



REPUBLIC OF ARMENIA
**MINISTRY OF
ENVIRONMENT**



MINAMATA
CONVENTION
ON MERCURY

Project funded
by the Specific
International Programme

Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia

FINAL REPORT



YEREVAN, ARMENIA

“Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia”

FINAL REPORT

1. INTRODUCTION

Mercury and Mercury Compounds in the Environment

Ensuring environmental safety at handling mercury and its compounds, as well as mercury-containing waste is one of the most important environmental tasks. Mercury is a global pollutant. Mercury that is emitted to the air falls on the terrestrial or aquatic surface both near sources of pollution, and at a great distance from them: as a result of atmospheric transport. In aquatic ecosystems the microorganisms transform mercury into methylmercury that is a mercury compound, which in small doses is much more toxic than elemental mercury. In this form, mercury penetrates into food chains and accumulates in aquatic organisms, including fish and shellfish, as well as birds, mammals and humans, who feed on them. In some species of fish concentration of methylmercury can be millions of times higher than its concentration in water, where this fish lives. In the process of reproduction, methylmercury is transmitted from the mother to the developing fetus, in which it accumulates, and can reach high concentrations.

Mercury, especially in the form of methylmercury, is extremely toxic to humans. The human fetus, infants and children are especially vulnerable to mercury because it first of all affects neurological development. When a pregnant woman or any woman of child-bearing age eats a fish that contains methyl mercury, the toxic chemical crosses the placental barrier and affects the fetus. Studies show that fetal methylmercury concentration is higher than that in maternal organism. In addition, mercury is present in the breast milk, penetrating into the body of a child on an early stage of development. Children, who eat mercury polluted food at an early age, are also exposed to

the hazardous effects of this substance. Methylmercury exposure can lead to brain malfunction, including impairment of speech, memory, attention, motor skills and visual perception. If exposure to mercury occurs in combination with insufficient nutrition, the risk of negative consequences increases manifold.

Annually the total global anthropogenic load of mercury towards the environment increases at high pace. Coal combustion, taken separately, is considered today as the major global source of mercury emissions to air along with artisanal and small-scale gold mining. Mercury also enters the environment from metallurgical plants, crematoria, at manufacturing mercury cells and chlorine/alkali production, from wastes incineration and other stationary pollution sources. World economy uses mercury at chlorine and alkali production with the help of mercury cells, at artisanal gold and silver mining, in batteries, dental amalgam, measuring/ precision instruments, electrical control devices and switches and even in cosmetics. According to UNEP estimates, the summary global emissions of mercury (either anthropogenic or natural) to atmosphere make 5000-8000 metric tons a year.

As mercury is subject to long-range transport, no Government, no separate region can on its own ensure protection of human health and the environment from hazardous implications of mercury pollution.

Intergovernmental negotiating committee (INC) developing global legally binding instrument on mercury

In 2009, the Governments agreed to initiate intergovernmental negotiations in order to develop global legally binding instrument on mercury. The first meeting of the intergovernmental negotiating committee to prepare this document took place in Stockholm (Sweden) in June 2010. The aim of negotiations was to reach the accord on new agreement to combat global mercury pollution.

Minamata Convention on Mercury

Harmony was achieved at Diplomatic Conference (Conference of Plenipotentiaries) held in Japan in 2013 and the agreement was named Minamata Convention on Mercury in memory of inhabitants of Minamata town who became victims of acute mercury poisoning. This agreement is a legally binding instrument and requires joint activities of all countries for search of solutions on mercury pollution problems.

The objective of Minamata Convention is “to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds”. The convention is aimed to reduce the supply and trade, to phase out or reduce application of certain processes and products with mercury, as well as to control mercury releases to the environment.

Minamata Convention on Mercury: Signing and Ratification by the Republic of Armenia

On October 10, 2013 in Kumamoto (Japan) the Republic of Armenia (RoA), alongside with 92 other countries, signed the Minamata Convention on Mercury.

To ensure implementation of the Minamata Convention on Mercury in the Republic of Armenia the Steering Committee for implementation of Minamata Convention was established according to Order of the Minister of Nature Protection of the Republic of Armenia “On membership approval of the Steering Committee for implementation of Minamata Convention on Mercury in the Republic of Armenia (No. 410-A dated December 25, 2014) (*Attachment 1*).

The Steering Committee involved representatives from all relevant Ministries, Agencies, NGOs and National Academy.

On December 21, 2015 the First Steering Committee meeting was arranged at the Ministry of Nature Protection of the Republic of Armenia.

As indicted during the Meeting, “to enable ratification of the Convention by the Republic of Armenia, it is necessary to study the problems relevant to mercury in the country, to identify priorities and only then make a decision to ratify the Convention. The efforts of Steering Committee members and all

stakeholders' specialists should be addressed to such study and discussion; all of them should be actively involved in decision-making concerning mercury”.

2. APPLICATION PREPARATION, SUBMISSION AND APPROVAL OF UNEP PROJECT

In 2018, the application for **“Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia” Project** was submitted to the First Round of Specific International Programme of the Minamata Convention on Mercury. The application was considered successful and approved for funding.

With the support of the Specific International Programme, Armenia anticipated to strengthen capacities for implementation of country obligations under the Minamata Convention. This was achieved through the determination of mercury-containing lamps streams, including import, distribution, use and amounts of wastes generated per year in order to prepare a strategy for sound collection, storage, transportation, and processing of mercury-containing products, as well as for consideration in further calculations of costs required to phase-out mercury-containing waste lamps.

The Project related activities fall under the following articles of Minamata Convention on Mercury

- Article 4 - mercury-added products;
- Article 11 - mercury wastes;
- Article 18 - public information, awareness and education.

The Project is relevant to the following Sustainable Development Goals:

- √ Goal 3: Good health and well-being
- √ Goal 5: Gender equality
- √ Goal 7: Affordable and clean energy
- √ Goal 12: Responsible production and consumption

The Project Objective was to promote the phasing-out of mercury-added products (lamps) in Armenia by reviewing and analyzing legislation relevant to mercury and subsequently preparing new legislation for avoiding the use of mercury-added product (lamps).

Project coordination was done by Hazardous Substances and Wastes Policy Department of the Ministry of Nature Protection of the Republic of Armenia (currently: Ministry of Environment of the Republic of Armenia).

The Environmental Monitoring and Information Center State Non-Commercial Organization (EMIC SNCO) of the Ministry of Nature Protection of the Republic of Armenia (*currently*: Hydrometeorology and Monitoring Center SNCO of the Ministry of Environment of the Republic of Armenia) was approved as **Project implementation entity**.

The “Armenian Women for Health and Healthy Environment” (AWHHE) NGO became the **project Partner**.

ANTICIPATED PROJECT RESULTS

Within **MEASURE 1**: Determination of mercury-containing lamps streams, including import, distribution, use and amounts of wastes generated per year;

Within **MEASURE 2**: Review and Up-date of Mercury Relevant Legislation;

Within **MEASURE 3**: Strategy Development for Sound Collection, Storage, Transportation, and Processing of Mercury-Containing Waste Lamps;

Within **MEASURE 4**: Monitoring and evaluation and financial audit.

Awareness-Raising Event for Importers

(July 19, 2019)

In order to raise awareness raising of lamps-importing companies about step-wise phasing out of mercury-containing lamps since 2020, the Ministry of Environment addressed a request to the Customs Committee asking to provide contact information of major importers of lamps in the Republic of Armenia (RoA).

In advance the letters-announcements were sent out to relevant companies/entities and the main lamp importers were identified. Representatives were accordingly invited to the awareness-raising event.

On July 19, 2019 the awareness-raising event was arranged for the selected representatives of the private sector of Armenia, with the focus on those engaged in trade/sales and / or use of lamps.

The event was held by Ms. Irina Ghaplanyan, (Deputy Minister of Environment, RA) and Ms. Anahit Aleksandryan (Head, Hazardous Substances and Wastes Policy Division, Ministry of Environment, RA, National Project Coordinator).

In particular, representatives of the following companies participated in the event:

- “Armimports” LLC;
- “Mets Tsiatsan” LLC;
- “Consel” LLC;
- “Spayka” LLC;
- “Boffo” LLC;
- “Edessa” LLC;
- “Vega” LLC;
- “Zigzag” LLC;
- “Ecomix” LLC;
- “Firma Alpha” LLC.

During the meeting Ms. Ghaplanyan noted two important goals of the event. First, to inform stakeholders about the entry into force of the Minamata

Convention on Mercury, which will begin the process of banning certain mercury-containing products after 2020. And second, listen to the holders' suggestions, as well as information on the quantities and types of mercury lamps imported to Armenia.



Ms. Anahit Aleksandryan briefed the participants on the Minamata Convention on Mercury in the fulfillment of our country's obligations. The participants were thoroughly introduced to the dangers of mercury on human health and the environment.

Afterwards, representatives of the companies participating in the consultation expressed their concerns and suggestions.

During the meeting the following information was provided:

- for the past two years some companies refused to import mercury lamps and instead imported LEDs, as the price policy of LED lamps is also available in the international market and the demand is higher than mercury lamps;
- other organizations importing LED lamps, also import some mercury-containing lamps, as they are used in the Yerevan city lighting network;
- an organization has a contract with a Chinese company and the lamps containing mercury will reach Armenia by the end of 2020;
- mercury-based lamps from Europe, mainly from Germany, used for domestic consumption.

The event had a wide coverage in mass-media:

<http://mnp.am/am/post/4089>

<https://www.facebook.com/mnparmenia/photos/a.1379467378968621/2231227503792600/?type=3&theater>

<https://shamshyan.com/hy/article/2019/07/31/1131405/>

<https://news.am/arm/news/526646.html>

<https://armenpress.am/arm/news/983452/>

<http://www.nt.am/am/news/270968/>

<https://theworldnews.net/am-news/sndik-parownakogh-orosh-artadrank-ner-p-owlerov-dowrs-kberven-shrjanarhowt-yownits>

<https://theworldnews.net/am-news/2020-its-sndik-parownakogh-orosh-aprank-ner-dowrs-kberven-shrjanarhowt-yownits>

<http://politik.am/sndik-parunakox-vorosh-artadranqner-pulerov-durs-kberven-shrjanarutyunic1>

<http://panarmenian.net/arm/news/271598>

<https://lurer.com/?p=331106&l=am>

<http://armday.am/post/91715/sndik-paro-nakogh-orosh-artadranqner-po-lerov-do-rs-kberven-shrjanaro-tjo-nits>

<https://www.irazek.am/am/news/11936>

3. PROJECT INITIATION

Project Steering Committee formation

For ensuring smooth and successful implementation of “Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia”, the **Project Steering Committee** was established. Information Letters were prepared and sent to relevant Ministries /Agencies notifying about activities to be initiated within the approved Project:

- Ministry of Emergency Situations, RoA
- Ministry of Territorial Administration and Infrastructure, RoA
- Ministry of Economy, RoA
- National Center for Disease Control and Prevention SNCO, Ministry of Health, RoA
- Inspectorate for Nature Protection and Mineral Resources, RoA
- Health and Labor Inspectorate, RoA
- State Customs Committee of Revenue Committee, RoA
- Urban Development, Technical Standards and Fire Safety Inspectorate
- Yerevan Municipality, RoA
- National Academy of Science, RoA
- NGOs.

In response to Letters, official nominations were obtained from Ministries, National Academy of Science, NGO and the Project Steering Committee was established with the following membership:

NN	Name, surname	Affiliation
1.	Ms. Irina Ghaplanyan	Deputy Minister of Environment, RA
2.	Ms. Anahit Aleksandryan	Head, Hazardous Substances and Wastes Policy Division, Ministry of Environment, RoA National Project Coordinator
3.	Mr. Afanasi Lazarev	Acting Director, “Environmental Monitoring and Information Center” State Non-Commercial Organization (EMIC SNCO), Ministry of Environment, RA
4.	Ms. Ruzanna Grigoryan	Head, Department of International Cooperation, Ministry of Environment, RoA

NN	Name, surname	Affiliation
5.	Mr. Karapet Karapetyan	Head, Division of Technogenic Accidents, Department of Arranging Population Protection and Elimination of Disasters Consequences, Rescue Service, Ministry of Emergency Situations, RoA
6.	Ms. Marianna Shakhkryan	Chief specialist, regional energy markets development Division, Energy Department, Ministry of Territorial Administration and Infrastructure, RoA
7.	Mr. Samvel Paranyan	Chief Specialist, Department of Industrial Policy, Ministry of Economy, RoA
8.	Ms. Nune Bakunts	Deputy General Director, National Center for Disease Control and Prevention SNCO, Ministry of Health, RoA
9.	Mr. Arayik Mirzoyan	Head, Division of Land, Waste and Hazardous Substances Supervision, Department of Water, Atmosphere, Land, Wastes, and Hazardous Substances Supervision, Inspectorate for Nature Protection and Mineral Resources, RoA
10.	Ms. Armenuhi Arustamyan	Chief Specialist, Department of Hygienic, Sanitary-hygienic and Anti-epidemic Supervision, Health and Labor Inspectorate, RoA
11.	Mr. Armenak Melkonyan	Chief Customs Inspector, Classification and Non-Tariff Regulation Division, Customs Control Department, State Revenue Committee, RoA
12.	Mr. Bagrat Muradyan	Assistant to Head of Urban Development, Technical Standards and Fire Safety Inspectorate
13.	Mr. Gorik Avetisyan	Chief Specialist-Ecologist, Department of Nature Protection, Yerevan Municipality, RoA
14.	Ms. Lilit Sahakyan	Acting Head, Center for Ecological-Noosphere Studies, National Academy of Science, RoA
15.	Ms. Elena Manvelyan	President, “Armenian Women for Health and Healthy Environment” NGO, RoA

Project Steering Committee Meeting No. 1

The Project Steering Committee Meeting was arranged and held on **August 13, 2019** under the leadership of Ms. Irina Ghaplanyan (Deputy Minister of Environment, RoA) and Ms. Anahit Aleksandryan (Head, Hazardous Substances and Wastes Policy Division, Ministry of Environment, RoA, National Project Coordinator).

Ms. Irina Ghaplanyan welcomed the participants of the First Steering Committee Meeting and noted that extensive work should be carried out within the framework of the Project for phasing out mercury-containing products. Ms Ghaplanyan noted that the Steering Committee Meeting was preceded by an Awareness-raising working meeting with economic entities, businesses that import mercury-containing products, mainly lamps. Issues on volumes, types of imported products were discussed, and a very positive feature was emphasized: businesses were gradually reducing their imports of mercury-containing lamps, thereby reducing the consumption of such lamps by citizens.

Ms. Ghaplanyan also added that consumption of mercury lamps continues in communities, but those lamps should be replaced and a corresponding letter has been sent to the Ministry of Territorial Administration and Infrastructure to understand the extent and frequency of the lamps replacement.



Ms. Aleksandryan reiterated that Armenia ratified the Minamata Convention on Mercury in 2017 and that the country has a number of commitments under the Convention; steps must be taken to fulfill the obligations. According to the

Convention, by 2020 mercury-containing products should be phased out and an important issue here is the safe disposal / destruction of these products. Lacking adequate infrastructure in our country, mercury-containing products have been dumped into open waste-dumps for years, which is a serious environmental issue and needs to be regulated.



Further on, Ms. Aleksandryan detailed the Project “Strengthening capacity to promote phasing-out of mercury-added products” and noted that "pursuant to Article 13 of the Minamata Convention, countries with economy in transition and developing countries are allowed to submit applications to the Specific International Programme wherefrom, if approved, they can receive funding for implementing preliminary actions, such as reviewing national legislation, developing strategies. Upon applying to this Programme and receiving appropriate funding, the Project implementation began in Armenia.

Mr. Armen Saghatelyan (Director, Center for Ecological-Noosphere Studies of the National Academy of Science) raised the issue of wastes sorting and pointed out that the population does not have developed appropriate culture, hence mercury-containing lamps (bulbs) are being dumped at the same time with other types of waste, and this is one of the major issues. In the context of awareness raising, Mr. Saghatelyan emphasized the importance of information availability to the general population, especially the impact of mercury towards human health. During activity on awareness raising the Center for Ecological-Noosphere Studies could provide maps indicating mercury contaminated areas in the RoA, as well as provide information, in particular, to elucidate which types of food contain mercury and how much.

The following decisions were made at the 1st Project Steering Committee Meeting:

1. In order to raise awareness, create social videos and programmes, bringing to the wider community the dangers of mercury towards human health and the environment.
2. Organize large-scale awareness-raising workshops by inviting representatives from State Agencies and Local Authorities and informing the whole country about the dangers of mercury and presenting country obligations under the Minamata Convention.
3. To organize professional awareness-raising lectures and seminars for the residents and employees of the marzes (provinces) of the RoA; lectures will be delivered by appropriate specialists from Ministries/Agencies.

Mass-media coverage of the meeting was an evidence of its importance:

<http://mnp.am/am/post/4142>

<https://www.facebook.com/mnparmenia/photos/a.1379467378968621/2251461988435818/?type=3&theater>

https://www.tert.am/am/news/2019/08/23/mnp/3077249?fbclid=IwAR0bfcBTE1Mg3a7MpAqJzqj1sEFi2t2zsDg2egV4jU8Khq4sXAfPy_28M2A

<https://news.am/arm/news/529898.html>

<https://www.lragir.am/2019/08/23/469355/>

<https://galatv.am/hy/2766210/>

<https://armday.am/post/93721/sndiki-havelichnerov-artadranqy-po-lerov-do-rs-kbervi-shrjanaro-tjoints>

<https://www.panorama.am/am/news/2019/08/23/%D5%8D%D5%B6%D5%A4%D5%AB%D5%AF%D5%AB->

[/D5%B0%D5%A1%D5%BE%D5%A5%D5%AC%D5%AB%D5%B9%D5%B6%D5%A5%D6%80%D5%B8%D5%BE-](https://www.panorama.am/am/news/2019/08/23/%D5%B0%D5%A1%D5%BE%D5%A5%D5%AC%D5%AB%D5%B9%D5%B6%D5%A5%D6%80%D5%B8%D5%BE-)

[/D5%A1%D6%80%D5%BF%D5%A1%D5%A4%D6%80%D5%A1%D5%B6%D6%84/2156933](https://www.panorama.am/am/news/2019/08/23/%D5%A1%D6%80%D5%BF%D5%A1%D5%A4%D6%80%D5%A1%D5%B6%D6%84/2156933)

<https://infocom.am/?p=12519&l=am>

http://www.panarmenian.net/arm/news/272328/?fbclid=IwAR0C51Bu9Q0sxfosw5QenKAXHB7MI7SwdxXly3qj1GfIFXu-qW_l4H8Tx0

<https://armenpress.am/arm/news/985725.html?fbclid=IwAR1VSowKRI21DVksIKUK7lFwgZWXvYCuJSIIzkhdVcrrNbLCWrunDIDLfxs>

<https://luyspress.am/2019/08/23/%d5%bd%d5%b6%d5%a4%d5%ab%d5%af%d5%ab->

[/d5%b0%d5%a1%d5%be%d5%a5%d5%ac%d5%ab%d5%b9%d5%b6%d5%a5%d6%80%d5%b8%d5%be-](https://luyspress.am/2019/08/23/%d5%b0%d5%a1%d5%be%d5%a5%d5%ac%d5%ab%d5%b9%d5%b6%d5%a5%d6%80%d5%b8%d5%be-)

[/d5%a1%d6%80%d5%bf%d5%a1%d5%a4%d6%80%d5%a1%d5%b6%d6%84%d5%a8-](https://luyspress.am/2019/08/23/%d5%bd%d5%b6%d5%a4%d5%ab%d5%af%d5%ab-)

[/d6%83%d5%b8%d6%82%d5%ac/](https://luyspress.am/2019/08/23/%d5%bd%d5%b6%d5%a4%d5%ab%d5%af%d5%ab-)

https://arminfo.info/full_news.php?id=44608&lang=1

<https://a1plus.am/hy/article/346733>

<https://econews.am/?p=11025&l=am&fbclid=IwAR2X0rf7N0xH5551NtXN4OXwQ25NfuAZe9NItjhzJNugfF4mwBDntwjYxrM>

Project Steering Committee Meeting No. 2

The 2nd Meeting of the Project Steering Committee was arranged and held on December 25, 2019.

The participants of the meeting were informed that three of the Eastern European countries have ratified this Convention: Moldova, Armenia and Montenegro. A number of measures should be implemented within the framework of this project, and the most important of these is the determination of the quantity and type of mercury-containing products (lamps, medical equipment) imported into the country, followed by legislation review and gaps analysis, as well as awareness raising campaigns. Relevant letters have already been sent to the Ministries of Economy and Health asking for information on mercury-containing products, which might be withdrawn as needed, also considering alternatives that do not contain mercury.



