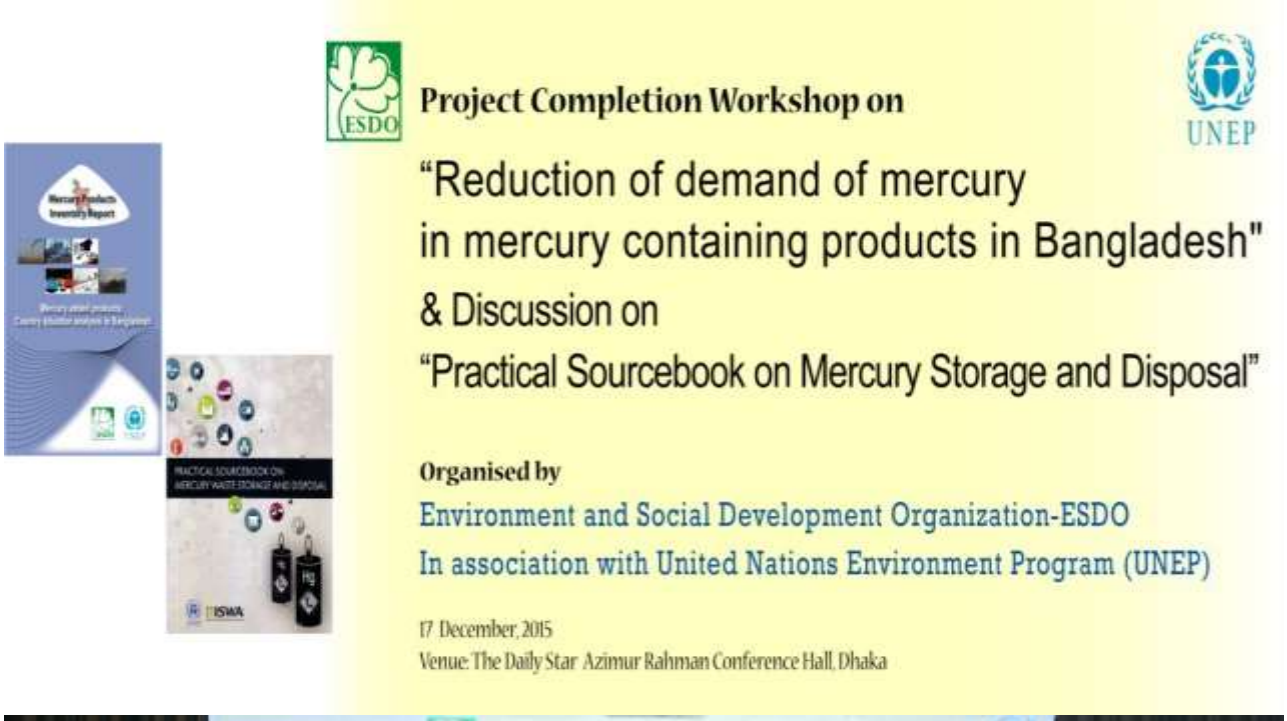
# Workshop Report




# Introduction

A project completion workshop entitled "Reduction of demand of mercury in mercury containing products in Bangladesh & Discussion on Practical Sourcebook on Mercury Storage and Disposal'' was arranged by the Environment and Social Development Organization (ESDO) in association with United Nations Environment Programme (UNEP) on 17 December, 2015 at The Daily Star Azimur Rahman Conference Hall, Dhaka. This report contains highlights of the workshop.

This project "Reduction of demand of Mercury in Mercury containing products in Bangladesh" was implemented by ESDO in consultation with the Ministry of Environment and Forests of the Government of Republic of Bangladesh and in collaboration with the United Nations Environment Programme (UNEP).

Under the UNEP Global Mercury Partnership, the project was aimed to raise awareness, strengthen capacities to replace mercury added products and ensure the environmentally sound management of end-of-life mercury-added products in Bangladesh. The project will also facilitate efforts of the Government of Bangladesh towards ratification and implementation of the Minamata Convention.

In this project a number of activities were undertaken by ESDO comprising extensive research/study, stakeholder consultation to validate their study findings, human chain, national workshop, etc. to raise awareness among people.

ESDO's Mercury Products Inventory Report was launched in the workshop where the main objective of the project was to share the study report and disseminate study findings among the stakeholders to exchange views and to steer discussion for recommendations towards policy intervention.
A total of 80 participants including high officials of several concerned departments and ministries of Bangladesh government were present in the event.

