Law and Policy in Europe* (1st edn, Hart Publishing 2023)

Sejan S, 'Is Multiplicity of Food Safety Laws a Problem?' (The Daily Observer) <<https://www.observerbd.com/news.php?id=219836>> accessed 16 July 2024

Sen SP, 'Effects on India of British Law and Administration in the 19th Century' (1958) 4(4) *Journal of World History*

Setalvad MC and Vibhufhan P, *The Common Law in India* (Stevens & Sons 1960)

Shahan A and Posner PL, 'Politics-Administration Relationship in Developing Countries: The Case of Bangladesh' (1 March 2013) <<https://papers.ssrn.com/abstract=2573458>> accessed 18 July 2024

Shaheen N and others, 'Commonly Consumed Processed Packaged Foods in Bangladesh Are Unhealthy and Their Nutrient Contents Are Not in Conformity with the Label Declaration' (2024) 12(1) *Food Science & Nutrition* 481

Shahiduzzaman A, 'Customer Satisfaction on the Labelling of Packaged Food Products in Bangladesh' (2023) 3(1) *International Journal of Innovations & Research Analysis* 30

Shams M, 'Fake, Adulterated Sugar in Market, BSFIC Worried' *The Business Post* (14 March 2023) <<https://businesspostbd.com/front/2023-03-14/fake-adulterated-sugar-in-market-bsfic-worried-2023-03-14>> accessed 10 June 2024

Shaon A, 'How Reliable Are the Expiration Dates on the Goods You Buy?' *Dhaka Tribune* (16 October 2017) <<https://www.dhakatribune.com/bangladesh/128312/how-reliable-are-the-expiration-dates-on-the-goods>> accessed 10 June 2024

Shavell S, *Foundations of Economic Analysis of Law* (Harvard University Press 2004)

Shaw P, *A Treatise on the Law of Obligations and Contracts* (T & T Clark 1857)

Shen C, Wei M and Sheng Y, 'A Bibliometric Analysis of Food Safety Governance Research from 1999 to 2019' (2021) 9 Food Science & Nutrition 2316

Sherman EF, 'Group Litigation under Foreign Legal Systems: Variations and Group Litigation under Foreign Legal Systems: Variations and Alternatives to American Actions Alternatives to American Actions' (2002) 52(2) DePaul Law Review 401

Siciliani P, Riefa C and Gamper H, Consumer Theories of Harm: An Economic Approach to Consumer Law Enforcement and Policy Making (Hart 2019)

Siciliani P, Riefa C and Gamper H, 'Fairness by Design: The Introduction of a Positive Duty to Trade Fairly', Consumer Theories of Harm: An Economic Approach to Consumer Law Enforcement and Policy Making (1st edn, Bloomsbury 2019)

Siddiki SN and others, 'How Policy Rules Shape the Structure and Performance of Collaborative Governance Arrangements' (2015) 75(4) Public Administration Review 536

Sienicka B, 'Crimes Against Food: Characteristics, Health Risk, and Regulations' (2024) 13 Food and Energy Security 1

Sikder MR and Islam S, 'Right to Food and Food Security in Bangladesh: An Overview' (2023) 5(5) Asian Journal of Social Sciences and Legal Studies 125

Silano V, 'Science, Risk Assessment and Decision-Making to Ensure Food and Feed Safety in the European Union' (2009) 4(6) European Food and Feed Law Review 400

Silvee SS and Wu X, 'International Food Law: Historical Development and Need of Comprehensive Law' (2021) 16(2) Asian Journal of WTO & International Health Law and Policy 421

~~Sipos C and others, 'Courts Are Right To Scrutinize Food Labelling Suits' (Law360, 4 August 2020) <<https://www.law360.com/articles/1297119/courts-are-right-to-scrutinize-food-labeling-suits>> accessed 12 June 2024~~

Siraj M, 'Food Safety Legislation in Pakistan: Identifying Entry Points for Public Intervention', National Food Safety Conference, Lahore (2004)

Skjærseth JB and Wettestad J, 'Implementing EU Emissions Trading: Success or Failure?' (2008) 8 International Environmental Agreements: Politics, Law and Economics 275

Smith A, An Inquiry Into the Nature and Causes of the Wealth of Nations, vol I (3rd edn, Methuen 1922)

