2020

Comparative Regulatory Review

Assessment of Regulations on ULAB in Bangladesh, and Recommendations for Legislation

ESDO

UN environment programme

PURE EARTH
BLACKSMITH INSTITUTE

Comparative Regulatory Review

Assessment of Regulations on ULAB in Bangladesh and Recommendations for Legislation

Disclaimer

"This report is prepared based on secondary information, journal review and analyses, vigorous study of existing reports and online findings to ensure environmental protection by creating public awareness. It was supported and collaborated with UNEP and Pure Earth."

Contact Address

House# 8/1, Level# 5, Block# C, Lalmatia, Dhaka-1207, Bangladesh

Phone : 880-2-912-2729 Fax : 880-2-913-0017, E-mail : info@esdo.org

URL: www.esdo.org, www.facebook.com/esdobd

ACKNOWLEDGEMENTS

We take this opportunity to thank all those who were instrumental in compiling and shaping this study report.

We deeply acknowledge ***Brian Wilson, Consultant, International Lead Association (ILA)*** *for his guidance and support to review this report. His excellent inputs and guidance were very helpful to formulate the report. Special thanks to United Nations Environment Programme (UNEP) and Pure Earth for their valuable information regarding ULAB management and policy advocacy.*

We express our sincere gratitude to Ishtiaq Ahmed, Former Chief Conservator of Forest and Country Director, IUCN, Prof. Dr. Md. Abul Hashem, Chairman (Chemical Division), Bangladesh Standard and Testing Institute (BSTI), Department of Environment (DoE) and Bahreen Khan, Assistant Professor, Department of Law & Justice, Southeast University for their guidance for this work.

This report is produced by ESDO in collaboration with Pure Earth. The overall objective is to find out gaps in the existing regulations and provide recommendations to fill in the gaps.

Finally, this study would not have been possible without the continuous effort of ESDO team and guidance from the Chemicals and Health Branch of UNEP.

Environment and Social Development Organization-ESDO

House# 8/1, Level# 5, Block# C, Lalmatia, Dhaka-1207, Bangladesh

Phone : 880-2-912-2729 Fax : 880-2-913-0017, E-mail : info@esdo.org

URL: www.esdo.org www.facebook.com/esdobd

TABLE OF CONTENT

EXECUTIVE SUMMARY

Lead-acid Batteries (LAB) and Used Lead-acid Batteries (ULAB) are some of the burning concerns related to environmental pollution and population exposure. These categories of batteries have long been used due to their efficiency to store energy for sufficiently long periods and also for their capacity to provide a high cranking power for short periods. Since LAB are recycled and reused in several sectors being termed as ULAB, the recycling is often associated with a great deal of lead pollution in soil, and water that ultimately causes harm to human health. A large number of contaminated sites are found in Bangladesh where ULAB recycling continues by both informal and formal sector. To address this huge potential health risk and environmental pollution, proper legislation and environmentally sound management (ESM) are high priorities at this point.

Ensuring economic growth, and industrialization, the environmental problems from LAB and its waste are the emerging threats to public health and environment in Bangladesh. The environmental policies for waste batteries are lagging behind the growth of the battery industry. The government authorities and environmental researchers have recognized the environmental problems caused by the waste LAB. However, some policies relating to the lead battery industry have been implemented to contribute to the development of waste battery policy in Bangladesh. This assessment presents the environmental problems associated with Lead and LAB in Bangladesh and evaluates the environmental policies of ULAB recycling and LAB management.

Based on the assessment objectives, the study addresses the following major questions:

- What are the environmental problems associated with Lead and ULAB in Bangladesh?
- What are the existing policies on LAB and ULAB recycling?
- What policies and regulations could be adopted to strengthen ULAB management?

This report aims to compile relevant information to provide an overview of the current situation of ULAB management in Bangladesh. It also establishes a baseline for regulatory review on LAB recycling.

Referring to the experience of other countries, it is clear that to achieve the environmentally sound management of ULAB in Bangladesh it is necessary to introduce effective legislation, regulations, and guidelines, as well as financial incentives and instruments that keep the LAB life cycle in a formalized licensed sector, that is overseen, with an active monitoring and enforcement regime for ULAB collection, handling, transporting, and end-life management. It is also suggested that policies are to be designed to follow take back mechanisms and the polluter pays principle as well as an extended producer responsibility (EPR) scheme, all of which are appropriate to improve the legislative framework. The occupational health hazards caused by improper ULAB handling, recycling and reuse should be taken into consideration along with immediate taking of adequate measures.

