



A Follow-up Study in 2025

Toxic Skin Lightening Products Remain Available



A Follow-up Study in 2025 Toxic Skin Lightening Products Remain Available



Copyright © Environment and Social Development Organization-ESDO
Level: 5, House: 8/1, Block: C, Lalmatia, Dhaka-1207, Bangladesh
Phone: +880-2-55008178
Fax: +880-2-55008179
E-mail: info@esdo.org
Website: www.esdo.org

About ESDO

Environment and Social Development Organization- ESDO is an action research-oriented non-profit and non-government organization based in Bangladesh. It is an environmental action research group dedicated to a toxic-free, zero-waste planet. This entails fighting pollution and building regenerative solutions in cities through local campaigns, shifting policy and finance, research and communication initiatives, and movement building. ESDO is working relentlessly to ensure biological diversity since its formation in 1990. It is the pioneer organization that initiated the anti-polythene campaign in 1990, which later resulted in a complete ban on polythene shopping bags throughout Bangladesh in 2002.

Publication Time: July 2025

Authors: Dr. Shahriar Hossain, Siddika Sultana, Foijun Nahar, Sharmin Azad Liza, & Rifayat Khan Shishir

Team Leader

Dr. Shahriar Hossain

Co-Lead

Siddika Sultana

Study & Analysis

Foijun Nahar, Sharmin Azad Liza & Rifayat Khan Shishir

Support Team

BAN Toxics Team (Antonio Dizon, Winona Keane Garcia and Renato Mabilin Jr.), Maliha Hoque, Sadmeen Sadaf Jahan, Sara Anwar Tethy, Noshin Naila, Shaberu Rahman, Md. Mokshedur Rahman, Nusrat Jahan Mim, & Volunteers

Graphics and Illustration

Sharmin Azad Liza, Foijun Nahar, Sara Anwar Tethy & Noshin Naila

Study Assistants

Khalilur Rahman, Zarin Tasnim, Rashedul Islam, & Tasnova Islam Aurooni

Acknowledgment

We sincerely thank the Almighty for His mercy and guidance. We extend our deepest gratitude to the European Environmental Bureau (EEB) and Zero Mercury Working Group (ZMWG) for their collaboration and continued support throughout this initiative. Their partnership was central to the success of this study.

We also acknowledge the tremendous support of Ban Toxics for their invaluable role in conducting laboratory testing. Their technical expertise significantly strengthened the credibility of our findings. We express our sincere gratitude to all ESDO team members who contributed to this study with their dedication and hard work. Our heartfelt thanks also go to BSTI, the media, and all stakeholders whose insights and cooperation enriched this research and helped bring it to fruition.

Disclaimer

This report, “*Toxic Skin-Lightening Products Remain Available: A Follow-up Study in 2025*,” has been prepared by the Environment and Social Development Organization - ESDO, in collaboration with the European Environmental Bureau/Zero Mercury Working Group (EEB/ZMWG), with testing support provided by BAN Toxics. The content, findings, and recommendations are based on market assessments, laboratory analysis, and policy reviews conducted during the project period.

While every effort has been made to ensure the accuracy, reliability, and objectivity of the information presented, the authors do not assume responsibility for any consequences arising from the use or interpretation of this data. The findings are supported by scientific screening methods for mercury content; however, they are not intended to replace official regulatory testing or legal certification processes.

The views expressed in this publication are solely those of the authors and do not necessarily reflect the official positions of any government authority, funding body, or collaborating institution. This report is intended for informational, educational, and advocacy purposes only. It seeks to raise public awareness, support policy discussions, and promote consumer safety and public health protection.

Readers are advised to consult relevant national and international regulatory authorities for official standards and compliance requirements. Neither ESDO, EEB/ZMWG, BAN Toxics, nor their representatives shall be held liable for any loss or damage resulting directly or indirectly from the use of or reliance on this publication.

Executive Summary

The Environment and Social Development Organization - ESDO, in collaboration with the European Environmental Bureau/Zero Mercury Working Group (EEB/ZMWG) and with testing support from BAN Toxics, conducted a comprehensive follow-up study to assess the continued presence of mercury in skin-lightening products (SLPs) and to evaluate consumer behavior, seller practices, and regulatory awareness in Dhaka, Bangladesh. This study was carried out between April–June 2025, using a mixed-methods approach that combined laboratory testing with structured surveys and market observations.

Laboratory analysis of 28 skin-lightening products, collected from both physical and online markets during 2024–2025, was conducted using a portable handheld X-ray fluorescence (XRF) analyzer. The results were alarming: 24 products contained mercury levels far exceeding both national and international safety limits. In Bangladesh, the BSTI allows a maximum of 1 part per million (ppm) of mercury in cosmetics. Internationally, the Minamata Convention previously followed the same threshold, but at COP-5 in 2023, Parties adopted a complete ban on mercury in cosmetics, effective from 2025.

Among the most toxic products, Due Beauty Cream contained 24,800 ppm of mercury, followed by Golden Pearl (20,700 ppm), FEIQUE Herbal Extract (15,500 ppm), and Parley Beauty Cream (10,700 ppm). Many of these, though officially banned, are still widely available, especially online. The average mercury level in 2025 reached 5,249 ppm, more than double the 2024 level, highlighting the continued circulation of hazardous products and weaknesses in enforcement.

Complementing these alarming test results, the study also investigated consumer and seller perspectives. Among 730 surveyed consumers, 84.5% were female, 62.2% were aged 20–30, and 73% reported currently using skin-lightening products, with 40% purchasing them online, highlighting a strong digital market presence. Demand was primarily influenced by social media influencers (31.4%), celebrity endorsements (30.4%), and online advertisements (25.1%), together accounting for over 85% of demand drivers. More than half of the respondents (52.2%) were unaware that mercury can be present in skin-lightening products, highlighting significant health awareness gaps. Cultural pressures persist, with 45.6% believing fair skin enhances self-esteem and 20.1% associating it with better marriage prospects, reinforcing product use. Regulatory awareness was limited, as only 16.4% of consumers knew about BSTI's mercury limits and yet, 82.6% supported banning mercury-laden products and strengthening enforcement.

The seller survey, involving 75 participants, including retailers, online sellers, wholesalers, and importers, reveals a diverse and multi-layered distribution network for skin-lightening products (SLPs). Sales are concentrated in key commercial hubs, such as *New Market* and *Chawkbazar*, as well as standalone cosmetics shops. Retailers dominate the market, with most reporting daily sales of 5–10 units, primarily to young women aged 20–29 years. Despite regulatory restrictions, BSTI-banned products continue to enter the market through informal channels. While 52% of sellers recognize the potential public health risks of selling SLPs, only 37.3% are aware of the official mercury limit. These findings highlight significant gaps in knowledge, regulatory awareness, and compliance, emphasizing the need for stronger enforcement.

This report serves as both a scientific expose and a public health alert, calling for immediate policy action. The findings emphasize the importance of mandatory chemical testing, stronger regulation of manufacturers and importers, and public education on mercury-related health risks. Without swift intervention, the continued circulation of toxic products risks undermining progress in public health, environmental safety, and consumer rights. The report also highlights the urgent need to accelerate the ratification and domestic enforcement of the Minamata Convention on Mercury to eliminate mercury-laden products and protect vulnerable groups, particularly women and children.

Key Highlights

Analysis of Mercury Levels in Skin-Lightening Products

Widespread Mercury Contamination

In 2024-2025, laboratory testing of 28 skin-lightening products revealed that 24 contained mercury levels above the international safety limit, violating both the Minamata Convention and BSTI standards.

Extremely Toxic Products Identified

Twelve (12) skin-lightening products tested in 2025 were found to contain mercury concentrations exceeding 1,000 ppm, more than 1,000 times the nationally and internationally accepted limit. The Bangladesh Standards and Testing Institution (BSTI) currently allows up to 1 ppm of mercury in cosmetics. However, at the international level, member countries agreed at the 5th Conference of the Parties (COP-5) in 2023 to a complete ban on mercury in cosmetics, effective from 2025. These findings expose a major public health crisis and reveal persistent regulatory failures.

- **Due Beauty Cream** – 24,800 ppm
Highest mercury level detected; banned but still widely available locally and online, making it the most toxic product identified in 2025.
- **Golden Pearl Beauty Cream** – 20,700 ppm
- **FEIQUE Whitening Cream** – 15,500 ppm
- **Parley Beauty Cream** – 10,700 ppm
- **Kim Whitening Ginseng and Pearl Cream** – 7,400 ppm
- **White Active Cream** – 7,020 ppm
- **Berry Plus 5X Whitening Cream** – 5,640 ppm
- **Black Pearl Skin Cream** – 4,780 ppm
- **Goree Beauty Cream with Lycopene** – 2,090 ppm
- **Shikor Whitening Cream** – 1,870 ppm
- **Cosmic Girl Active Beauty Cream** – 1,810 ppm
- **Jiaoli Herbs Essence Whitening Night Cream** – 1,490 ppm

Banned Products Still in Circulation

Despite official bans by BSTI, products like Due Beauty Cream (24,800 ppm), Golden Pearl Beauty Cream (20,700 ppm), and Goree Beauty Cream (2,090 ppm) are still widely sold in local shops and online platforms, indicating major enforcement gaps.

Country of Origin and Traceability Issues

According to the packaging, most products originated from Pakistan, China, Thailand, and Bangladesh, with some lacking clear labeling, complicating regulation and accountability.

Rising Average Mercury Levels

The average mercury concentration in 2025 was 5,249 ppm, more than double the 2024 average (2,381 ppm), showing a troubling increase in toxic exposure risk.

Consumer Survey Findings

- **Young Women as Primary Users**

Among all surveyed consumers, 84.5% were female, 62.2% were aged 20–30, and 73% reported currently using skin-lightening products, with most users being female. Online platforms were the leading source of information (34.8%), and 40% of respondents also purchased SLPs online, highlighting the strong role of digital channels.
- **Digital Marketing Drives Demand:** Demand was primarily influenced by:
 - Social media influencers (31.4%)
 - Celebrity endorsements (30.4%)
 - Online ads (25.1%)
 - Together, these accounted for over 85% of demand drivers
- **Health Awareness Gaps**

While 82.1% of users were aware of common side effects, 52.2% were unaware that mercury could be present in skin-lightening products.
- **Cultural Pressures**
 - 45.6% of users believed fair skin enhances self-esteem
 - 20.1% believed it improves marriage prospects

These beliefs continue to reinforce demand despite health risks
- **Low Public Awareness, High Support for Regulation**
 - Only 16.4% of consumers were aware of the BSTI’s mercury limit
 - The Majority, 82.6%, supported a ban on mercury in cosmetics and SLPs
- **Statistical Associations**
 - **Age and Product Use**

A significant association was found ($p < 0.001$), with the highest usage among individuals aged 20–30, indicating that younger adults are the main users.
 - **Education and Perceptions of Fair Skin**

A significant association was observed ($p = 0.001$), showing that beliefs about fair skin vary with education level.
 - **Education and Awareness of Mercury in SLPs**

A significant association was found ($p = 0.001$), with higher awareness among those with postgraduate education.

Seller Survey Findings

- **Market Composition and Sales Trends**

Most sellers were retailers, followed by online sellers, wholesalers, and importers. The majority sourced skin-lightening products from importers (45.3%), while others obtained stock directly from manufacturers (18.7%) and local distributors. Daily sales were typically 5–10 units, mainly to young women aged 20–29 years. Imported products came primarily from India, Thailand, Korea, Pakistan, Malaysia, and China.
- **Distribution and Market Hubs**

In Bangladesh, sales were concentrated in key commercial areas, including *New Market* and *Chawkbazar*, as well as standalone cosmetics shops. Despite regulatory restrictions, BSTI-banned products continue to enter the market through informal channels.
- **Low Regulatory Awareness**

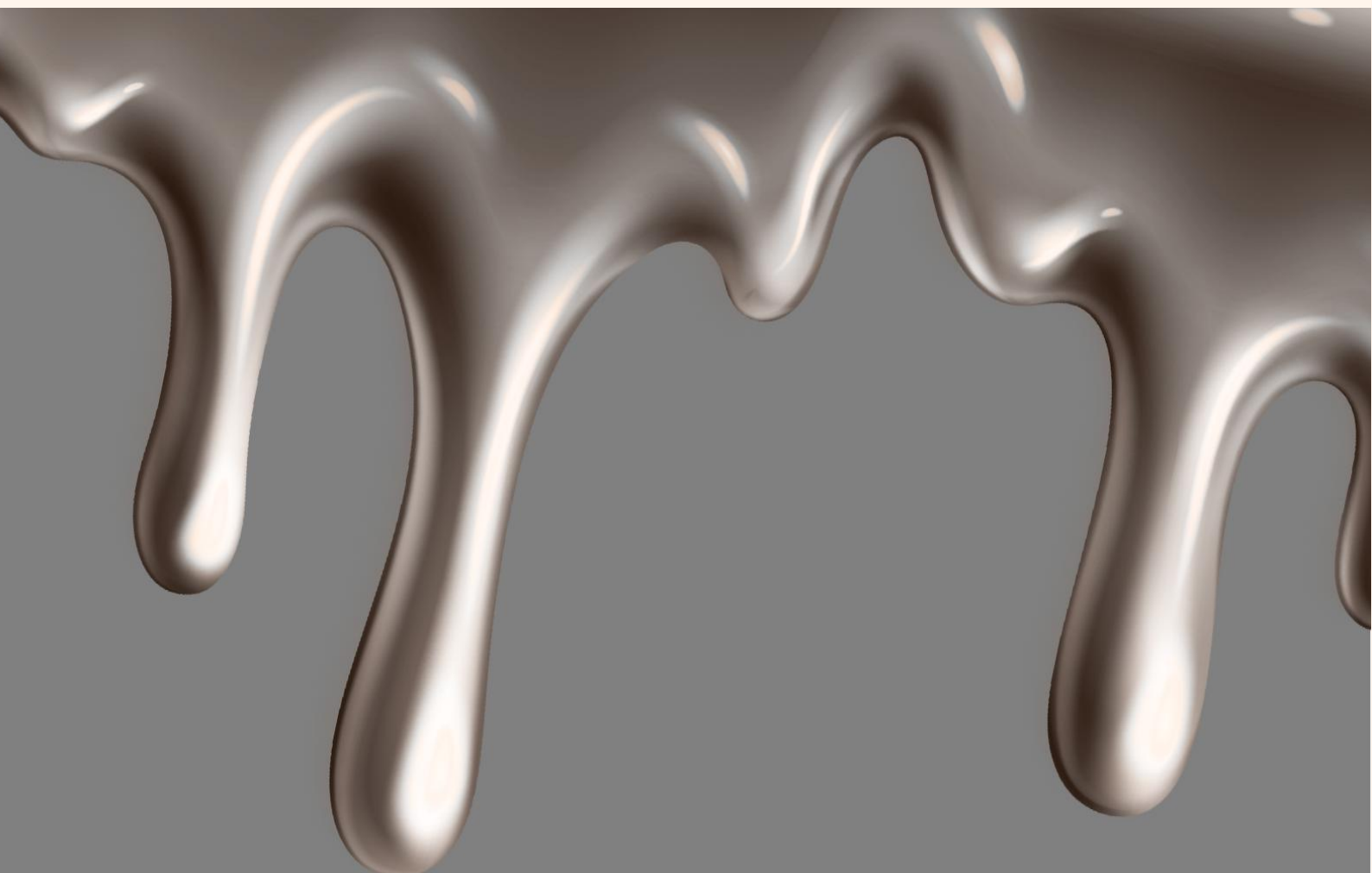
Only 37.3% were aware of the BSTI mercury limit. Yet 81.3% believed the market was under BSTI oversight, indicating misinformation or assumptions about regulation.

Table of Contents

Executive Summary	4
Key Highlights	5
1. Introduction.....	11
1.1 Background.....	11
1.2 Purpose and Objectives.....	12
2. Mercury in Skin-Lightening Products: Cultural and Market Context	14
2.1 Cultural Norms and Motivations for Skin-Lightening Practices	14
2.2 Expansion of the Cosmetics Market	15
2.3 Rise of Online Sales and Digital Platforms	15
3. Health and Environmental Impacts of Mercury.....	17
3.1 Mercury Exposure from Skin Lightening Products	17
3.2 Health Effects of Mercury in Skin-Lightening Products	18
3.3 Environmental Impacts of Mercury from Skin-Lightening Products	18
4. Regulatory Framework on Mercury in Skin-Lightening Products	20
4.1 International Regulation: The Minamata Convention	20
4.2 National Regulation in Bangladesh	20
5. Methodology	22
5.1 Study Design.....	22
5.2 Target Population	23
5.3 Target Areas	23
5.4 Time Duration	23
5.5 Pre-testing	23
5.6 Sample size	23
5.7 Sampling Method.....	24
5.8 Data Collection	24
5.8.1 Questionnaires.....	24
5.8.2 Direct Observation	24
5.9 Data Analysis	24
5.9.1 Data Entry	24
5.9.2 Data Cleaning.....	24
5.9.3 Descriptive Statistics.....	25
5.9.4 Univariate Analysis.....	25

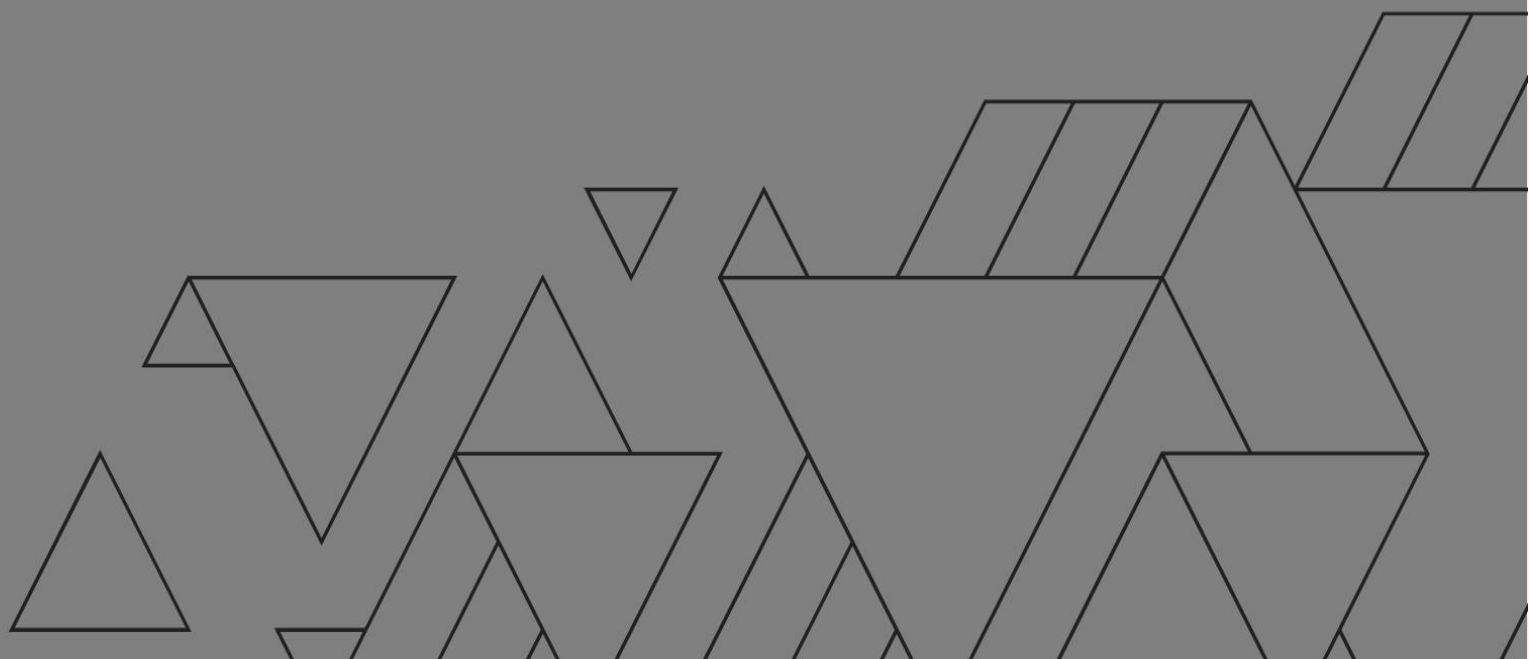
5.9.5 Bivariate Analysis	25
6. Results and Discussions.....	27
6.1 Exploring the Consumer Landscape: Knowledge, Practices, and Perceptions.....	27
6.1.1 Socio-demographic characteristics of the respondents	27
6.1.2 Awareness and Use of Skin Lightening Products	30
6.1.3 Public Knowledge and Perceptions of Skin-Lightening Products.....	33
6.1.4 Attitudes Toward Regulation and Ban on Harmful Skin Lightening Products.....	35
6.2 Consumer Sociodemographic Determinants of Skin Lightening Practices and Mercury Awareness	37
6.2.1 Association Between Age and Skin Color with Skin Lightening Product (SLP) Use	37
6.2.2 Association Between Education Level and Perceptions of Fair Skin.....	37
6.2.3 Association Between Education Level and Awareness of Mercury in Skin Lightening Products	38
6.3 Demographics, Marketing Practices, and Regulatory Awareness of Commercial Sellers of Skin Lightening Products	39
6.3.1 Socio-demographic characteristics of surveyed sellers	39
6.3.2 Product Availability and Sourcing Information	41
6.3.3 Seller Observations on Customer Behaviour and Demand for Skin-Lightening Products.....	43
6.3.4 Seller’s Knowledge and Awareness of Harmful Chemicals and Regulations.....	45
7. Follow-Up Analysis of Mercury Levels in Skin Lightening Products: Comparative Findings from 2017 to 2025.....	48
7.1 Year-wise Findings:.....	48
7.2 Methodology	49
7.2.1 Sampling and Sample Collection.....	49
7.2.2 Analytical Techniques Sample Preparation.....	49
7.2.3 Mercury Measurement Using XRF.....	49
7.2.4 Quality Control and Assurance	50
7.3 Data Analysis	50
7.4 Results of Mercury Analysis in Skin Lightening Products (2024–2025)	50
7.4.1 Presence of Mercury in SLPs from 2024-25.....	50
7.4.2 Mercury Concentration in Tested Skin-Lightening Products (ppm) – 2024-2025	51
7.4.3 High Concentration of Mercury Discoveries in Skin-Lightening Products (2025) 52	

7.4.4 Skin-Lightening Products by Country of Origin	53
7.4.5 Comparison of Average Concentration of Mercury in SLP (2017- 2025).....	54
7.4.6 Mercury Concentration Range Comparison during Years (2017- 2025) (ppm)	54
8. Market Surveillance Approach	57
8.1 Market Monitoring of Banned Skin-Lightening Products (SLPs) by BSTI in Bangladesh.....	57
8.1.1. Observations from Physical Market Outlets	57
8.1.2 Observations from Online Platforms	57
8.2 Market Follow-Up Monitoring in 2025 of Skin-Lightening Products Previously Tested by ZMWG (2017–2023) for Mercury Content in Bangladesh	58
8.2.1 Observations from Physical Market Outlets	58
8.2.2 Observations from Online Platforms	58
9. Policy Landscape and Regulatory Challenges in Bangladesh	60
9.1 National Laws and Standards Governing Cosmetics.....	60
9.1.1 National Standards on Cosmetics – Mercury Regulation and BSTI Enforcement .	60
9.1.2 The Drugs and Cosmetics Act, 2023.....	60
9.2 Regulatory Challenges and Enforcement Gaps	61
10. Recommendations and Future Direction	63
Annexure.....	67
Annex A: Mercury Levels in Skin-Lightening Products Tested in 2024 and 2025	67
Annex B: Mercury Content Measurement in Skin-Lightening Products using a portable handheld X-ray fluorescence (XRF) analyzer	69
Annex C: Online Market Monitoring of BSTI-Banned Skin-Lightening Products (SLPs).70	
Annex: D: Market Monitoring of BSTI-Banned Skin-Lightening Products (SLPs) in Physical Outlets Across Bangladesh.....	71
Annex E: Survey Conducted by ESDO	72
Annex F: Consumer Survey Questionnaire	73
Annex G: Seller Survey Questionnaire.....	75



Chapter 1

Introduction



1. Introduction

1.1 Background

Beauty is the word, the aspiration of people all over the world, and they desire it; Bangladeshis are no exception. Naturally, everyone, especially women, wants to improve their beauty and feel more secure in their own skin. This intense need for beauty has prompted widespread usage of various cosmetic items, including skin-lightening creams, which are frequently considered as a technique for achieving a fairer complexion and societal acceptance.