Afterwards, Ms. Grigoryan, a representative of the “Armenian Women for Health and Healthy Environment” NGO, presented the results of their ongoing research carried out in nine marzes (provinces) targeting large cities with large shopping centers and specialized stores.

The meeting was widely covered by national mass-media:

<http://mnp.am/am/post/4142>

<https://www.facebook.com/mnparmenia/photos/a.1379467378968621/2251461988435818/?type=3&theater>

https://www.tert.am/am/news/2019/08/23/mnp/3077249?fbclid=IwAR0bfcTE1Mg3a7MpAqJzqj1sEFi2t2zsDg2egV4jU8Khq4sXAfPy_28M2A

<https://news.am/arm/news/529898.html>

<https://www.lragir.am/2019/08/23/469355/>

<https://galatv.am/hy/2766210/>

<https://armday.am/post/93721/sndiki-havelichnerov-artadranqy-po-lerov-do-rs-kbervi-shrjanaro-tjo-nits>

<https://www.panorama.am/am/news/2019/08/23/%D5%8D%D5%B6%D5%A4%D5%AB%D5%AF%D5%AB-%D5%B0%D5%A1%D5%BE%D5%A5%D5%AC%D5%AB%D5%B9%D5%B6%D5%A5%D6%80%D5%B8%D5%BE-%D5%A1%D6%80%D5%BF%D5%A1%D5%A4%D6%80%D5%A1%D5%B6%D6%84/2156933>

<https://infocom.am/?p=12519&l=am>

http://www.panarmenian.net/arm/news/272328/?fbclid=IwAR0C51Bu9Q0sxfosw5QenKAXHB7MI7SwdxXly3qj1GfIFXu-qW_14H8Tx0

<https://armenpress.am/arm/news/985725.html?fbclid=IwAR1VSowKRI21DVksIKUK7lFwgZWXvYCuJSIIzkhdVcrrNbLCWrunDIDLfxx>

<https://luyspress.am/2019/08/23/%d5%bd%d5%b6%d5%a4%d5%ab%d5%af%d5%ab-%d5%b0%d5%a1%d5%be%d5%a5%d5%ac%d5%ab%d5%b9%d5%b6%d5%a5%d6%80%d5%b8%d5%be-%d5%a1%d6%80%d5%bf%d5%a1%d5%a4%d6%80%d5%a1%d5%b6%d6%84%d5%a8-%d6%83%d5%b8%d6%82%d5%ac/>

https://arminfo.info/full_news.php?id=44608&lang=1

<https://a1plus.am/hy/article/346733>

<https://econews.am/?p=11025&l=am&fbclid=IwAR2X0rf7N0xH5551NtXN4OXwQ25NfuAZe9NItjhzJNugfF4mwBDntwjYxrM>

4. PROJECT ACTIVITIES

Project Inception Workshop

Within the frames of the “Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia” Project, which was implemented by the Ministry of Nature Protection (MNP) of the Republic of Armenia the **Inception Workshop** (hereinafter: Workshop) was arranged and held at ANI Grand Hotel (Yerevan, RoA) on November 1, 2019.

Workshop participants involved representatives of the concerned stakeholders within the country.



The Workshop was mainly aimed:

- to present the RoA obligations under Minamata Convention on Mercury;
- to present Project main components and expected outcomes with the appropriate time-frame to the wide range of stakeholders;
- to raise the awareness of stakeholders on the adverse impact of mercury and mercury-containing products towards human health and the environment.

The following presentations were done during the main session of the Inception Workshop:

- “Main Provisions of Minamata Convention on Mercury” (*Ms. Anahit Aleksandryan*, Project National Coordinator, Ministry of Environment, RoA);
- “Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia Project main components and expected

- outcomes” (*Ms. Anahit Aleksandryan*, Project National Coordinator, Ministry of Environment, RoA);
- “Mercury and Health” (*Ms. Nune Bakunts*, Ministry of Health, RoA)
 - “Import and use of mercury-containing lamps” (*Mr. Samvel Paranyan* Ministry of Economic Development and Investments, RoA);
 - “Methodical manual on current and final demercurization (*Mr. Karapet Karapetyan*, Ministry of Emergency Situations, RoA);
 - “Armenian Women for Health and Healthy Environment NGO: participation in implementation of Minamata Convention on Mercury in the Republic of Armenia” (*Ms. Elena Manvelyan, Ms. Knarik Grigoryan*, AWHHE NGO, RoA);
 - “Assessment of environmental and health risks conditioned by mercury content in the soils of different functional zones and kindergartens of Vanadzor City (RoA)” (*Ms. Gayane Melkonyan*, National Academy of Science, RoA).

During the general discussion project main stakeholders emphasized the importance of its implementation in the RoA.

After the general discussion Ms. Anahit Aleksandryan summarized the Workshop-related activity and mentioned that for the implementation of country obligations under the Minamata Convention on Mercury it would be necessary to ensure joint efforts of key stakeholders within the country. Ms. Aleksandryan emphasized that the issues relevant to the Project require Inter-Ministerial / Inter-Agency solutions. Moreover, after the current event Trainings, Lectures, and Awareness-Raising Workshops would follow.

A special Press Release was prepared prior to the event; the statement contained information for mass-media and the general public.

Mass-media coverage of the Inception Workshop within “Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia” Project signified to the high relevance and importance of the Project to country needs:

<http://www.mnp.am/am/post/4256>

<https://www.lragir.am/2019/11/04/490592/>

<https://www.tert.am/am/news/2019/08/23/mnp/3077249>

<http://nt.am/am/news/275118/>

The complete Report is enclosed as *Attachment 2*.

ANALYSIS OF EXISTING LEGISLATION OF THE REPUBLIC OF ARMENIA ON CHEMICALS AND WASTE MANAGEMENT

The analysis of existing RoA legislation on chemicals and waste management was done, as well as the institutional analysis of Ministries/ Agencies engaged in chemicals and waste management in the RoA. The necessity of analysis was explained by re-arrangements of the RoA Government that was done for optimization. Some Ministries were consolidated and/or merged and their responsibilities changed (*Attachment 3; Part 2*).

Legislative gaps analysis of National legislation related to mercury was also performed. However, because of the *coronavirus (COVID-19)* the Workshop on legislation was postponed though at this pre-planned event the stakeholders had to approve preparation of legislation (legal acts, by-laws, etc.) for comprehensive implementation of Minamata Convention on Mercury.

Analysis on the streams of lamps imported to the RoA was done based on the information received from the State Revenue Committee (Customs Committee), the analysis of data on fluorescent, sodium and metalhalogen lamps imported into the RoA from 2010 to 2019 was carried out (*Attachment 4*).

Four major sectors of lamps' users were characterized:

- Residential (Private) Sector;
- Industrial Sector;
- Commercial Sector;
- Institutional Sector.

When comparing data for 2010-2019, conclusion might be drawn that the total import of fluorescent, metalhalogen and sodium high pressure lamps decreased by 15.3 times (6.5% compared to 2010). At the same time, the reduction in the number of imported high-pressure sodium lamps is only 40%. This can be explained by the replacement of powerful mercury lamps for external lighting with halogen ones. Over the same period, the number of imported conventional incandescent lamps with tungsten filament was reduced by 80%. It should be noted that at the same time there is an increase in the cost of these lamps, which, apparently, is associated with the import of higher quality products.

In general, the reduction in number of traditional light sources is accompanied by a significant increase in the quantity of imported LED lamps of various capacities; these lamps do not contain mercury vapors and are used both in everyday life and for street lighting, at large cultural, sports and industrial facilities (*Attachment 4*).

Survey on mercury-containing lamps streams in marzes (provinces) of the Republic of Armenia

As pre-planned, the survey was conducted together with the “Armenian Women for–Health and healthy Environment” (AWHHE) NGO in nine marzes of the RoA: Ararat, Armavir, Aragatsotn, Shirak, Gegharkunik, Kotayk, Tavush, Vayots Dzor and Yerevan.

The survey and interviews were conducted at the following facilities: supermarkets, shops, pavilions where lamps are sold (3-4 sales outlets).

The survey covered the following cities and towns: Yerevan, Masis and Artashat (Ararat marz); Armavir and Etchmiadzin (Armavir Marz) Aparan and Talin (Aragatsotn marz); Gyumri and Artik (Shirak marz); Gavar and Sevan (Gegharkunik marz); Abovyan and Hrazdan (Kotayk marz); Dilijan and Ijevan (Tavush Marz); Yeghegnadzor and Vayk (Vayots Dzor marz).

During the site survey, the amount of mercury-containing lamps was identified and interviews conducted (see *Attachment 5*).

Prior to the visits to the regions, leaflets were prepared and published after discussion. Leaflets contain information on mercury-containing lamps, their danger and actions to be taken if lamps are broken (*Attachments 6 – 7*). Information was provided on the types of mercury-free lamps available in the market as a safe alternative. Information leaflets were provided to all survey participants.

I-1	Borsan	II-1	SAIL Lighting Energy Saving	III-1	CTORCH	IV-1	Radium Ralux Rapid
I-2	CTORCH	II-2	OUQI lighting	III-2	OSRAM	IV-2	Philips
I-3	Supra			III-3	TORCH economic	IV-3	Tersen
I-4	GE						
I-5	LEXPLUS Energy Saving						

Լյումինեսցենտային լամպեր՝ սնդիկ պարունակող

At stores, the assortment of mercury-free and mercury-containing lamps was studied, as well as their labeling. Analysis of mercury-containing lamps labeling was carried out.

Types of Luminescent / Fluorescent lamps: Mercury containing

2.1	CTORCH
2.2	Supra
2.3	CTORCH
2.4	LEXPLUS Energy Saving
2.5	GE/ General Electric
2.6	Borsan

Լյումինեսցենտային լամպեր՝ սնդիկ պարունակող

The survey revealed the level of awareness among beneficiaries about the hazards of mercury lamps, as well as about existing alternative (mercury-free) types of lamps.

The following Questionnaire for Survey on assortment of lamps available in shops of different 13 cities/ towns of 8 marzes of the RoA was prepared (*Attachment 8*).

Questionnaire for survey on assortment of lamps available in shops

Date: _____ marz /province: _____

Name of shop: _____ Address: _____

Interview conducting person: _____

Name and Surname of the interviewed person (or anonymous): _____

Phone number: _____

- Number of types of lamps: _____
- Types of mercury-containing lamps: _____
(picture and label of lamp)

- If the bought lamps are broken, how do you deal with those bulbs?
 - Dispose with garbage
 - Keep in storage
 - Return (specify the name of the company) _____
 - Other _____
- Do you accept broken, useless mercury lamps from residents?
 - Yes
 - No
 - Other _____
- If not, what is the reason? _____
 - We have no guidance on how to deal with them
 - Other _____
- Can you sell mercury-free lamps instead of mercury-containing lamps?
 - Yes
 - No
 - Other _____

The results of survey on lamps availability at trade points and pavilions in 13 cities/towns of 8 marzes (provinces) and Yerevan City of the Republic of Armenia were analyzed (*Attachment 9*).

In this Survey the lamps were characterized according to following parameters:

- Name;
- Type;
- Watts;
- Bulb design / type of vessel;
- Lamp bulb;
- Kelvin color range /Light temperature;
- Country of origin
- Lamp-life, hours
- Warranty period from the manufacturer, year;
- Cost, AMD.

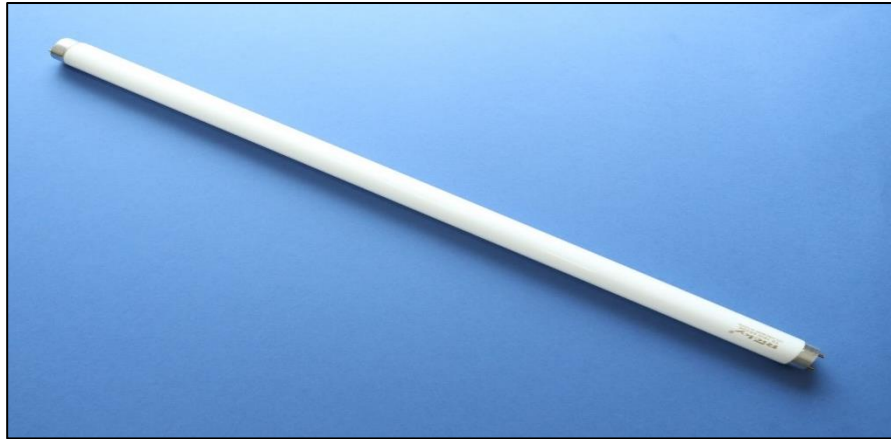
Additionally the following information was given:



- location of the shop: street address, including the district,
- availability of lamp types: e.g., LED and incandescent lamps,
- information about available lamps manufacturers: brands
- Lamp prices: 100, 140, 280, 350, 750 Armenian Drams (AMD).
- Availability or absence of warranty.
- If sampling was conducted or survey was done on the spot.

Description of all types of lamps, including mercury-containing luminescent lamps, was prepared (*Attachment 10*). Appropriate photos and images, technical inserts (instructions) with indication of mercury content in those lamps were collected as demonstration material.

The advantages and disadvantages of various lamp types were presented and compared (*Attachment 11*). The comparison included incandescent lamps, luminescent /fluorescent or energy-saving lamps, light emitting diodes (LED), which were compared according to light flux (Lumen) and amount of consumed power (Watt).

Luminescent tube Ricky R



Metallohalogen lamps: Mercury containing		Incandescent Lamps: Mercury-free	
			
3.1	Alite	4.1	General Electric
3.2	QIMING Metal Halide Lamp	4.2	Klaus
<p>Մետաղահալոգենային լամպեր՝ սնդիկ պարունակող</p>		4.3	BELSVET
		4.4	Best Electrical
		4.5	Dupro
		4.6	Ecolight
		<p>Շիկացման լամպեր՝ սնդիկ չպարունակող</p>	

Comparison of incandescent lamp power with that of energy-saving and LED lamps

Incandescent lamp (Watt)	Energy saving lamp (Watt)	LED lamp (Watt)	Light flux (lumen)
20	5-7	2-3	200
40	10-13	4-5	400
60	15-16	8-10	700
75	18-20	10-12	900
100	25-30	12-15	1200
150	40-50	18-20	1800
200	60-80	25-30	2500

Compact fluorescent lamps (CFLs)



5.1	SAIL Lighting Energy Saving
5.2	OUQI lighting



8.1	Radium Ralux Rapid
8.2	OSRAM
8.3	TORCH economic
8.4	Philips
8.5	Tersen

Light emitting diode (LED) Lamps



6.1	ASD
6.2	IEK
6.3	Klaus
6.4	Profesional manufacture
6.5	CTORCH
6.6	Elektrostandart
6.7	Lucio
6.8	Gauss Black dimmer
6.9	WELLMAX
6.10	AVL



7.1	ASD
7.2	IEK
7.3	Klaus
7.4	Profesional manufacture
7.5	CTORCH
7.6	Elektrostandart
7.7	Lucio
7.8	Gauss Black dimmer
7.9	WELLMAX
7.10	AVL

On-line awareness-raising campaign

Earlier planned Awareness-raising Workshop for different layers of population, including vulnerable groups, was postponed because of the *coronavirus* this event. Instead of the pre-planned Workshop from March 2 to June 30, 2020 the "Armenian Women for Health and a Healthy Environment" (AWHHE) NGO arranged and held **on-line workshops/seminars on ZOOM, Facebook Messenger or Viber platforms.**

Online seminars were arranged in different marzes of the RoA for various groups with the inclusion of 170 concerned individuals: school teachers, representatives of various public organizations, medical doctors, representatives of municipalities, NGOs, as well as housewives, farmers schoolchildren, students and lecturers of educational institutions (Yerevan State University, State Engineering University of Armenia / Polytechnic/, Armenian National Agrarian University). In some cases seminars were facilitated by local communities and Aarhus Center representatives.



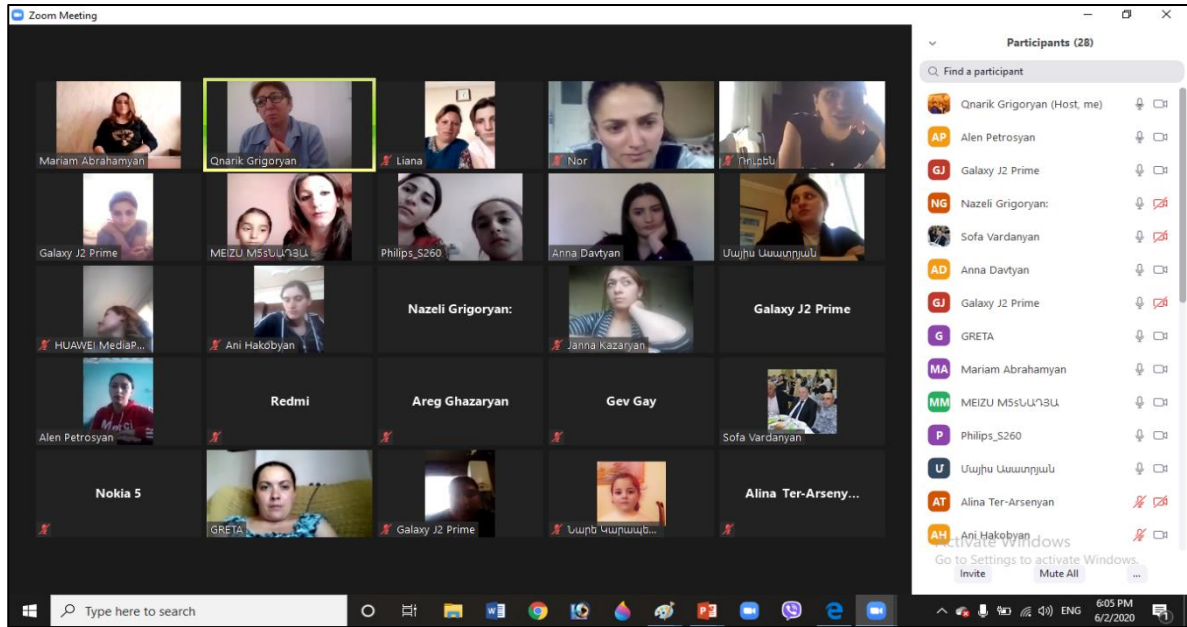
Svetlana Abrahamyan



Knarik Grigoryan



Mariam Qeshishyan



Seminar-discussions were conducted within communities of Baghramyan and Taperakan of Ararat Marz of RA, Gyumri City of Shirak Marz, Solak community of Kotayk Marz, Armavir Town and Apaga Community of Armavir Marz and in the capital of Armenia - Yerevan City. Online 8 seminars were facilitated by Coordinators of public environmental information centres (Aarhus Centers) in Gyumri, Armavir and Yerevan, while in other communities – by teachers familiar with the online platforms. The report reflecting “On-line awareness-raising campaign” was prepared and translated into English (see *Attachment 12*).

Inventory on mercury-containing medical thermometers and other devices available at health-care organizations

In order to improve and disseminate knowledge on the phasing-out of mercury-added medical and other measuring devices, including on their manufacture, import and export, Inventory was taken on mercury-containing medical thermometers and other devices available in medical organizations of the Republic of Armenia subordinated to Municipality of Yerevan City and those subordinated to regional administration of marzes (provinces) of the RoA: Aragatsotn, Ararat, Armavir, Gegharquniq, Kotayq, Lori, Shirak, Syuniq, Tavush using data for 2020 (*Attachment 13*). The list of inventoried and characterized devices included: medical thermometers, including rectal thermometers; tonometers, room thermometers; cabinet dryer thermometers, refrigerator thermometers; barometer; water thermometers, autoclave thermometers.

Additional Inventory and analysis were performed on mercury-containing thermometers and barometers used in hydrometeorological observations. Their technical characteristics were described based on data availability at the HydrometeoService (*Attachment 14*).

Data on mercury thermometers and barometers used in the HydrometeoService and their spatial distribution were collected, as well as available mercury volumes were calculated/ analyzed at 93 hydrological observatories and 48 meteorological stations of the RoA.

Types and number of mercury thermometers used in hydrometeorological observations were described and quantitative distribution of mercury thermometers was done by marzes (provinces) of the RoA. Quantity of mercury in mercury thermometers was presented by marzes (provinces) of the RoA.

Mercury barometers used in hydrometeorology were characterized by types. Number of mercury barometers was presented by marzes of the RoA, as well as the quantity of mercury in mercury barometers. The quantitative pattern of barometers available at the HydrometeoService was indicated.

