

KAMPALA UGANDA

A REPORT ON THE MEETING TO EVALUATE THE "EAST AFRICAN DENTAL AMALGAM PHASE DOWN PROJECT (EADP)-PHASE I" AND IMPLEMENTATION PROGRESS OF "MERCURY INITIAL ASSESSMENTS PROJECT" HELD ON 30TH MARCH 2017 IN NEMA BOARD ROOM



Background

Reference is made to the "East African Dental Amalgam Phase Down Project (EADP)-Phase I" which was implemented by National Environment Management Authority (NEMA) in 2012. The EADP-Phase I was implemented in relation to the Minamata Convention on Mercury which identifies and describes in its Article 4 and Annex A Part II, measures to be taken to phase down the use of dental amalgam taking into account the Party's domestic circumstances and relevant international guidance.

The above project was aimed at the following:

- i. Increasing national capacity to reduce the need, demand and use of dental amalgam, at the same time reducing the releases of dental amalgam wastes to water and land in a measureable, equitable and sustainable manner;
- ii. Increasing adoption and use of standardized guidance, resources and tools to reduce the need, demand and use of dental amalgam, and dispose of dental amalgam waste in an environmentally sound manner.

Project activities included awareness raising, training of dental health staff, production of dental awareness materials, installation of amalgam separators at demonstration sites, documentation of country dental amalgam trade data and waste management practices among others.

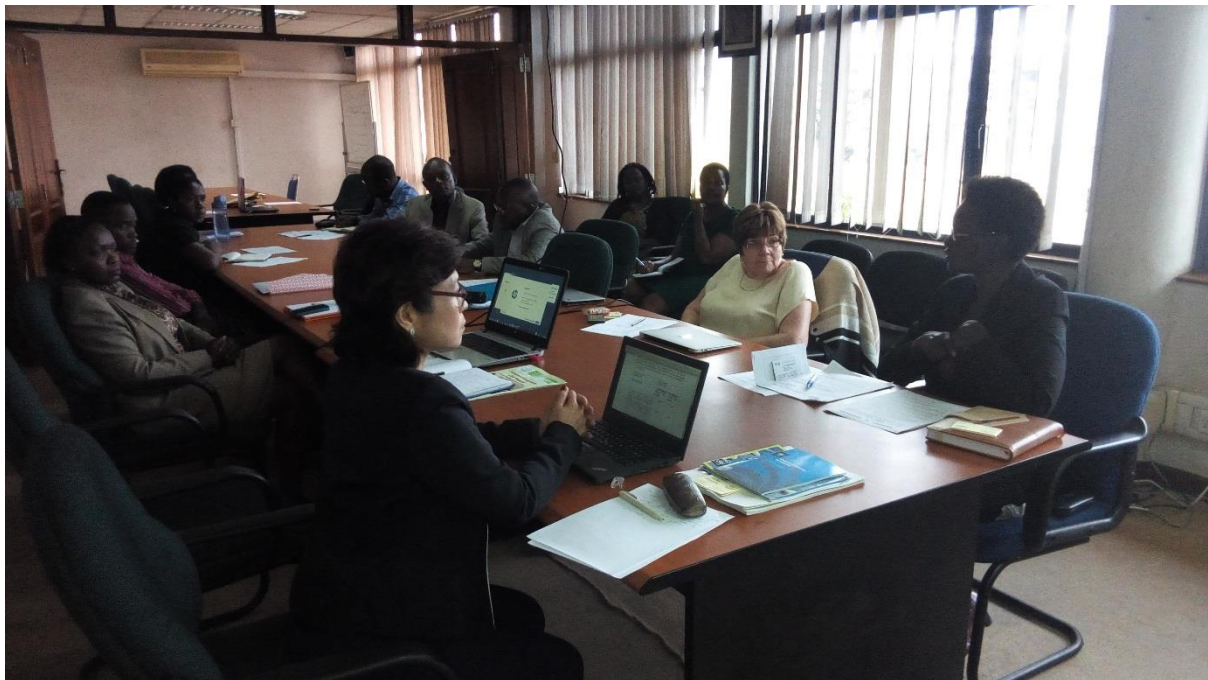
The National Environment Management Authority in collaboration with UN- Environment Programme organised a half day meeting on 30th March 2017 in NEMA board room to evaluate the EADP –Phase 1 project and to receive updates about the Products Partnership and activities of the interim secretariat of the Minamata Convention from the Programme Officer, UN Environment Programme. Field monitoring of installed amalgam separators was undertaken at Mengo Hospital and Jubilee Dental Clinic in Kampala.