Skin whitening—also known as lightening or bleaching—is a cosmetic practice intended to reduce melanin production in the skin, resulting in a lighter complexion. In countries like Bangladesh, this practice is deeply rooted in cultural and social beliefs that associate fair skin with beauty, youth, higher status, and even professional success. The growing popularity of skin-lightening products, especially among women, has made them widely available in local markets, beauty stores, and online platforms across the country.¹

This trend, however, is not limited to Bangladesh. According to the World Health Organization (WHO), skin-lightening products are used worldwide, particularly skin-lightening products are commonly used across many African, Asian, and Caribbean countries, as well as among dark-skinned populations in Europe and North America. Skin-lightening products are used by both women and men.²

Skin whitening or skin lightening creams can be used to treat a range of problems, including dark spots, acne scarring, freckles, and melasma. Many skin lighteners still contain chemicals that can cause serious health risks if used for prolonged periods. Despite their widespread use, many of these products contain toxic substances such as mercury, hydroquinone, and steroids, which pose serious health and environmental threats. These chemicals are often used to inhibit melanin production, offering temporary cosmetic results but leading to long-term physiological harm.³ Skin lightening creams and soaps often contain hazardous substances such as mercury, hydroquinone, and steroids—ingredients banned or restricted in many countries due to their toxic effects.

The skin lightening industry is one of the fastest-growing beauty industries worldwide and is estimated to be worth billions of dollars, driven by increasing consumer demand and aggressive marketing tactics.² The widespread use of SLPs, whether with or without mercury, is a source



¹ Banglajol.info. (2025). *View of Dangers of Using Skin Whitening Products in the Cosmetic Market of Bangladesh*. [online] Available at: <https://banglajol.info/index.php/CBMJ/article/view/53814/37775> [Accessed 7 Jul. 2025].

² <https://iris.who.int/bitstream/handle/10665/330015/WHO-CED-PHE-EPE-19.13-eng.pdf?sequence=1>

³ Katsambas, A.D.; Stratigos, A.J. Depigmenting and bleaching agents: Coping with hyperpigmentation. *Clin. Dermatol.* 2001, 19, 483-488.

of worry as they represent societal issues with racism and colorism. In 2022, the global market for SLPs is expected to be worth USD 8.8 billion, with USD 11.8 billion by 2026. Over 50% of individuals in certain populations use SLPs on a regular basis, and one study found that 27.7% of people worldwide have used them at some point.⁴

Despite international regulations like the Minamata Convention and national standards by BSTI, mercury-laden skin-lightening products (SLPs) remain widespread in Bangladesh. Since 2017, the Environment and Social Development Organization -ESDO has been monitoring mercury levels in these products from both offline and online markets, highlighting an ongoing public health and environmental concern. Given these ongoing concerns, this follow-up study aims to assess mercury levels in skin-lightening creams in Bangladesh, compare them with previous data, and evaluate awareness of health risks among consumers and sellers.

1.2 Purpose and Objectives



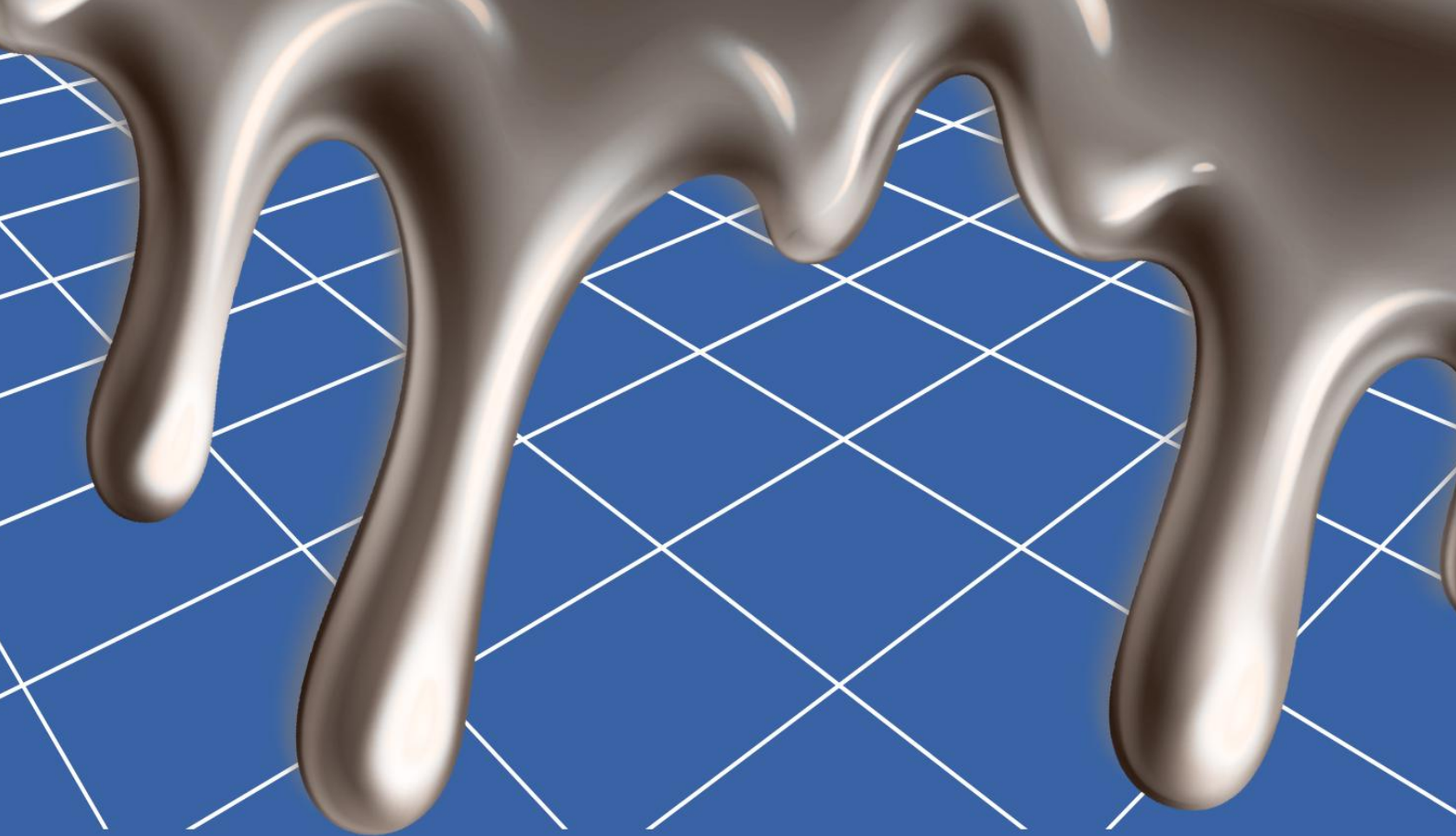
The purpose of this follow-up study is to investigate the continued presence of mercury in skin-lightening products (SLPs) available in Bangladesh, despite regulatory restrictions. The study aims to assess the current market landscape by testing product samples from both online and offline sources, evaluating consumer and seller awareness regarding the associated health and environmental risks, and reviewing the effectiveness of existing regulatory

measures. By comparing current findings with previous EEB/ZMWG and ESDO studies, this research aims to identify progress, remaining gaps, and areas for intervention to strengthen mercury-free product enforcement and protect public health.

The objectives of this study are

1. To determine the presence and concentration of mercury in selected skin-lightening creams sold in local markets and online platforms in Bangladesh
2. To compare current mercury levels with findings from previous studies conducted by EEB/ZMWG and ESDO, to assess trends and changes over time
3. To conduct market monitoring of skin-lightening creams sold in local markets and online platforms in Bangladesh
4. To assess the knowledge, attitudes, and practices (KAP) of consumers and sellers regarding the health and environmental impacts of mercury-containing cosmetics
5. To provide evidence-based recommendations to relevant authorities, regulatory bodies, and advocacy organizations for strengthening policy enforcement and public awareness initiatives

⁴ ZMWG (2023). *Minamata Convention moves to end the use of mercury in cosmetics*. [online] Zero Mercury. Available at: <https://www.zeromercury.org/minamata-convention-moves-to-end-the-use-of-mercury-in-cosmetics/> [Accessed 7 Jul. 2025].



Chapter 2

Mercury in Skin-Lightening Products: Cultural and Market Context

2. Mercury in Skin-Lightening Products: Cultural and Market Context

2.1 Cultural Norms and Motivations for Skin-Lightening Practices

Global Context

Skin-lightening products are used worldwide, but their use is particularly widespread in many African, Asian, and Caribbean countries (WHO, 2019).² Beauty is often perceived and portrayed in different ways across cultures. Unfortunately, many people associate fairness or lighter skin tones with beauty, leading to the use of skin-lightening creams and similar products. This reflects the global issue of colorism, where lighter skin is often valued more highly (Wikipedia, 2024).⁵



Asian Context

Skin bleaching culture is widespread in Asia because people have traditionally associated light skin with riches, beauty, or attractiveness, and high status. There is a cultural preference for white people because black people have usually been viewed as weak and white people as strong and noble (Nimra Noureen and Perveen, 2025).⁶

Bangladeshi Context

Beauty is the aspiration of people around the world, and Bangladeshis are no exception. The demand for skin-lightening products (SLPs) in Bangladesh is substantial and growing.⁷ Naturally, all people—especially women—seek to enhance their appearance. Therefore, cosmetics are commonly used for skin care, particularly on the face. So-called fairness creams of different brands are widely and easily available in almost every corner of the Bangladeshi market. Lighter skin, being an important element in matchmaking culture, prompts many young people—especially women—to use skin-lightening creams containing mercury, and some even apply them to children in the hope of improving their future chances in marriage or career (Hossain, 2020).⁸

⁵ https://en.wikipedia.org/wiki/Skin_whitening

⁶Nimra Noureen and Perveen, R. (2025). Skin Lightning Practices Among Women Living in Lahore; Its Prevalence, Effects, Determinants and Awareness. *Journal of Biological and Allied Health Sciences*, [online] 5(1), pp.97–102. doi:<https://doi.org/10.56536/jbabs.v5i1.120>

⁷ The Business Standard. (2023). The chokehold of colourism on Bengal's beauty. Retrieved from <https://www.tbsnews.net/thoughts/chokehold-colourism-bengals-beauty-653334>

⁸ Hossain, M. (2020). Attitudes of the Female University Students towards Skin Whitening in Bangladesh. *Epidemiology International Journal*, 4(1). doi:<https://doi.org/10.23880/eij-16000134>.

2.2 Expansion of the Cosmetics Market

The skin lightening industry is one of the fastest-growing beauty industries worldwide and is estimated to be worth US\$ 31.2 billion by 2024.² Bangladesh's cosmetics industry has witnessed significant growth in recent years, driven by increased consumer awareness of self-care, rising disposable incomes, and the proliferation of digital platforms. The skincare segment alone was valued at \$1.23 billion in 2019 and is projected to reach \$2.12 billion by 2027, growing at a CAGR of 8.1% between 2021 and 2027.⁹ The market expansion is further fueled by rising consumer demand for herbal and organic skincare products, coupled with the growing influence of beauty trends promoted on social media platforms, which shape purchasing behaviors and preferences.

2.3 Rise of Online Sales and Digital Platforms

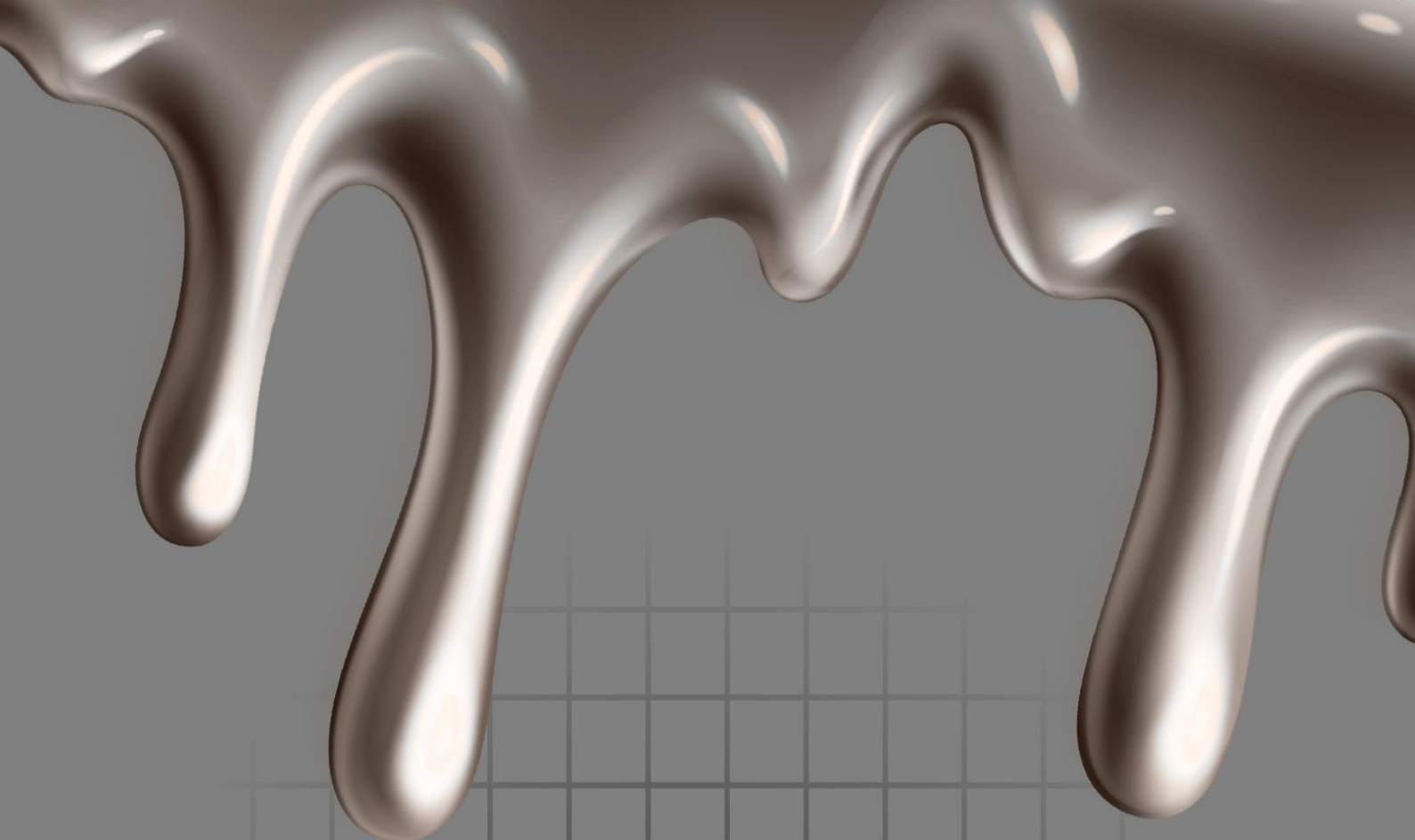
The rapid expansion of e-commerce has significantly contributed to the availability and accessibility of cosmetic products across Bangladesh. Online platforms have become key players in this sector, offering a wide range of beauty and personal care items to consumers nationwide. The personal care e-commerce market in Bangladesh is expected to reach \$344.6 million by 2025, making up over 52% of the total care products e-commerce segment.¹⁰

However, this digital boom has also made it easier for unregulated and potentially hazardous products to enter the market. Investigations have shown that mercury-laden skin-lightening creams, many of which violate the Minamata Convention's limit, are still being sold online, exposing consumers to serious health risks.¹¹ Although regulations exist, their implementation in the online market remains inadequate, highlighting the urgent need for stricter enforcement and enhanced digital monitoring mechanisms.

⁹ Allied Market Research. (2021). Bangladesh Skin Care Products Market Is Expected to Reach \$2.12 Billion by 2027. Retrieved from <https://www.globenewswire.com/news-release/2021/03/29/2200401/0/en/Bangladesh-Skin-Care-Products-Market-Is-Expected-to-Reach-2-12-Billion-by-2027-Says-AMR.html>

¹⁰ ECDB. (2025). Personal Care eCommerce Market in Bangladesh - Data & Trends. Retrieved from <https://ecommercedb.com/markets/bd/personal-care>

¹¹ CNN. (2022). Exclusive: Skin whitening creams containing high levels of mercury continue to be sold on the world's biggest e-commerce sites, a new report finds. Retrieved from <https://edition.cnn.com/2022/03/09/world/zmwg-skin-whitening-creams-mercury-e-commerce-sites-intl-cmd/>



Chapter 3

Health and Environmental Impacts of Mercury

3. Health and Environmental Impacts of Mercury

3.1 Mercury Exposure from Skin Lightening Products

Mercury from skin lightening products can be absorbed through the skin, entering the bloodstream and accumulating in organs like the kidneys and liver. Non-users may also be exposed through contact with contaminated skin, clothing, or bedding. Inhalation of mercury vapors poses additional risks, especially to pregnant women and unborn children, as these vapors can cross the brain and placental barriers. Indirect ingestion can occur when food is prepared by users. Additionally, wastewater from washing off these products contaminates local water bodies and ecosystems (United Nations Environment Programme [UNEP], 2019).¹²

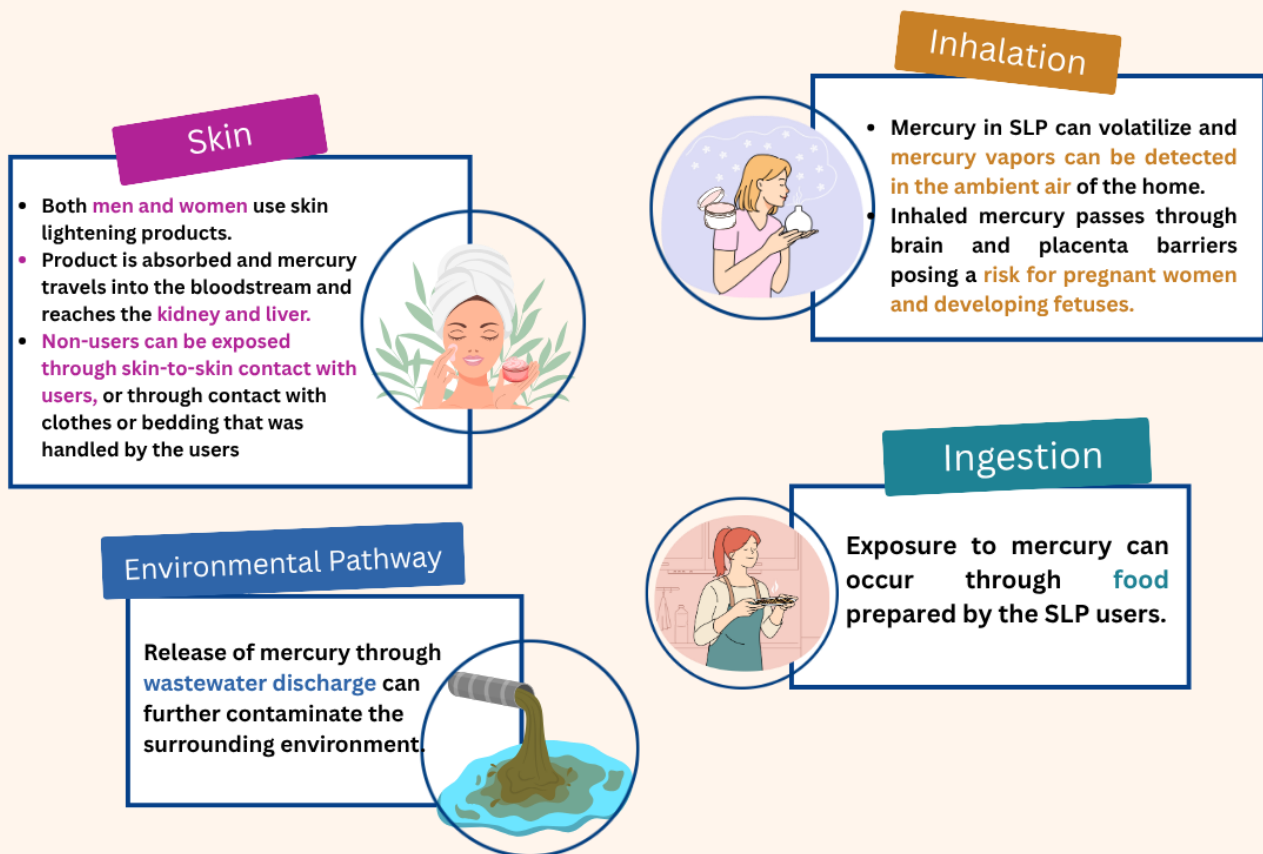


Figure 1: Mercury Exposure from Skin Lightening Products

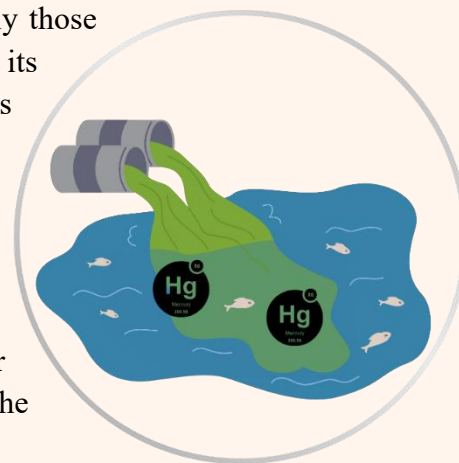
¹² <https://www.un.org/en/delegate/minamata-convention-urges-ban-mercury-use-cosmetics>

3.2 Health Effects of Mercury in Skin-Lightening Products

SLPs containing mercury have been shown to have profound negative impacts on health and well-being. Their regular use reduces the skin's resistance to bacterial and fungal infections and can lead to rashes, skin discoloration, and blotching.¹³ The [World Health Organization](#) warns that mercury, a common ingredient in many skin-lightening products, poses serious health risks. Mercury exposure can result in kidney damage, neurological disorders, and other adverse health effects. Some individuals — especially pregnant women, nursing babies, and young children — are particularly vulnerable to mercury toxicity. Babies are especially sensitive to the damage mercury can cause to their developing brains and nervous systems. Newborns who nurse are at risk because mercury can be passed through breast milk.¹⁴ According to the U.S. Food and Drug Administration (FDA), mercury exposure can have serious health consequences. The danger isn't limited to people who use mercury-containing products; it also extends to their families. Family members may inhale mercury vapors or come into contact with contaminated items such as washcloths or towels.¹⁵

3.3 Environmental Impacts of Mercury from Skin-Lightening Products

Mercury has severe impacts on aquatic ecosystems, especially those with large wetland areas. Two properties of methylmercury, its ability to bioaccumulate and to bioconcentrate, contribute to its toxicity.¹⁶ Mercury in soaps, creams, and other cosmetic products is eventually discharged into wastewater. The mercury then enters the environment, where it becomes methylated and can enter the food chain as highly toxic methylmercury in fish (3). Pregnant women who consume fish containing methylmercury can transfer the mercury to their fetuses, which can result in neurodevelopmental deficits in the children.¹⁷



¹³ <https://esdo.org/wp-content/uploads/2023/02/ZMWG-Skin-2022-Report-Final.pdf>

¹⁴ <https://www.un.org/en/delegate/minamata-convention-urges-ban-mercury-use-cosmetics>

¹⁵ <https://www.fda.gov/consumers/consumer-updates/mercury-poisoning-linked-skin-products#:~:text=Dangers%20of%20Mercury,is%20passed%20into%20breast%20milk>

¹⁶ <https://www.nyserda.ny.gov/All-Programs/Environmental-Research/Atmospheric-Deposition/Mercury-Human-Health-and-the-Environment#:~:text=Mercury%20has%20severe%20impacts%20on,bioconcentrate%2C%20contribute%20to%20its%20toxicity.>

¹⁷ <https://iris.who.int/bitstream/handle/10665/330015/WHO-CED-PHE-EPE-19.13-eng.pdf>



Chapter 4

Regulatory Framework on Mercury in Skin- Lightening Products

4. Regulatory Framework on Mercury in Skin-Lightening Products

4.1 International Regulation: The Minamata Convention

The Minamata Convention on Mercury is a global treaty aiming to protect human health and the environment from mercury exposure. It previously permitted up to 1 part per million (ppm) of mercury in skin-lightening products. However, at the Fifth Conference of the Parties (COP-5) in 2023, the Parties unanimously agreed to remove the 1 ppm threshold and adopted a complete ban on mercury in cosmetics, including skin-lightening products, effective from 2025 (Minamata Convention, 2023; ZMWG, 2023).^{18,19} As a Party to



the Convention since April 18, 2023, Bangladesh is now legally obligated to enforce this ban by restricting the manufacture, import, export, and sale of all mercury-containing skin-lightening products from 2025 onward (Minamata Convention, 2023).⁹

4.2 National Regulation in Bangladesh

Nationally, the Bangladesh Standards and Testing Institution (BSTI), under the Ministry of Industries, is responsible for setting and enforcing safety standards for cosmetic products. Bangladesh has enacted regulations to control the use of mercury in skin-lightening products, and in 2015, BSTI established a maximum allowable limit of **one part per million (1 ppm)** for mercury in skincare products under the BDS 1382 standard.