Smith DK, 'What Is Regulation? A Reply to Julia Black' (2002) 27 Australian Journal of Legal Philosophy 37

Smith JW, The Law of Contracts (George Malcolm ed, 5th edn, Stevens & Sons 1868)

Smith R, Manning L and McElwee G, 'Critiquing the Inter-Disciplinary Literature on Food Fraud' (2017) 3(2) International Journal of Rural Criminology 250

Smith R, Manning L and McElwee G, 'The Anatomy of "So-Called Food-Fraud Scandals" in the UK 1970-2018: Developing a Contextualised Understanding Food Crimes, Food Harms and the Food System' (2022) 78 *Crime, Law and Social Change* 535

Snoek HM and others, 'Consumers' Health and Food Safety Perceptions in the Dhaka Metropolitan Area' (Wageningen University & Research and Agriculture Organisation of the United Nations (FAO), FAO Representation in Bangladesh 2021)
<https://research.wur.nl/en/publications/bec48212-f716-4608-bd06-d0dba73611f9>
 accessed 18 June 2024

Solaiman SM and Ali ANMA, 'Civil Liabilities for Unsafe Foods in Bangladesh and Australia: A Comparative Perspective on Consumer Protection' (2014) 13(4) *Comprehensive Reviews in Food Science and Food Safety* 656

Solaiman SM, 'Laws Governing Manslaughter by Food Safety Crimes in the United Kingdom, Australia, Bangladesh and India: A Critical Review' (2021) 47(1) *North Carolina Journal of International Law* 76

Solaiman SM, 'Prevention of Judicial Corruption in Bangladesh: Cutting the Gordian Knot by Ensuring Accountability' (2023) 19(1) *University of Pennsylvania Asian Law Review* 28

Solaiman SM, 'The Most Serious Offenses and Penalties Concerning Unsafe Foods under the Food Safety Laws in Bangladesh, India, and Australia: A Critical Analysis' (2015) 70(3) *Food and Drug Law Journal* 409

Soon-Sinclair JM and others, 'Consumers' Perceptions of Food Fraud in Selected Southeast Asian Countries: A Cross Sectional Study' (2023) 16 *Food Security* 65

Soon-Sinclair JM and others, 'How Worried Are You about Food Fraud? A Preliminary Multi-Country Study among Consumers in Selected Sub-Saharan African Countries' (2023) 12(19) *Foods* 1

Spencer N, Malinauskaite J and Jouhara H, 'Waste Prevention and Technologies in the Context of the EU Waste Framework Directive: Lost in Translation?' (2017) 26 *European Energy and Environmental Law Review* 66

Spink J and Moyer DC, 'Defining the Public Health Threat of Food Fraud' (2011) 76(9) *Journal of Food Science* R157

Spink J and others, 'Food Fraud Prevention: Policy, Strategy, and Decision-Making – Implementation Steps for a Government Agency or Industry' (2016) 70(5) *International Journal for Chemistry* 320

Spink J and others, 'International Survey of Food Fraud and Related Terminology: Preliminary Results and Discussion' (2019) 84(10) *Food Science* 2705

Spink J, Moyer DC and Speier-Pero C, 'Introducing the Food Fraud Initial Screening Model (FFIS)' (2016) 69 *Food Control* 306

Spink JW, 'The GFSI Food Fraud Prevention Compliance Development & Requirements: A Ten-Year Review' (2023) 138 Trends in Food Science & Technology 766

Sristy A, 'Blockchain in the Food Supply Chain - What Does the Future Look Like?' (Walmart Global Tech, 2021) <https://tech.walmart.com/content/walmart-global-tech/en_us/news/articles/blockchain-in-the-food-supply-chain.html> accessed 28 January 2024

Stanton-Ife J, 'The Limits of Law' in Edward N Zalta (ed), The Stanford Encyclopedia of Philosophy (Spring 2022, Metaphysics Research Lab, Stanford University 2022)

Stapleton J, 'Duty of Care and Economic Loss: A Wider Agenda' (1991) 107 LQR 249

Stapleton J, 'Legal Cause: Cause-in-Fact and the Scope of Liability for Consequences' (2001) 54(3) Vanderbilt Law Review 941

Stapleton J, Product Liability (Cambridge University Press 1994)