Remarks from the Deputy Executive Director (DED), NEMA

The DED welcomed participants in particular, the representative from UN-Environment and Waste Expert DA from IDM, Australia.

She mentioned that, at the Conference of Plenipotentiaries held in Kumamoto and Minamata Cities in Japan from 10th to 11th October, 2013; the draft final text of the Minamata Convention on Mercury was adopted, and the Convention was opened for signature by States and regional economic integration organizations. Although Uganda signed the convention at this conference in 2013, it has not yet ratified it. However, an instrument will be prepared. Article 4 under Annex A, Part II, of the Minamata Convention on Mercury spells out measures to be taken to phase down the use of dental amalgam taking into account the Party's domestic circumstances and relevant international guidance.

She stressed the need to put in place regulations for sound management of chemicals in Uganda including guidelines that speak to different chemicals like mercury. Presently management of chemicals is under different institutions. She notified members that the National Environment Act is being amended to among others incorporate issues of chemical management including mercury handling, storage and disposal. The Bill is likely to be passed by parliament by the end of 2017. She highlighted that handling of waste with dental amalgam is a challenge in terms of expertise. Management of hazardous waste should be sustainable.



Above: the DED/NEMA giving remarks

She mentioned that the East African Dental Amalgam Phase Down Project (EADP)-Phase 1 was implemented in Uganda by NEMA in collaboration with Ministries, Departments and Agencies in 2012. Activities undertaken in financial year 2015/16 under the project utilized USD 15'000. The aim of the EADP-Phase I project was to increase national capacity to reduce the need, demand and use of dental amalgam, at the same time reducing the release of dental amalgam wastes to water and land in a measurable, equitable and sustainable manner.

Further the aim was to increase adoption and use of standardized guidance, resources and tools to reduce the need, demand and use of dental amalgam, and dispose of dental amalgam waste in environmentally sound manner. The DED informed participants of her knowledge about financial constraints by project funders and therefore it has tasked NEMA to lobby for financial assistance from various partners to support dental amalgam phase down.

The DED recommended the following:

- i. The need for enhanced coordination between relevant government Ministries, Agencies, Departments, Private sector, Civil Society on use of alternatives to dental amalgam
- ii. National stakeholders should emphasise a change in practices in addition to increasing awareness on dangers of mercury contamination
- iii. Work-plans for Government Ministries, Agencies, Departments should integrate issues of dental amalgam management
- iv. Alternatives to dental amalgam should be promoted and policy makers advised on how to entice the adoption of the alternatives
- v. There is need to train hazardous waste handlers to enhance their expertise in collection, segregation, transportation and disposal of waste
- vi. MIAs Secretariat to originate a list of participants for COP1 to be submitted to Ministry of Finance Planning And Economic Development
- vii. Inform interested persons about the COP1 meeting so that they can seek for funding
- viii. Write to Ministry of Health and Ministry of Trade about their special role in phase down of dental amalgam
- ix. NEMA needs to track cabinet memos for accession and embark on the ratification of the Minamata Convention on Mercury so that Uganda can apply to be a party

Presentation by the former chairperson of Dental Association of Uganda

Dr Margaret Wandera was the focal point person for the project under Ministry of Health and at the same time the chairperson for Dental Association of Uganda.