Over the years, BSTI has taken several enforcement actions to address non-compliant products. In 2020, BSTI banned the sale of 8 whitening and fairness cream brands. In 2022, BSTI prohibited 17 skin-whitening creams due to mercury levels that were found to be significantly higher than the 1 ppm standard.²⁰ As of 2023, BSTI's most recent enforcement action banned **19 skin-whitening products** (including 18 creams and 1 lotion) due to harmful levels of mercury and hydroquinone.²¹ Each figure refers to a distinct enforcement action; the values are not cumulative. Although mercury use in cosmetics is restricted under national standards, non-compliant products continue to circulate, particularly through online platforms and informal markets (The Financial Express, 2025).²²

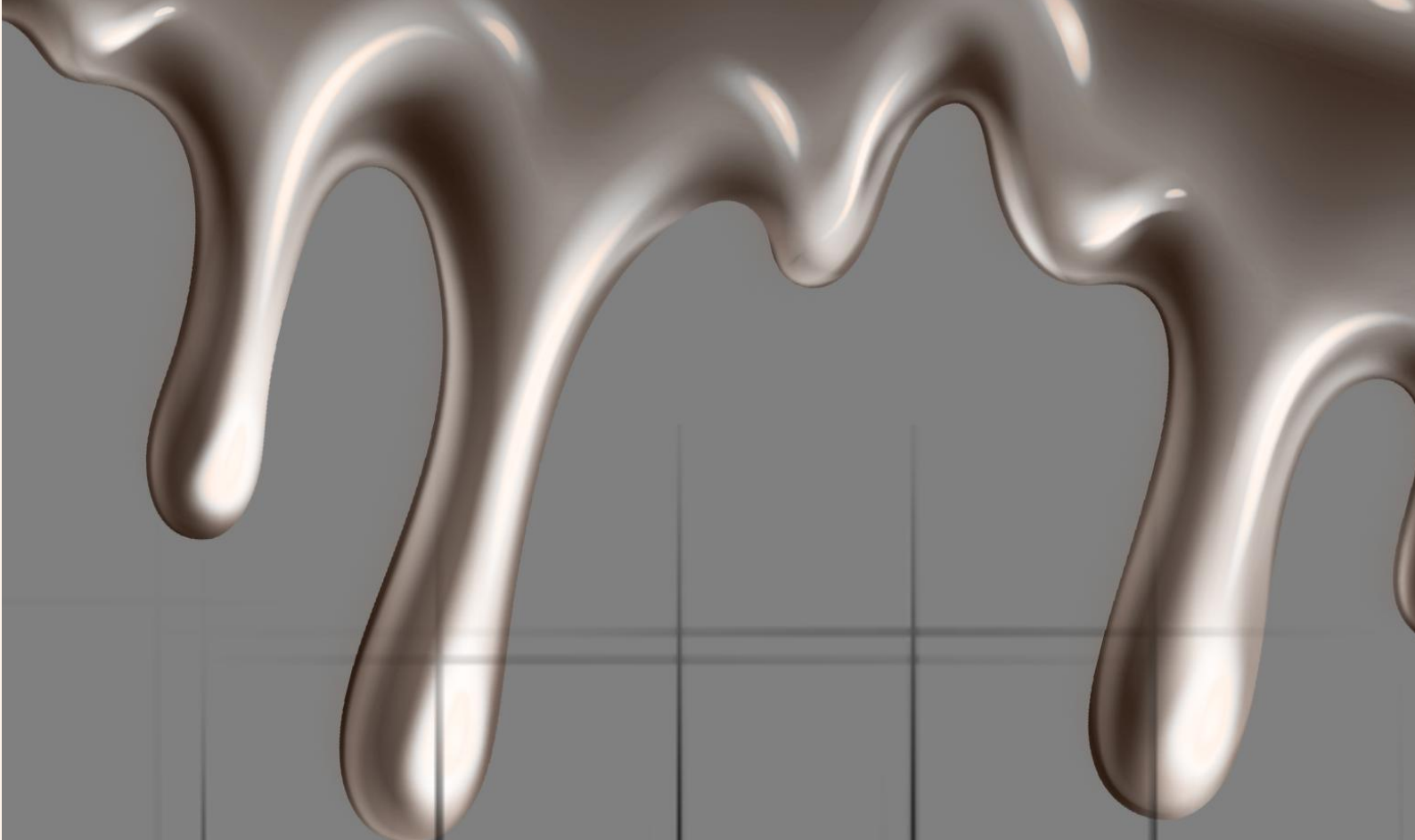
¹⁸ <https://minamataconvention.org/en/amendments>

¹⁹ <https://www.zeromercury.org/minamata-convention-moves-to-end-the-use-of-mercury-in-cosmetics/>

²⁰ <https://www.thedailystar.net/backpage/news/mercury-skin-care-products-1839991>

²¹ <https://www.daily-sun.com/post/694516>

²² <https://thefinancialexpress.com.bd/national/alarming-levels-of-mercury-found-in-popular-skin-lightening-creams>

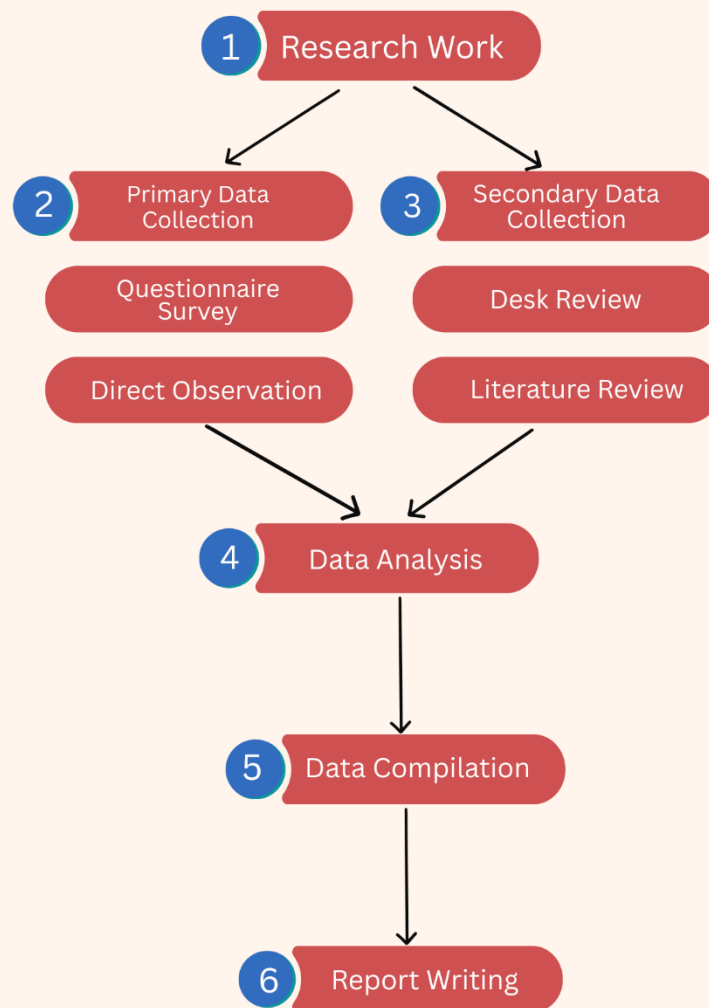


Chapter 5

Methodology

5. Methodology

The methodology of this follow-up study was structured to quantitatively examine current trends in the use and perception of skin lightening products among consumers and sellers. The study focused on tracking changes in knowledge, usage behavior, and awareness of potential health impacts through two structured surveys. Data were collected using pre-tested questionnaires that targeted both product users and sellers.



5.1 Study Design

This study employed a descriptive cross-sectional design to assess the usage, awareness, and perceptions of skin-lightening products among consumers and the availability, sourcing, and knowledge of such products among sellers.

5.2 Target Population

The target population for this study comprised two primary groups: consumers and sellers of skin-lightening products.



- **Consumers:** Individuals who currently use, have previously used, or have never used skin lightening products, covering various demographic segments to assess their awareness, perceptions, and usage behavior.
- **Sellers:** Stakeholders engaged in the distribution and sale of skin-lightening products, including retailers, wholesalers, importers, and online sellers.

5.3 Target Areas



The study was conducted in Dhaka City, the capital and largest urban center of Bangladesh. Data were collected from diverse physical locations such as shopping centers, marketplaces, beauty stores, and local shops, along with online platforms. These areas were selected to ensure access to both consumers and sellers of skin-lightening products, allowing the study to capture a wide range of perspectives related to product use, awareness, and sales practices.

5.4 Time Duration

The study was conducted from April to July 2025.

5.5 Pre-testing

To observe the overall scenario, including questionnaire information, possible sampling techniques, and the approximate non-response rate related to the study, we first performed a pre-test of the study. The pre-testing was conducted in markets located in Mohammadpur.

5.6 Sample size

- **Consumers:** A target sample size of 730 respondents was aimed for to ensure diversity in responses and maintain reliability in the findings.
- **Sellers:** A total of 75 sellers, including retailers, wholesalers, importers, and online sellers, were surveyed to gather detailed insights on the distribution and sale of skin-lightening products. Sellers were selected based on their involvement in selling skin-lightening products. From these surveyed sellers, products were purchased for subsequent analysis of mercury content, allowing linkage between the products tested and their respective sellers.

5.7 Sampling Method

A Purposive sampling technique was employed for both consumer and seller groups. Participants were selected based on their accessibility and willingness to participate.

5.8 Data Collection

5.8.1 Questionnaires

The primary data collection tool was a set of semi-structured questionnaires, designed to address the study's specific objectives. Separate questionnaires were developed for each group

- **Consumer Questionnaires:** These questionnaires explored consumer behaviors related to skin lightening products, including purchasing habits, sources of information, usage frequency, awareness of health risks, perceptions of fairness and beauty standards, and attitudes toward regulations governing these products (see **Annex F** for the full questionnaire).
- **Seller Questionnaires:** Targeted sales patterns, product distribution practices (e.g., whether the products are sold in physical retail outlets or online), knowledge of relevant regulations (including the legal limits on mercury content), and attitudes toward the regulation (see **Annex G** for the full questionnaire).

5.8.2 Direct Observation

In addition to the questionnaires, direct observations were conducted in Dhaka City, focusing on locations where consumers and sellers interact with skin-lightening products, such as retail outlets, markets, and online platforms. These observations documented product display, promotion, and purchasing patterns, highlighting factors influencing consumer choices and seller practices.

5.9 Data Analysis

5.9.1 Data Entry

SPSS version 27.0 was used for data entry to ensure accurate organization and management of the collected data. All survey responses were input into SPSS for further processing and analysis.

5.9.2 Data Cleaning

The dataset was cleaned by checking for missing values, outliers, or any inconsistent responses. This step ensured that only valid and complete data were used in the analysis, maintaining the integrity of the study's findings.

5.9.3 Descriptive Statistics

Descriptive statistics were applied to both consumer and seller survey data.

- **Frequency Distribution:** Categorical variables such as gender, education level, stock of skin lightening products, and country of import were summarized using frequency tables to understand the overall distribution of responses.
- **Measures of Central Tendency:** For continuous variables like age and monthly income, the mean and standard deviation were calculated to understand the central and spread characteristics of the data.
- **Graphical Representation:** Visual tools such as bar charts and pie charts were used to present key variables and make the data more interpretable.

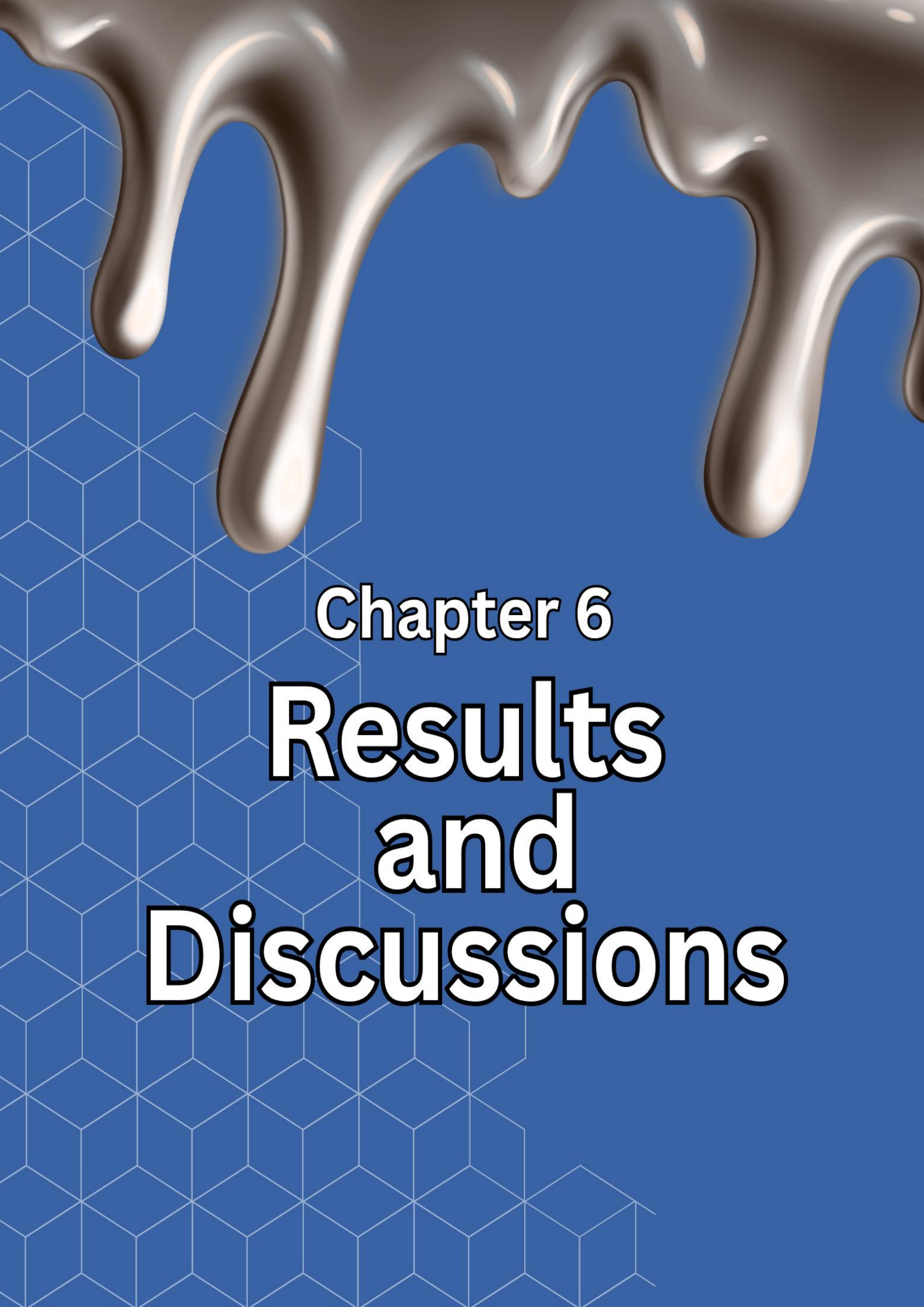
5.9.4 Univariate Analysis

Each question was analyzed on its own (univariate analysis) to assess patterns, trends, and frequency of responses.

- For categorical variables (e.g., gender, education level, occupation), frequency distributions were used to identify the most common responses. For continuous variables (e.g., age, income), descriptive statistics like mean, standard deviation, and range were calculated.

5.9.5 Bivariate Analysis

- For the consumer survey, bivariate analysis was conducted using Chi-square tests to explore relationships between categorical variables. The Chi-square test is a statistical method used to determine whether there is a significant association between two categorical variables, such as gender and use of mercury in skin-lightening products. A p-value of less than 0.05 was considered statistically significant.



Chapter 6

**Results
and
Discussions**

6. Results and Discussions

6.1 Exploring the Consumer Landscape: Knowledge, Practices, and Perceptions



6.1.1 Socio-demographic characteristics of the respondents

Age distribution of the respondents

The majority (62.2%) were between 20 to 30 years of age, followed by 21.8% who were less than 20 years old. In addition, 9% of the respondents fell within the 31 to 40 years age group, while 7% were more than 41 years of age. The mean age of the respondents was 25.6 ± 6.3 years, indicating that younger individuals, particularly those in their twenties, are the predominant users or stakeholders in skin lightening product use.

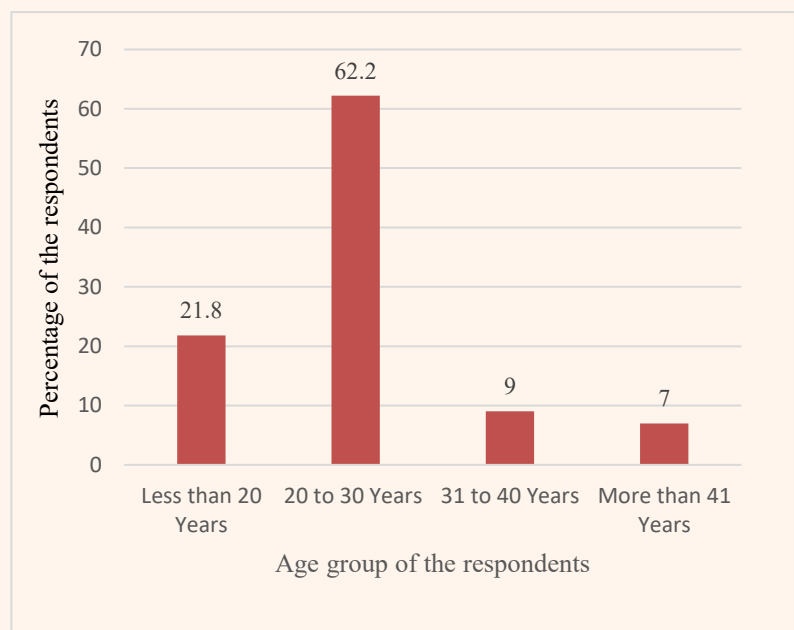
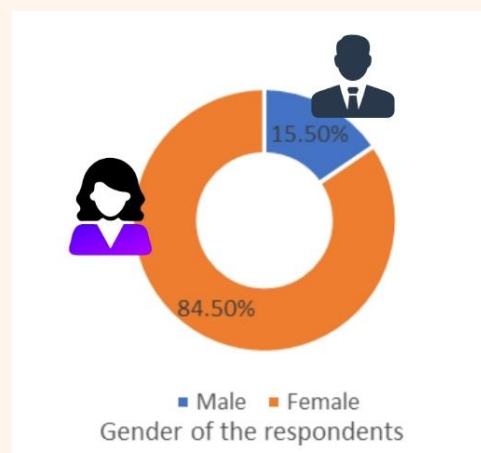


Figure 2. Age Group of the Respondents

Gender Distribution of Respondents

The majority of respondents were female (84.5%), reflecting the predominance of women in the use of skin lightening products, with a smaller proportion of male respondents (15.5%). This reflects the common trend that women are the primary users of skin-lightening products, driven by societal beauty standards and targeted marketing.



Level of Education

The educational background of the respondents was as follows: 6% of respondents had education up to primary level, 17.4% had completed secondary education, 33% had completed higher secondary education, 34.5% were graduates, and 9% had a post-graduate education.

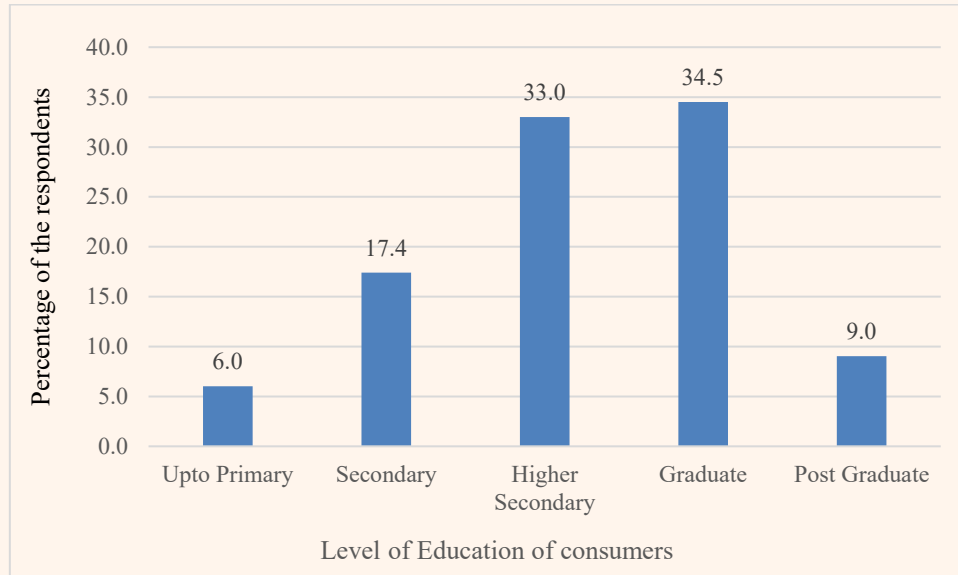


Figure 3. Educational level of the Respondents



Employment Status of the respondents

Among the respondents, 42.7% were students, making this the largest group. A significant proportion (29.6%) were employed, while 20.1% identified as housewives. Additionally, 5.6% of respondents were unemployed, and 1.9% reported their employment status as "Other."

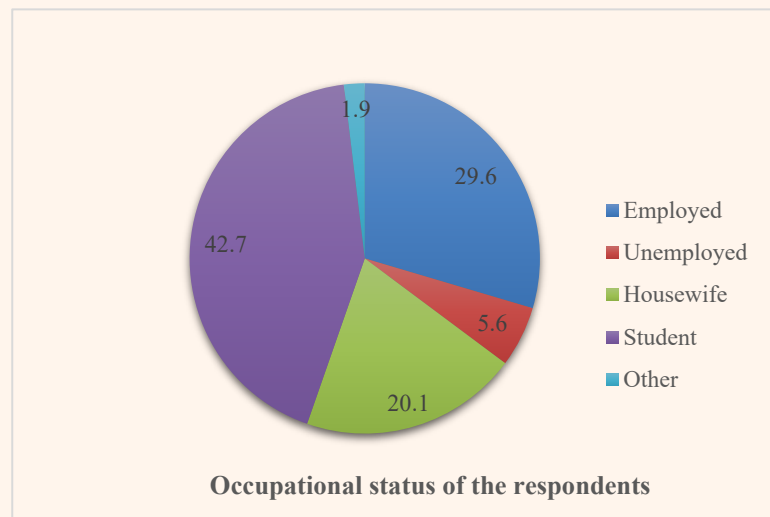


Figure 4. Occupational Status of the Respondents

Marital Status

The marital status of the respondents was as follows: 53.7% were never married, while 46.3% had ever been married, including those who were currently married, divorced, or widowed.