Stazi A and Jovine R, 'Food Traceability in Europe, the US and China: Comparative Law and Regulatory Technology' (2022) 2 BioLaw Journal 339

Steier G and Patel KK (eds), International Food Law and Policy (Springer International Publishing 2016)

Strom S, 'Lawyers From Suits Against Big Tobacco Target Food Makers' The New York Times (18 August 2012) <<https://www.nytimes.com/2012/08/19/business/lawyers-of-big-tobacco-lawsuits-take-aim-at-food-industry.html>> accessed 13 June 2024

Suman S and others, 'Food Safety System in Bangladesh: Current Status of Food Safety, Scientific Capability, and Industry Preparedness' (USAID 2021)

Surana R, 'The Law of Restitution for Unjust Enrichment in India: A History' (Max Planck Institute For Legal History and Legal Theory) <<https://www.lhlt.mpg.de/2896816/01-surana-the-law-of-restitution-for-unjust-enrichment-in-india>> accessed 14 November 2024

Swanson A, 'Food Scares and Product Tampering - European and US Perspectives' (1990) 15(2) International Legal Practitioner 46

Swinbank A, 'The EEC's Policies and Its Food' (1992) 17(1) Food Policy 53

Syed RF, 'Compliance with and Enforcement Mechanism of Labour Law: Cost-Benefits Analysis from Employers' Perspective in Bangladesh' (2023) 12(2) Asian Journal of Business Ethics 395

Sylvester G (ed), E-Agriculture in Action: Blockchain for Agriculture : Opportunities and Challenges (International Telecommunication Union ; Food and Agriculture Organisation of the United Nations 2019)

Tahura U, 'Can Technology Be a Potential Solution for a Cost-Effective Litigation System in Bangladesh?' (2021) 42(2) Justice System Journal 180

Tahura U, 'Facilitating Access to Justice: Managing the Cost of Litigation in the Subordinate Courts of Bangladesh' (PhD Thesis, Macquarie University 2021)

Tahura U, 'Role of Clients, Lawyers, Judges, and Institutions in Hiking Litigation Costs in Bangladesh: An Empirical Study' (2022) 9(1) Asian Journal of Law and Society 59

Talbot I, 'Bangladesh Since Independence', A History of Modern South Asia (1st edn, Yale University Press 2016)

Talukder MB and others, 'Mindful Consumers and New Marketing Strategies for the Restaurant Business: Evidence of Bangladesh', Social Media Strategies for Tourism Interactivity (IGI Global 2024)

Tamanaha BZ, Legal Pluralism Explained: History, Theory, Consequences (Oxford University Press 2021)

Tamanna I, 'Food Adulteration and Inadequate Hygiene Practices Endangering Public Health in Bangladesh' (2024) 4 Discover Food 1

Tandon A and others, 'Behavioral Reasoning Perspectives on Organic Food Purchase' (2020) 154 Appetite 104786

TBS Report, '45 Lakh People at Health Risks for Consuming Adulterated Food' The Business Standard (5 February 2020) <<https://www.tbsnews.net/bangladesh/health/45-lakh-people-health-risks-consuming-adulterated-food-42257>> accessed 18 June 2024

TBS Report, 'DNCRP to Introduce Hotline March 15' The Business Standard (12 March 2020) <<https://www.tbsnews.net/bangladesh/dncrp-introduce-hotline-march-15-55486>> accessed 12 June 2024

TBS Report, 'Fargo and Dutch-Based Saf Invest to Jointly Invest in Local Food Processing Industry' The Business Standard (14 May 2024) <<https://www.tbsnews.net/economy/fargo-and-dutch-based-saf-invest-jointly-invest-local-food-processing-industry-850861>> accessed 31 July 2024

The American Presidency Project, 'Special Message to the Congress on Protecting the Consumer Interest' (15 March 1962) <<https://www.presidency.ucsb.edu/documents/special-message-the-congress-protecting-the-consumer-interest>> accessed 7 June 2024

The Food & Drink Federation, 'Food Information and Consumer Information' (The Food & Drink Federation, 27 March 2020) <<https://www.fdf.org.uk/fdf/what-we-do/food-labelling-and-consumer-information/>> accessed 7 June 2024

Thomann E, Customized Implementation of European Union Food Safety Policy: United in Diversity? (Springer International Publishing 2019)