She among others presented on the following:

a) Project activities under the EADP-Phase I project included the following:

- Awareness raising
- Training of dental health staff
- Production of dental awareness materials
- Installation of amalgam separators at demonstration sites
- Documentation of country dental amalgam trade data
- Waste management practices among others

b) Project achievements under the EADP-Phase I project included the following:

- Trained Trainers of Trainers-three trainers (Two Dental surgeons and one Technician).
- Validated results for the country dental amalgam trade data and waste management practices.
- Three (3) Amalgam separators were installed at the three demonstration sites (Mulago Dental School, Mengo Hospital and Jubilee Dental Clinic)
- Trained dental health staff at the three demonstration sites (including Dental Surgeons, Dental Officers, Administrative Staff, and Chair side Assistants).
- Created awareness among stakeholders (Communities, Dentists, Technicians, Trainers and Policy Makers -1 workshop) on dangers of dental amalgam use and alternatives.
- Printed and distributed dental awareness materials developed by WHO, Fédération Dentaire Internationale / World Dental Federation (FDI) and International Dental Manufactures (IDM) to dentists, dental aides and clinics- total of 6800 flyers and 1800 posters.

Below: Amalgam Separator-Mulago Dental School



Below: Another view of amalgam Separator-Mulago Dental School



Below: Amalgam Separator-Jubilee Dental Clinic



Below: Participants during the training relating to the Amalgam Separator installation at Mulago Dental School Jubilee Dental Clinic



c) Challenges

- i. Low acceptability by the dentists on phasing down dental amalgam.
- ii. Difficulty in coordinating stakeholders (traders/importers, dental health sector, regulators and the public) and yet management of mercury in products and dental amalgam is cross- cutting.
- iii. Non-availability of separators locally (blockage/filling up of the separators requires installation of new separators as quickly as possible. They are not locally available).
- iv. Inadequate funding (the approved budget for the project was not enough compared to the scope of work to be done in relation to the sustainability of the project).
- v. Awareness raising and sound management of mercury waste are still a challenge

d) Recommendations

- i. Conventional ways of mixing the amalgam have changed over time paving way for new technologies that reduce exposure to mercury. The effectiveness of the new methods needs to be investigated
- ii. Most of the medical waste containing mercury has been managed like non-hazardous waste through disposal by incineration and land filling. Proper collection, segregation, storage and final disposal of the waste containing mercury should be undertaken stabilizing the mercury.
- iii. There is need to come up with affordable technologies that extract amalgam other than separators which are expensive
- iv. Incorporation of a clause to reduce the use of dental amalgam in practicing licenses for medical workers may phase down dental amalgam use
- v. Popularization of alternatives to dental amalgam should be undertaken.
- vi. Awareness raising on medical waste management needs to be enhanced
- vii. Development of guidelines for handling waste containing mercury is recommended

Presentation by Mercury Desk Focal Point (MDFP) -Uganda on the implementation progress for the MIAs project

The MDFP emphasized the project objective which centers on ratification and early implementation of the Minamata Convention facilitated by the use of scientific and technical knowledge and tools by national stakeholders in participating countries. She mentioned that MIAs project components focused on six components. She spelt out the key achievements as follows

- Established a national Coordination Mechanism to oversee project implementation
- Final report on "Existing sources of information/studies on mercury" prepared
- Final report on "Assessment of the national infrastructure and capacity for the management of mercury, including national legislation" prepared
- Preparation of the final report on "Development of a mercury inventory using the UNEP mercury tool kit and strategies to identify and assess mercury contaminated sites" is in progress

She gave a summary of estimated mercury releases (extracted from inventory level 2 spread sheet of UNEP's Toolkit for identification and quantification of mercury releases) as shown in table 1.0 below:

Table 1.0: Summary of estimated mercury releases (extracted from inventory level 2 spread sheet of UNEP's Toolkit for identification and quantification of mercury releases)

C	Sub-C	Source category	Exists (Y/N/?)	Calculated Hg input to society	Calculated Hg output, Kg/y					
					Air	Water	Land	By-products and impurities	General waste	Sector specific treatment/disposal
5.6		Source category: Other intentional product/process use								
	5.6.1	Dental mercury-amalgam fillings	Y	146	3	60	10	9	32	32
5.10		Source category: Crematoria and cemeteries								
	5.10.1	Crematoria/cremation	Y	1	1	0	0	-	0	0
	5.10.2	Cemeteries	Y	362	0	0	362.199	-	0	0

