

AGENDA
For *Environment* and Responsible Development

**CAPACITY BUILDING ON HANDLING AND DISPOSAL OF MERCURY CONTAINING
EQUIPMENT/PRODUCTS IN EDUCATIONAL INSTITUTIONS AND HEALTH CARE
FACILITIES IN TANZANIA**

SUMMARY OF THE STUDY FINDINGS

Outline

- Scope of the project
- Level of awareness
- Level of exposure
- Situation analysis on handling and disposal
- Measures taken to reduce the problem
- Recommendation

Scope of the Project

The project covered the whole country through regional representation.

- Northern Zone
 - Arusha
- Lake Zone and Western Zone
 - Mwanza
- Southern Highlands
 - Mbeya
- Eastern Zone
 - Dar es Salaam
 - Pwani Region
- Central region
 - Dodoma.

FIELD WORK COVERAGE

- Agenda team was able to attend 56 schools and 43 Healthcare facilities from the five regions identified as follows
- Arusha representing the Northern Zone **10-Schools**
 - Arusha Sec.School
 - Ilboru Sec.School
 - St. Joseph Ngarenaro Sec.School
 - Oldadai Sec.School
 - Jaffery High.School
 - Baraa Secondary School
 - Edmundrice Sec School
 - Sinon High School
 - Prime Sec. School
 - Sinon Sec. School

FIELDWORK.....

8- Healthcare facilities

- Selian Lutheran Hospital –CDH
- Kaloleni Urban Health Center
- Oltrumet Health Center
- Oldonyo Sambu Health Center
- Levolosi Health Center
- Soweto Dispensary
- St. Elizabeth Hospital
- Cogi Ngaramtoni Health Centre.

FIELDWORK.....

Mwanza representing the Lake zone

9-Schools

- Bwiru Boys Technical Sec.School
- Nsumba Sec.School
- Taqwa Sec.School
- St. Joseph Girls Seminary School
- Nganza Sec. School
- Bwiru Girls Sec. School
- Pamba Sec. School
- Mwanza sec. School
- Nyegezi Seminary School.

7-Healthcare facilities

- Bugando Medical Centre
- Sekou Toure Regional Hospital
- The Agha Khan Primary Medical Centre
- Buzuruga Health Centre
- AL-Jumaa Health Centre
- ELCT/ELVD Nyakato Health Centre
- AICT Makongoro Health Centre

FIELDWORK.....

Dar es Salaam representing the Eastern Zone

8-Schools

- Ubungo Islamic High School
- Azania Sec. School
- Loyola High School
- Kibasila Sec. School
- St. Anthony 's Sec. School
- Mbezi Beach High School
- Makongo High School
- Jangwani Sec. School.

4-Healthcare facilities

- Buguruni Anglican Health Center.
- MHS-Massama Hospital
- Mnazimmoja Health Center
- Magomeni Health Center

FIELDWORK.....

Pwani representing the Eastern zone

10-Schools

- St. Mathew's Sec. School
- Mkamba Sec. School
- Sotele Sec. School
- Filbert Bayi Sec. School
- Tumbi Sec. School
- Fabcast High School
- Kibaha Sec. School
- Wal-ul-Asr Boys Seminary
- Wal-ul-Asr Girls Seminary
- St. Mary's Junior Seminary, Visiga

10-Healthcare facilities

- Bagamoyo District Hospital
- Tumbi Hospital
- Jabal Hira Dispensary
- Tegemeo Hospital
- Mkuranga District
- Vikindu Dispensary
- St. Getrude Mlandizi Dispensary
- St. Mary's Visiga Dispensary
- Seminary Dispensary
- Mwanambaya Dispensary

FIELDWORK.....