BACKGROUND on LEAD ACID BATTERIES (LAB)

In modern times, the use of the LAB is increasing due to the massive increase in the use of grid electricity and mostly for utility, transportation, industrial, commercial and residential sectors, which eventually results in a greater demand on electrical supplies, especially green solar energy and more LAB consumption to provide power when the sun sets or when there are supply outages. In turn, this increases in the demand for the energy storage in LAB which leads to more use of ULAB and makes it a fast-growing market, especially in Asian countries like Bangladesh, India, China, Vietnam, Indonesia, etc. This was exhibited in the increased global demand for the refined lead metal, which was estimated at 10.83 million tons in 2016[1] and up until 2020 over 12 million tons per annum.[2]

This project is focused on UNEP's project 5.lll "Accelerating the implementation of the chemicals, and waste multilateral environmental agreements, and achieving the targets of related sustainable Development Goals for improved human health and a clean environment". As part of the output 2 of the UNEP project "Technical assistance and capacity building on lead", this project will result in a national strategy for the ESM of ULAB in Bangladesh. This project will also contribute to the implementation of the UN Environment Assembly (UNEA) 3 Resolution 9 titled, "Eliminating exposure to lead paint, and promote the environmentally sound management of waste lead-acid batteries". Bangladesh lacs a coherent plan regarding the ESM of ULAB. ESDO, in collaboration with Pure Earth, a nongovernmental organization will channel these efforts, and develop a coordinated plan to implement an ESM plan for ULAB in the country. In addition, the International Lead Association (ILA), the Department of Geology of University of Dhaka (local partner of Pure Earth), the International Center for Diarrheal Disease Research', Bangladesh (icddr,b) and Stanford University will provide an in-kind contribution in the implementation of this pilot project in their capacities. ESDO has been selected as a lead partner for this pilot project based on its experience and expertise in addressing pollution problems in Bangladesh. As electricity is not supplied efficiently as per demand LAB is used for energy storage in Bangladesh. Another major sector, which is using LAB and producing ULAB, is the telecommunication sector. A recent study spotted 59 lead-contaminated locations out of 147 battery recycling zones in six divisions of the country, namely Dhaka, Rajshahi, Khulna, Chattogram, Rangpur and Mymensingh.[3]

These informal recycling practices result in population lead exposure and poisoning, with young children being particularly at risk. Undoubtedly, the government should pay more attention to this issue. Although the Ministry of Environment, Forest, and Climate Change (MoEFCC) has already published a gazette on Used Lead-acid Battery (ULAB) Handling and Management Rules in 2006, but this still needs strong enforcement to control the illegal and uncontrolled growth of informal sector recycling. In contrast, neighboring countries like India and Sri Lanka have already adopted required management rules, and guidelines for battery management, and Bangladesh is yet to establish a proper set of rules for this sector.

[1] https://apps.who.int/iris/bitstream/handle/10665/259447/9789241512855-eng.pdf;jsessionid=DE707557C9481D70B0254A6C19800F1A?sequence=1
[2] https://www.ilzsg.org/static/statistics.aspx
[3] http://www.newagebd.net/article/32824/lead-acid-battery-recycling-poses-health-hazard

CHAPTER 1: POLICY, REGULATORY AND INSTITUTIONAL FRAMEWORK ASSESSMENT

ESDO has conducted a regulatory review, through analyzing Bangladeshi laws and referring to the regulations of other relevant countries and has also made recommendations for improvements on ULAB management. A detailed draft on legal and regulatory framework of Bangladesh is provided in this report. These assessments have identified the gaps in the current regulatory and institutional framework that need to be addressed to ensure the environmentally sound management of chemicals, including lead battery waste.

1.1 Objective and Scope for the Review of Laws

1.1.1 Objective

The overall objective is to ensure the integrity of the environment and public health against the potential adverse impacts of leaded wastes along with the specific objectives to:

• Provide a current situation analysis of the management of ULAB in Bangladesh.

• Establish a baseline for a policy and regulatory review on LAB recycling, and the proper management of ULAB in Bangladesh.

• Refer the regulations of relevant countries.

• Prepare recommendations for legislative improvements in the LAB recycling and management rules of Bangladesh.

1.1.2 Scope

It provides an overview of the management of ULAB at various stages in the supply chain.

1.1.3 Need for the Review of Regulations

The Environment and Social Development Organization - ESDO in association with UNEP has conducted research and analysis of the current situation analysis and reviewed the existing practices for dealing with lead and ULAB at the national and regional levels. It is undeniable that a proper regulatory regime is needed for making a sustainable and safe functioning ULAB sector. Moreover, there is a specific need to address: