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East Africa Workshop on the Development of National and Regional Regulations and Standards on Lead in Paints

Co-hosted by the Government of the United Republic of Tanzania
and the United Nations Environment Programme
13-14 September 2016, Dar es Salaam, United Republic of Tanzania

WORKSHOP REPORT



World Health Organization

Executive summary

Government officials from Kenya, Tanzania, South Africa United States and China, representatives of the East African Community, UNEP and WHO, civil society organizations and industry met in the East Africa Workshop on the Development of National and Regional Regulations and Standards on Lead in Paints, which took place at the Tanzania Bureau of Standards (TBS) in Dar es Salaam, Tanzania from 13-14 September 2016. The workshop was co-hosted by the Government of the United Republic of Tanzania and the United Nations Environment Programme, and sponsored by the Environment Protection Agency of the United States, with additional support from IPEN.

The workshop was a follow up on a workshop held in Addis Ababa in December 2015, where 15 African countries agreed to work towards introducing legal limit of 90 ppm total lead in all paints. As East African countries were already working on harmonized standards on lead in paint, the workshop was held to provide a platform to discuss and agree on the next steps towards the establishment and harmonization of lead paint limit in East Africa and beyond.

After a series of presentations on government policies and stakeholder actions, and available tools and experiences towards the elimination of lead in paint, and round-table discussion on strategies for establishing a harmonised standard for lead in paint, the workshop agreed on the following overarching outcomes.

- Participants recognized the national efforts in Tanzania and Kenya to establish a 90 ppm total lead limit in all paints produced, sold, used and imported.
- Participants of the workshop agreed on the need to amend the lead limit in the East African Community paint standards to 90 ppm total lead.



- Tanzania agreed to develop a justification to amend the EAC lead paint standard by October 2016.
- Kenya has offered to explore hosting a regional harmonization meeting to agree on a draft amended EAC standard for lead in paint, next steps and timeline for finalization.
- Participants acknowledged the leadership of EAC and the importance of promoting harmonization of the EAC 90 ppm total lead limit for paint throughout Africa in support of the continental free-trade area and SADC-EAC-COMESA tripartite initiatives.

Introduction

The East Africa Workshop on the Development of National and Regional Regulations and Standards on Lead in Paints was co-hosted by the Government of the United Republic of Tanzania and the United Nations Environment Programme and took place at the Tanzania Bureau of Standards (TBS) in Dar es Salaam, Tanzania from 13-14 September 2016.

Lead is a cumulative toxicant particularly hazardous to young children and pregnant women. No safe level of lead exposure has been established. Lead in paint is a major route of lead exposure, especially for children. Lead paint is still widely available in developing countries and countries with economies in transition. The estimated reduced cognitive potentials (loss of IQ points) due to preventable childhood lead exposure equals to 98.2 million points which translates to \$134.7 billion of economic loss, or 4.03% of Gross Domestic Product (GDP) in Africa.

The United Nations Environment Programme (UNEP) has been engaged in action to address the environmental and health risks posed by lead, focusing to date on the phasing out lead in fuels and paints. UNEP, in cooperation with the World Health Organization (WHO), supports the Global Alliance to Eliminate Lead Paint (Lead Paint Alliance), a global partnership aiming at promoting the establishment of lead paint laws to ban the use of lead in paint by 2020.

In response to the United Nations Environment Assembly (UNEA) Resolution 1/5 Chemicals and Waste VI on lead and cadmium (June 2014) which “requests the United Nations Environment Programme, in coordination with the World Health Organization, to continue to build capacity on lead paint through possible regional workshops”, UNEP and IPEN jointly organized the East Africa regional Workshop on the Establishment of Legal Limits on Lead in Paint. This workshop took place at Addis Ababa.

Government officials and stakeholders from 15 African countries agreed to that efforts are needed in each country to phase out lead in paint and set a limit of 90 parts per million (ppm) total lead for all paints; and they agreed to cooperate to phase out the use of lead in paint by 2020.

African countries attending the Tanzania workshop (Ethiopia, Kenya and Tanzania) have expressed their willingness to follow the implementation of 90 ppm total lead standard as decided in the Addis Ababa workshop. It was learnt that an East African Community (EAC) regional standard on lead in paint applicable to five East African countries (Kenya, Rwanda, United Republic of Tanzania and Uganda) has been developed and endorsed by the East Africa Council of Ministers in May 2016. South Sudan was admitted into the Community to



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become the sixth member in March 2016 while the standard was at advanced stage. However, this standard limits lead at 100 ppm soluble lead. Also Tanzania and Kenya through their Bureau of Standards have been in the process of establishing national standards on lead paint which shall implement the 90 ppm total lead limit.