Tibola CS and others, 'Economically Motivated Food Fraud and Adulteration in Brazil: Incidents and Alternatives to Minimize Occurrence' (2018) 83(8) Journal of Food Science 2028

Tobin T, 'Class Action Litigation Targeting the Food Industry: U.S. and International Perspectives in: Research Handbook on International Food Law' in Michael T Roberts (ed), Research Handbook on International Food Law (Edward Elgar 2023)

Tofaris S, 'The Regulation of Unfair Terms in Indian Contract Law: Past, Present, and Future' in Mindy Chen-Wishart and Stefan Vogenauer, *Studies in the Contract Laws of Asia III: Contents of Contracts and Unfair Terms* (Oxford University Press 2020)

Tonkin E, 'The Process of Making Trust Related Judgements through Interaction with Food Labelling' (2016) 63 *Food Policy* 1

Topu PR with AK, 'Cow Fattening out of Control' (The Daily Star, 29 September 2014) <<https://www.thedailystar.net/cow-fattening-out-of-control-43802>> accessed 28 January 2024

Treitel GH, *The Law of Contract* (11th edn, Sweet and Maxwell 2003)

Tribune Desk, 'Export of Fruits, Vegetables to Europe See Sharp Decline' Dhaka Tribune (21 October 2023) <<https://www.dhakatribune.com/business/328653/export-of-fruits-vegetables-to-europe-see-sharp>> accessed 31 July 2024

Tripoli M and Schmidhuber J, 'Emerging Opportunities for the Application of Blockchain in the Agri-Food Industry' (FAO and International Centre for Trade and Sustainable Development (ICTSD) 2018)

Uddin R, 'Two Dozen Laws Fail to Ensure Food Safety' The Business Post (21 February 2023) <<https://businesspostbd.com/front/2023-02-21/two-dozen-laws-fail-to-ensure-food-safety-2023-02-21>> accessed 16 July 2024

UK Government Chief Scientific Adviser, 'Distributed Ledger Technology: Beyond Block Chain' (2016)

United Nations in Bangladesh, 'Sustainable Development Goal 3: Good Health and Well-Being' <<https://bangladesh.un.org/en/sdgs/3>> accessed 17 January 2024

Unnevehr L, 'Addressing Food Safety Challenges in Rapidly Developing Food Systems' (2022) 53 *Agricultural Economics* 529

USAID, 'Reflections from Food Safety Influencers in Bangladesh' (USAID Policy LINK Program, 25 February 2024) <<https://policylinkglobal.org/newsroom/reflections-from-food-safety-influencers-in-bangladesh>> accessed 19 June 2024

USAID, 'The Enabling Environment for Food Traceability System Success' (USAID 2021)

Uttom S and Rozario R, 'Unsafe Food Leaves Nasty Taste in Bangladesh' (La croix international, 14 June 2019) <<https://international.la-croix.com/news/world/unsafe-food-leaves-nasty-taste-in-bangladesh/10332>> accessed 13 August 2024

van der Meulen B, 'The Global Arena of Food Law: Emerging Contours of a Meta-Framework' (2010) 3 *Erasmus Law Review* 217

van der Pijl W, 'An Update of Shrimp and Prawn Supply Chain Initiatives in Bangladesh; Recommendations for Inclusive Shrimp Supply Chain Development for the STDF Project' (Wageningen, LEI Wageningen UR (University & Research centre) 2014) LEI 14-028

van Ruth SM and others, 'Differences in Fraud Vulnerability in Various Food Supply Chains and Their Tiers' (2018) 84 Food Control 375

van Ruth SM, Huisman W and Luning PA, 'Food Fraud Vulnerability and Its Key Factors' (2017) 67 Trends in Food Science & Technology 70

Vaqu LG, 'Introducing the European Commission Knowledge Centre for Food Fraud and Quality' (2018) 13(6) European Food & Feed Law Review 532

Vasu P and Martin A, 'Chemical Adulterants in Food: Recent Challenges' in H Umesh Hebbar and others (eds), *Engineering Aspects of Food Quality and Safety* (Springer International Publishing 2023)

Vaughan D, 'Rational Choice, Situated Action, and the Social Control of Organisations' (1998) 32 Law & Society Review 23