Identified L2 inventory data gaps and priorities for potential follow up under crematoria

- Mercury releases from crematoria are majorly from dental fillings but not all cremated bodies will have had dental amalgam. It is a common practice that before cremation such materials are removed prior to the process. This may seem a data gap since the mercury source is no longer in place.
- The number of death for Asians in Uganda is based on estimates of their population and the country's mortality rate which might not be a true representation. The figure may seem higher or lower than the actual.
- Some Asians are taken back to their domicile countries after death. Such cases don't contribute to the mercury releases in Uganda.
- Removing of amalgams is usually done by Asians

Identified L2 inventory data gaps and priorities for potential follow up under Cemeteries

- This is the most common form of burial practiced in Uganda.
- The estimates for cemetery/ crematoria is based on the fact that those who die have dental amalgam,
- The mortality rate that was used is general (includes infants with less or no dental amalgam). This may give an over estimate.

Ongoing activities-MIAs activities

- Drafting of the report on "Identified of challenges, needs and opportunities to implement the Minamata Convention on Mercury"
- Preparation and validation of National MIA reports and implementation of awareness raising activities and dissemination of results
- Undertaking preparations for the 'Implementation of the Regional project on the Development of National Action Plans for the Artisanal and Small Scale Gold Mining in Africa'.

Implementation of the Regional project on the Development of National Action Plans for the Artisanal and Small Scale Gold Mining in Africa

- The NAP Project is under the Minamata Convention on Mercury which was adopted in January 2013.
- The Project Objective is "Development of National Action Plans to reduce the use of mercury and mercury compounds in, and the emissions and releases to the environment of mercury from, artisanal and small-scale gold mining and processing is facilitated by the use of scientific and technical knowledge and tools by national stakeholders in participating countries".
- GEF Agency: UNEP
- Executing Partner(s):The Africa Institute, UNEP Chemicals and Ministries of environment of participating countries
- Project Duration (Months): 24 months
- Effective date: 1st October 2016
- Project funds: USD 339'000

Presentation by UN-Environment

The UN-Environment representative informed participants that dental amalgam is an alloy of mercury and other metals used for dental fillings. She informed participants of the required measures to Phase down the use of Dental amalgam taking into consideration the country's domestic circumstance and relevant international guidance in choosing which two or more measures to pursue. Measures include the following:

- a) Setting national objectives aiming at dental caries prevention and health promotion, thereby minimizing the need for dental restoration. The prevention of dental caries (tooth decay) is a broad goal and its impact on amalgam reduction is uncertain. Thus, dental caries prevention may need to be coupled with other measures that directly address amalgam use reduction.
- b) Setting national objectives aiming at minimizing its use. It may be a good way to focus national efforts to start phasing down amalgam. This measure could effectively complement more direct efforts embodied in other measures.
- c) Promoting the use of cost effective and clinically effective mercury free alternatives for dental restoration. Promoting mercury free alternatives can take a variety of cost effective forms, such as patient information sheets, posters in dental clinics, consent forms, educational brochures, websites and social media.
- d) Promoting research and development of quality mercury free materials for dental restoration. A higher priority may need to be placed for technology transfer and training.
- e) Encouraging representative professional organizations and dental schools to educate and train dental professionals and students on use of mercury free dental restoration alternatives and on promoting best management practices.
- f) Discouraging insurance policies and programs that favour dental amalgam use over mercury free dental restoration.
- g) Encouraging insurance policies and program that favour use of quality alternatives to dental amalgam for dental restoration.
- h) Restricting the use of dental amalgam to its encapsulated form. This measure is aimed at preventing the diversion of mercury for dental amalgam to other uses, such as ASGM.
- i) Promoting the use of best environment practices in dental facilities to reduce releases of mercury and mercury compounds to water and land. This measure will contribute to increased awareness of the environmental impacts of amalgam and better environmentally sound management of amalgam. Dental officers can be a significant source of UN used mercury; governments should work with dentists to ensure mercury is properly stored and managed when it is no longer needed, in accordance with Articles 10 and 11 of the Convention.

She reported that there was low acceptability by dentists. She emphasised the need to link dental amalgam phase down to ASGM as some of the mercury that is imported for dental purposes may be used by ASGM miners. She emphasised the need to mainstream strategies for dental amalgam phase down in national plans and budgets. She mentioned that mercury cannot be incinerated nor destroyed but rather stabilised and solidified.

The Waste Expert (DA) from Australia recommended that data on encapsulated amalgam should be collected and quantities of how much is used in health determined, and then whatever is not accounted for is reported. UN Environment representative informed members that due to limited funds, EADAP II will not take off soon and that the NAP project should integrate EADAP I phase down recommendations. She informed participants of the upcoming COP 1 scheduled for September 2017 in Geneva, Switzerland.

RECOMMENDATIONS/CLOSING REMARKS BY DED

She advised as follows:

- The Mercury Desk Officer/NEMA should consider the possibility of listing officials to participate at the first Conference of the Parties for the Minamata Convention (COP 1) and inform them early enough for purposes of identifying funds and travel approvals.
- To track where the cabinet memo is for ratification so that NEMA can make a follow up.
- A letter should be drafted to various stakeholders about their roles in mercury management and also identify potential areas of support.

Table 2.0: List of participants at the meeting to evaluate the “East African Dental Amalgam Phase Down Project (EADP)-Phase I” and implementation progress of “mercury initial assessments project” held on 30th March 2017 in NEMA board room

S/N	Name	Title	Institution
1	Christine Akello	DED	NEMA
2	Magaret Wandera	Member	UDA
3	Nsanja Patrick	Biomed/Dental Technician	MUDMETS
4	Steven Nyanzi	Ass. Professor/National Consultant	Makerere University
5	Katongole Richard	Consultant Team	Makerere University
6	Wilberforce Nsiyona	Officer	URA
	Namukuve Fauzia	SEO	MWE
8	Scovia Kyokusiima	Administrative Assistant	NEMA
9	Monica Angom	P/A	NEMA
10	Anne Nakafeero	SDSO	NEMA
11	Waiswa Ayazika	D/EMC	NEMA
12	Grace Mugume	Director	GLSL
13	Anna Ameda	PEHS	GLSL
14	Desiree Montecillo Narvaez	Programme Officer	UN Environment Programme
15	Pam Clark	IDM	Waste Expert DA, Australia

Table 3.0: List of field participants to evaluate the “East African Dental Amalgam Phase Down Project (EADP)-Phase I” and implementation progress of “mercury initial assessments project”

S/N	Name	Title	Institution
1	Esther Forimu	Administrator	Jubilee Dental
2	Stephen Mugabe	Dentist/tutor	Makerere university college of health sciences
3	James Magara	Director	Jubilee Dental

Table 4.0: Programme for meeting to evaluate the “East African Dental Amalgam Phase Down Project (EADP)-Phase I” and implementation progress of “mercury initial assessments project” held on 30th March 2017 in NEMA board room

S/N	Activity	Time	Responsible Person	Moderator
1	Arrival and registration of participants	8.00-8.30am	AA	PA
2	Welcome Remarks	8.30-9.00am	D/EMC	PEI
3	Activities undertaken during the “East African Dental Amalgam Phase Down Project (EADP)-Phase 1”	9.00-9.15 am	Dr. Margaret Wandera and SDSO	PEI
4	Implementation progress of MIAs project	9.15-9.30 am	SDSO	D/F&A
5	Discussions	9.30 - 10.00 am	PA	SDSO
	Health break	10.00-10.30 am	SPS/ADM	PA
6	Updates about the Products Partnership and activities of the interim secretariat of the Minamata Convention	10.30-11.15am	Programme Officer UN Environment Programme	D/EMC
7	Closing remarks	11.15-11.30am	ED	D/EMC
8	Lunch break	11.30 am-2.00pm		
9	Field visit to monitor respective activities on Dental Amalgam phase down	2.00am – 5.00pm	SDSO; PA; Dr. Magaret Wandera/MoH	