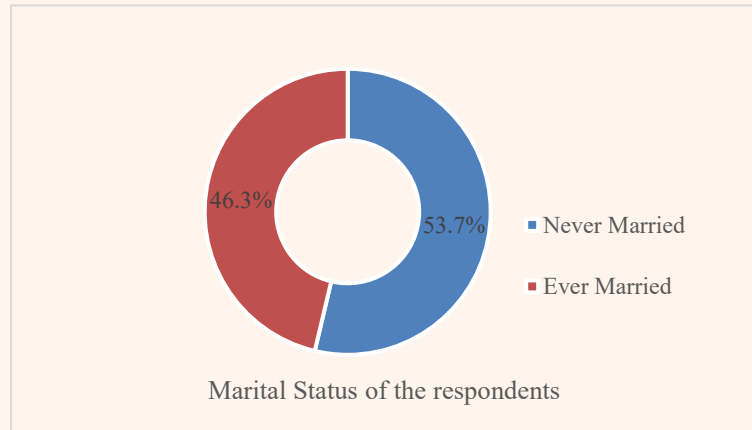


Figure 5. Marital Status of the Respondents

Monthly Family Income

The distribution of monthly family income among respondents showed that 60.1% had a family income between BDT 30,000 and BDT 60,000 (approximately USD 248–495), while 29.2% had a family income of less than BDT 30,000 (about USD 248). Only 10.7% reported a monthly family income of more than BDT 60,000 (over USD 495) (1 USD = 121.19 BDT, accessed 11 May 2025).

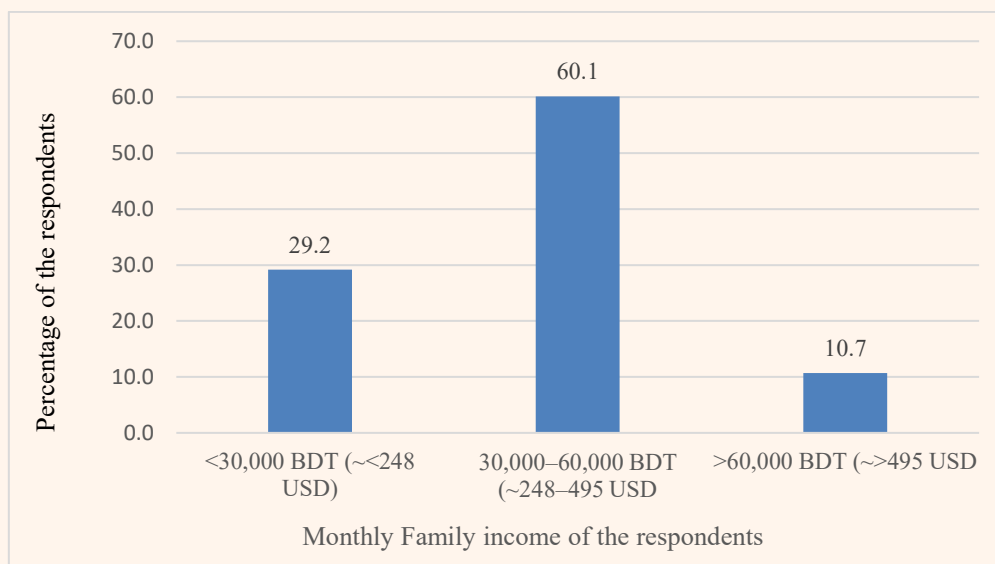


Figure 6. Monthly Family Income of the Respondent

Self-Reported Skin Tone of Respondents

Among the respondents, 44.7% identified their skin tone as light brown, followed by 28.8% who reported having dark brown skin. Additionally, 17.1% described their skin tone as light/fair, while 9.5% identified as having black skin.

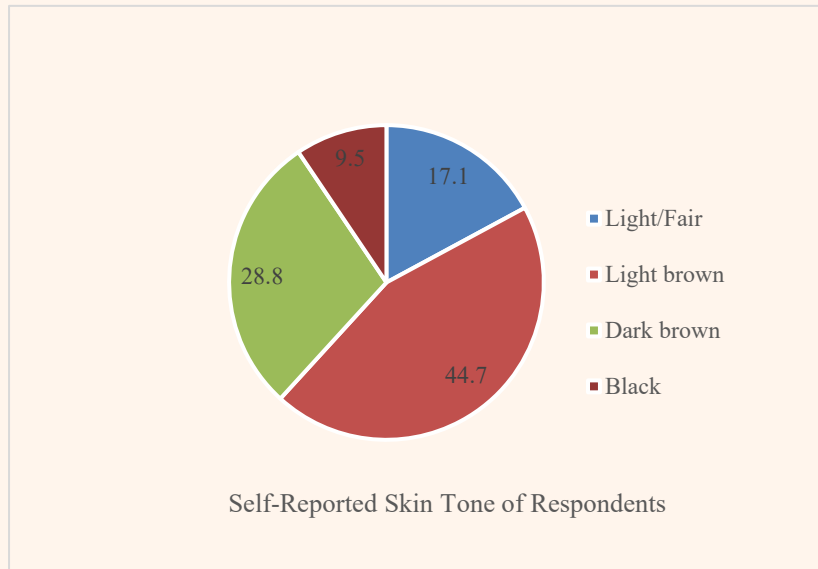


Figure 7. Self-Reported Skin Tone of the Respondents

6.1.2 Awareness and Use of Skin Lightening Products

This section explores the respondents' awareness, perception, usage, and purchasing behaviour regarding skin-lightening products.

Sources of information on Skin Lightening Agents

A significant majority of respondents (94.7%) had heard of skin lightening agents, indicating the widespread recognition of these products within the study population. Only 5.3% of respondents had not heard of skin lightening agents. Regarding sources of information, online platforms were the most prominent, with 34.8% of respondents identifying them as their primary source. Unfortunately, people are increasingly obtaining this information from online sources. Friends were the second most common source (25.3%), followed by media (15.2%) and family members (11.5%). Fewer respondents learned about skin lightening agents from healthcare professionals (5.5%) or cosmetic shop attendants (4.5%). These findings underscore online platforms' detrimental role in spreading information about harmful skin-lightening products.



Table 1. Sources of Information on Skin Lightening Agents

Sources of learn about SLP	Percentage
Online Platform	34.8%
Friends	25.3%
Media	15.2%
Family Members	11.5%
Healthcare Professionals	5.5%
Cosmetics shop attendants	4.5%
Others	3.2%

Main Reasons for the Increased Demand for Skin Lightening Products (SLPs)

The increased demand for skin lightening products (SLPs) is primarily driven by online factors, including online advertisements (25.1%), social media influencers (31.4%), and celebrity endorsements (30.4%), which together account for a significant portion of the demand. These online sources collectively contribute to more than 85% of the reported reasons behind the rising demand. Other factors, such as in-store promotions (6.7%) and discounts and offers (5.2%) have a lesser influence. These findings highlight the dominant role of online-driven influences in increasing consumer demand for skin-lightening products.

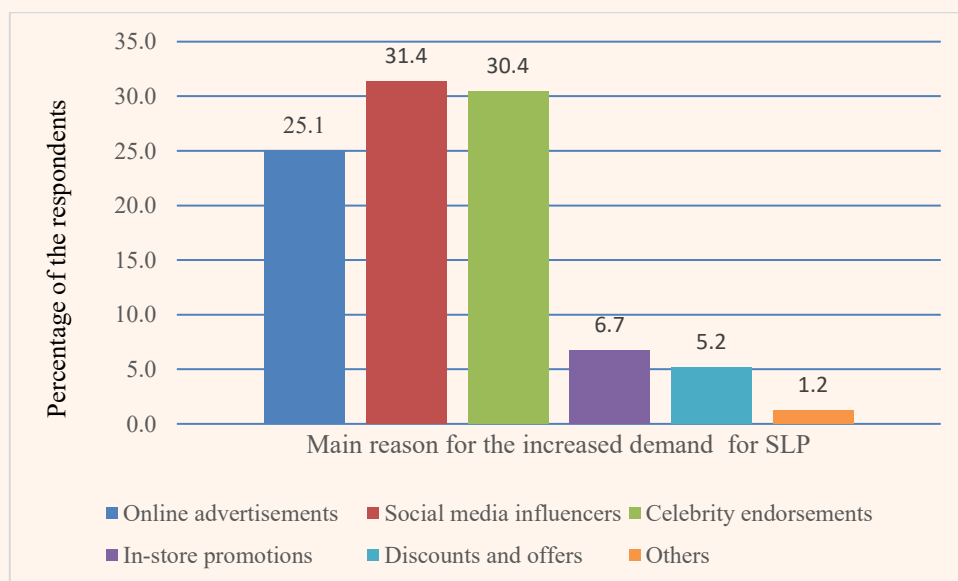


Figure 8. Main Reason for the Increased Demand for SLP

Prevalence and Purchase Patterns of Skin Lightening Products



The majority of respondents (73%) indicated that they had used skin lightening products. Among those users, purchasing behaviour reveals a clear trend: online stores are the most common source, with 40% obtaining products through these platforms. This is followed by local cosmetic shops (24.6%) and supermarkets (16.1%). A smaller portion reported buying from pharmacies (9%), from abroad (7.8%), or from other sources (2.5%). The rise of online platforms as major purchase points raises concern due to unregulated sales, emphasizing the need for stricter monitoring of digital platforms selling skin-lightening products.

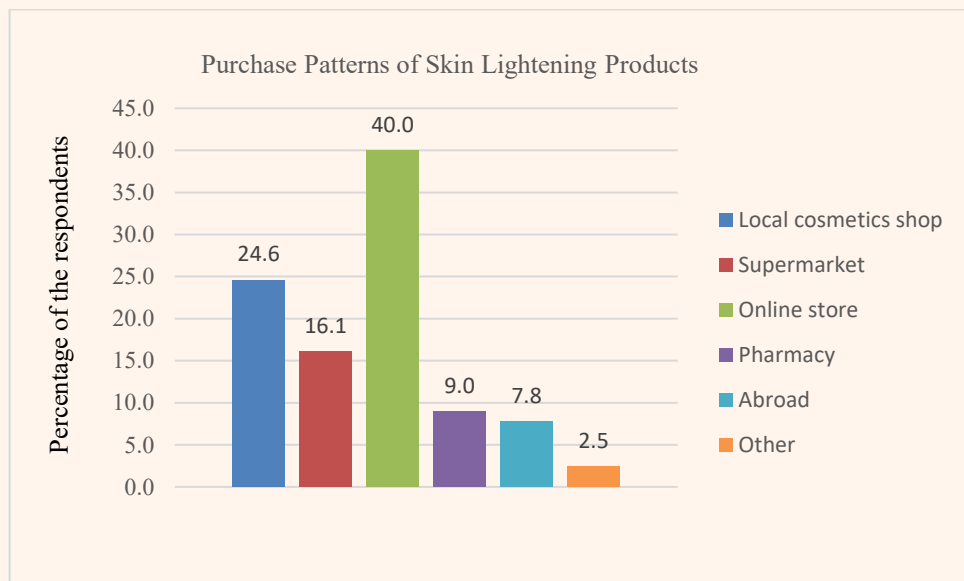


Figure 9. Purchase patterns of skin-lightening products

6.1.3 Public Knowledge and Perceptions of Skin-Lightening Products

Public Awareness of Side Effects and Perceived Health Risks of Using Skin Lightening Products

The majority of respondents (82.1%) reported being aware of the side effects associated with the use of skin lightening products, while 17.9% indicated no such awareness. Despite this relatively high level of awareness, many still use these products, pointing to deep-rooted perceptions and social pressures surrounding fair skin.

When asked about the possible health risks caused by SLP use, respondents identified a range of side effects. The most frequently cited issues were skin thinning (31%), depigmentation (16.8%), acne or dark spots (14.7%), and burning or irritation (13.4%). Other reported concerns included hyperpigmentation (12.2%), fragile/peeling skin (5.3%), rashes (4.1%), and a small percentage mentioned other health issues.

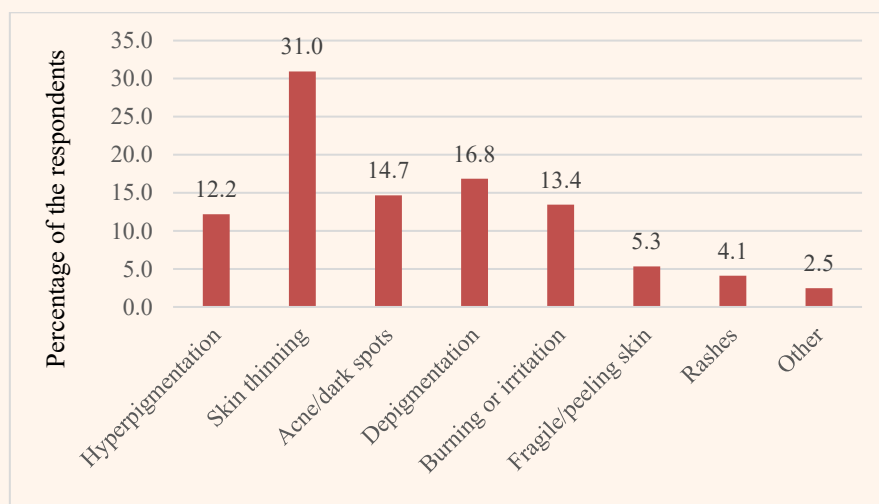
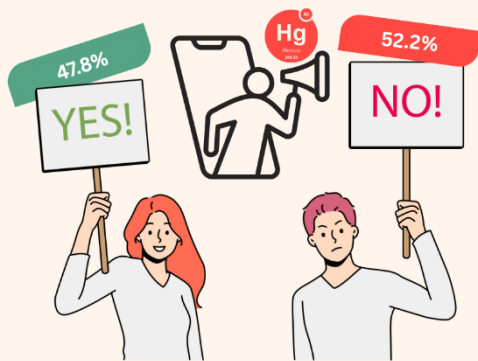


Figure 10. Perceived Health Risks of Using Skin Lightening Products by Respondents

Public Awareness of Mercury in Skin Lightening Products



The survey revealed that a significant portion of respondents are aware of the potential presence of mercury in skin-lightening products. Specifically, 47.8% of participants confirmed they knew that skin lightening products may contain mercury, while 52.2% were unaware of this risk. This data highlights a notable gap in awareness, underscoring the need for increased education on the harmful contents of skin-lightening products.

General Perception of Fair Skin

The perception of fair skin was explored, revealing several societal beliefs linked to skin tone. The majority of respondents, 45.6%, associated fair skin with higher self-esteem, suggesting that many individuals believe lighter skin boosts confidence. Furthermore, 20.1% of participants thought that fair skin increases the chances of getting married, highlighting a social belief that fair skin may have advantages in matrimonial prospects. A smaller portion, 15.6%, viewed fair skin as more beautiful, indicating that beauty standards tied to skin tone still hold influence in certain social contexts. However, 18.6% of respondents rejected these ideas, selecting "None of the above," showing that there is a growing awareness.

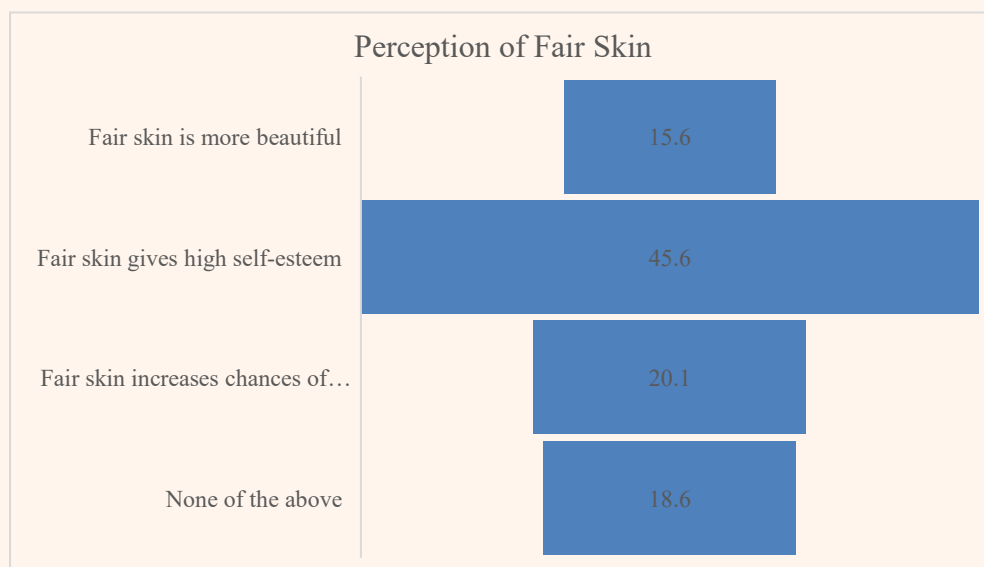
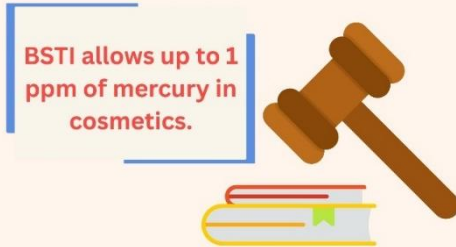


Figure 11. General Perception regarding Fair Skin

6.1.4 Attitudes Toward Regulation and Ban on Harmful Skin Lightening Products

Awareness of BSTI's Mercury Limit Regulation in Skin Creams



According to the Bangladesh Standards and Testing Institution (BSTI), the maximum permissible limit of mercury in skin creams is 1 part per million (ppm). However, findings from the current survey indicate that public awareness of this regulation is significantly low.

Only **16.4%** of respondents reported being aware of this safety standard, while the majority, 83.6%, were unaware. This reveals a major knowledge gap on regulations, underscoring the urgent need for public awareness and clear information on harmful cosmetic ingredients.

Table 2. Awareness regarding BSTI's Mercury Limit Regulation in Skin Creams

Awareness of BSTI's Limit regarding Mercury	Percentage
Yes	16.4%
No	83.6%,

Public Support for a Ban on Mercury in Cosmetics and Skin Lightening Products



The survey reveals a strong public consensus in favor of stricter regulations on harmful ingredients in beauty products. A significant 82.6% of respondents expressed support for banning the use of mercury in cosmetics and skin-lightening products, while only 17.4% opposed such a ban. This overwhelming support underscores growing public concern about the health risks associated with mercury-containing products and signals a readiness for regulatory and policy actions to ensure safer consumer choices.

Preferred Strategies to Prevent the Use of Harmful Skin Lightening Products

The survey identified key strategies that respondents believe would be most effective in curbing the use of harmful skin-lightening products. A majority favored awareness campaigns (29.7%) and government regulations (29.3%), highlighting the importance of both public education and strong policy enforcement. Other recommended approaches included doctor's advice (16.6%) and the availability of safe alternatives (16.3%), indicating a need for both professional guidance and accessible non-toxic options. Social influences such as peer or family encouragement (6.4%) and other suggestions (1.6%) were also noted, but to a lesser extent. These findings suggest that a combination of regulatory measures and awareness-building initiatives would be most effective in addressing the issue.

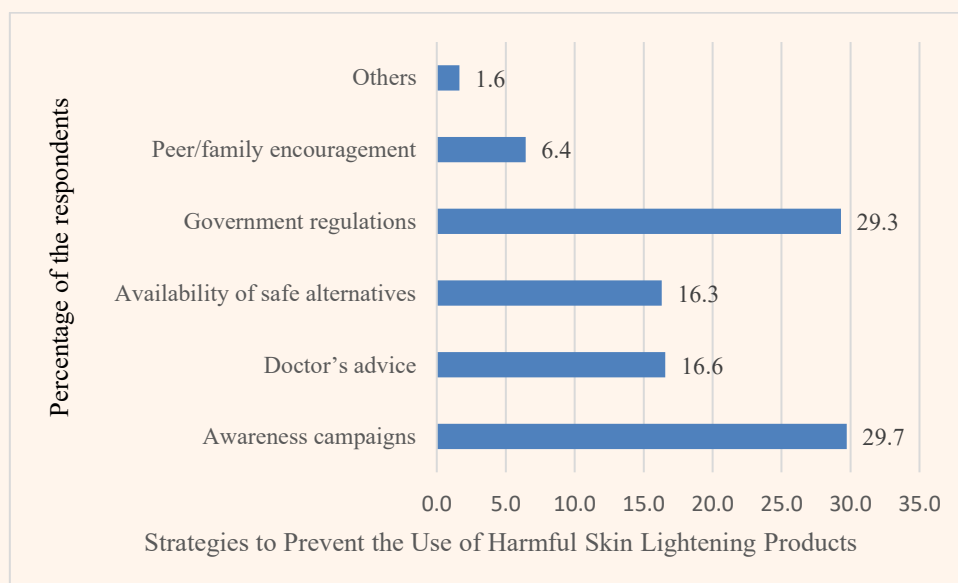


Figure 12. Strategies to Prevent the Use of Harmful Skin Lightening Products

6.2 Consumer Sociodemographic Determinants of Skin Lightening Practices and Mercury Awareness

6.2.1 Association Between Age and Skin Color with Skin Lightening Product (SLP) Use

Age was found to be significantly associated with the use of Skin Lightening Products (SLPs), with the highest usage observed among individuals aged 20–30. This suggests that younger age groups, particularly those in their twenties, are more likely to use skin-lightening products. SLP use slightly varied by skin color, highest in light brown respondents (76.1%), but the difference was not statistically significant, suggesting that skin color is not a determining factor.

Table 3. Association of Sociodemographic Factors with the Use of Skin Lightening Products (SLPs)

Parameter	Category	Overall, N = 730	% of Yes per category	Use of SLP		p value
				No n (%) = 197	Yes n (%) = 533	
Age	< 20	159 (21.8%)	64.8%	56 (28.4%)	103 (19.3%)	< 0.001
	20 to 30	454 (62.2%)	78%	100 (50.8%)	354 (66.4%)	
	31 to 40	66 (9%)	72.7%	18 (9.1%)	48 (09.0%)	
	> 41	51 (7.0%)	54.9%	23 (11.7%)	28 (5.3%)	
Skin Tone	Light/Fair	125 (17.1%)	65.6%	43 (21.8%)	82 (15.4%)	0.109
	Light brown	326 (44.7%)	76.1%	78 (39.6%)	248 (46.5%)	
	Dark brown	210 (28.8%)	74.3%	54 (27.4%)	156 (29.3%)	
	Black	69 (9.5%)	68.1%	22 (11.2%)	47 (8.8%)	

6.2.2 Association Between Education Level and Perceptions of Fair Skin

The Chi-Square test indicates a significant association between education level and perceptions of fair skin ($p = 0.001$). The Chi-Square test is a statistical method used to assess whether there is a meaningful relationship between two categorical variables. The findings suggest that perceptions of fair skin, such as its beauty, impact on self-esteem, and influence on marriage prospects, vary by education level. Respondents with higher education are less likely to consider fair skin as more beautiful but are more likely to associate it with higher self-esteem. Conversely, the perception that fair skin increases marriage prospects decreases with higher education. Those with lower education levels are more likely to view fair skin as beautiful and socially advantageous. This finding is important for understanding how education influences societal perceptions of skin color, which could guide future public health and awareness campaigns.

Table 4. Association between educational level and perceptions of fair skin

Level of education	Fair skin is more beautiful n (%)	Fair skin gives high self-esteem n (%)	Fair skin increases chances of getting married n (%)	None of the above n (%)	P value
Up to Primary	9 (20.5%)	12 (27.3%)	14 (31.8%)	9 (20.5%)	< 0.001
Secondary	24 (18.9%)	40 (31.5%)	35 (27.6%)	28 (22.0%)	
Higher Secondary	41 (17.0%)	97 (40.2%)	44 (18.3%)	59 (24.5%)	
Graduate	35 (13.9%)	150 (59.5%)	38 (15.1%)	29 (11.5%)	
Post Graduate	5 (7.6%)	34 (51.5%)	16 (24.2%)	11 (16.7%)	

6.2.3 Association Between Education Level and Awareness of Mercury in Skin Lightening Products

The chi-squared analysis revealed a statistically significant association between education level and awareness of mercury in skin-lightening products ($p = 0.001$). Individuals with higher educational levels, particularly those with post-graduate education, were more likely to believe that skin-lightening products may contain mercury. This suggests that education level plays a role in the awareness of potential risks associated with skin-lightening products. As education levels increase, there appears to be greater awareness regarding the harmful ingredients, such as mercury, in these products.

Table 5. Association Between Education Level and Awareness of Mercury in Skin Lightening Products

Level of Education	No (n%)	Yes (n%)	P value
Up to Primary	24 (54.5%)	20 (45.5%)	0.001
Secondary	65 (51.2%)	62 (48.8%)	
Higher Secondary	144 (59.8%)	97 (40.2%)	
Graduate	128 (50.8%)	124 (49.2%)	
Post Graduate	20 (30.3%)	46 (69.7%)	

6.3 Demographics, Marketing Practices, and Regulatory Awareness of Commercial Sellers of Skin Lightening Products

6.3.1 Socio-demographic characteristics of surveyed sellers

Characteristics of Sellers by Age, Gender, and Education

Among the 75 surveyed sellers, the majority (44%) were aged 30–39 years, followed by 37.3% under 29 years, and 18.7% over 40 years, indicating that individuals in their thirties predominantly engage in selling skin-lightening products. In terms of gender, most sellers were male (69.3%), while females comprised 30.7%, showing that men are more actively involved in this business. Female sellers were primarily found in shopping malls and standalone cosmetic shops.

Regarding education, 42.7% of the sellers had completed secondary education, followed by 21.3% with higher secondary qualifications, 18.7% who were graduates, 13.3% with only primary education, and 4.0% who were uneducated. These findings provide a clear overview of the demographic profile of skin-lightening product sellers.

Table 6. Demographic Profile of Surveyed Skin-Lightening Product Sellers

Characteristic	Category	Percentage (%)
Age	Less than 29	37.3
	30–39	44.0
	Above 40	18.7
Gender	Male	69.3
	Female	30.7
Education Level	Uneducated	4.0
	Primary	13.3
	Secondary	42.7
	Higher Secondary	21.3
	Graduate	18.7

Type of Business respondents

Based on 75 surveyed sellers, the majority (58.7%) were retailers, primarily operating cosmetics shops, supermarkets, and mixed retail stores selling a range of consumer goods. Most of these outlets were located within shopping malls and local markets, while others operated as standalone shops in commercial areas. Online sellers accounted for 21.3%, using platforms such as *Daraz*, *Rokomari*, *Othoba.com*, and other e-commerce sites, and social media (e.g., Facebook) to reach consumers. Wholesalers represented 13.3% of respondents, mainly based in *Chawkbazar* and *New Market*, Bangladesh’s largest wholesale hubs. These wholesalers purchased products in bulk from importers or manufacturers and supplied them to retailers rather than selling directly to the public. Importers, who were generally difficult to reach for surveying, made up 6.7% of respondents; they supplied products to wholesalers and retailers,

with some also selling directly to consumers. The majority of products handled by wholesalers, manufacturers, and importers were cosmetics and skin-lightening products.

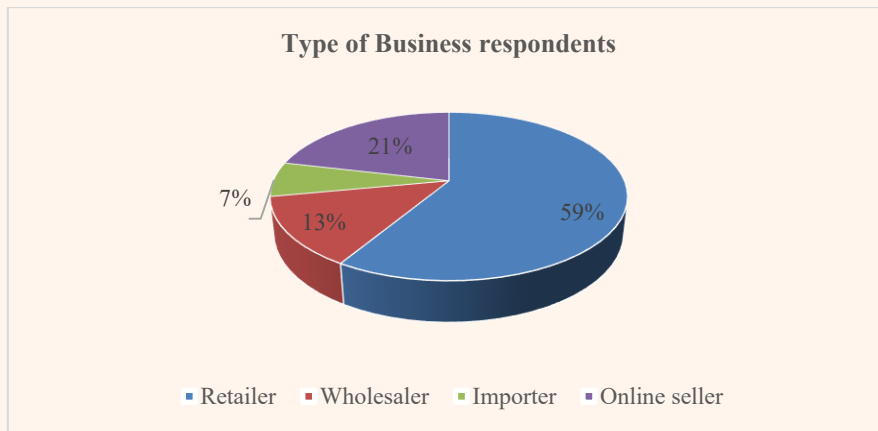


Figure 13. Type of business of the respondents

Market-Wise Distribution of Sellers

Skin-lightening product sellers were found in varying numbers across different markets in Dhaka. The highest proportion of sellers was found in *New Market* (28.0%), followed by *Chawkbazar* (13.3%). *Eastern Mollika* and *Police Plaza* each accounted for 8.0%, while *Tokyo Square* had 6.7%.

Markets such as *Bashundhara City*, *Genetic Plaza*, *Khilgaon Taltola City Corporation Market*, *Mirpur Shopping Complex*, *Shimanto Square*, and *Uttara* each contributed 5.3%. The lowest share was recorded in *Doha Complex* (4.0%). These results indicate that skin-lightening products are predominantly sold in specific key commercial areas.

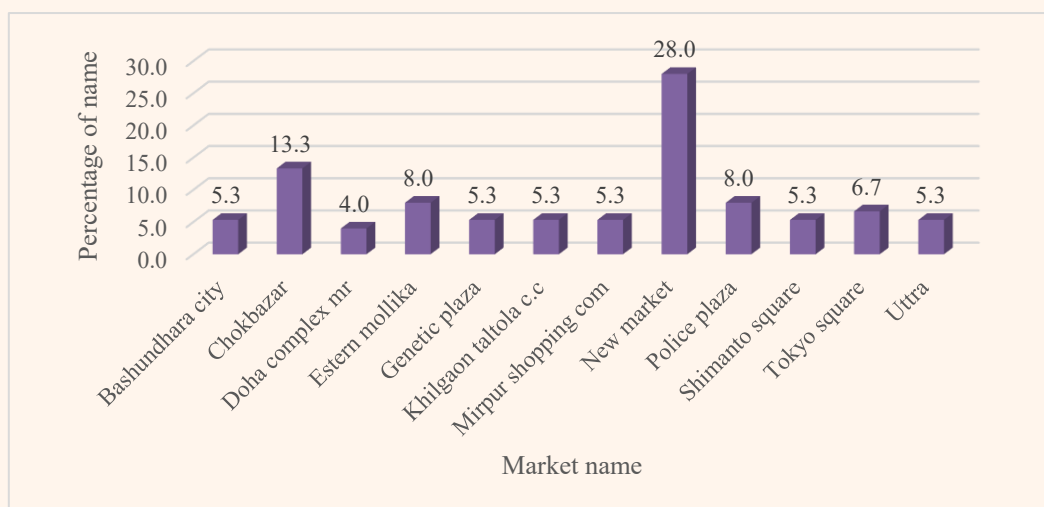


Figure 14. Market-wise distribution of skin-lightening product sellers

6.3.2 Product Availability and Sourcing Information

Source of Stock for Skin-Lightening Product Sellers

The majority of surveyed sellers (45.3%) reported sourcing their stock of skin-lightening products from importers, followed by those who obtained products directly from manufacturers (18.7%) and from online platforms (18.7%). An additional 17.3% of sellers sourced products from local distributors. Survey responses indicated that skin-lightening products banned by BSTI due to mercury content are also brought into the country through informal channels, particularly via passengers' luggage, despite sellers being aware of their prohibited status. These findings highlight the central role of importers in the distribution network. At the same time, the growing reliance on online platforms and direct manufacturer sourcing reflects evolving procurement practices in the cosmetics trade. Authorities, including customs, have reportedly taken enforcement measures to prevent the entry of such banned products²³.

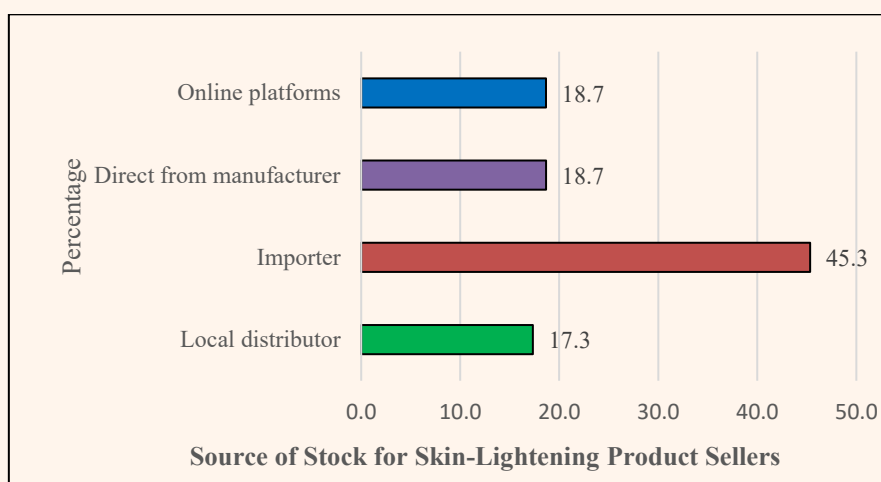
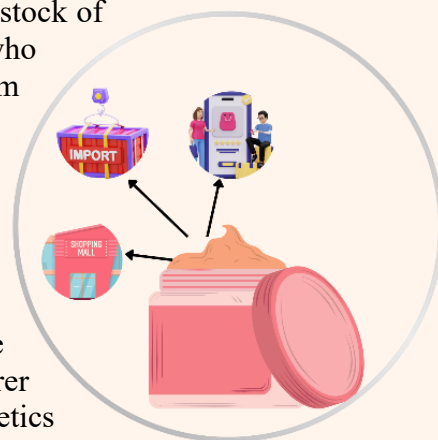


Figure 15. Source of stock for skin lightening products sellers

²³ *NBR bans import of skin lightening products* | Hawkerbd.com. [online] Hawkerbd.com. Available at: https://hawkerbd.com/news_details.php?news_id=654784&news_category_id=6&val_lan= [Accessed 24 June 2025].

Source Countries of Imported Skin-Lightening Products

Among the imported skin-lightening products, sellers reported that the highest proportion (28.0%) originated from India, making it the leading source country. This was followed by Thailand (18.7%) and Korea (17.3%). Other notable contributors included Pakistan (14.7%) and Malaysia (12.0%), while China accounted for a smaller share of 9.3%.



- India- (28.0%)
- Thailand (18.7%)
- Korea (17.3%)
- Pakistan (14.7%)
- Malaysia (12.0%)
- China (9.3%)

Daily Sales Volume of Skin-Lightening Products

The majority of sellers reported a daily sale of 5 to 10 units of skin-lightening products, accounting for 30.7% of respondents. This was followed by 28% who sold fewer than 5 units per day. Additionally, 21.3% of sellers reported selling 11 to 15 units daily, while 16% sold 16 to 20 units. Only a small fraction (4.0%) achieved a high-volume sale of more than 20 units per day.

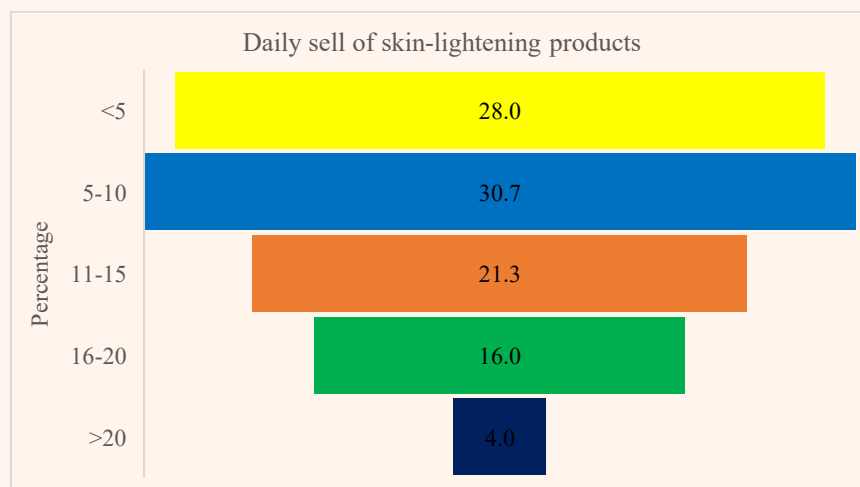


Figure 16. daily sales volume of skin-lightening products

6.3.3 Seller Observations on Customer Behaviour and Demand for Skin-Lightening Products

This section presents findings based on seller-reported observations regarding customer characteristics and purchasing patterns. The following insights reflect the perspectives and experiences of the surveyed sellers.

Age Group of Customers Purchasing Skin-Lightening Products

According to seller reports, the largest proportion of customers purchasing skin-lightening products (52%) belonged to the 20–29 years age group. This was followed by 38.7% of buyers in the 30–39 years age group. A much smaller percentage of purchases came from the 10–19 years age group (5.3%) and those aged 40 years and above (4.0%). These observations suggest that sellers perceive the highest demand among younger adults.

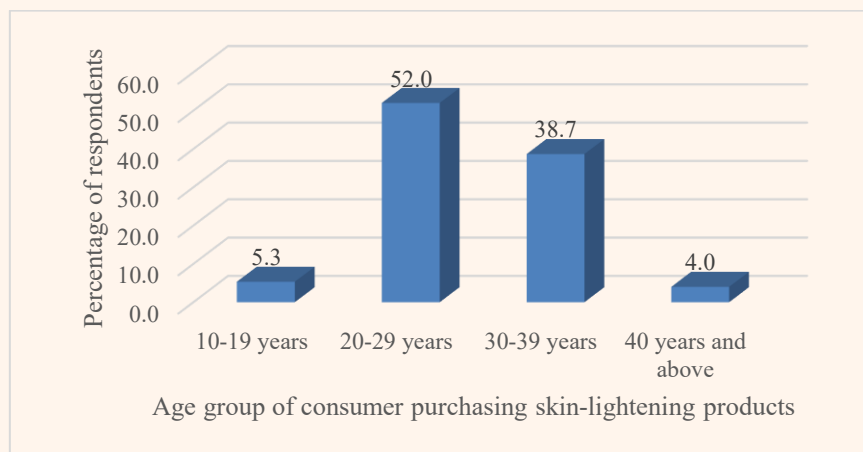


Figure 17. Age group of customers purchasing skin-lightening products

Gender of Skin-Lightening Product Users

Based on seller observations, the majority of users were female (84%), while males accounted for 16%. Sellers consistently indicated that women are more likely to use skin-lightening products compared to men.

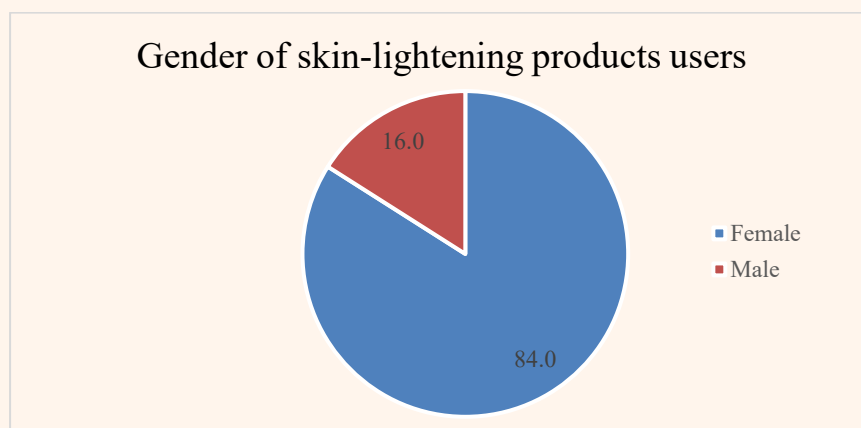


Figure 18. Age group of customers purchasing skin-lightening products

Sellers' Perceptions of the Impact of Social Media and Promotional Activities on Demand

This section presents findings based on interviews with sellers (retailers, wholesalers, and online sellers). When asked about factors influencing sales, 92% of sellers reported that social media promotion and marketing increased sales of skin-lightening products, while 8% observed no effect. This underscores the strong influence of social media, influencer marketing, and targeted advertising on consumer demand. Similar trends were reported by consumers in the consumer survey, providing cross-verification of social media's impact on product purchase and use.

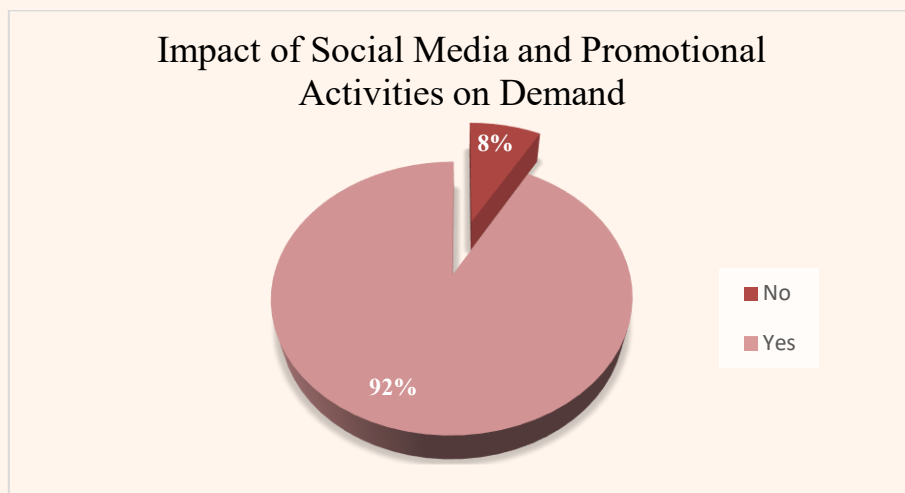


Figure 19. Impact of social media and promotional activities on demand

Customer Complaints and Reported Adverse Effects regarding Skin-Lightening Products

When asked, sellers reported whether they received complaints from customers after selling skin-lightening products or following their use. Most sellers (86.7%) did not receive any complaints. Among the 13.3% who did, customers mainly reported issues such as skin irritation, rashes, acne, or dissatisfaction with product effectiveness. Complaints were generally reported in-person at the shops, with no formal portal or regulatory system used for lodging these concerns.

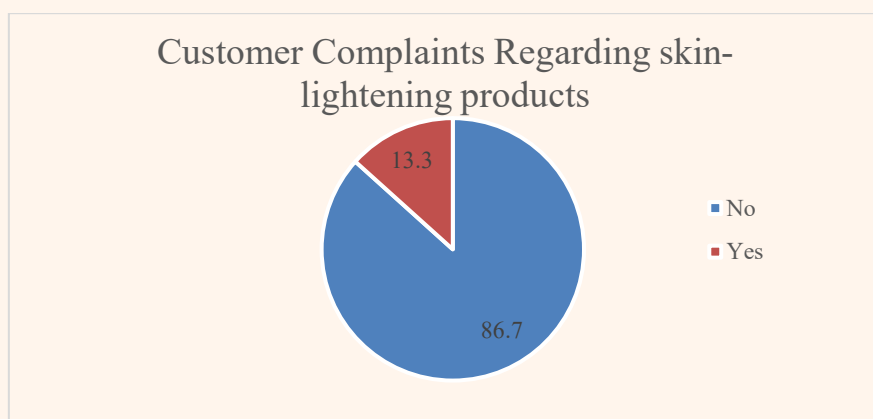


Figure 20. Customer complaints regarding skin-lightening products

6.3.4 Seller’s Knowledge and Awareness of Harmful Chemicals and Regulations

Perception of Public Health Risks from Selling Skin-Lightening Products

When asked about the public health implications of selling skin-lightening products containing harmful ingredients, 52% of sellers acknowledged that such sales pose a risk to public health. In contrast, 10.7% believed there was no associated risk, while 37.3% expressed uncertainty (“I don’t know”). Though the majority of sellers acknowledged that such sales pose a risk to public health, there is a gap in their knowledge regarding the potential health hazards linked to toxic ingredients in these products.

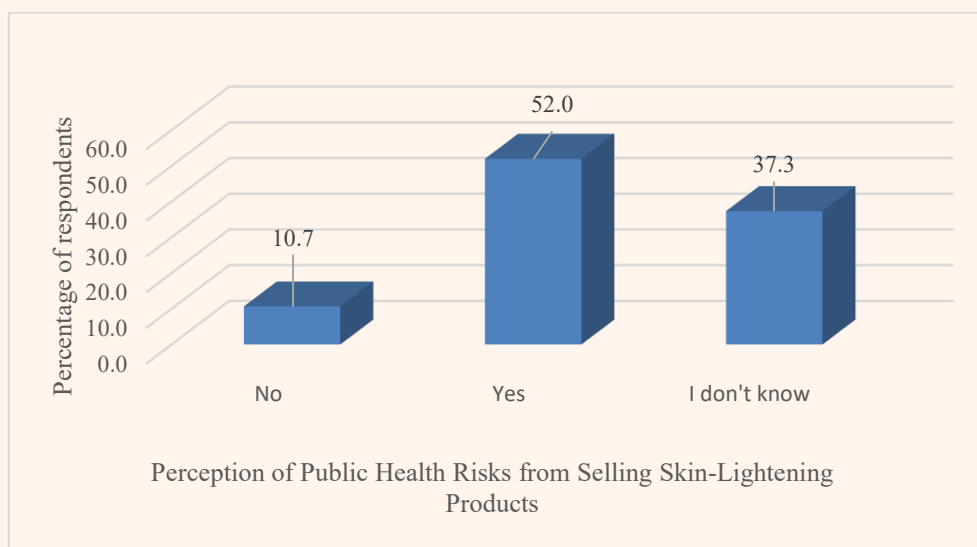


Figure 21. Perception of Public Health Risks from Selling Skin-Lightening Products

Sellers’ Knowledge and Awareness of Chemical Hazards and Regulatory Requirements for Skin-Lightening Products

The survey revealed that the majority of sellers (65.3%) reported that skin-lightening products contain harmful chemicals such as mercury, hydroquinone, or steroids, while 34.7% remain unaware. Most sellers (81.3%) knew that all cosmetics must be approved by the Bangladesh Standards and Testing Institution (BSTI) before being sold, although 18.7% did not know this requirement. Awareness of the maximum allowable mercury limit was much lower, with only 37.3% recognizing the 1 ppm standard, while 62.7% lacked this knowledge. Only 21.3% of sellers had received information about the risks of harmful chemicals in skin-lightening products, primarily from the BSTI-banned skin-lightening cream notice, while the remaining 78.7% had not. Despite these gaps, a majority of sellers (81.3%) stated that BSTI actively monitors or inspects the skin-lightening products they sell, although 18.7% reported no such

regulatory presence. These findings highlight critical gaps in knowledge and regulatory awareness, emphasizing the need for enhanced education, monitoring, and enforcement to protect public health.

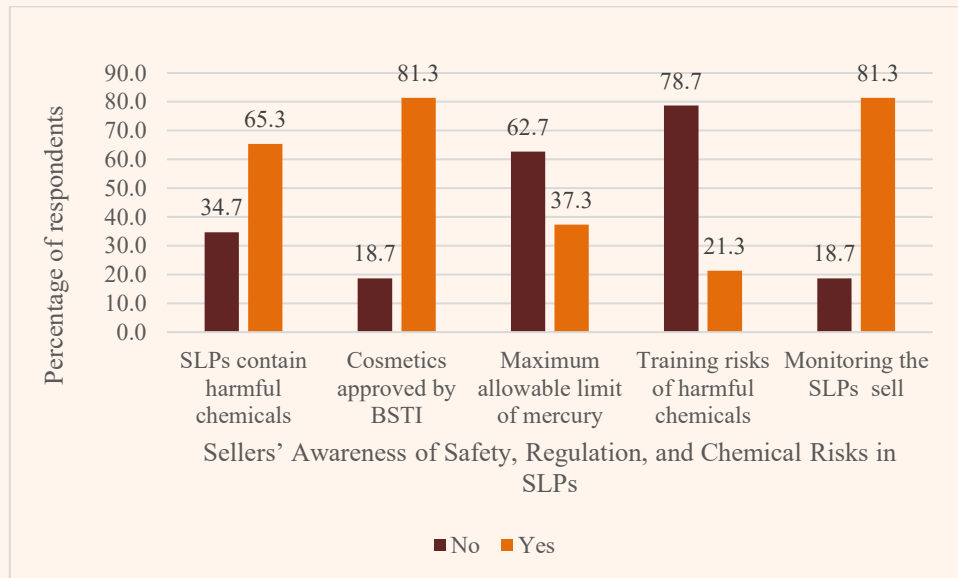


Figure 22. Sellers' awareness of safety, regulation, and chemical risks in slps



Chapter 7

**Follow-Up Analysis of Mercury Levels
in Skin Lightening Products:
Comparative Findings from
2017 to 2025**



7. Follow-Up Analysis of Mercury Levels in Skin Lightening Products: Comparative Findings from 2017 to 2025

From 2017 to 2025, a total of 85 skin-lightening cream samples were tested to monitor mercury content and assess compliance with international safety limits.

- **2017–2023:** Samples were collected by the Environment and Social Development Organization -ESDO from physical stores, online shops, and e-commerce platforms, and tested by the Zero Mercury Working Group (ZMWG)^{24,25}.
- **2024:** Samples were collected by ESDO from marketplaces and tested by Ban Toxics.
- **2025:** This phase of the study was conducted by ESDO in collaboration with EEB and ZMWG. Samples were collected from physical stores, online shops, and e-commerce platforms, and tested by Ban Toxics (Philippines).
- During 2024–2025, a total of 28 cream samples were tested, of which 24 were found to contain mercury above internationally accepted limits, highlighting the continued presence of hazardous products in the market.

7.1 Year-wise Findings:

- **2025:** In response to this ongoing concern, in 2025, the Environment and Social Development Organization – ESDO collaborated with EEB, ZMWG, and with testing conducted by Ban Toxics (Philippines) to conduct further comprehensive testing and monitoring of mercury levels in skin-lightening creams. In April–June, **20 cream samples** were tested from both physical and online markets to continue tracking mercury contamination and support regulatory enforcement. Based on the 2025 testing results, 18 out of 20 sampled skin-lightening products were found to contain dangerously high levels of mercury, far surpassing the internationally accepted limit of 1 ppm.
- **2024:** A total of **8 samples** were tested, and six products exceeded the legal mercury limit, including *Jiaoli Day Cream (5,140 ppm)*, *Jiaoli Whitening Night Cream (4,120 ppm)*, and *Jiaoli Night Cream (4,110 ppm)*, pushing the year’s range to **ND to 5,140 ppm**. The cream samples were tested by Ban Toxics (Philippines) for comprehensive analysis and monitoring of mercury levels.
- **From 2017 to 2023**, the Environment and Social Development Organization - ESDO collected samples, which were tested by the Zero Mercury Working Group (ZMWG).
- **2022–2023:** In this period, **15 samples** were collected exclusively from online markets. Mercury levels ranged from **6.4 ppm to 43,700 ppm**, with *Due Beauty Cream* again showing the highest concentration.
- **2021:** A total of **12 samples** were tested, with concentrations ranging from **0.0021 ppm to 24,000 ppm**. Six products exceeded the legal mercury limit.

²⁴ <https://www.zeromercury.org/resources/network-zmwg/>

²⁵ https://esdo.org/wp-content/uploads/2024/10/Mercurys-Poisoned-Glow_A-Comparative-Report-2023.pdf

- **2019:** A wide-scale test of **15 samples** revealed the most extreme contamination, with mercury concentrations ranging from 60 ppm to 131,567 ppm. Notably, *Goree Day and Night Whitening Cream* contained 131,567 ppm, *Goree Whitening Beauty Anti-Ageing Spots Pimples Removing Cream* had 130,667 ppm, and *Parley Herbal Whitening Cream* showed 116,600 ppm.
- **2018:** A total of **10 samples** were analyzed, with mercury levels ranging between **711 ppm and 16,535 ppm**. *Goree Beauty Cream with Lycopene* showed the highest level of **16,353 ppm**.
- **2017:** A total of **5 samples** were tested. Mercury concentrations ranged from **93 ppm to 16,000 ppm**. Alarming levels were found in *New Face Whitening Cream* and *Noor Herbal Beauty Cream*, both of which contained the highest level of **16,000 ppm**—far exceeding the international safety limit of 1 ppm.

7.2 Methodology

7.2.1 Sampling and Sample Collection

For the 2024–2025 phase of the study, a purposive sampling method was followed. A total of 28 skin-lightening products (from 2024-2025), one from each brand, were collected from twelve vendors, including cosmetic stores, local markets, and e-commerce platforms. The selection criteria were based on product popularity and availability, following the approach of Ricketts et al. (2020). The selection focused on creams that are popular in Bangladesh and widely available in the market, from which products were randomly selected for testing. Products were identified using labeling terms such as “lightening,” “bleaching,” “brightening,” “whitening,” “spot removal,” “dark removal,” “anti-spot,” “fairness,” and “fading,” in line with the identification strategy used by Hamann et al. (2014). Product details such as brand name, physical characteristics, country of origin (if available), and ingredient lists were recorded during the collection process.



7.2.2 Analytical Techniques Sample Preparation

For analysis, approximately 10 ml of creams and lotions was placed into sample cups and covered with a thin film to prevent contamination and ensure uniform measurement conditions (Ricketts *et al.*, 2020). The samples were stored at room temperature.

7.2.3 Mercury Measurement Using XRF

The mercury content of the samples was assessed using **X-ray fluorescence (XRF)**, which is a non-destructive and rapid screening technique suitable for detecting heavy metals in consumer products.

- A portable handheld XRF analyzer (Model Name: Olympus Vanta C Series HH XRF Analyzer) was used to measure mercury concentrations in 26 skin lightening products.
- The instrument’s built-in ‘RoHS method’ was used to detect mercury in the samples
- Each sample was prepared and measured for one minute (Ricketts *et al.*, 2020).

7.2.4 Quality Control and Assurance

Triplicate Measurements: Each sample was measured three times, and the average value was calculated to ensure accuracy and consistency.

7.3 Data Analysis

Data were recorded and analyzed to compare with international safety standards, including the Minamata Convention and national standards from the Bangladesh Standards and Testing Institution (BSTI) (mercury limit: 1 ppm). Descriptive statistics such as frequency, mean, and range were used to summarize the results.

7.4 Results of Mercury Analysis in Skin Lightening Products (2024–2025)

7.4.1 Presence of Mercury in SLPs from 2024-25

The pie chart illustrates that in the most recent testing phase (2024–2025), 28 skin-lightening cream samples were analyzed. Of these, 24 samples (85.7%) were found to contain mercury levels exceeding the internationally accepted limit of 1 ppm, indicating a continued prevalence of hazardous products in the market.

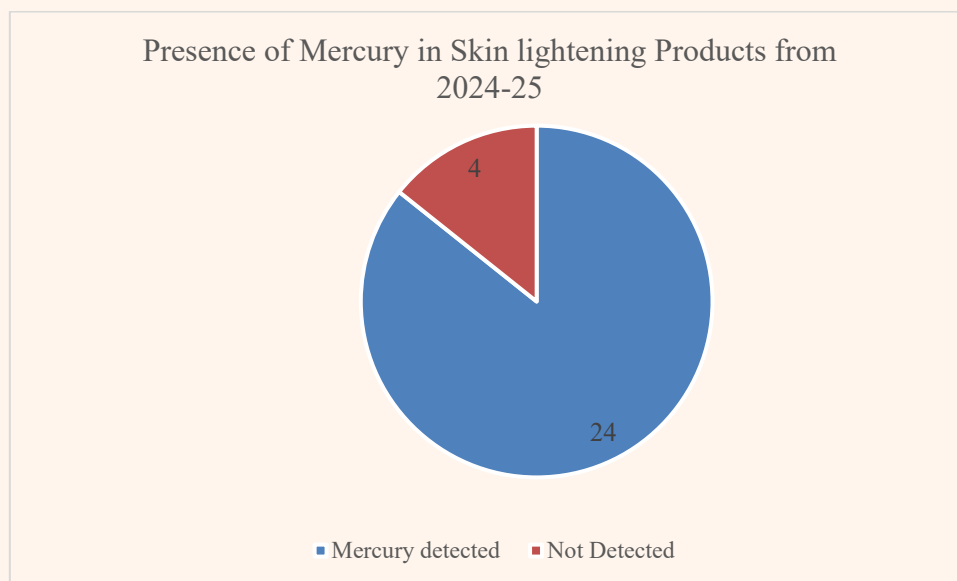


Figure 23. Presence of Mercury in Skin Lightening Products from 2024-25

7.4.2 Mercury Concentration in Tested Skin-Lightening Products (ppm) – 2024-2025

7.4.2.1 Mercury Concentration in Tested Skin-Lightening Products (ppm) – 2025

The bar chart shows the mercury concentration in tested skin-lightening products (ppm) in 2025. Testing results showed that **18 out of 20** sampled skin-lightening products contained dangerously high levels of mercury, far exceeding the internationally accepted limit of 1 ppm.

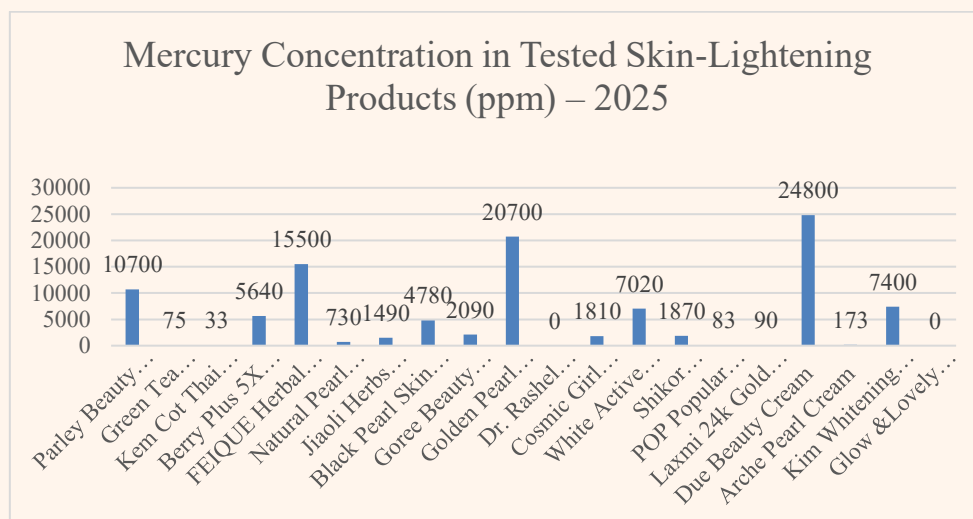


Figure 24. Mercury Concentration in Tested Skin-Lightening Products (ppm) – 2025

7.4.2.2 Mercury Concentration in Tested Skin-Lightening Products (ppm) – 2024

The bar chart shows the mercury concentration in tested skin-lightening products (ppm) in 2024. Testing results showed that 6 out of 8 sampled skin-lightening products contained dangerously high levels of mercury.

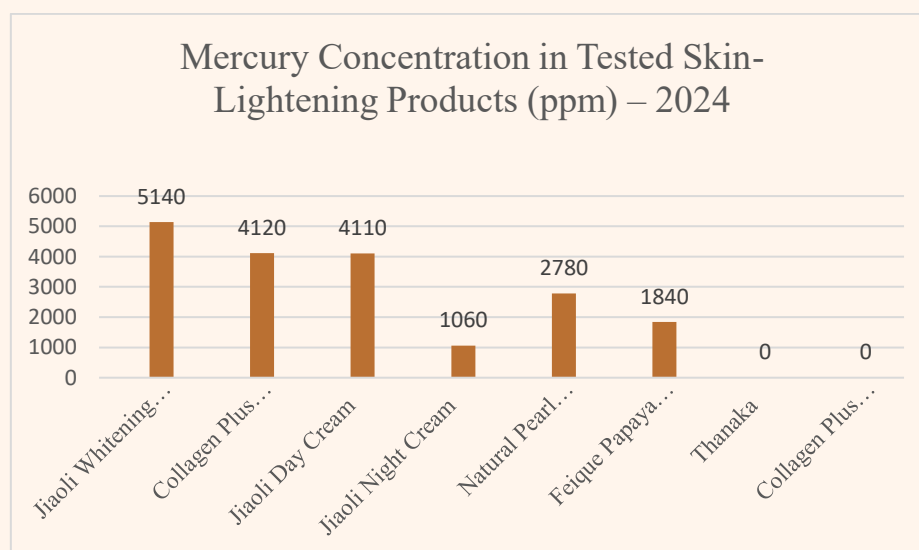


Figure 25. Mercury Concentration in Tested Skin-Lightening Products (ppm) – 2024

7.4.3 High Concentration of Mercury Discoveries in Skin-Lightening Products (2025)

Table 7: High Concentration of Mercury Detected in Skin-Lightening Products (2025)

Product Name	Mercury Concentration (ppm)	Notes
Due Beauty Cream	24,800 ppm	Government banned; highest mercury content; sold in stores & online
Golden Pearl Beauty Cream	20,700 ppm	Government banned; popular in South Asian markets
FEIQUE Herbal Extract Whitening Freckle Removing Cream	15,500 ppm	Marketed as herbal, extremely toxic
Parley Beauty Cream	10,700 ppm	Widely used facial brightener; serious health hazard
Kim Whitening Ginseng and Pearl Cream	7,400 ppm	Used for whitening and spot removal
White Active Cream	7,020 ppm	Daily skincare product; high risk with regular use
Berry Plus 5X Extra Whitening Cream	5,640 ppm	Marketed for “extra whitening”; highly toxic
Black Pearl Skin Cream	4,780 ppm	Widely sold in cosmetic shops, hidden danger
Goree Beauty Cream with Lycopene	2,090 ppm	Government banned; still widely available; over 2,000× legal limit
Shikor Whitening Cream	1,870 ppm	Exceeds safety limits; still sold
Cosmic Girl Active Beauty Cream	1,810 ppm	High mercury levels reflect poor market regulation



7.4.4 Skin-Lightening Products by Country of Origin

7.4.4.1 Skin-Lightening Products by Country of Origin (2025)

The pie chart illustrates the frequency of skin-lightening products based on the country of origin as indicated on the packaging. Among the 20 samples tested in 2025, the highest number originated from Pakistan (5 products), followed by China, Thailand, and Bangladesh with 3 products each. Products from Korea and those without a mentioned origin accounted for 2 samples each, while Taiwan and Vietnam contributed 1 product each. This distribution highlights the widespread international production of such products and the challenge of traceability, especially when the country of origin is not disclosed.

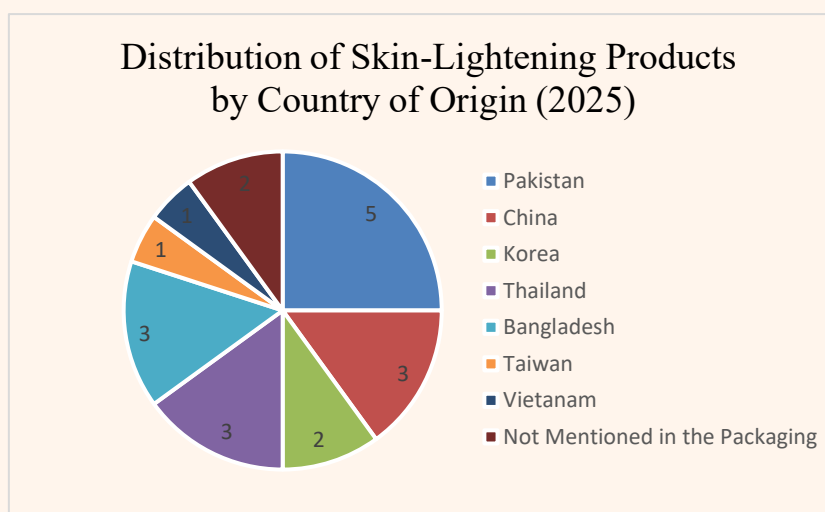


Figure 26. Distribution of Skin-Lightening Products by Country of Origin (2025)

7.4.4.2 Skin-Lightening Products by Country of Origin (2024)

The figure illustrates the frequency of skin-lightening products based on the country of origin as indicated on the packaging in 2024. Among the 8 samples tested, the highest number originated from China (4 products), followed by Indonesia (2 products). Products from Myanmar (1 product) and those with no indicated country of origin (1 product) accounted for the remaining samples.

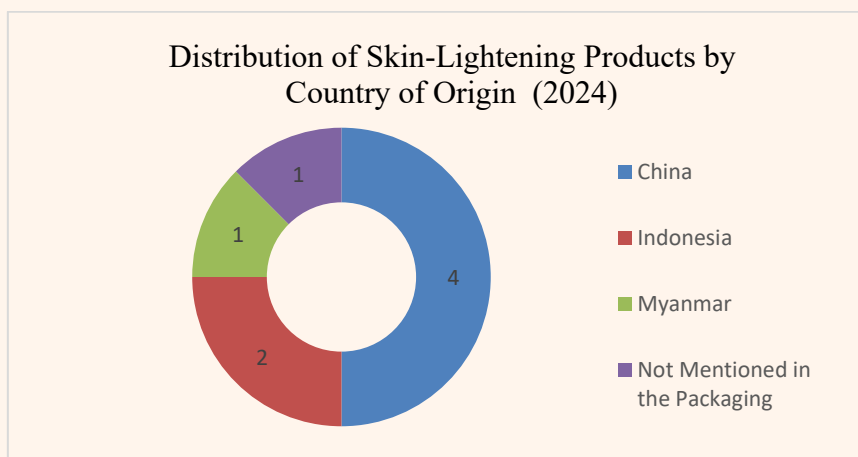


Figure 27. Distribution of Skin-Lightening Products by Country of Origin (2024)

7.4.5 Comparison of Average Concentration of Mercury in SLP (2017- 2025)

This bar chart shows the average mercury concentration in skin-lightening creams over the years, highlighting ongoing concerns about product safety and regulatory effectiveness. According to *Mercury's Poisoned Glow: A Comparative Report on Mercury-Added Skin Lightening Creams* (2023), in 2017, the average mercury level was 9,479 ppm, decreasing to 7,176 ppm in 2018, followed by a sharp spike to 62,682 ppm in 2019. Levels then declined to 3,481 ppm in 2021 but increased again to 10,214 ppm in 2022–2023, reflecting persistent market challenges.²⁶

Data from the current study show that in 2024, the average mercury concentration dropped to 2,381 ppm, yet remained hazardous. In 2025, the average rose sharply to 5,249 ppm, more than double the 2024 level, demonstrating a concerning reversal and emphasizing the urgent need for stronger regulatory enforcement and continuous market surveillance.

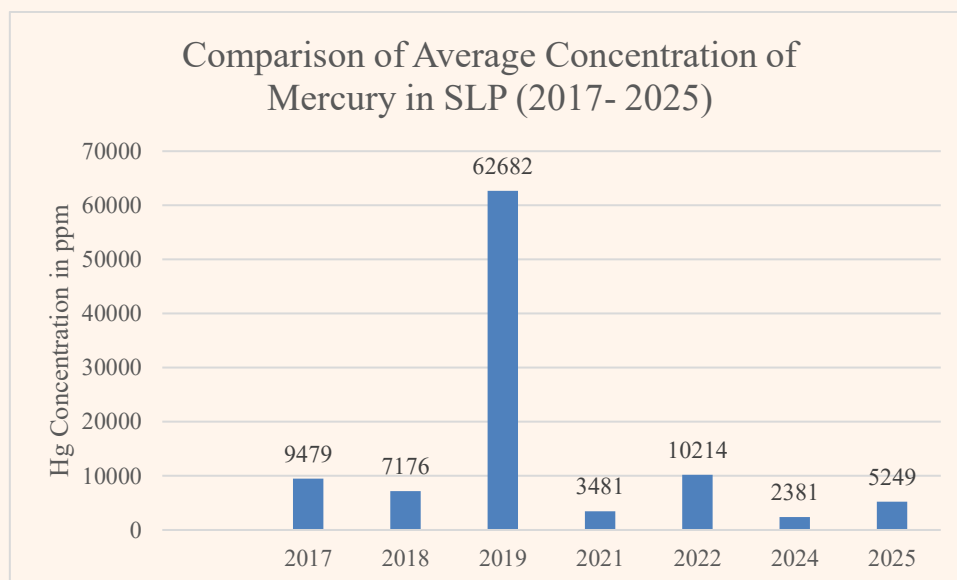


Figure 28. Comparison of Average Mercury Concentration in Skin-Lightening Products (2017–2025)

7.4.6 Mercury Concentration Range Comparison during Years (2017- 2025) (ppm)

The bar chart illustrates the fluctuating range of mercury concentrations in skin-lightening products from 2017 to 2025, highlighting ongoing regulatory and safety challenges. According to *Mercury's Poisoned Glow: A Comparative Report on Mercury-Added Skin Lightening Creams* (2023), mercury concentrations between 2017 and 2023 showed significant variation. In 2017, levels ranged from 93 ppm to 16,000 ppm, while in 2018 they ranged from 711 ppm to 16,353 ppm. In 2019, concentrations ranged from 60 ppm to 131,567 ppm, indicating severe gaps in oversight. In 2021, while minimum levels were observed as low as 0.0021 ppm, maximum concentrations of up to 24,000 ppm persisted. The 2022–2023 data shows a range

²⁶ https://esdo.org/wp-content/uploads/2024/10/Mercurys-Poisoned-Glow_A-Comparative-Report-2023.pdf

of 6.4 ppm to 43,700 ppm²⁶. The most recent measurements from 2024 indicated levels between 0 and 5,140 ppm, and in 2025, mercury concentrations spanned from 0 to 24,800 ppm. The continued presence of both mercury-free products and dangerously high concentrations underscores the urgent need for stronger enforcement mechanisms and comprehensive market surveillance.