# Methodology

The workshop was consisted mainly of two sessions. ESDO's study report entitled 'Mercury added products: Country situation analysis in Bangladesh' was launched in the first session. The major activities carried out in the first session were:

- ✓ Inauguration of the event
- ✓ Briefing on project overview and achievement towards goal
- ✓ Power point Presentation on the study findings
- ✓ Remarks of Guest Speaker
- ✓ Remarks of Special Guest
- ✓ Open Discussion
- ✓ Remarks of Guest of Honor
- ✓ Vote of thanks

In the second session, a sourcebook entitled 'Source Book Toolkit on Mercury Storage and Disposal' was introduced by the UNEP to provide information in order to enhance the capacity of governments to develop strategies for the environmentally sound management of mercury wastes. The sourcebook emphasizes particularly on storage and disposal of mercury. The following activities were discussed in the second session:

- ✓ Projection of UNEP's mission & mechanisms
- ✓ Discussion on "Source Book Toolkit on Mercury Storage and Disposal"
- ✓ Question answer session
- ✓ Closing speech by session chair.

## First Session

The session started with welcome speech from the session chair, Syed Marghub Murshed, Chairperson of ESDO and former Secretary of the People's Republic of Bangladesh, where he expressed his gratification to all participants for their active participation and their willingness to support ESDO's intervention to phase out mercury from various consumer products and industrial processes. Launching of the study report was the opening of the workshop.

A power point presentation was made to share major findings of the report:

- ✓ Identified sources of mercury release in Bangladesh :
  - ➢ Extraction and use of fuels/energy sources
  - ➢ Primary metal production
  - ➢ Production of other minerals and materials
  - ➢ International use of mercury in industrial process
  - ➢ Consumer products with intentional use of mercury
  - ➢ Waste incineration

- Waste deposition/land filling and waste water treatment
- Crematoria and cemeteries.

- ✓ Mercury trading in Bangladesh: Illegal import for mercury through trans-boundary movement **is 54.27**metric ton (MT)
- ✓ Tentative quantity of mercury emission & release from different sectors:
  - Chlor-alkali Plants: 4.49 MT per year
  - Cement Production: 0.14 MT per year
  - Brick field/production Sector : 0.06 MT per year
  - Aluminum and Steel Production: 0.16 MT per year
- ✓ Mercury in cosmetics, its waste and release into environment: Mercury concentration in beauty products ranges from 4653 ppm to 3361 ppm.
- ✓ Legislation and regulatory framework of the country: Currently there are no specific laws for limiting or banning the use of mercury in specific practices, processes and/or products in Bangladesh.
- ✓ Recommendations include:
  - Encouraging Alternatives
  - Training about Alternatives
  - Promulgation of Government Regulatory and Institutional frameworks and Programs, making national plan
  - Making Plan to Minimize and eliminate the uses of Mercury and Mercury base products and practices

## Major Remarks

Mr. Md. Nurul Karim, Additional Secretary, Ministry of Environment and Forest (MoEF), Government of the People's Republic of Bangladesh, Guest of honor of the workshop said, "Bangladesh government is extremely sincere about stopping the use of mercury in dental amalgam, beauty products, thermometer, kids' toys and food." He added "Since Bangladesh has signed in Minamata Convention, so we have to ratify Minamata Convention hastily. He informed that the necessary steps have been taken from Ministry of Environment and Forest (MoEF) regarding this affair. Congratulating to ESDO for their significant contribution and work on the Minamata Convention he said, ESDO has taken this initiative and help us to move forward with the national mercury inventory, we are happy to validate ESDO's work and to continued collaboration for the greater interest of the country.

**Dr. Desiree Raquel Montecillo Narvaez**, Program Officer of UNEP Chemical and Waste Branch,Division of Technology, Industry and Economics; Geneva, Switzerlandand Special Guest of the workshop welcomed ESDO's initiatives on reducing mercury emission from different sector in Bangladesh. She said, "This survey report is an important document. It will not only help the government to ratify Minamata Convention but also will be a milestone in awareness building about Mercury and government policymaking." She also thinks this initiative of ESDO will be exemplary for the government and non-governmental organizations of other countries of the world.