Data obtained through Inventory will make the background for development of the “Strategy for sound collection, storage, transportation and processing of mercury-containing products/lamps”.

Awareness Raising & Data Validation Workshop

The *Awareness Raising and Data Validation Workshop* (hereinafter: Workshop) was arranged and held at ANI Grand Hotel (Yerevan, RoA) on June 3, 2021.

The Workshop was organized by the “Hydrometeorology and Monitoring Center” State Non-Commercial Organization of the Ministry of Environment of the Republic of Armenia (hereinafter: HMC SNCO) under the leadership of Ms. Anahit Aleksandryan as the Project National Coordinator.

Dissemination materials such as booklets, leaflets, were prepared beforehand and distributed during the Workshop.

The Workshop was mainly aimed:

- to raise the awareness of stakeholders on the adverse impacts of mercury and mercury-containing products (lamps) towards human health and the environment;
- to validate data obtained by experts during the period of Project implementation:
 - on determination of mercury-containing lamps streams through identifying type and quantity of mercury-containing lamps currently in use in Armenia;
 - on quantity of expected waste lamps per year and mercury freight in these expected lamps per year;
 - on mercury lamps streams distribution availability at retail outlets of the RoA;
 - on quantities of imported fluorescent, sodium, and metal halide lamps;
 - on inventory of medical devices and mercury-containing thermometers under Yerevan Municipality, the Ministry of Health and regional administrations of RoA (as of 2020);

- on inventory of mercury thermometers used at hydrometeorological stations;
- on inventory of meteorological thermometers and the amount of mercury contained in them;
- on quantitative distribution of mercury thermometers by marzes (provinces) of Armenia;
- on quantities of mercury thermometers and barometers according to mercury mass and by marzes of Armenia;
- on mercury emissions from various fluorescent lamps in 2016-2018;
- on mercury emissions to air, water, land from different categories of sources (2014);
- on possible mercury emissions from thermometers and equipment in medical organizations;
- main sources of mercury emissions/ releases to air, water, land from mercury-containing consumer products in Armenia (2010-2014)
- inventory of mercury releases in Armenia (by main categories).

According to the Project Application and Part 1 of Project Document (Annex A: Project Implementation Plan of the Final Agreement), the *Awareness Raising Workshop* and the *Workshop on Data Analysis and Validation* were planned for Quarter 2 (*Month 6/Year 1 or December 2019*) and Quarter 5 (*Month 3/ Year 2 or September 2020*) of Project implementation.

However, because of the Covid-19 pandemic it was impossible to arrange those workshops, because against the background of the coronavirus mass events of more than 20 people were prohibited in our country since March 2020, taking into account the state of emergency. The above-mentioned events were postponed; nevertheless, the survey on mercury lamps availability was carried out from December 23, 2019 to March 30, 2020 in 12 cities / towns of 9 marzes of the RoA. The Survey was performed by the “Armenian women for health and healthy environment” (AWHHE) NGO.

Totally, 41 retail outlets were investigated in specialized lamp stores, supermarkets, and hardware stores, building materials stores, in stores with food and household departments, in market pavilions. Further on, based on results of the Survey from March 2 to June 30, 2020 the AWHHE NGO held online discussion workshops on the impact of mercury to the environment and human health as part of the implementation of the Minamata Convention and hazard prevention. These online seminars were held on the ZOOM, Facebook

Messenger or Viber platforms, and 170 concerned individuals from various areas and professions representing environmental issues took part in the seminars.

Proceeding from the above-mentioned and considering the permission to arrange face-to-face events with involvement of a large number of participants the Project Team decided to organize combined Workshop, namely: the ***Awareness Raising and Data Validation Workshop.***

The Workshop was held by Ms. Anahit Aleksandryan as the Project National Coordinator.

Workshop participants involved representatives of the concerned parties within the country, namely:

- Ministry of Environment;
- Ministry of Emergency Situations;
- Ministry of Territorial Administration and Infrastructure;
- Ministry of Health;
- Inspectorate for Nature Protection and Mineral Resources;
- Health and Labor Inspectorate;
- Urban Development, Technical and Fire Safety Inspectorate;
- Customs Control Department of the State Revenue Committee;
- Department of Nature Protection of Yerevan Municipality;
- Hydrometeorology and Monitoring Center State Non-Commercial Organization of the Ministry of Environment;
- National Academy of Science, including:
 - Scientific Technological Center of Organic and Pharmaceutical Chemistry;
 - Center for Ecological-Noosphere Studies; *and*
- Armenian Women for Health and Healthy Environment” NGO;
- Russian-Armenian University;
- Armenian National Agrarian University.

During the **Opening Session of Workshop**, after the introduction made by Ms. Anahit Aleksandryan, Ms. Anna Mazmanyan, Deputy Minister of Environment of the Republic of Armenia, delivered the Opening Address.

Ms. Anahit Aleksandryan and Mr. Levon Azizyan (Acting Director of HMC SNCO) also welcomed the Workshop participants.

Ms. Aleksandryan reminded the Workshop participants that because of corona virus pandemic no real-time, face-to-face events were arranged since the Inception Workshop. She informed the audience that an application submitted to the IAEA for a mercury analyzer was recently approved. An atomic absorption spectrophotometer was expected to be obtained and a series of trainings would be arranged at Monaco University. New methods of appropriate sampling will be delivered to our young researchers and specialists; trainings will include all stages of mercury analyses beginning with sampling, because qualified sampling is a prerequisite for appropriate analyses. At the end of Opening Session brief self-introductions of Workshop participants followed.



During the **Main Session** presentations were done:

- ❖ “Availability of various types of lamps: Analysis of research / survey in the sales halls of the Republic of Armenia” - *Ms. Qnarik Grigoryan*, Environmental Health Expert, “Armenian Women for Health and Healthy Environment” NGO (AWHHE NGO, RoA)

Ms. Grigoryan delivered a detailed description of carried out survey of retail outlets and sales halls of lamps in 13 cities of 9 marzes (provinces) of the RoA was presented using tables, diagrams, photos. Lamps were classified according to purpose and mercury content, type of the bulb, etc.

Ms. Grigoryan demonstrated lamps produced by different companies, explained how to understand symbols on packing materials, boxes and advised regarding the cost-efficiency of mercury-free lamps.

- ❖ “Types of household lamps, operating principle, advantages and disadvantages. What to do if the luminescent lamp is broken?” – *Ms. Svetlana Abrahamyan*, Assistant, AWHHE NGO, RoA

Ms. Abrahamyan characterized lamps according to name, type, bulb design / type of vessel, Kelvin color range, light temperature, country of origin, life-time, warranty period from the manufacturer, and cost. She also described the activities required in case the luminescent lamp is broken: step-by-step actions were presented and the appropriate video demonstrated.

- ❖ “Republic of Armenia Law “On Mercury” and other mercury-regulating legal acts” - *Ms. Anahit Aleksandryan*

Ms. Aleksandryan made comprehensive presentation on the Republic of Armenia Law “On Mercury, including:

- Article 1. Scope and Purpose of the Law
- Article 2. Scope of regulation and limitations of the Law
- Article 3. Main definitions used in the Law
- Article 4. Responsibilities of the Government in the area of ensuring environmentally sound mercury management conditions
- Article 5. Responsibility of the authorized body in the area of ensuring conditions for environmentally sound management of mercury
- Article 6. Mercury waste management
- Article 7. Mercury extraction ban
- Article 8. Export of Mercury from the RoA
- Article 9. Import of mercury to the RoA

- Article 10. Restrictions on the production, import, and export of mercury-added products
 - Article 11. Rights and responsibility of individual entrepreneurs and legal entities involved in mercury handling
 - Article 12. Final and Transitional Provisions.
- ❖ “Assessment of environmental and health risks conditioned by mercury content in soils of Yerevan” - *Ms. Gayane Melqonyan*, Center for Ecological-Noosphere Studies, National Academy of Science, RoA

Ms. Melqonyan described the studies on mercury content in soils and leaves-covering dust in different cities/ towns of Armenia. She detailed the results obtained in Yerevan capital city and compared data with studies of 1981-1985 aimed to assess mercury-related pollution in Yerevan. In new studies mapping was done and risks for children and adults assessed.

- ❖ “Main sources of mercury releases in the Republic of Armenia” – *Professor Aleksandr Yengoyan*, Project Technical Adviser

The following main issues were presented:

- Quantity of fluorescent, sodium and metal halide imported lamps in RoA (2016-2018);
- Medical devices and thermometers containing mercury under Yerevan Municipality, the Ministry of Health and regional administrations of RoA (as of 2020);
- Mercury thermometers used at hydrometeorological stations (as of 2020);
- Total number of meteorological thermometers and the amount of mercury contained in them (as of 2020);
- Quantitative distribution of mercury thermometers by marzes (provinces) of Armenia;
- Mercury thermometers and barometers according to mercury mass and by marzes;
- Mercury emissions from various fluorescent lamps in 2016-2018;
- Possible mercury emissions from thermometers and equipment in medical organizations.

Professor Yengoyan mentioned general characteristic features of mercury, including its toxicity and presented general data on inventory of mercury emissions / releases into the environment of Armenia. Inventory was done according to main categories of emissions/ releases in compliance with UNEP specialized Toolkit.

Presentation included the charts and diagrams to reflect the following information:

- Mercury emissions to air, water, land from different categories of sources;
- Consumer products with intentional use of mercury, import: Mercury releases, RoA.

Ms. Aleksandryan additionally explained that using the UNEP Toolkit would be important to ensure that data obtained by experts from different countries should be comparable.

that using the UNEP Toolkit would be important to ensure that data obtained by.