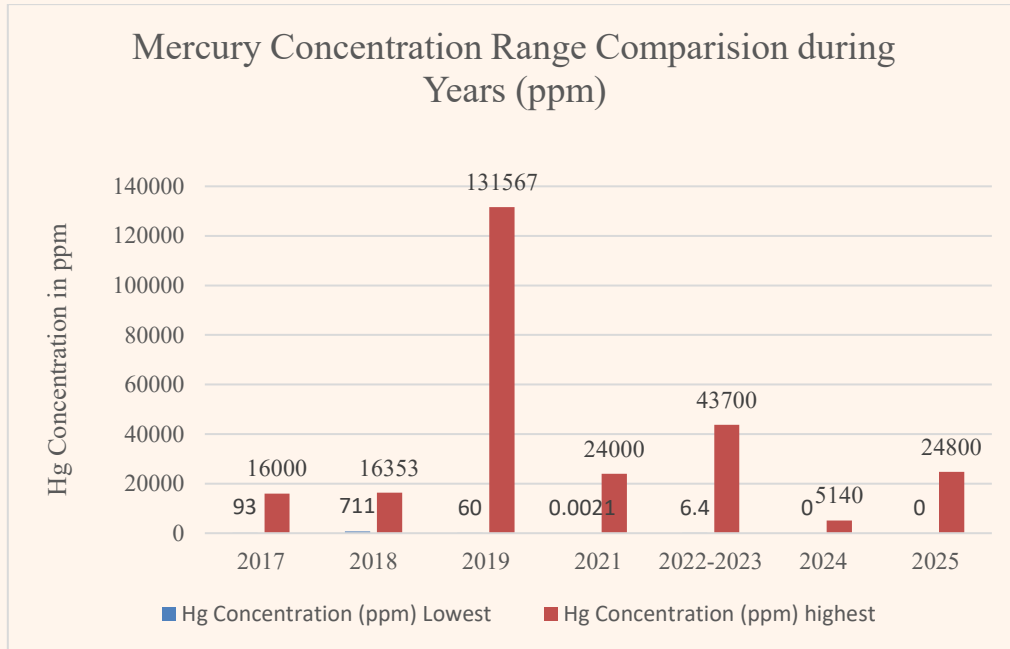
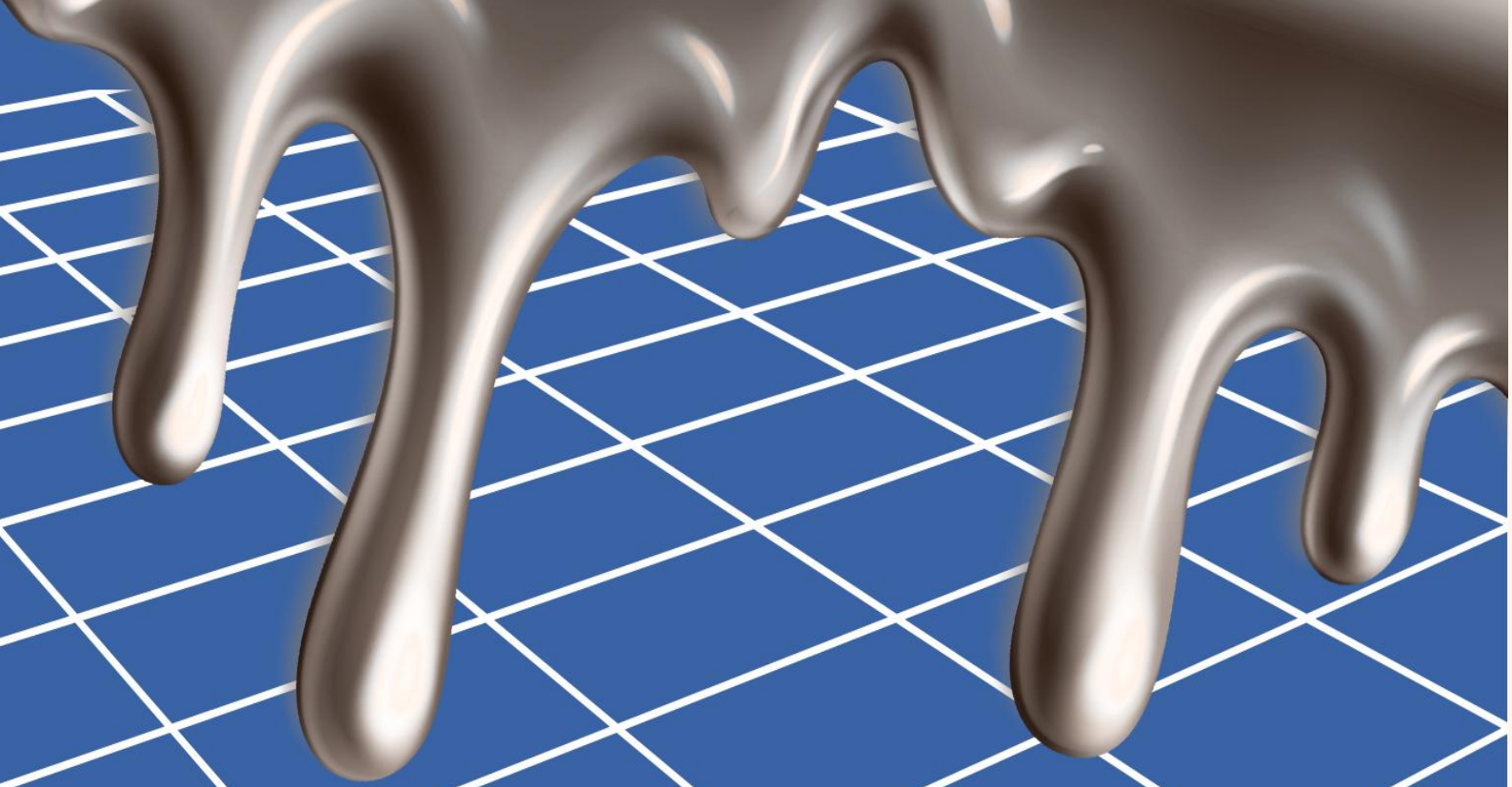


Figure 29. Comparison of Mercury Concentration Range in Skin-Lightening Products (2017–2025) [ppm]



Chapter 8

Market Surveillance Approach

8. Market Surveillance Approach

8.1 Market Monitoring of Banned Skin-Lightening Products (SLPs) by BSTI in Bangladesh

In Bangladesh, several skin-lightening products (SLPs) have been officially **banned by the Bangladesh Standards and Testing Institution (BSTI)** due to their high mercury content and violation of national safety standards. According to both **BSTI regulations** and international standards (e.g., **Minamata Convention on Mercury**), the permissible mercury limit in cosmetics is **1 ppm (parts per million)**.

To track compliance and support enforcement of these bans, the Environment and Social Development Organization - ESDO has actively conducted market monitoring, focusing on both physical and online marketplaces.

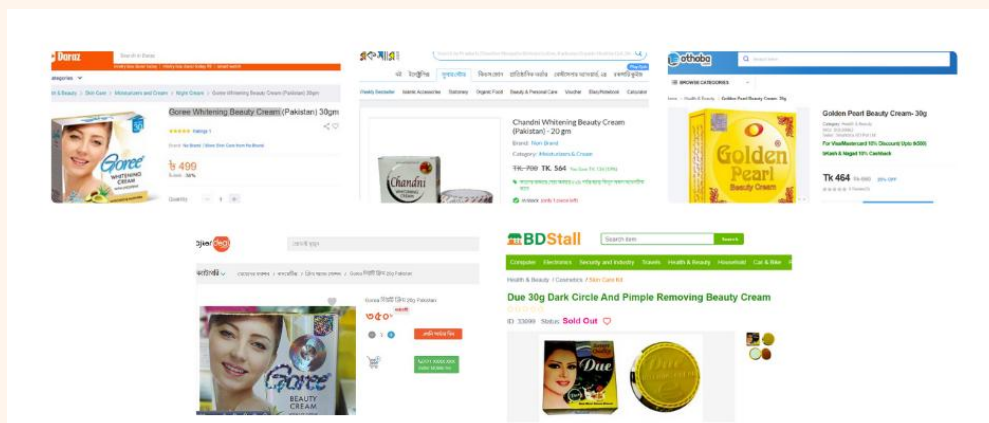


8.1.1. Observations from Physical Market Outlets

- BSTI-banned SLPs were still found to be available in the market despite the official ban.
- In many cases, product labeling was misleading or incomplete, making identification and regulatory enforcement challenging.

8.1.2 Observations from Online Platforms

- A comprehensive review of e-commerce platforms—including *Daraz*, *Rokomari*, *Othoba.com*, *Ajkerdeal*, *ClickBD*, *BD Stall*, *Flipmart*, *Saajkonna.com*, and Facebook Marketplace- was conducted to identify listings of BSTI-banned SLPs.
- Screenshots of product listings, advertisements, and promotional banners were captured as evidence.
- The continued online availability and promotion of banned products highlight gaps in monitoring and regulatory enforcement across digital marketplaces.



8.2 Market Follow-Up Monitoring in 2025 of Skin-Lightening Products Previously Tested by ZMWG (2017–2023) for Mercury Content in Bangladesh

For the period 2017–2023, several skin-lightening products (SLPs) were found to contain high concentrations of mercury based on laboratory analyses. Samples were collected from physical stores, online shops, and e-commerce platforms in Bangladesh by the Environment and Social Development Organization - ESDO and tested by the Zero Mercury Working Group.

In 2025, ESDO conducted targeted follow-up market monitoring in both physical marketplaces and e-commerce platforms to specifically identify whether the same skin-lightening products previously tested during 2017–2023 were still available in the market. This follow-up was undertaken to assess the effectiveness of regulatory actions and to understand whether mercury-containing products continue to persist in the market despite known health risks and existing regulations

8.2.1 Observations from Physical Market Outlets

- Several products previously identified with high mercury content (2017–2023) were still available in the market in 2025. These products have not yet been formally banned by BSTI, despite exceeding safety thresholds.
- In many cases, product labeling was found to be misleading or incomplete, which complicates identification and regulatory enforcement.

8.2.2 Observations from Online Platforms

- A comprehensive review of e-commerce platforms, including *Daraz*, *Rokomari*, *Othoba.com*, *Ajkerdeal*, *ClickBD*, *BD Stall*, *Vinnobd*, and Facebook Marketplace, was conducted to identify listings of skin-lightening products (SLPs) previously tested (2017–2023) and found to contain high mercury content.
- Screenshots of product listings, advertisements, and promotional banners were captured as evidence, confirming the continued availability of these products online.
- The persistent sale and promotion of such products highlight gaps in digital marketplace monitoring and regulatory enforcement, emphasizing the need for strengthened oversight and compliance measures.



Chapter 9

Policy Landscape and Regulatory Challenges in Bangladesh

9. Policy Landscape and Regulatory Challenges in Bangladesh

9.1 National Laws and Standards Governing Cosmetics

This section presents the national regulatory framework for cosmetic products in Bangladesh, highlighting the laws, standards, and enforcement mechanisms established to ensure product safety and control the presence of harmful substances, including mercury and hydroquinone.

9.1.1 National Standards on Cosmetics – Mercury Regulation and BSTI Enforcement

- The Bangladesh Standards and Testing Institution (BSTI) is the designated authority for setting and enforcing safety and quality standards for cosmetic products, including heavy metal limits.
- Under BSTI standards, the maximum allowable limit of mercury in skin care products is 1 part per million (1 ppm). This requirement applies to all cosmetics available in the Bangladesh market, including products sold through physical outlets as well as online platforms.
- In recent enforcement actions
 - In 2022, BSTI banned 17 skin-whitening creams due to mercury concentrations far exceeding the national safety limit.
 - As of 2023, BSTI has banned 19 face-whitening creams found to contain dangerous levels of mercury and hydroquinone, representing the most recent list of prohibited products (The Financial Express, 2025).²⁷
- Despite these regulations, non-compliant products, especially those sold via online platforms and markets, continue to circulate widely, posing challenges to consumer safety and regulatory enforcement.
- This highlights the need for stronger monitoring, particularly for imported and e-commerce-based products.

9.1.2 The Drugs and Cosmetics Act, 2023

Drug and Cosmetic products in Bangladesh are regulated under the Drugs and Cosmetics Act, 2023, which replaced the outdated 1940 law. The updated legislation provides a more comprehensive framework for controlling the manufacture, import, distribution, and sale of drug and cosmetic items.²⁸

According to Section 32(1) of the Act, no person or establishment is allowed to manufacture, distribute, import, or export any type of cosmetics without obtaining registration from the licensing authority.²⁹

²⁷ <https://thefinancialexpress.com.bd/national/alarming-levels-of-mercury-found-in-popular-skin-lightening-creams>

²⁸ https://www.vdb-loi.com/bd_publications/the-drug-and-cosmetics-act-2023-act-no-29-dated-18-september-2023-passed-by-the-bangladesh-parliament/?utm_source=chatgpt.com

²⁹ <https://asiaactual.com/wp-content/uploads/2023/10/Bangladesh-Drug-and-Cosmetics-Act-2023-English.pdf>

Section 37(1) of the same Act further states that no person or entity shall manufacture, sell, store, distribute, or exhibit for sale any misbranded cosmetics.

9.2 Regulatory Challenges and Enforcement Gaps

Despite having formal regulations in place, several critical challenges undermine the effective enforcement of policies governing skin-lightening products in Bangladesh. These gaps exist across the entire regulatory chain—from product entry to marketplace oversight and consumer awareness.

Informal Imports and Cross-Border Trade

Many harmful cosmetic products continue to enter Bangladesh through unregulated or informal trade channels, often bypassing customs inspections and registration requirements. The country's extensive and porous borders with India and Myanmar make it difficult to monitor and control illegal cross-border transport. This informal trade significantly contributes to the circulation of banned or unregistered products in local markets.

Gaps in Inter-agency Coordination and Outdated Regulations

Enforcement of safety standards for skin-lightening products is weakened by limited coordination among key regulatory and monitoring agencies. Overlapping responsibilities and inconsistent communication reduce the effectiveness of inspections and product monitoring.

Weak Market Surveillance

Routine inspections, sampling, and chemical analysis of cosmetic products in both formal retail outlets and informal markets remain limited. As a result, harmful products are often sold openly. Surveillance is further hampered by limited personnel, logistical constraints, and weak monitoring of informal vendors.

Limited Testing Capacity

BSTI and relevant regulatory agencies may face constraints in terms of resources and laboratory infrastructure, which can limit their ability to conduct comprehensive and routine testing of cosmetic products across the market.

Online Sale of Banned Skin-Lightening Products

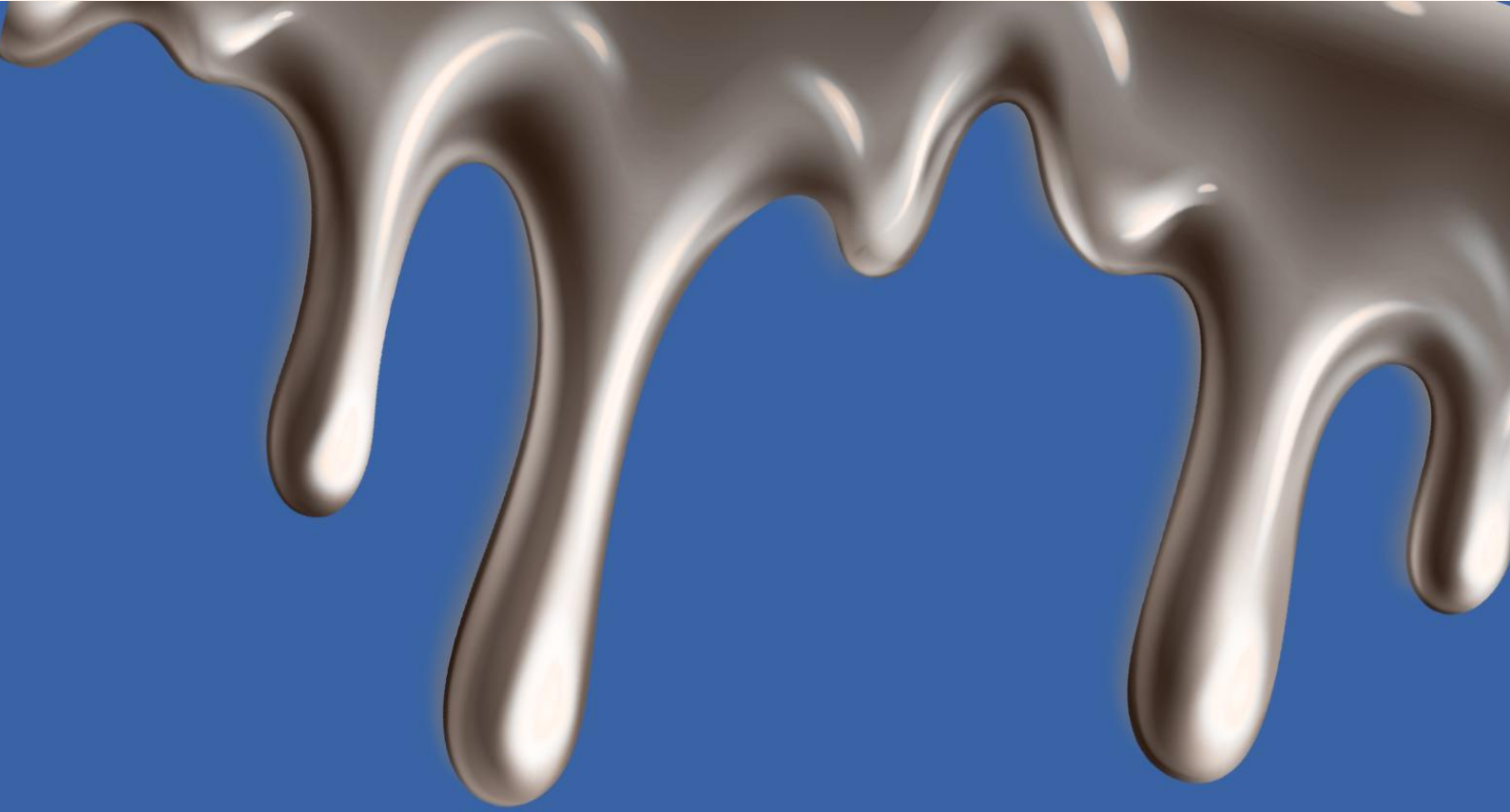
Although the sale of banned or unregistered skin-lightening products is prohibited on e-commerce and social media platforms, some sellers still manage to market these items without adequate verification or oversight. This situation poses significant risks to consumer safety.

Monitoring Challenges on Digital Platforms

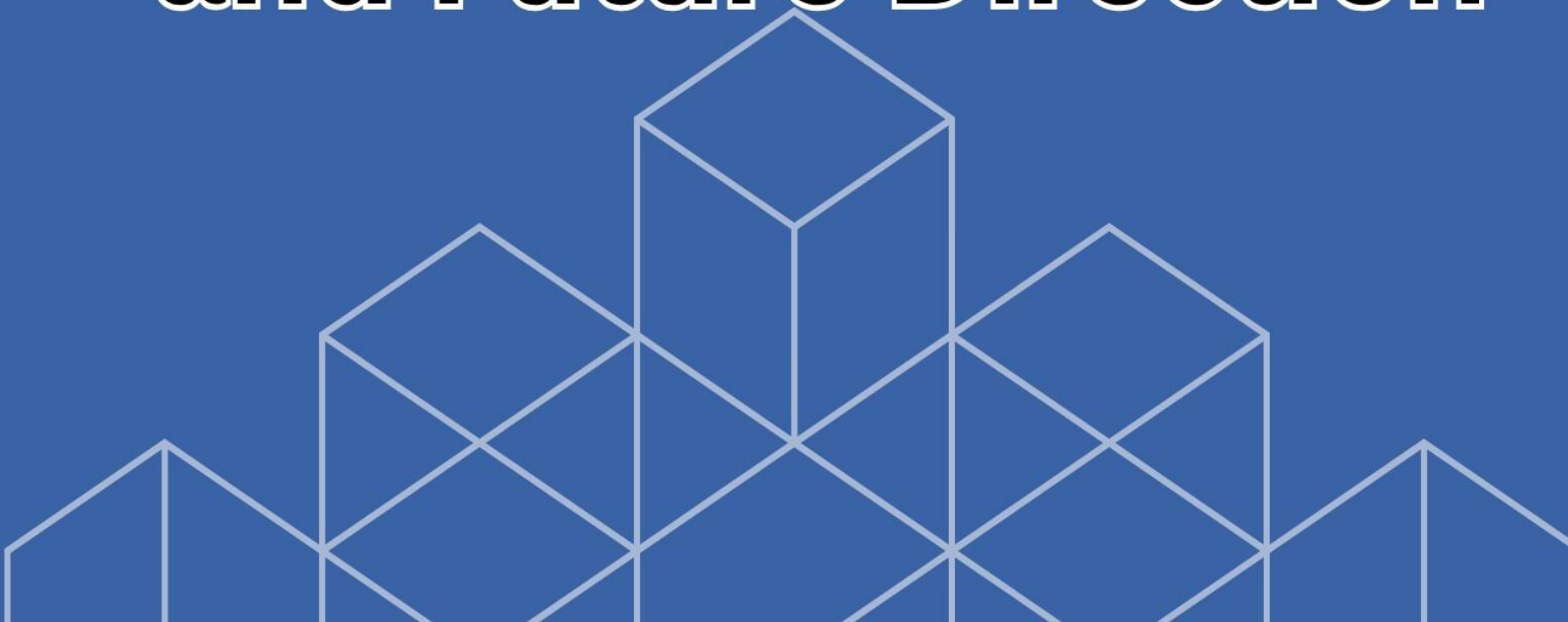
Regulators face considerable difficulty monitoring the vast number of websites, Facebook pages, and other online platforms. The constantly evolving and decentralized nature of these digital marketplaces makes it challenging to effectively control the sale and distribution of harmful cosmetic products.

Concealment in Personal Luggage

Prohibited products are sometimes brought into the country in small quantities through personal luggage, especially from regions where such products are widely available. These imports, intended for personal use or small-scale distribution, usually evade detection unless flagged during intelligence-led or routine inspections.



Chapter 10
Recommendations
and Future Direction



10. Recommendations and Future Direction

Recommendations for Strengthening National Regulatory and Public Health Measures

1. Urgent Regulatory Alignment with the Minamata Convention on Mercury

Although the Minamata Convention on Mercury mandates a complete ban on mercury in cosmetics, effective from 2025, Bangladesh's current national standard under BSTI still permits up to 1 ppm mercury in skin-lightening products, indicating the need for urgent regulatory alignment to fulfill international obligations (Minamata Convention, 2023; Zero Mercury Working Group, 2023).^{18,19}



2. Strengthen Border Control and Import Surveillance

As most skin-lightening creams are imported, Customs and BSTI should be equipped to screen shipments for mercury content at major entry points. Hazardous products must be seized, and non-compliant importers penalized in accordance with national law.

3. Enforce Mandatory Labeling and Ingredient Disclosure

National regulations should require all cosmetic products, including skin-lightening creams, to display a clear, complete ingredient list in Bangla and English, along with manufacturer information and country of origin. Products lacking this should be banned from the market.

4. Accelerate Ratification and Domestic Implementation of the Minamata Convention

Bangladesh should finalize ratification and integrate the Convention's mercury restrictions into enforceable laws, enabling stricter action against violators and aligning with global standards.

5. Develop a Robust Enforcement Mechanism

An effective enforcement framework is essential to ensure compliance with mercury regulations in cosmetic products. This should involve regular inspections, clear sanctions and penalties for violations, and voluntary agreements to encourage compliance among manufacturers and importers. Customs officials and regulatory agencies must be equipped with necessary screening tools, such as X-ray fluorescence (XRF) devices, along with proper training for their use. Additionally, strengthening laboratory capacity is critical for conducting accurate chemical analyses to support legal actions against non-compliant products.

6. Launch Nationwide Awareness and Behavior-Change Campaigns

Mass communication should educate the public—especially women and adolescents, about mercury risks in cosmetics, the importance of checking labels, and promote acceptance of natural skin tones.

7. Encourage Safe Manufacturing Practices

The government should support domestic manufacturers in transitioning to mercury-free, eco-friendly formulations through financial incentives, technical assistance, and access to green production technologies.

8. Enhance International and Regional Collaboration

Given the resource limitations faced by many countries, regional and international cooperation is vital for efficient regulation and enforcement. Collaborative efforts can include sharing technical expertise, coordinating market surveillance, exchanging information about non-compliant products, and conducting joint training programs. Establishing regional alert systems to rapidly communicate risks and deploying joint units to monitor and trace hazardous products sold online will improve responsiveness. Such cooperation supports customs services and regulatory bodies in taking timely and effective measures to protect public health.

Recommendations for Strengthening Regulation, Monitoring, and Enforcement of Online Platforms

In Bangladesh, several harmful products, such as mercury-laden skin-lightening creams, are banned in both physical shops and online platforms. Enforcement in physical markets and retail stores has been relatively stronger, with inspections helping to reduce the availability of banned products. However, gaps remain in smaller local markets or standalone shops where regulatory oversight is inconsistent. In online spaces, enforcement is far more limited, and many banned products remain easily accessible through e-commerce platforms such as *Daraz*, *Rokomari*, *Othoba.com*, etc and social media channels like Facebook, posing ongoing risks to consumers.

Online platforms act as active participants in the retail process rather than mere intermediaries. They generate revenue through commissions, establish platform policies, influence product pricing, and often manage logistics, including storage and delivery. The increasing presence of informal small-scale sellers operating via individual Facebook pages further complicates oversight. When dangerous or banned products are sold by sellers outside Bangladesh, consumers have few avenues for recourse, and regulatory authorities face significant challenges in enforcing compliance across international borders and informal digital spaces. Strengthening online monitoring, reporting mechanisms, and collaboration with platform operators, alongside continued enforcement in physical shops, is essential to protect public health and uphold consumer rights.

To address this growing concern and ensure consumer safety in the digital age, the following steps are recommended for Bangladesh:

1. Introduce Clear Legal Obligations for Online Platforms

Online platforms should be made legally responsible for the products sold through their services. The government should revise existing consumer protection and e-commerce laws to include penalties for online sale of unapproved or harmful products, similar to penalties imposed on physical retailers.

2. Mandatory Verification of Products and Sellers Based on BSTI Standards

Platforms must be required to thoroughly check the sellers and products they allow on their websites. Every product—especially cosmetics and health-related items—must carry valid documentation showing approval from the Bangladesh Standards and Testing Institution (BSTI).

3. Transparency and Public Disclosure of Compliance Measures

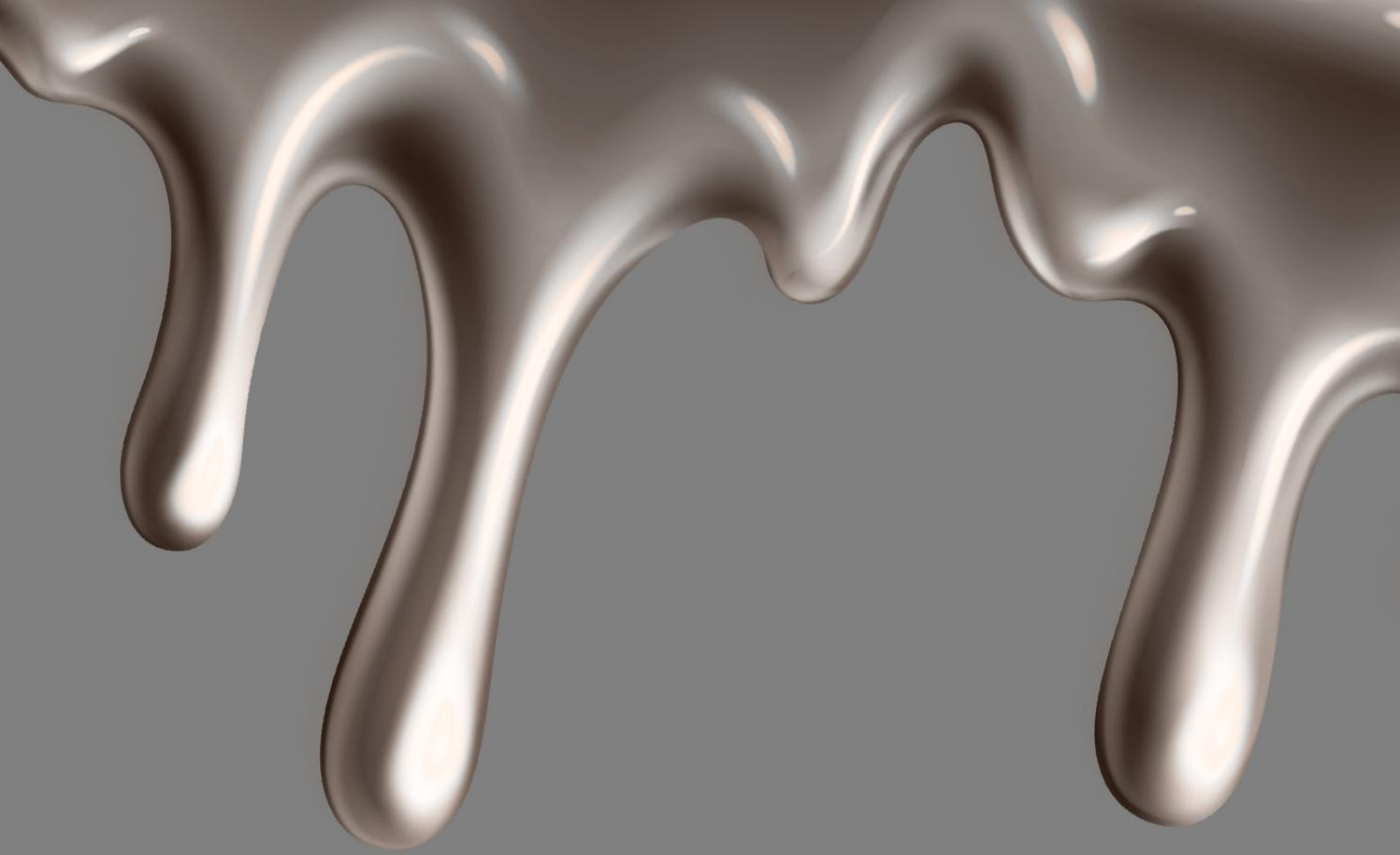
Online platforms should publicly display their product safety policies and procedures, such as how they check compliance, timelines for taking down harmful listings, and steps for verifying sellers. These should be made accessible to BSTI and other regulators for monitoring purposes.

4. Equal Product Information for Online and Offline Consumers

Consumers buying online should have access to the same information they would get in a store. This includes labeling details, ingredients, expiry dates, manufacturer information, and whether the product is BSTI-certified. No product should be listed without these disclosures.

5. Strict Accountability of Platforms for Seller Activities

Online platforms should be held responsible if they allow the sale of unsafe or uncertified products. They must regularly monitor listings and act immediately upon receiving complaints or warnings from BSTI or other authorities. If they fail to do so, they should face legal consequences under consumer protection laws.



Annexure

Annexure

Annex A: Mercury Levels in Skin-Lightening Products Tested in 2024 and 2025

This annex contains detailed data on mercury concentrations found in skin-lightening products tested by Ban Toxics in the years 2024 and 2025. The data for each year is presented separately to provide a clear overview of mercury contamination levels during these periods.

Table A1: Mercury Levels in Skin-Lightening Products Tested in 2025

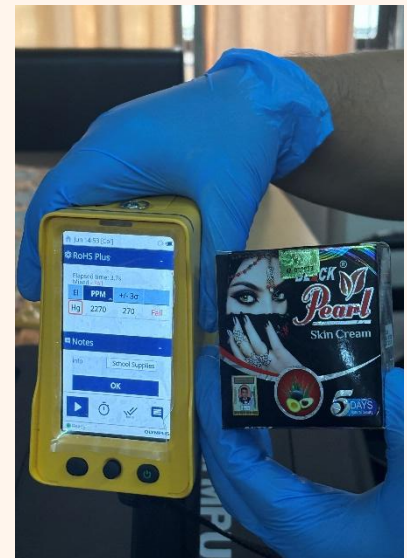
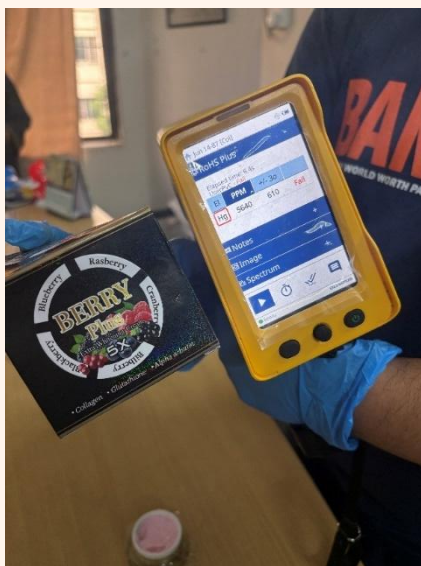
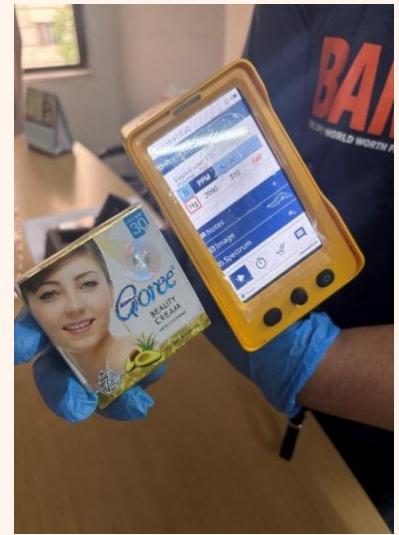
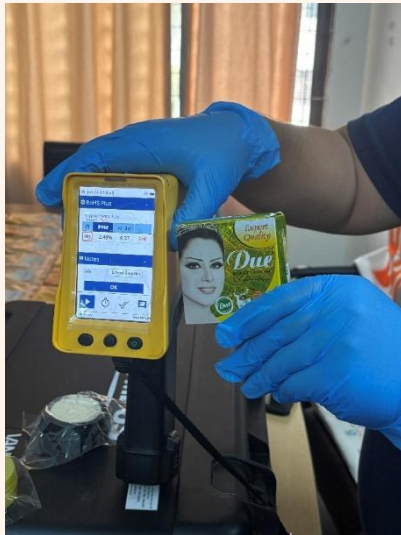
Product Name	Manufacturer Name (Mentioned in the packaging)	Country of Origin (Mentioned in the packaging)	Mercury in Tested Products (ppm)
Due Beauty Cream	Kreative Cosmetics (Pvt) Ltd.	Pakistan	24800
Golden Pearl Beauty Cream	Golden Pearl	Pakistan	20700
FEIQUE Herbal Extract Whitening Freckle Removing Cream	Feique Beauty Cosmetic Co., Ltd	China	15500
Parley Beauty Cream	Khyber Chemical Pvt. Ltd	Pakistan	10700
Kim Whitening Ginseng and Pearl Cream	Mojun Company	Korea	7400
White Active Cream	Mojun Cosmetics Co., Ltd,	Korea	7020
Berry Plus 5X Extra Whitening Cream	Not indicated in the packaging	Thailand	5640
Black Pearl Skin Cream	Adornica Herbs & Cosmetics Co.	Bangladesh	4780
Goree Beauty Cream with Lycopene	Goree Cosmetics (Pvt). Ltd.	Pakistan	2090
Shikor Whitening Cream	Sadia Cosmetics bd.	Bangladesh	1870
Cosmic Girl Active Beauty Cream	Nipun Beauty Cream	Not indicated in the packaging	1810
Jiaoli Herbs Essence Whitening Night Cream	Guangzhou Yuqingmei Cosmetics Co., Ltd.	China	1490
Natural Pearl Whitening & Anti-Aging Cream	GLDJB (Harbin) Cosmetics Co., Ltd	Not indicated in the packaging	730
Arche Pearl Cream	U.B. Chemical Industries Co. Ltd.	Thailand	173
POP Popular Facial Cream	Smilephan Company Limited	Thailand	83
Laxmi 24k Gold Collagen Whitening Cream	Dodo and Brother Cream (Laxmi Face White)	Pakistan	90

Green Tea Whitening Intense Anti-Aging Care Cream	Lanxi	Taiwan	75
Kem Cot Thai Whitening Night Cream	Not indicated in the packaging	Vietnam	33
Dr. Rashel Vitamin C Brightening & Anti-Aging Day Cream	YIWU Rashel Trading Co., Ltd	China	ND
Glow & Lovely Ayurvedic care	Unilever Bangladesh Ltd.	Bangladesh	ND

Table A2: Mercury Levels in Skin-Lightening Products Tested by Ban Toxics in 2024

Product Name	Mercury in Tested Products (ppm)
Jiaoli Whitening Night Cream	5140
Collagen Plus Vitamin E Night Cream	4120
Jiaoli Day Cream	4110
Natural Pearl Whitening and Anti-Aging Cream	2780
Feique Papaya Whitening Anti-Freckle Package	1840
Jiaoli Night Cream	1060
Thanaka	ND
Collagen Plus Vitamin E Day Cream	ND

Annex B: Mercury Content Measurement in Skin-Lightening Products using a portable handheld X-ray fluorescence (XRF) analyzer



Annex C: Online Market Monitoring of BSTI-Banned Skin-Lightening Products (SLPs)

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Goree Whitening Beauty Cream (F...
Goree Whitening Beauty Cream (F...
 ★★★★★ Ratings: 1
 Brand: No Brand | More Skin Care from No Brand
~~Tk 760~~ **Tk 499** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Chandni Whitening Beauty Cream (Pakista...
Chandni Whitening Beau (Pakistan) - 20 gm
 Brand: Non-Brand
 Category: Moisturizers & Cream
~~Tk 1160~~ **Tk 760** (36% OFF)
 In Stock (only 1 piece left)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Due Whitening Beauty Cream-50g...
Due Whitening Beauty Cream-50g
 ★★★★★ No Ratings
 Brand: No Brand | More Skin Care from No Brand
~~Tk 920~~ **Tk 599** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Noor Herbal Whitening Night Cream...
Noor Herbal Whitening Night Cream
 ★★★★★ Ratings: 3
 Brand: No Brand | More Skin Care from No Brand
~~Tk 920~~ **Tk 590** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Noor Herbal Beauty...
Noor Herbal Beauty
 ★★★★★ No Ratings
 Brand: No Brand | More Skin Care from No Brand
~~Tk 920~~ **Tk 595** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Golden Pearl Whitening Beauty Cr...
Golden Pearl Beauty Cream
 ★★★★★ Ratings: 2
 Brand: No Brand | More Skin Care from No Brand
~~Tk 720~~ **Tk 464** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Golden Pearl Whitening Beauty Cr...
Golden Pearl Whitening Beauty Cr
 ★★★★★ Ratings: 2
 Brand: No Brand | More Skin Care from No Brand
~~Tk 1010~~ **Tk 650** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > White Pearl Plus Beauty Cream...
White Pearl Plus Beauty Cream
 ★★★★★ No Ratings
 Brand: No Brand | More Skin Care from No Brand
~~Tk 920~~ **Tk 599** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Fresh & White Beauty Cream 100 Original From Pakistan...
Fresh & White Beauty Nigl
 ★★★★★ No Ratings
 Brand: No Brand | More Skin Care from No Brand
~~Tk 840~~ **Tk 550** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Fresh & White Beauty Cream 100 Original From Pakistan...
Fresh & White Beauty Nigl
 ★★★★★ No Ratings
 Brand: No Brand | More Skin Care from No Brand
~~Tk 840~~ **Tk 550** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Fresh & White Beauty Cream 100 Original From Pakistan...
Fresh & White Beauty Nigl
 ★★★★★ No Ratings
 Brand: No Brand | More Skin Care from No Brand
~~Tk 920~~ **Tk 599** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

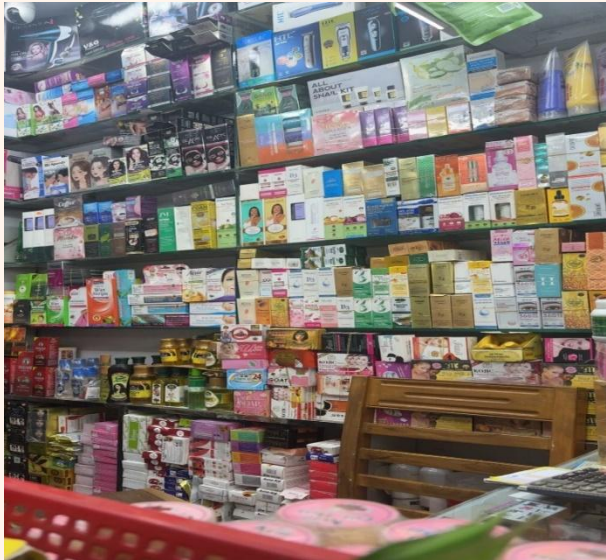
Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Fresh & White Beauty Cream 100 Original From Pakistan...
Fresh & White Beauty Nigl
 ★★★★★ No Ratings
 Brand: No Brand | More Skin Care from No Brand
~~Tk 840~~ **Tk 529** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Fresh & White Beauty Cream 100 Original From Pakistan...
Fresh & White Beauty Nigl
 ★★★★★ No Ratings
 Brand: No Brand | More Skin Care from No Brand
~~Tk 840~~ **Tk 550** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Fresh & White Beauty Cream 100 Original From Pakistan...
Fresh & White Beauty Nigl
 ★★★★★ No Ratings
 Brand: No Brand | More Skin Care from No Brand
~~Tk 840~~ **Tk 540** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Daraz Search in Daraz
 Health & Beauty > Skin Care > Moisturizers and Cream > Night Cream > Fresh & White Beauty Cream 100 Original From Pakistan...
Fresh & White Beauty Nigl
 ★★★★★ No Ratings
 Brand: No Brand | More Skin Care from No Brand
~~Tk 840~~ **Tk 529** (36% OFF)
 Quantity: 1
 Buy Now Add to Cart

Annex: D: Market Monitoring of BSTI-Banned Skin-Lightening Products (SLPs) in Physical Outlets Across Bangladesh



Annex E: Survey Conducted by ESDO



Annex F: Consumer Survey Questionnaire

No.....

Study Title: Toxic Skin Lightening Products Remain Available: A Follow-up Study in 2025

This survey, conducted by the **Environment and Social Development Organization – ESDO in collaboration with EEB/ZMWG**, assesses consumer awareness and use of skin-lightening products, knowledge of their safety, and attitudes toward regulations and potential bans on harmful products.

Consent to Participate

You are invited to participate in this survey conducted by the Environment and Social Development Organization – ESDO. Participation is **voluntary**, and you may skip any question or stop at any time. Your responses will be **kept confidential** and used only for research and reporting purposes. No personal information will be shared.

By continuing with the survey, you **consent to participate**. I agree I do not agree

Section 1: Socio-demographic characteristics of the respondents

S.N	Question	Option
1	Name (Optional)	
2	Age	years
3	Gender	1. Male 2. Female 3. Other
4	Highest level of education	1. Uneducated 2. Primary 3. Secondary 4. Higher Secondary 5. Graduate 6. Postgraduate
5	Occupation	1. Employed 2. Unemployed 3. Housewife 4. Student 5. Other (please specify): _____
6	Marital Status	1. Single 2. Married 3. Widow 4. Divorced
7	Skin Tone	1. Light 2. 3. Dark brown 3. Light brown 4. 4. Black
8	Monthly Family Income	TK

Section 2: Awareness and Use of Skin Lightening Products

S.N	Question	Option
9	Have you ever heard of skin lightening agents (SLAs)?	1. No 2. Yes
10	Source from where you heard/knew about skin lightening agents	1. Family members 2. Friends 3. Healthcare professionals 4. Media 5. Online platform 6. Cosmetic shop attendant 7. Others (please specify):

11	What do you think is the main reason for the increased demand for skin-lightening products?	1. Online advertisements 2. Social media influencers 3. Celebrity endorsements 4. In-store promotions 5. Discounts and offers 6. Other _____
12	Do you ever used skin-lightening cream?	1. No 2. Yes
13	Where do you purchase the skin-lightening cream?	1. Local cosmetics shop 2. Supermarket 3. Online store 4. Pharmacy 5. Abroad 6. Other:

Section 3: Knowledge and Perceptions of Skin Lightening Products

S. N	Question	Option
14	Are you aware of the side effects of skin-lightening products?	1. No 2. Yes
15	What negative health consequences could be caused by the use of skin-lightening agents?	1. Hyperpigmentation 2. Skin thinning 3. Acne/dark spots 4. Depigmentation 5. Burning or irritation 6. Fragile/peeling skin 7. Rashes 8. Other (please specify):
16	Are you aware that skin-lightening products may contain Mercury?	1. No 2. Yes
17	What is your perception about fair skin?	1. Fair skin is more beautiful 2. Fair skin gives high self-esteem 3. Fair skin increases the chances of getting married 4. None of the above

Section 4: Attitudes Toward Regulation and Ban on Harmful Skin Lightening Products

S. N	Question	Option
18	According to the Bangladesh Standards and Testing Institution (BSTI) , the maximum allowable limit of mercury in skin creams is 1 ppm. Were you aware of this rule?	1. No 2. Yes
19	Do you support a ban on mercury in cosmetics and skin-lightening products?	1. No 2. Yes
20	What actions or strategies do you believe would be most effective in preventing the use of harmful skin-lightening creams or products?	1. Awareness campaigns 2. Doctor's advice 3. Availability of safe alternatives 4. Government regulations 5. Peer/family encouragement 6. Other (please specify):

Annex G: Seller Survey Questionnaire

No.....

Study Title: Toxic Skin Lightening Products Remain Available: A Follow-up Study in 2025

This survey, conducted by the **Environment and Social Development Organization – ESDO in collaboration with EEB/ZMWG**, aims to assess sellers’ knowledge, practices, and perceptions regarding skin-lightening products (SLPs) in Bangladesh. It focuses on product sources, market availability, business types, safety awareness, and compliance with regulatory standards. The study targets retailers, wholesalers, importers, and online sellers to provide a comprehensive understanding of distribution networks and attitudes toward regulations and potential bans on harmful products.

Consent to Participate

You are invited to participate in this survey conducted by the Environment and Social Development Organization – ESDO. Participation is **voluntary**, and you may skip any question or stop at any time. Your responses will be **kept confidential** and used only for research and reporting purposes. No personal information will be shared.

By continuing with the survey, you **consent to participate**. I agree I do not agree

Section 1: Socio-demographic characteristics of the respondents

S.N	Question	Option
1	Name (Optional)	
2	Age	Years
3	Gender	1. Male 2. Female 3. Other
4	Highest level of education	1. Uneducated 2. Primary 3. Secondary 4. Higher Secondary 5. Graduate 6. Postgraduate
5	Shop Location	
6	Type of Business	1. Retailer 2. Wholesaler 3. Importer 4. Online Seller 5. Other _____

Section 2: Product Availability and Sourcing Information

S.N	Question	Option
7	Where do you get your stock of skin-lightening products from?	1. Local distributor 2. Importer 3. Direct from the manufacturer 4. Online platforms 5. Other
8	From which country are these skin-lightening products or cosmetics imported?	1. Thailand 2. Malaysia 3. India 4. Pakistan 5. China 6. Korea 7. Others _____

9	How many skin-lightening creams do you sell daily?	<ol style="list-style-type: none"> 1. <5 2. 5-10 3. 11-15 4. 16-20 5. >20
---	--	--

Section 3: Consumer Behaviour and Trends in Demand for Skin Lightening Products

S.N	Question	Option
10	What age group usually buys these skin-lightening products?	<ol style="list-style-type: none"> 1. 10–19 years 2. 20–29 years 3. 30–39 years 4. 40 years and above
11	Who mostly uses skin-lightening products?	<ol style="list-style-type: none"> 1. Mostly Female 2. Mostly Male 3. Other
12	Have you noticed increased consumer demand for these skin-lightening products due to specific promotions or social media influence?	<ol style="list-style-type: none"> 1. No 2. Yes
13	Have you received any complaints or concerns from customers about these products?	<ol style="list-style-type: none"> 1. No 2. Yes

Section 4: Knowledge and Awareness of Harmful Chemicals and Regulations

S.N	Question	Option
14	Do you know that some skin-lightening products may contain harmful chemicals (e.g., mercury, hydroquinone, steroids)?	<ol style="list-style-type: none"> 1. No 2. Yes
15	Do you know that all cosmetics must be approved by the Bangladesh Standard Testing Institute (BSTI) before being sold on the market?	<ol style="list-style-type: none"> 1. No 2. Yes
16	According to the Bangladesh Standards and Testing Institution (BSTI), the maximum allowable limit of mercury in skin creams is 1 ppm. Were you aware of this rule?	<ol style="list-style-type: none"> 1. No 2. Yes
17	Have you ever received information or training about the risks of harmful chemicals in skin-lightening products?	<ol style="list-style-type: none"> 1. No 2. Yes
18	Is the BSTI (Bangladesh Standards and Testing Institution) monitoring or inspecting the skin-lightening products you sell?	<ol style="list-style-type: none"> 1. No 2. Yes
19	Do you think selling skin-lightening products containing harmful ingredients is a risk to public health?	<ol style="list-style-type: none"> 1. No 2. Yes 3. I don't know

"It's time to reveal the hidden dangers behind the beauty and protect our communities from toxic harm."



Environment and Social Development Organization – ESDO
Address: House: 8/1, Level: 5, Block: C, Lalmatia, Dhaka-1207,
Bangladesh
Email: info@esdo.org
Website: <https://esdo.org/>
Call: +880 1726-053420