**Syed MarghubMurshed**, Chairperson of ESDO and former Secretary of the People's Republic of Bangladesh chaired the workshop. The Session Chair, Mr. Murshed, expressed his gratification to all participants for their active participation and their willingness to support ESDO's intervention to phase out mercury from various consumer products and industrial processes. He believes that it's necessary to take appropriate and immediate steps to the reduction the demand for mercury. He also thanked everyone for attending and providing their valuable opinion on mercury reduction which will mobilize people towards raising awareness. He appreciated the remarkable progress of all the NGOs'/INGOs' in Bangladesh, governmental agencies for their remarkable contribution to build sustainable, toxic free environment.

**Dr. Shahriar Hossain**, Secretary General of ESDO said, "Bangladesh signed the Minamata Convention in 2013, according to the convention, as a signatory country mercury use in different products has to be banned throughout the country within 2020. He informed, according to ESDO's research report, in addition to energy sector, health sector, mercury is used in everyday consumer products like CFL blub, dental amalgam, cement, different beauty products, jewelry, sea fish even in chemical fertilizers in Bangladesh". He said, ESDO has conducted extensive awareness programme to stop the use of mercury. In order to stop the use of mercury he demanded to government that Minamata Convention need to ratify in a sooner time.

## Open Discussion

In response to the study report and efforts of ESDO, guests participated in open discussion and multimedia presentation.

**Professor Dr. Abu Jafar Mahmud**, special Guest, also the former Chairperson, Department of Chemistry at Dhaka University said, "Mercury used in different products is a poisonous metal which through various ways enter our body. Mercury harms human brain and deteriorates our hearing, vision and immunity. Pregnant women and children are more prone to mercury poisoning." Indicating the findings of ESDO study report he said, this report is an attempt by ESDO to draw the attention of the national decision makers, stakeholders and the public to the hazards and risks of neglecting so far the problem of mercury. It is a timely effort by ESDO to support the Government of Bangladesh while it will ratify and go for the implementation of the Minamata Convention on Mercury.

**Professor AbulKhair**, Chairman of department of Chemistry, IUBAT and American Chemical Society Chemistry Ambassador, informed that Hg is even more dangerous than Cyanide (CN). He is very scared about the country situation where energy saving bulbs contains 1-4 ppm of Hg and currently 4-5 million bulbs are being used which has a target to reach 10 million very soon. He wanted to share that methyl mercury compound decomposes very quickly and subsequently release Hg in the environment.

**Dr. Md. Abul Hashem,** Professor of Jahangirnagar University and Chairman of Chemical Department of BSTI, said that BSTI is involved in implementing laws and norms associated with cosmetic production. It is also involved in checking and controlling Hg content in skin care products. He emphasized the problem that there are a lot of cosmetic products which are being marketed illegally without BSTI approval and most of them contain high level of Hg which causes serious health hazards.

**Brig. Gen. Dr. Golum Mohiuddin Chowdhury,** Advisor Specialist, Army Medical & Dental Core, Dhaka CMH, expressed his concern about the extensive use of mercury. He urged the government to reduce the use of mercury and to ratify Minamata Convention. He said, "Besides combined military hospital (CMH), I think, Bangladesh Dental Society along with Dental Association can play a vital role to completely reduce mercury from dental sector". He said, ESDO and the world alliance for Mercury-Free Dentistry have been contributing significant work in this field and help us towards mercury-free dentistry.

**Mr. Anwar Hossain**, president of Bangladesh Jewellery Manufacturers and Exporters Association, emphasized the illegal trading of Hg. He suggested other countries to stop Hg import in Bangladesh. He added that Hg in dentistry is more harmful than Hg use in Jewellery. He also mentioned Cd use in jewellery industries which need to be brought to attention as well. He as a businessman urged proper guideline from scientists and think tanks to work accordingly and at the same time wanted to draw government's attention to increase employment rate in Bangladesh.

**Md. Altaf Uddin Sheikh**, director, BCIC, informed some positive steps taken by Bangladesh Chemical Industries Corporation (BCIC). He informed that annually 6-7 tonesof Hg were being produced with the production of Costic soda and Chlorine in mercury cell. Recently they transferred their formula from mercury cell to membrane cell which is not going to produce any Hg from beginning of the next year.

**Dr. Istiaq Uddin Ahmad**, Country Representative of IUCN, said "In order to ban mercury and mercury added products throughout the country within 2020 we have to work collectively." He expressed his concern by saying, "Urgent call on action from the government of Bangladesh and joint cooperation of NGOs' is required to strictly observe the minimal amount of mercury release from the manufacturing industries and other relevant sources.