The overall goal of the workshop was to advance understanding, commitment, and actions towards the development of national and regional regulations and standards on a total lead content limit of 90 ppm for all paints in East Africa. Specific objectives of the workshop were the following:

1. Advance co-operation, commitment, and action towards the elimination of lead in paint;
2. Exchange information on the government policies and stakeholder actions, and available tools and experiences towards the elimination of lead in paint;
3. Develop strategies for establishing a harmonised standard for lead in paint in the East African Community;
4. Building knowledge and understanding of environmental law, including regulations on lead in paint and elements for a possible development of a lead paint model law or regulation in the region; and
5. Foster commitment of governments and stakeholders and agree on future actions, including implementation and enforcement of national and regional regulations and standards on lead in paints.

The Programme

The workshop was held for two days, 13-14 September 2016 at the Tanzania Bureau of Standards (TBS) premises. It was preceded by a pre-meeting which took place at the Blue Pearl Hotel, Morogoro Road, Ubungo Plaza, Dar es Salaam on 12th September 2016 from 1400hrs to 1700hrs and involved small group of representatives from TBS, UNEP, EPA, WHO, IPEN and AGENDA.

The meeting reviewed the agenda of the workshop, workshop logistics, roles of key players including confirmation of presentations and session chairs and moderator of the roundtable discussions. The meeting participants also agreed on the media event to take place during the opening and closing of the workshop.

The meeting extended appreciation to TBS for availing the venue and support to logistical issues like printing, photocopying, registration of participants and the evaluation of the workshop. Complete programme of the workshop is in Annex A.



DAY ONE – TUESDAY, 13 SEPTEMBER 2016

Opening session

Welcome and introduction of the participants

The workshop started at 09.00hrs by welcome note from TBS Standards Officer, Mr. Safari Fungo followed by self introduction of participants. The introduction of participants was followed by official opening address by the Acting Director General of TBS, Eng. Edna Ndumbaro. She reiterated the overall objective of the workshop that is to advance understanding, commitment, and actions towards the development of national and regional regulations and standards on a total lead content limit of 90 ppm for all paints in East Africa. She noted that the workshop will be a great forum to share experience and discuss the challenges and opportunities facing the campaign in the region. She urged all participants to participate effectively to ensure the objectives are attained and come up with practical deliberations not only for the betterment of the East Africa Sub-Region but also for the globe. She stated that elimination of lead in paint by 2020 is possible if we all play our part. She declared the workshop open at 09.10 hrs.

Vote of thanks and objectives of the workshop

Vote of thanks was given by Mr. Eisaku Toda, Senior Programme Officer, Chemicals and Waste Branch of the United Nations Environment Programme (UNEP). He expressed his appreciation to the Government of Tanzania for hosting the workshop, and the US EPA for its leadership in the Lead Paint Alliance. He also thanked all co-sponsors of the workshop including the WHO, government of Tanzania and in particular TBS, US EPA and IPEN.

In presenting the objectives of the workshop, Mr. Toda informed the workshop that lead poisoning is estimated to account to about 800,000 deaths annually, the highest burden in low - and middle-income countries especially to young children and pregnant women. He explained the importance of lead paint in the economic loss amounting to \$1 trillion which is caused by exposure of children to lead. That is why the international community through the Global Alliance to Eliminate Lead in Paint (Lead Paint Alliance), whose Secretariat is hosted jointly by UNEP and WHO, are working to eliminate lead in paint. He reminded participants that only four years are left to achieve the Alliance goal to have laws in place banning lead in paints; this goal is also encompassed in SAICM 2020 goal.

Mr. Toda explained that alternatives to lead paint are available, and lead paint has been regulated in developed countries. The workshop was to discuss practical ways on how to go forward recalling the East Africa Sub-regional Workshop on the Establishment of Legal Limits on Lead in Paint held in Addis Ababa, Ethiopia in December 2015 where fifteen African countries agreed on 90 ppm total lead limit. He said now it is important for the East African countries to lead the way in implementing this standard, which aims at protecting human health and environment from lead.

On her part, Ms. Joanna Tempowski of WHO, extended her appreciation to the Government of Tanzania and the TBS for the venue and UNEP for the financial support. She insisted we need to eliminate lead in paint due to its effects to human health, environment and economy.



She noted that lead was eliminated in gasoline which by then was the major source of lead exposure. Having done so, we now need to do the same for the next source of exposure which is lead in paint. She insisted that this requires collaboration of all stakeholders in order to achieve the 2020 goal.

Ms. Angela Bandemehr of the US EPA, thanked the workshop organizers and financiers. She informed participants that US EPA chairs the Lead Paint Alliance Advisory Group, with other members of the group in the meeting being Kenya and IPEN. She also thanked all who have joined to become partners on the Global Alliance or Lead Paint Alliance (LPA).

The opening session was concluded by media briefing and group photograph of participants.

Session I: OVERVIEW – Moderator – Ms. Joanna Tempowski (WHO)

1. Background and objectives paper Mr. Eisaku Toda, UNEP

Mr. Eisaku Toda presented background information on lead and toxicity and efforts leading to the workshop. He stated that lead is a major pollutant and that has no safe level. It is mainly hazardous to children and pregnant women. He also mentioned that lead in paints is the main exposure route to children, therefore the need to control it. He indicated the best production practice can well limit lead in paint to 90 ppm total lead. Lead has been controlled in many developed countries but not in developing countries where paints with extremely high lead content to 10,000 ppm and above are manufactured, sold and used. He also gave a brief introduction to the goals of SAICM and Lead Paint Alliance to minimize risks of chemicals by 2020 and to prevent children's exposure to paints containing lead and to minimize occupational exposures to lead paint by 2020 respectively.

The Alliance aims that by 2020 all countries would have adopted legally binding laws; all manufacturers have eliminated use of added lead in priority areas; 40 countries with national awareness days for prevention of lead poisoning with emphasis on risks of lead paint and 70 partners participating. He also mentioned the names of the Alliance's Advisory Group members as follows:

United Nations Environment Programme (UNEP); World Health Organization (WHO); US EPA (Advisory Group Chair); Colombia, Ministry of Environment; Kenya, Ministry of Industrialization and Enterprise Development; Moldova, Ministry of Health; Thailand, Ministry of Health; United Nations Industrial Development Organization (UNIDO); AkzoNobel, a paint manufacturer; International Paint and Printers Ink Council (IPPIC); Health and Environment Alliance (HEAL); IPEN, a global network of NGOs and European Commission (as co-opted member, observer).

He brought to the attention of participants that the Alliance has developed an Action Plan for 2015-2016 which encourage governments in countries where legal limits are not currently in place to establish and enforce national legal limits on lead in paint, with special attention to the elimination of lead decorative paints and lead paints for other applications most likely to contribute to childhood lead exposure. It also encourage industry activities to voluntarily stop the manufacture and sale of lead paint, focusing on residential and decorative paints containing lead additives in countries where legal limits are not currently in place. The plan



also is to increase awareness of the health and environmental risks posed by lead paint, to support prompt actions by governments and manufacturers to stop the production and sale of lead paints as well as increase and diversify the number of Alliance partners.

Mr. Toda also highlighted about the Lead Paint Alliance Regulatory Toolkit which provides information on three main areas which include understanding the problem, identifying the market and taking action, and explained that detailed information on this will be given by Ms. Joanna.

He concluded his presentation by reiterating the goal and objectives of the workshop and describing the two days programme that at the end participants will agree on the outcome of the workshop and put forward next course of action steps.

2. Recalling the outcomes and progress made post -Addis Ababa Workshop meeting, December 2015 – Mr. Eisaku Toda, UNEP

Mr. Eisaku Toda highlighted participants on the 'East Africa Sub-regional Workshop on the Establishment of Legal Limits on Lead in Paint' which took place in Addis Ababa on 2-3 December 2015 back to back with the 'GEF UNEP/IPEN Regional Lead Paint Elimination Project in Africa Workshop' which took place on 4 December 2015. The objectives were to provide governments and other key stakeholders with the necessary tools and information, including the Lead Paint Alliance's toolkit, to take further steps at the national level to establish and implement regulatory frameworks on lead paint; and share information on existing regulatory frameworks and progress in lead paint elimination.

Fifteen Eastern and Western Africa national Government officials and stakeholders from Benin, Burundi, Cameroon, Cote d'Ivoire, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Malawi, Nigeria, Rwanda, Sudan, Tanzania, Uganda and Zambia and experts from the United States of America, GEF, UNEP, UNIDO, WHO, IPEN and other organizations agreed that efforts are needed in each country to phase out lead paint and set a limit to 90 ppm total lead. The Government of Ethiopia announced the establishment of a 90 ppm total lead standard developed with recommendations from the Ethiopian Standards Agency.

Mr. Toda reported that during the Workshop, the Toolkit for Establishing Laws to Control the Use of Lead in Paint was presented by the Chair of the Advisory Group for the Global Alliance to Eliminate Lead Paint. In addition, participants identified opportunities for regional harmonization and cooperation through sub-regional standards of the East African Community and Economic Community of West African States. The regional harmonization of standards has benefits on many aspects including regional trade.

More efforts have been taken post Addis Ababa workshop. These include the 'Inception Workshop for the Project Promoting Elimination of the Use of Lead Paints in China and Africa' which was held in Beijing, People's Republic of China from 25-27 April 2016 and 'Central and Eastern Europe and Central Asia Regional Workshop on the Establishment of Legal Limits on Lead in Paint' held in the Republic of Moldova from 19-20 May 2016. Furthermore, the Second United Nations Environment Assembly (UNEA 2) took place in Nairobi, Kenya from 23-27 May 2016 launched a 'Global Report on the Status of Legal Limits on Lead in Paint' and participants participated in side events including the one



focusing on what need to be done in the remaining four years to have lead paint elimination among other national, regional and global campaigns to eliminate lead paint.

3. Introduction on Establishment of National and Regional Standards / Regulations on Lead Paint – Mr. Eisaku Toda, UNEP

Mr. Toda presented Module J of the Lead Paint Alliance Toolkit on Establishing a Legal Framework to Regulate Lead in Paint.

Mr. Toda noted that establishing legal framework for controlling lead in paint is based on the following:

1. Human health effects of lead paint in a relevant country (Module A & B in the Toolkit)
2. Economic benefits of eliminating lead paint (Module B)
3. Availability of alternatives to lead paint (Module D & E)
4. Proven effectiveness of legal regime for controlling lead in paint (Module F & H)

He remarked that voluntary standards are not sufficient so legally binding standards are needed.

The goal for the elimination of lead paint is to achieve the phase-out of the manufacture and sale of paints containing lead and to eventually eliminate the risks that such paints pose while the target is that by 2020 all countries should have adopted legally binding laws, regulations, standards and/or procedures to control the production, import, export, sale and use of lead paints with special attention to the elimination of lead decorative paints and lead paints for other applications most likely to contribute to childhood lead exposure

Referring to the current status, Mr. Toda informed participants that response from National SAICM Focal points to the Alliance's request show that out of 132 countries, 62 countries have legally binding controls in place while 70 countries do not have legally binding controls, and in other countries no data provided. Information on status of the countries is found in the map and database on WHO website (Global Health Observatory). In Africa, only two countries, South Africa and Algeria have legally binding laws. However, the current laws in some of the 62 countries including the two African countries are not limiting lead in paint at 90 ppm total lead but higher, they can however be reviewed. Mr. expressed his hope to have legally binding laws in the Eastern Africa before 2020 focusing all paint categories.

4. Health and Environmental Hazards of Lead Module: Bi & Bii – Ms. Joanna Tempowski, WHO

Ms. Joanna Tempowski presented sources of lead release as natural (volcanic, weathering of rocks), anthropogenic sources (raw materials i.e. fossil fuels, extracted and treated ores and metals; releases from waste to soil and aquatic environments; releases during the manufacture, use and disposal of products using lead i.e. paint, batteries, toys). Lead is mainly emitted in particle form, is transported through the atmosphere and settles on soil,



plants, water. Ms Tempowski added that there are multiple pathways of exposure to lead from paint including ingestion and inhalation. Ingestion is an important route of exposure for children as they may ingest contaminated dust and paint chips.

Lead accumulates in the body through binding to red blood cells and distributes to soft tissues such as brain and kidneys, and to bone, stored in bone for many years (half-life of 10 to 25 years). Lead in bone provides a pool from which lead can move, back into blood and to target organs e.g. during pregnancy, lactation and the menopause.

Lead is a multi-system toxicant which cause damage to brain and nervous system decreased IQ, hearing problems, learning difficulties, muscle and joint pain, speech, language and behaviour problems, anaemia high blood pressure, slow or reduced growth, kidney damage, digestive problems, and reproductive problems (adults). According to the US National Toxicology Program assessment of evidence, there is no known threshold for toxic effects of lead.

She noted that children and pregnant women are at higher risk. She continued saying that while exposure to children can cause permanent damage to the neurological system, lead stored in bone of pregnant women can be released back into blood where it can be circulated to maternal tissues and the fetus. Exposure during pregnancy results in exposure of the fetus and may cause reduced fetal growth.