Dodoma representing Central zone

10-Schools

- Mvumi Makulu Sec. School
- Dodoma Central Sec. School
- Al-QAEM Seminary School
- Msalato Sec. School
- Salesian Seminary School
- Dodoma Sec. School
- Chamwino Sec. School
- The City High School
- Jamhuri Sec. School
- DCT Mvumi Sec. School

8-Healthcare facilities

- Hombolo Health Center
- Kikombo Health Center
- UDOM Health Center
- DCMC Health Center
- Matovolwa Health Center
- Makole Health Center
- Mvumi Hospital
- Handali Health Center

FIELDWORK.....

Mbeya representing the Southern highlands

9-Schools

- Iyunga Tech. Sec. School
- Meta Sec. School
- Loleza Sec. School
- Itende Sec. School
- Sangu High School
- Mbeya Sec School
- Southern Highland High School
- St. Fransis Sec.School
- Ivumwe Sec.School

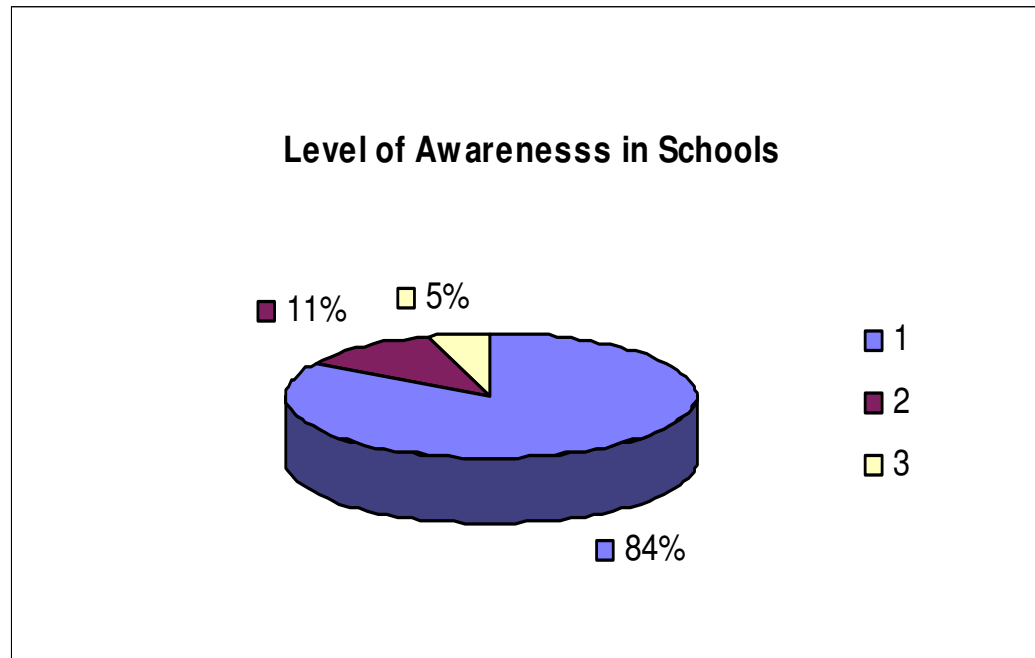
7-Healthcare facilities

- Agha Khan Health Center
- K's Hospital
- Kiwanja Mpaka Health Center
- Mbeya Dispensary
- Ruanda Health Center
- Mbeya Referral Hospital
- Mbeya Regional Hospital