Other guests also participated in open discussion where most of them considered this report as an attempt by ESDO to draw the attention of the national decision makers, stakeholders and the public about the hazards and risks of neglecting so far the problem of mercury. They said that it is a timely effort by ESDO to support the Government of Bangladesh while it will ratify and go for the implementation of the Minamata Convention on Mercury.

## Concluding Remarks

The information on mercury pollution contained in the study report can be used to determine which source of mercury should be addressed in Bangladesh for release reduction initiatives. Moreover, inventories and related information can be used to set effective approaches to draw further attention of the concerned government officials and stakeholders to take appropriate actions. Some measures recommended by the participants are:

- Immediately ratification of "Minamata Convention"
- Phase out mercury based products and processes by 2020
- Promotion and training on alternatives of mercury added products at national level
- Regulatory and institutional framework programs on the uses, impacts and waste management of mercury based products and practices
- Construction of mercury treatment plants in the industries that deal with mercury.

## Second Session

The second session of the workshop started with introduction on Practical Sourcebook on Mercury Waste Storage and Disposal prepared by the UNEP. Main objective was toprovide information in order to enhance the capacity of governments to develop strategies for the environmentally sound management of mercury wastes, in particular storage and disposal.

**Dr. Desiree** introduced the sourcebook and made a presentation on 'Practical Sourcebook on Mercury Waste Storage and Disposal' in the second session of the workshop. The key points of her presentation were:


- Environmentally sound storage and disposal of mercury wastes
- Types and sources of mercury wastes
- ESM (environmentally sound management) of mercury wastes
- Storage of mercury wastes
- Recovery operations for mercury wastes
- Disposal operations for mercury wastes
- Export of mercury waste
- Management of sites contaminated with mercury wastes.

She explained the usefulness of the sourcebook to get a guideline about ESM of mercury wastes.

Following the introductory presentation on the practical sourcebook, an open discussion took place. Academicians, scientists, several government personnel present in the workshop shared their opinion about the feasibility of the mercury waste storage and disposal method in Bangladesh.

Dr. A S M Woobaid Ulla, professor, department of Geology, the University of Dhaka, talked about waste management. He said that we have to categorize the type of waste first and then we could go for their management. He suggested separating impermeable layer between clay deposits and groundwater to avoid groundwater contamination regarding Hg waste storage.

Professor Abul Khair, said that Hg waste can never be used as landfills as it gets converted to methyl mercury by bacterial activities which in turn release Hg into the environment. He suggested engineered Hg waste storage sites. He said, as ESDO is doing the leading role to phase out mercury from Bangladesh, we need to provide full support to their initiatives and intervention. Prof. Khair, urged to the government to move forward to ratification of the Minamata Convention on Mercury.

## Closing remarks Session Chair

Practical sourcebook on mercury waste storage and disposal would be an important toolkit for Bangladesh. Specialists presented in the workshop suggested the sourcebook as a guideline for safe and sound environmental management of mercury in our country. Different opinions including the obstacles in executing mercury waste storage and disposal in Bangladesh came out from experts that would play a vital role in implementing the method in a country.

# Conclusion

The workshop was attended by 80 people from several Government Departments such as BCIC (Bangladesh Chemical Industries Corporation), DAE (Dept. of Agricultural Extension), BSTI (Bangladesh Standard and Testing Institution), BARC (Bangladesh Agricultural Research Council), DNCC (Dhaka North City Corporation), DoE (Dept. of Environment), BCSIR (Bangladesh Council of Scientific and Industrial Research)and Ministries of Bangladesh like MoHFW (Ministry of Health and family Welfare), Researchers and Experts from government and non-government Research Institutions, Faculty members of Public and Private Universities and Dental Colleges, Dentists of Army Medical & Dental Core, High Officials and Specialists of different local and multi-national Companies, Associations, NGOs, INGOs, Media Personnel. The stakeholders actively took part in discussion and urged for immediate banning of mercury and mercury containing products. Different information, education and communication (IEC) materials were displayed and distributed among the participants (e.g. CD containing the soft copy of the Mercury Products Inventory Report, notepad, festoon, factsheet, flyer, pen, sticker, etc).

The event got huge media coverage. Eleven newspapers covered the event news and one of the leading television channels named RTV telecast the news of the workshop in their daily news. The participators took part in open discussion of both the sessions and shared their views about both the study report and the sourcebook. Some expert recommendations also came out that could contribute o make Bangladesh free of mercury and thereby ratify Minamata Convention.

Annex-I contains the detailed proceedings of the workshop and Annex-II contains the list of participants. These are available if required