Workshop coverage in national mass media also acknowledged the importance of the event:

<http://env.am/news/sndik-workshop-171621>

<https://armmonitoring.am/post/276>

<https://www.1lurer.am/hy/2021/06/04/%D4%B1%D5%B7%D5%AD%D5%A1%D5%BF%D5%A1%D5%AA%D5%B8%D5%B2%D5%B8%D5%BE%D5%9D-%C2%AB%D5%8D%D5%B6%D5%A4%D5%AB%D5%AF-%D5%BA%D5%A1%D6%80%D5%B8%D6%82%D5%B6%D5%A1%D5%AF%D5%B8%D5%B2-%D5%A1%D5%BA%D6%80%D5%A1%D5%B6%D6%84%D5%B6%D5%A5%D6%80%D5%AB-%D5%BE%D5%A5%D6%80%D5%A1%D5%A2%D5%A5%D6%80%D5%B5%D5%A1%D5%AC-%D5%AB%D6%80%D5%A1%D5%A6%D5%A5%D5%AF%D5%B8%D6%82%D5%A9%D5%B5%D5%A1%D5%B6-%D5%A2%D5%A1%D6%80%D5%B1%D6%80%D5%A1%D6%81%D5%B8%D6%82%D5%B4-%D6%87-%D5%BF%D5%BE%D5%B5%D5%A1%D5%AC%D5%B6%D5%A5%D6%80%D5%AB-%D5%BE%D5%A1%D5%BE%D5%A5%D6%80%D5%A1%D6%81%D5%B8%D6%82%D5%B4/489176>

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<https://www.facebook.com/mnparmenia>

<https://www.facebook.com/HydrometeorologyandMonitoringCenter>

<https://eco.am/%D5%BF%D5%A5%D5%B2%D5%AB-%D5%A7-%D5%B8%D6%82%D5%B6%D5%A5%D6%81%D5%A5%D5%AC-%D5%BD%D5%B6%D5%A4%D5%AB%D5%AF-%D5%BA%D5%A1%D6%80%D5%B8%D6%82%D5%B6%D5%A1%D5%AF%D5%B8%D5%B2-%D5%A1%D5%BA%D6%80%D5%A1/>

<http://awhhe.am/hv/%d5%bf%d5%a5%d5%b2%d5%ab-%d5%a7-%d5%b8%d6%82%d5%b6%d5%a5%d6%81%d5%a5%d5%ac-%d5%bd%d5%b6%d5%a4%d5%ab%d5%af-%d5%ba%d5%a1%d6%80%d5%b8%d6%82%d5%b6%d5%a1%d5%af%d5%b8%d5%b2-%d5%a1%d5%ba%d6%80%d5%a1/>

The complete report is enclosed as *Attachment 15*.

The Third Project Steering Committee Meeting

Steering Committee Meeting of “Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia” Project was arranged on June 3, 2021 back-to-back to the *Project Awareness Raising and Data Validation Workshop*.

Project Steering Committee Members were informed about Project activities, which were already done and project goals achieved despite the numerous difficulties, which originated during the project implementation period:

- re-arrangement of Environmental Monitoring and Information Center (EMIC) into the “Hydrometeorology and Monitoring Center” (HMC) State Non-Commercial Organization;
- coronavirus pandemics;
- wartime situation, *etc.*

Despite all the above-mentioned obstacles Project implementation was considered successful.

Ms. Aleksandryan pointed out that because of the above-mentioned reasons it was not possible to arrange Project Steering Committee meetings in 2020. During the meeting Ms. Anahit Aleksandryan described further activities under the Project. She shared information that based on approval of Application submitted to IAEA new analytical equipment (Atomic Absorption Spectrophotometer) for mercury determination in different environmental media (air, water, land) will be obtained, as well as trainings arranged for young researchers and specialists in Monaco University. These trainings will include all stages of mercury analyses beginning with sampling, because qualified sampling is a prerequisite for appropriate analyses.

Project Steering Committee members also considered the suggested Agenda item on reallocation of the Project budget lines.

Workshop on Legislative Review and Update (June 17, 2021)

Considering that after 2020 the ban on import/export and production of mercury and mercury-containing products came into effect, taking into account phasing-out of mentioned products, the inspection bodies of the country play great role for control over above-mentioned activity. Therefore, it was decided to invite representatives of the appropriate inspectorates to the *Workshop on Legislative Review and Update* and present all legislative acts on use, storage, handling of mercury and other hazardous chemicals and wastes.

The *Workshop on Legislative Review and Update* was arranged and held on June 17, 2021.

The Workshop was mainly aimed:

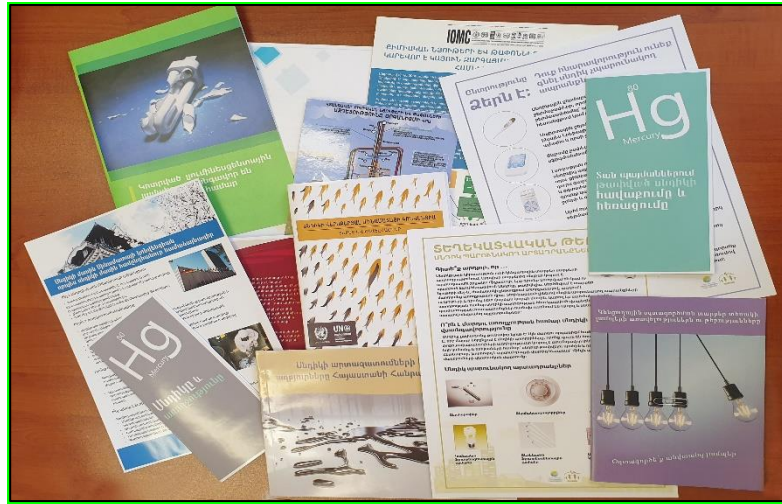
- to review the RoA legislative acts relevant to mercury and other hazardous chemicals;
- to endorse the Concept and newly prepared RoA Law “On Mercury”;
- to raise the awareness of stakeholders, including inspection services about legislation related to hazardous chemicals and waste: mainly about mercury-regulating legislation;
- to raise awareness on adverse impacts of mercury and mercury-containing products towards human health and the environment.

Workshop participants involved representatives of the concerned party within the country, namely: representatives of Environmental Protection and Mining Inspection Body (EPMIB) under the Government of the RoA. The core audience of the Workshop made employees of the EPMIB and its regional divisions from 11 marzes (provinces) of the RoA: Yerevan; Aragatsotn; Ararat; Armavir; Gegharquniq; Kotayq; Lori; Shirak; Syuniq; Tavush; Vayots Dzor.



Dissemination materials such as booklets, leaflets, were prepared beforehand and distributed during the Workshop:

- Text and Annexes of Minamata Convention on Mercury (in Armenian);
- Hg: Mercury and Health;
- Hg: collection and disposal of spilt mercury in domestic conditions
- Main sources of mercury releases in the RoA;
- Mercury and Minamata Convention;
- Different types of household lamps: Advantages and disadvantages;
- Broken luminescent lamps are dangerous to human health;
- The choice is upon you: You are able to buy mercury-free products;
- Information leaflet: About mercury-containing products;
- Minamata Convention on Mercury as an overarching agreement on mercury;
- Hazardous Chemicals and Wastes: Body Burden;
- IOMC: Chemicals and Wastes Management is Important for Achievement of Sustainable Development Goals;
- Inspection Checklist.



Ms. Aleksandryan reminded that Project measure 2.2 “*Workshop on legislative review and up-date*” was firstly planned to be held in Quarter 4, which was in Month 12 of Year 1: *i.e.* June 2020. However, because of implications of the hardships of 2020, such as the coronavirus pandemic, war-time situation in the country, prohibition to arrange mass events, especially in the months of lockdown there was no possibility to hold face-to-face Workshop. As a result, all those implications led to significant delays in implementation of Project activities and the Workshop was postponed as well.



At the end of Opening Session brief self-introductions of Workshop participants followed.

During the Main Session presentations were done:

- ❖ “Republic of Armenia Law “On Mercury” and other mercury-regulating legal acts” - *Ms. Anahit Aleksandryan.*

Ms. Aleksandryan made comprehensive presentation on the RoA Law “On Mercury, including:

- Article 1. Scope and Purpose of the Law
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- Article 5. Responsibility of the authorized body in the area of ensuring conditions for environmentally sound management of mercury
- Article 6. Mercury waste management
- Article 7. Mercury extraction ban
- Article 8. Export of Mercury from the RoA
- Article 9. Import of mercury to the RoA
- Article 10. Restrictions on the production, import, and export of mercury-added products
- *Article 11. Rights and responsibility of individual entrepreneurs and legal entities involved in mercury handling*
- Article 12. Final and Transitional Provisions

- ❖ “Availability of various types of lamps: Analysis of research / survey in the sales halls of the Republic of Armenia” - *Ms. Qnarik Grigoryan*, Environmental Health Expert, “Armenian Women for Health and Healthy Environment” NGO (AWHHE NGO, RA);

In order to raise the level of knowledge and understanding about mercury containing lamps, to enable state inspectors while executing control of lamps stream after the prohibition of mercury lamps, Ms. Grigoryan delivered a detailed description of carried out survey of retail outlets and sales halls of lamps in 13 cities of 9 marzes (provinces) of the RoA. Presentation included tables, diagrams, and photos. Lamps were classified according to purpose and mercury content, type of the bulb, etc.

Ms. Grigoryan demonstrated lamps produced by different companies, explained how to understand symbols on packing materials, boxes and advised regarding the cost-efficiency of mercury-free lamps.



- ❖ “Types of household lamps, operating principle, advantages and disadvantages: What to do if the luminescent lamp is broken?” – Ms. Qnarik Grigoryan, AWHHE NGO, RoA.



Ms. Grigoryan characterized lamps according to name, type, design / type of vessel, Kelvin color range, light temperature, country of origin, life-time, warranty period from the manufacturer, and cost. She also described the activities required in case the luminescent lamp is broken: step-by-step actions were presented and the appropriate video demonstrated.

❖ “Main sources of mercury releases in the Republic of Armenia” –
Professor Aleksandr Yengoyan, Project Technical Adviser).

Prof. Yengoyan presented general characteristics of mercury, mentioned its toxicity and analyzed general data on inventory of mercury emissions releases into the environment of Armenia. Inventory was done according to main categories of emissions/ releases in compliance with UNEP specialized Toolkit.

Presentation included the charts and diagrams to reflect the following information:

- Mercury emissions to air, water, land from different categories of sources;
- Consumer products with intentional use of mercury, import: Mercury releases, RoA;
- Quantity of fluorescent, sodium and metal halide imported lamps in RA(2016-2018);
- Medical devices and thermometers containing mercury under Yerevan Municipality, the Ministry of Health and regional administrations of RoA (as of 2020);
- Mercury thermometers used at hydrometeorological stations (as of 2020);
- Total number of meteorological thermometers and the amount of mercury contained in them (as of 2020);
- Quantitative distribution of mercury thermometers by marzes of the RoA;
- Mercury thermometers and barometers according to mercury mass and by marzes of RoA;
- Mercury emissions from various fluorescent lamps in 2016-2018;
- Possible mercury emissions from thermometers and equipment in medical organizations.