Verbruggen P, 'Understanding the "New Governance" of Food Safety: Regulatory Enrolment as a Response to Change in Public and Private Power' (2016) 5(3) Cambridge Journal of International and Comparative Law 418

Vessio M and others, 'InPerpetuity {Challenging Misperceptions of the Term "Smart Contract"}' (2024) 15(2) European Journal of Law and Technology 1

Vessio M, 'The Bank of England's Approach to Central Bank Digital Currencies – Considerations Regarding a Native Digital Pound and the Regulatory Aspects' in Alison Lui and Nicholas Ryder (eds), *FinTech, Artificial Intelligence and the Law: Regulation and Crime Prevention* (1st edn, Routledge 2021)

Vick DW, 'Interdisciplinarity and the Discipline of Law' (2004) 31(2) Law and Society 163

Vincenzo DV di S, 'Product Liability from a Comparative Perspective: What Kinds of Protection?', *The Language of Law and Food* (1st edn, Routledge 2021)

Volpato A and Offermans A, 'Lessons for Participation from an Interdisciplinary Law and Sustainability Science Approach: The Reform of the Sustainable Use of Pesticides Directive' (2023) 14(2) European Journal of Risk Regulation 253

Vos E, 'EU Food Safety Regulation in the Aftermath of the BSE Crisis' (2000) 23(3) Journal of Consumer Policy 227

Wahab N and Sultana F, 'Adulterated Food Induced Female Infertility in Bangladesh' (2017) 3(3) Journal of Asian and African Social Science and Humanities 12

Wakefield M and others, 'Use of Mass Media Campaigns to Change Health Behaviour' [2019] 376 1261

Waldron J, 'Moments of Carelessness and Massive Loss' in David G Owen (ed), *The Philosophical Foundations of Tort Law* (Oxford University Press 1997)

Walton G, 'Food and Drink Adulteration in the 1700 and 1800s' (20 August 2014) <<https://www.geriwalton.com/food-and-drink-adulteration-in-1700-and/>> accessed 26 April 2024

Watkins D and Burton M, *Research Methods in Law* (2nd edn, Routledge 2018)

Weekes R, 'Class Actions: A New Era in the UK?' (Crowell & Moring LLP 2020)
 <<https://www.crowell.com/a/web/dxqP5WtkFE8KTK2EymPeg/4TtiyZ/Litigation-Forecast-2020-UK-Litigation-Crowell-Moring.pdf>> accessed 13 June 2024

Weingart P, 'Scientific Expertise and Political Accountability: Paradoxes of Science in Politics' (1999) 26(3) *Science and Public Policy* 151

White F, 'The Meaning of Merchantable Quality: James Elliot Construction LTD v Irish Asphalt LTD' (2012) 47 *Irish Jurist* (NS) 225

Whittaker S, *The Development of Product Liability* (Cambridge University Press 2010)

WHO, 'Formaldehyde' (WHO Regional Office for Europe, Copenhagen, Denmark 2001)

WHO, 'WHO Global Strategy for Food Safety 2022–2030: Towards Stronger Food Safety Systems and Global Cooperation' (World Health Organisation 2022)

Wilhelmsson T and Howells G, 'Consumer Law', *Consumer Law* (Edward Elgar 2019)

Wilson B, *Swindled: The Dark History of Food Fraud, from Poisoned Candy to Counterfeit Coffee* (Princeton University Press 2008)

Wilson N, Miao R and Weis C, 'Seeing Is Not Believing: Perceptions of Date Labels over Food and Attributes' (2018) 24 *Journal of Food Products Marketing* 611

Winters DRH, 'Outbreak: Foodborne Illness and the Struggle for Food Safety' 39(4) *Journal of Legal Medicine* 443

Wisniewski A and Buschulte A, 'Dealing with Food Fraud: Part 1: A Review of Existing Definitions and Strategies for the Prevention of Food Fraud, Established in Legal Regulations Focusing on Germany's Major Trading Partners' (2019) 14(1) *European Food and Feed Law Review* 6

Wisniewski A, Buschulte A, 'How to Tackle Food Fraud in Official Food Control Authorities in Germany' (2019) 14(4) *Journal of Consumer Protection and Food Safety* 319

Witting C, 'False Representations', *Street on Torts* (16th edn, Oxford University Press 2021)

Wonka A and Rittberger B, 'Credibility, Complexity and Uncertainty: Explaining the Institutional Independence of 29 EU Agencies' (2010) 33 *West European Politics* 730

Wood B and others, 'Market Strategies Used by Processed Food Manufacturers to Increase and Consolidate Their Power: A Systematic Review and Document Analysis' (2021) 17 *Globalisation and Health* 17

Woodford J, 'Gap Analysis of Legal and Policy Framework In the Livestock Sector' (United Nations Industrial Development Organisation (UNIDO) 2022)

World Bank, 'Poverty & Equity Brief Bangladesh' (World Bank 2023)

World Health Organisation, 'Food Safety: Key Facts' World Health Organisation (2022)
 <<https://www.who.int/news-room/fact-sheets/detail/food-safety>> accessed 28 December 2023

Worth M, 'Tinkler v Ferguson: Avoiding Duplicate Litigation' (Dispute Resolution blog, 20 July 2020) <<http://disputeresolutionblog.practicallaw.com/tinkler-v-ferguson-avoiding-duplicate-litigation/>> accessed 16 June 2024

WRAP, 'Labelling Guidance: Best Practice on Food Date Labelling and Storage Advice' (WRAP, UK FSA, DEFRA 2019)

Wu W and others, 'Consumer Trust in Food and the Food System: A Critical Review' (2021) 10 Foods 2490

Wu X, Ramesh M and Howlett M, 'Policy Capacity: Conceptual Framework and Essential Components' in Xun Wu, Michael Howlett and M Ramesh (eds), *Policy Capacity and Governance: Assessing Governmental Competences and Capabilities in Theory and Practice* (Springer International Publishing 2018)

Yan W, 'The Vice of Spice: Confronting Lead-Tainted Turmeric' [2023] Undark <<https://undark.org/2023/07/19/the-vice-of-spice-confronting-lead-tainted-turmeric/#>> accessed 16 January 2024

Yang R and others, 'Milk Adulteration with Melamine in China: Crisis and Response' (2009) 1(2) *Quality Assurance and Safety of Crops & Foods* 111

Yang R, Horstman K and Penders B, 'Stakeholder Perspectives on Infant Formula Safety Governance in China: A Decade after the Melamine Crisis' (2022) 25 *Food, Culture & Society* 70

Yang Y and others, 'Fraud Vulnerability in the Dutch Milk Supply Chain: Assessments of Farmers, Processors and Retailers' (2019) 95 *Food Control* 308

Yang Y and others, 'The Chinese Milk Supply Chain: A Fraud Perspective' (2020) 113 *Food Control* 107211

Yasuda JK, 'Why Food Safety Fails in China: The Politics of Scale' (2015) 223 *The China Quarterly* 745

Yeasmin D and others, 'Exploring Customers' Perceptions of Food Adulteration at Bazaars and Supermarkets in Dhaka, Bangladesh; a Qualitative Exploration' (2023) 23 *BMC Public Health* 1

Yeung K, 'Regulation by Blockchain: The Emerging Battle for Supremacy between the Code of Law and Code as Law' (2019) 82(2) *The Modern Law Review* 207

Zakaib BLGL-G and others, 'Class and Collective Actions in Canada' (Lexology, 1 March 2019) <<https://www.lexology.com/library/detail.aspx?g=df53fca8-7604-4ecb-91b6-bf039a0159fb>> accessed 13 June 2024

Zaman H, *Challenging Colonial Administrative Behavior in Bangladesh* (1st edn, Taylor & Francis 2023)

Zhang L, 'Engineering Compulsory Food Safety Liability Insurance in China: A Joint Perspective of Public and Private International Law' (2016) 9 Journal of East Asia and International Law 341

Zhe Zhang and others, 'Transformation of China's Food Safety Standard Setting System—Review of 50 Years of Change, Opportunities and Challenges Ahead' (2018) 93 Food Control 106

Zhou X and others, 'Authenticity and Geographic Origin of Global Honeys Determined Using Carbon Isotope Ratios and Trace Elements' (2018) 8 Scientific Reports 14639

Zhu X, Yuelu Huang I and Manning L, 'The Role of Media Reporting in Food Safety Governance in China: A Dairy Case Study' (2019) 96 Food Control 165

Zimmermann R, The Law of Obligations: Roman Foundations of the Civilian Tradition (Oxford University Press 1996)