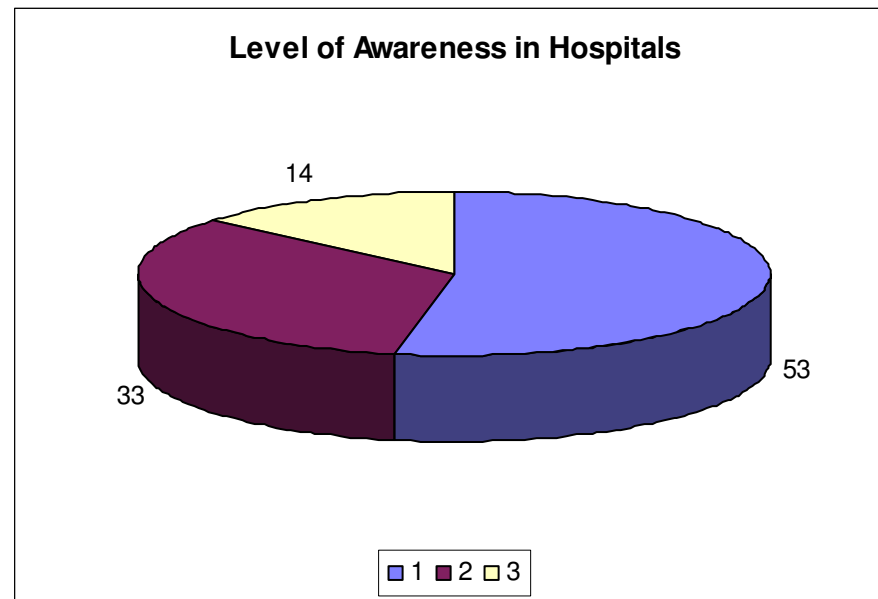
FINDINGS

Level of awareness

- 84% of the respondents from schools and 53% from hospitals admitted to be aware on the effects of Hg to environment and human health.



FINDINGS



- Human diseases caused by Hg effects such as cancer, destruction of the body system, brain disorders, sterility and deafness were mentioned.

FINDINGS....

Level of Exposure

- level of exposure in working environment was still very high
- 60% of respondents from healthcare facilities do not wear protective gears when handling mercury chemicals or equipment
- 75% (teachers & students) do not wear protective gears.
- 78% of Schools and healthcare facilities are continuing to purchase Hg containing equipment and chemicals
- Patients with dental problems prefer mercury amalgam than other alternatives because it is cheap, durable (stays longer) and is commonly known.

FINDINGS....

- Dental specialists admitted that is very difficult to discuss with the patients on the type of amalgam to be used
- It was found that 88% respondents do not know what to do when a mercury containing equipment breaks/spills
- It was also learnt that there is no specific training on Hg that has been conducted to teachers, healthcare workers, lab technicians and students in any of the attended schools and healthcare facilities

FINDINGS....

Situation analysis on Handling and Disposal

- School laboratories were found with Hg compounds and unused Hg containing equipment e.g. Barometer.
- The major challenge found was how to dispose them. Some of these wastes containing Hg were kept in laboratories for about 40 years.
- Currently there is no guideline or policy which provides instructions on how to use, collect, handle and clean-up procedures when mercury containing equipment spill/break.
- Equipment and compounds containing mercury are normally treated and deposited like other wastes e.g. in most of hospitals are burnt in the so called incinerators e.g Hg wastes is not segregated or separated from other wastes

FINDINGS....

Measures taken to reduce the problem

- 58% of the respondents have used mercury free equipment or chemical compounds
- 3 out of 43 healthcare facilities are no longer using mercury containing equipment or chemical compounds in any section.
- 52% revealed that the equipment and chemicals do not have problems (accuracy, functioning, ease, cost, maintenance and disposal) during its use.

RECOMMENDATION

- 70% of respondents from healthcare facilities and schools agreed to phase out mercury although they need to learn more about mercury.
- Awareness raising to the stakeholders through training, workshops, public meeting and dissemination through posters, brochures, documentaries and media
- The cost of purchasing mercury free equipment and chemicals should be reduced so as to promote the use of Hg free equipment and chemicals

Recommendation.....

- National Mercury management policy and guidelines should be developed and implemented as well as national guideline on disposal of mercury wastes and equipments.
- Its good to phase out Hg equipment and products, however it may cause challenges such as Quality, Accessibility, technical skills, Durability and Cost effectiveness hence needs trainings
- In secondary school, experiments and practical examinations involving heavy metals should be phased out
- Ministry of education should employ more laboratory technicians to manage laboratories in schools
- Science teachers who were trained through alternative practical should undergo refresher training on laboratory chemicals management
- Research findings concerning Hg should be exposed to the entire community and policy makers so as to raise awareness hence will lead to phase out

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Thank you!