❖ Legislation regulating the area of chemicals and wastes to fulfill obligations under international agreements and conventions ratified by the Republic of Armenia, including the Basel, Rotterdam, Stockholm and Minamata Conventions - *Ms. Anahit Aleksandryan.*

Ms. Aleksandryan presented legislative and institutional basis of hazardous chemicals and wastes management that is regulated by the RoA obligations undertaken for implementation of Minamata, Basel, Rotterdam and Stockholm Conventions. She presented new legislation adopted by the Republic of Armenia Government during 2019-2021, Lists of prohibited new chemicals, wastes,

Governmental Degrees on establishment of the National Registry on Wastes, on hazardous wastes movements over the territory of the Eurasian Economic Union, Law “On Mercury” that is under consideration of the Government. Ms. Aleksandryan also noted that still much should be done, namely: the Law “On Chemicals” and ensure its adoption, approval of the Law “On Mercury” and adoption of appropriate by-laws.

- ❖ Priority challenges of hazardous wastes management in Armenia - *Mr. Artak Khachatryan*, Head, Division of Wastes and their Disposal Sites Survey, Hydrometeorology and Monitoring Center SNCO, Ministry of Environment, RA.

Mr. Khachatryan, Focal point of Basel Convention, presented hazardous wastes challenges in the RoA, in particular problems requiring primary solutions, such as mercury-containing waste, e-waste, PCB-containing waste, obsolete pesticides, etc. In his presentation Mr. Khachatryan emphasized relevant provisions from Basel Convention Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with mercury or mercury compounds.

- ❖ BAT/ BEP application for improvement of wastes disposal sites: pilot dumpsite construction - *Mr. Artak Khachatryan*, HMC SNCO.

Mr. Khachatryan, made a presentation on BAT/BEP introduction in the frames of pilot project implemented at Ararat urban dumpsite. He demonstrated the case of good practice, the possibility to improve old, already functioning dumpsite at low costs in order to avoid open burning of wastes and reduce emissions of mercury, dioxins/furans. This is important, because of lacking facility for wastes recovery, treatment, recycling in Armenia; moreover, wastes are removed to dumpsites without any sorting. Meanwhile, this does not exclude construction of new sanitary landfills.

After power point presentations, during the **Round Table Discussion**, Ms. Aleksandryan asked the inspectors from different regions of Armenia to raise questions and problems associated with mercury-containing wastes. Inspectors mainly responded that they are usually asked how to utilize mercury-containing wastes, generally the lamps. Some entities store such wastes at their premises, their own area, others – dispose to waste dumps.

Ms. Aleksandryan explained that, ‘So far as we have no entities licensed for lamps recycling in our country, we should store them under safe conditions until there will be possibility for environmentally sound disposal’.

Workshop participants draw a conclusion on necessity to establish a warehouse for temporary storage of mercury-containing waste, not only lamps, but medical and measurement devices, thermometers as well.

Ms. Aleksandryan expressed hopes that there would be possibility, facility for environmentally sound disposal of mentioned wastes.

Certificates of Attendance were prepared beforehand. After the “Questions and Answers Session” of the Round Table the participants were awarded with Certificates.



During the Workshop Closing ceremony Dr. Anahit Aleksandryan expressed expectations to continue fruitful cooperation with all concerned stakeholders, she emphasized that synergistic approach to problems resolution should be one

of important outcomes of the Project. Participants expressed their gratitude to Ms. Aleksandryan for the successful and useful Workshop.

A special Press Release was prepared before the event; the statement contained information for mass-media and the general public.

The media coverage of the Workshop also acknowledged its importance:

- <http://env.am/news/ashxatajoxov-sndiki-aylvtangavor-nuyteri-veraberyal>
- <https://armmonitoring.am/post/284>
- <https://www.ecoinspect.am/%D5%B0%D5%B0-%D5%A2%D5%B6%D5%A1%D5%BA%D5%A1%D5%B0%D5%BA%D5%A1%D5%B6%D5%B8%D6%82%D5%A9%D5%B5%D5%A1%D5%B6-%D6%87-%D5%A8%D5%B6%D5%A4%D5%A5%D6%80%D6%84%D5%AB-%D5%BF%D5%A5%D5%BD%D5%B9%D5%A1%D5%AF%D5%A1-32/>
- <https://www.facebook.com/mnparmenia>
- <https://www.facebook.com/HydrometeorologyandMonitoringCenter>
- https://www.instagram.com/hydrometeorologymonitoring_hmc/
- <https://www.facebook.com/ecoinspect.am/posts/2941057839478806>
- <https://awhhe.am/hy/%d5%a1%d5%b7%d5%ad%d5%a1%d5%bf%d5%a1%d5%aa%d5%b8%d5%b2%d5%b8%d5%be-%d5%b6%d5%be%d5%ab%d6%80%d5%be%d5%a1%d5%ae-%d5%bd%d5%b6%d5%a4%d5%ab%d5%af%d5%ab-%d6%87-%d5%a1%d5%b5%d5%ac-%d5%be%d5%bf%d5%a1%d5%b6/>
- <https://eco.am/%d5%a1%d5%b7%d5%ad%d5%a1%d5%bf%d5%a1%d5%aa%d5%b8%d5%b2%d5%b8%d5%be-%d5%b6%d5%be%d5%ab%d6%80%d5%be%d5%a1%d5%ae-%d5%bd%d5%b6%d5%a4%d5%ab%d5%af%d5%ab-%d6%87-%d5%a1%d5%b5%d5%ac-%d5%be%d5%bf%d5%a1%d5%b6/>
- <https://www.shantnews.am/news/view/933458.html>

The Report is enclosed as *Attachment 16*.

Strategy for sound collection, storage, transportation and processing of mercury-containing products/lamps in the Republic of Armenia

Draft “Strategy for sound collection, storage, transportation and processing of mercury-containing products/lamps” was prepared in the frames of Project implementation.

The Strategy includes the following main parts:

- Introduction
- Chapter 1. LEGISLATION
- Chapter 2. SOURCES OF MERCURY POLLUTION AND HAZARDOUS PROPERTIES
 - *2.1 Main categories of mercury sources in the RoA*
 - *2.2 The impact of mercury and its compounds on the environment*
 - *2.3 The impacts of mercury and its compounds towards human health*
- Chapter 3. GENERAL INFORMATION ABOUT MERCURY-CONTAINING LAMPS
 - *3.1 Need for separate collection and disposal of used fluorescent lamps*
 - *3.2 Research results on the types, quantity and points of sale of lamps imported to the RoA*
- STRATEGY
- ACTUALLY EVALUATED STATUS OF MERCURY-CONTAINING LAMPS
- Organizational and technical conditions for the collection, storage, packaging, transportation, reception and treatment of mercury-containing products
 - 1) Conditions for temporary storage and accumulation of waste
 - 2) Inventory / accounting for waste generation and movement
 - 3) Transfer of waste to specialized enterprises for treatment
 - 4) Transportation of waste

- 4.1. Requirements for carrying out loading and unloading operations
- 4.2. Requirements for transportation of waste

5) Emergency response measures.

Specific issues relevant to mercury and mercury compounds, mercury-containing and mercury contaminated products (lamps) are considered in 5 Annexes:

- Annex 1. Areas of application, types, advantages and disadvantages of lamps
- Annex 2. *Danger of fluorescent lamps*
- Annex 3. *What to do, if medical or other mercury-containing thermometer is broken*
- Annex 4. *General handling of mercury-containing waste*
- Annex 5. *Regional collection and recycling*

Draft Strategy for sound collection, storage, transportation and processing of mercury-containing products/lamp was translated into English (see *Attachment 17*).

Final Workshop on Adoption of Strategy for Sound Collection, Storage, Transportation and Processing of Mercury-Containing Products/Lamps

The Final Workshop on Adoption of Strategy for Sound Collection, Storage, Transportation and Processing of Mercury-Containing Products/Lamps was arranged and held at ANI Grand Hotel (Yerevan, RoA) on November 22, 2021.

Aware that the rules of holding mass events during a coronavirus pandemic might become stricter, a decision was made to combine the *Workshop on adoption of Strategy for sound collection, storage, transportation and processing of mercury-containing products/lamps* with the *Final Workshop* of the Project and arrange the in-person **Final Workshop on Adoption of Strategy for Sound Collection, Storage, Transportation and Processing of Mercury-Containing Products/Lamps** in compliance with local COVID-19 restrictions, including respiratory hygiene and social distancing.

The Workshop was organized by the “Hydrometeorology and Monitoring Center” State Non-Commercial Organization of the Ministry of Environment of the RoA (HMC SNCO) under the leadership of Ms. Anahit Aleksandryan as the Project National Coordinator.

The Workshop was mainly aimed:

- to raise the awareness of stakeholders about mercury-regulating legislation prepared and adopted by the RoA Government;
- to present the Strategy for Sound Collection, Storage, Transportation and Processing of Mercury-Containing Products/Lamps for comments and adoption by stakeholders;
- to summarize and evaluate the implementation of the Project-related activities.

Workshop participants involved representatives of the concerned party within the country, namely: representatives of the following organization of the RoA:

- Ministry of Environment;
- Hydrometeorology and Monitoring Center State Non-Commercial Organization of the Ministry of Environment;
- Inspectorate for Nature Protection and Mineral Resources;

- Health and Labor Inspectorate;
- Urban Development, Technical and Fire Safety Inspectorate;
- National Center for Disease Control and Prevention SNCO of the Ministry of Health;
- Ministry of Emergency Situations;
- Department of Energy of the Ministry of Territorial Administration and Infrastructure;
- Ministry of Economy;
- State Council on Statistics;
- Department of Road Transport Policy, Licensing and Permits of the Ministry of Territorial Administration and Infrastructure;
- State Revenue Committee of the Ministry of Finance;
- Center for Ecological-Noosphere Studies State Non-Commercial Organization of the National Academy of Science;
- “Armenian Women for Health and Healthy Environment” NGO.



The following presentations were done during the Main Session of the Final Workshop:

- Results of the Fourth Conference of the Parties to the Minamata Convention on Mercury (COP-4)
Ms. Anahit Aleksandryan, Project National Coordinator, Focal point of Minamata Convention;

- Minamata Convention on Mercury: main achievements and participation of “Armenian Women for Health and Healthy Environment” NGO
Ms. Qnarik Grigoryan, Environmental Health Expert, “Armenian Women for Health and Healthy Environment” NGO, RoA;
- Assessment of the main sources and releases of mercury in the RoA carried out within the frames of the Minamata Convention
Professor Aleksandr Yengoyan, Project Technical Adviser;
- Main problems of mercury-related pollution in urban area of the RoA;
Ms. Gayane Melqonyan, Researcher, Center for Ecological-Noosphere Studies, National Academy of Science, RoA;
- Rules and strategy for collection, storage, transportation and treatment of mercury-containing lamps
Ms. Anahit Aleksandryan, Project National Coordinator, Focal point of Minamata Convention;
- Main Outcomes of “Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia” Project Implementation
Ms. Anahit Aleksandryan, Project National Coordinator, Focal point of Minamata Convention.



During the Round Table Discussion, Workshop participants expressed unanimous approval to the Project-related activity and approved documents prepared in the frames of the project implementation:

- “Instruction for handling mercury lamps, mercury-containing fluorescent tubes (spent and discarded)” and
- “Strategy for sound collection, storage, transportation and processing of mercury-containing products/lamps”.

A special Press Release was prepared to inform mass-media and the general public about the event.



The media coverage of the Workshop also acknowledged the importance of the event:

<http://env.am/news/news-sndik-ashxatajoxov>

<http://armmonitoring.am/post/450>

The Report is enclosed as *Attachment 18*.

The 4th Steering Committee Meeting of “Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia” Project

The 4th Steering Committee Meeting of “Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia” Project was arranged on June 22, 2021 back-to-back with the Final Workshop on Adoption of Strategy for Sound Collection, Storage, Transportation and Processing of Mercury-Containing Products/Lamps of the Project.

At the Steering Committee Meeting the most important issues of mercury wastes disposal were considered and approved.

Considering the fact that capacity for mercury wastes processing is missing in Armenia, the option was considered for wastes removal / transportation to other countries, where such wastes are treated/ processed in an environmentally sound mode.

However, there is a huge problem with the export /transportation of mercury wastes, because there is a ban for transit of these wastes through the territory of neighboring countries. This means that mercury wastes processing should be done at the territory of our country. We should take into account the fact that annual amount of generated wastes of mercury lamps makes about 200 tons, but after the prohibition of their production and import annual amounts will even decrease. Therefore, it would be unreasonable to arrange transportation of above-mentioned wastes.

On the other hand, construction of the processing plant, would require large financial investments, time. It would be impossible to carry out activities at full capacity, because of low volumes of specific wastes. Thus, it would be reasonable to obtain facility for shredding and processing of mercury wastes.

Project Steering Committee members made the following decisions:

- 1) To construct a warehouse for environmentally sound storage of mercury lamps;
- 2) To purchase equipment for lamps shredding;

- 3) To arrange collection of mercury wastes from all relevant sources:
 - Residential (private) sector;
 - Industrial sector;
 - Trade / commercial sector;
 - Institutional sector;
- 4) Mercury wastes should be grinded before processing;
- 5) Mobile equipment for mercury lamps processing / recycling should be purchased or rented.

Since mercury-containing lamps are classified as waste of the 1st Category, the activity associated with recycling / shredding of those wastes is subject to licensing. For obtaining the appropriate license, it is necessary to perform the environmental impact assessment so that shredding/ processing will be done in environmentally sound manner and environmental and health protections will be assured.

Implementation of Minamata Convention on Mercury in the Republic of Armenia

Draft Law “On Mercury”

In order to enable implementation of Project Activities 2.3 and 2.4 Draft Law “On Mercury” was prepared and submitted to the Government of the Republic of Armenia for consideration.

This Draft Law was prepared by the Hazardous Substances and Wastes Policy Department of the Ministry of Environment of the Republic of Armenia.

The Law regulates relations related to the handling/ use of mercury, mercury compounds, mercury waste and mercury-added products in the RoA, the purpose of which is to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. Main definitions are stated as well as responsibilities of the Government in the area of ensuring environmentally sound mercury management conditions, responsibility of the authorized body in the area of ensuring conditions for environmentally sound management of mercury; rights and responsibility of individual entrepreneurs and legal entities involved in mercury handling. The following topics are specially treated: “Mercury extraction ban” (Article 7), Export of Mercury from the RoA (Article 8.), Import of mercury to the RoA (Article 9), Restrictions on the production, import, and export of mercury-added products (Article 10).

Draft law was preliminary agreed with all stakeholders within the country: Ministry of Health, Ministry of Economy, Ministry of Emergency Situations, Ministry of Defence, Ministry of territorial Administration and Infrastructure, Ministry of Finance, State revenue Committee, Republic of Armenia Police, National Security Service, Ministry of Justice, Inspectorate for Nature Protection and Mineral Resources, Health and Labour Inspectorate. After due consideration at mentioned institutions comments regarding the Draft Law were obtained and amendments done taking them into account (see *Attachment 24*).

The Armenian version of Draft Law “On Mercury” was posted at the Unified website for publication of legal acts’ drafts <https://www.e-draft.am/en/projects/2778/about> and at the website of the Ministry of

Environment: <http://www.env.am/>. All specialists, representatives of private sector, civil society and Academy might get acquainted with the Draft Law and express their opinion, provide comments.

On November 12, 2021 the Republic of Armenia Draft Law “On Mercury” was considered by the Standing Commission on Territorial Administration, Local Self-Government, Agriculture and Environmental Protection of the National Assembly of the Republic of Armenia and approved in its 1st reading.



Upon approval of the Law “On Mercury”, after its second and / or third readings, the appropriate by-laws will be prepared as well.

Additionally see *Attachment 20* with mass-media coverage of the Parliamentary meeting.

**Preparation of Instruction for handling mercury lamps,
mercury-containing fluorescent tubes
(spent and discarded)**

Draft Instruction for handling mercury lamps, mercury-containing fluorescent tubes (spent and discarded) was prepared.

The Instruction consists of the following main parts:

- Waste generation and collection;
- Conditions for temporary storage and accumulation of waste;
- Accounting for generation and movement of waste;
- Transfer of waste to specialized enterprises for treatment;
- Transportation of waste, including:
 - Requirements for carrying out loading and unloading operations
 - Requirements for transportation of waste
- Emergency response measures, including:
 - Elimination of consequences of an emergency situation in case of mechanical destruction of more than 1 mercury-containing lamp and/or mercury spill
 - Elimination of consequences of an emergency situation in case of mechanical destruction of no more than 1 mercury-containing lamp.

Draft Instruction for handling mercury lamps, mercury-containing fluorescent tubes (spent and discarded) was translated into English (*Attachment 21*).

Preparation of Governmental Decision on movement of hazardous wastes

Decision of the Government of Armenia “On the Procedure of permission issuing at transboundary movement of hazardous wastes (including mercury) at mutual trade between countries – members of EAEU” (No. 489-N dated April 8, 2021) was prepared.

This Procedure regulates relations associated with the procedure of providing the legal entity or private entrepreneur with the concluding document (hereinafter: conclusion/ permission) for transboundary movement of hazardous waste (hereinafter: waste) through the customs territory of the Eurasian Economic Union (hereinafter: the Union) in mutual trade between the member states of Union as approved by the Annex 6 to Decision of the Republic of Armenia Government No. 90-N dated February 5, 2015.

The Procedure (see *Attachment 22*) was approved by Decision of the Republic of Armenia Government on April 8, 2021. The unofficial translation of the procedure is enclosed as *Attachment 23*.

Dissemination Materials on Mercury

During the period of Project implementation the following dissemination (booklets, leaflets) were prepared:

- Text and Annexes of Minamata Convention on Mercury (in Armenian);
- Hg: Mercury and Health;
- Hg: Collection and disposal of spilt mercury in domestic conditions
- Main sources of mercury releases in the Republic of Armenia;
- Mercury and Minamata Convention;
- Different types of household lamps: Advantages and disadvantages;
- Broken luminescent lamps are dangerous to human health;
- The choice is upon you: You are able to buy mercury-free products;
- Information leaflet: About mercury-containing products;
- Minamata Convention on Mercury as an overarching agreement on mercury;
- Hazardous Chemicals and Wastes: Body Burden;
- IOMC: Chemicals and Wastes Management is Important for Achievement of Sustainable Development Goals;
- Inspection Checklist.

The above-mentioned materials were distributed during the Workshops held in the frames of the Project.





Scientific Publications

prepared during the period of Project implementation

1. **Aleksandryan A., Khachatryan A., Lazarev A.** Directions of Mining Waste Policy and Management in Armenia. CEST 2019. Rhodes Island, Greece, 4-7 September 2019. Abstract ID cest2019_00482
2. **Anahit Aleksandryan, Lilit Sahakyan, Gayane Melkonyan.** Mercury Spread to Soil: Urban and Industrial Contamination. POSTER ABSTRACTS. ICMGP 2019. 14th International Conference on Mercury as a Global Pollutant. September 8-13, 2019. Krakow, Poland. M.P.4.21.P. 149.
3. **Anahit Aleksandryan, Aleksandr Yengoyan, Artak Khachatryan.** Summary data of estimated mercury releases per source category: 2015. POSTER ABSTRACTS. ICMGP 2019. 14th International Conference on Mercury as a Global Pollutant. September 8-13, 2019. Krakow, Poland. M.P.4.22. Page 150.
4. **Aleksandryan A.** Environmental and Health Risk Assessment from Chemical Pollution. 5th International Conference of Recent Trends in Environmental Science and Engineering. (RTESE'21). Niagara Falls, Canada. May 17-19, 2021. Extended Abstract ID: 104.
5. **Aleksandryan A.** Hazardous Chemicals Impacts Assessment for Risk Management and Reduction. 6th International Conference on Environmental Pollution, Treatment and Protection (ICEPTP'2021). Lisbon, Portugal/ VIRTUAL. June 21-23, 2021. Abstract ID 106.

Our Further Steps

Implementation of “Strengthening capacity to promote phasing-out of mercury-added products (lamps) in Armenia” Project with its main outcomes became stimulus that enabled preparation of a new application. Thus, in 2020 application “Improving Environmental Monitoring of Mercury in Armenia in accordance with the obligations under the Minamata Convention” was developed and submitted to IAEA.

The application was approved for funding at about 250,000 USD, implying provision of new analytical equipment (Atomic Absorption Spectrophotometer) for mercury determination in different environmental media (air, water, land).

Additionally, within IAEA project trainings will be arranged for young researchers and specialists in Monaco University. With due understanding that qualified sampling is a prerequisite for appropriate analyses, the trainings will include all stages of mercury analyses beginning with sampling,