Lead causes significant burden of disease. According to estimates by Institute for Health Metrics and Evaluation 2015, about 853,000 deaths occurred in 2013 from long-term effects of lead. It is estimated that lead accounts for 9.3% of the global burden of idiopathic intellectual disability, 6.6% of the global burden of stroke, and 4% of the global burden of ischaemic heart disease.

On the environment and ecosystem, lead exposure is greatest near point sources. Plants absorb lead from the soil and retain most of the lead in their roots. Aquatic exposure to lead is strongly dependent on environmental conditions (pH, salinity, etc). Lead bioaccumulates in organisms, in particular those that feed primarily on particulate matter and secondary poisoning may occur for predators feeding on contaminated animals. Effects on micro-organisms from soil can be caused with lead concentrations as low as 10 ppm (10 mg/kg).

5. Economic impacts of childhood lead exposure in low and middle income countries – Ms. Angela Bandemehr, US EPA

Ms. Angela Bandemehr informed the participants that previously, the larger source of lead poisoning was from gasoline. After elimination of lead from gasoline, the average child born today has 4 –7 IQ points better than children born in 1970s. This was cited as one of major public health victories of past 50 years.

It is estimated that costs of childhood lead exposure in Low- and Middle-Income Countries (LMICs) is estimated at \$977 billion (range \$728.6–1162.5 billion) of international dollars in 2008. Africa Regional economic loss due to childhood lead exposure is estimated as \$134.7 billion, i.e. 4.03% of regional GDP (Source: Attina TM, Trasande L (2013) Economic Costs of Childhood Lead Exposure in Low- and Middle-Income Countries. *Environ Health Perspect* 121(9): 1097-110). She added that developing countries have been left behind and the



overall burden associated with childhood lead exposure continues to be high. For comparison, economic impact of lead exposure in the U.S. and in EU countries is \$50.9 and \$55 billion respectively.

In addition to the costs of childhood lead exposure shown, \$977billion, the study report on lead paint economic losses released by New York University (NYU) in May 2016 has more details per country including comparison with Net Overseas Development Assistance in Africa as follows:

Costs of childhood lead exposure – country specific example

Country	Cost billion (\$)	Cost as percent of GDP (%)	average blood lead level (µg/dl)	Presumed IQ loss points (million)	Lost lifetime economic productivity per IQ point (\$)
Tanzania	4.14	6.06	6.45	5	780
Kenya	3.76	5.26	5.98	4	920
Ethiopia	4.47	4.73	6.45	8	567
South Africa	17.7	3.17	5.95	3	5,754

Comparison with Net Overseas Development Assistance

Country	Net ODA for 2008 (US \$, millions)	Lost economic productivity per each 1-year cohort of children under 5yrs (US \$, millions)
Tanzania	\$1,373	\$1,241
Kenya	\$955	\$1,504
Ethiopia	\$1,845	\$1,790
South Africa	\$882	\$8,854
Uganda	\$1,009	\$1,062

This information was commented as been powerful in raising awareness since it is a simple way of providing indication on how big the losses are. She commented that there are remarks that the data was underestimated, since data on other health impacts and sources, such as developmental delays and lead exposure hot spots, were not taken into account. The details for the data above are found on the following link: <http://www.med.nyu.edu/pediatrics/research/environmentalpediatrics/leadexposure>.

Q & A

Question: Is UNEP providing the links to the laws?

Answer: Yes, the UNEP report has links to all the laws studied and they are different in each



country.

Question: Are the countries meeting 90 ppm?

Answer: Not all, it differs. 90 ppm is the best practice.

Question: Does the definition of paint include artist's paint?

Answer: We are focusing on decorative paint. But other paints, such as industrial, are also included.

Question: Are there possibilities of detoxification of the exposed children?

Answer: There is no evidence that removing lead from the body will help, the long term impacts will still be there. Prevention of exposure is the best way.

Question: How many metals can cause mental retardation i.e. IQ loss and how can we distinguish their effects from lead?

Answer: Lead is the only one causing IQ loss, however mercury and poor nutrition also has some effects. It is difficult to completely distinguish. We have to realize that there are other factors.

Question: In Kenya there are some primary school children who require more support (remedial lessons), may this be caused by lead.

Answer: Different factors could be responsible.

Question: How IQ loss of Kenya was estimated so that the information can be used to inform policy makers.

Answer: Reference to the study website link was provided, possible to find some details.

Question: Why 90 ppm is regarded as a limit while it is stated that no safe level of lead?

Answer: 90 ppm is achievable, but it does not mean it is safe. It just shows that no intentionally added lead. Residual lead could be from background lead or from raw materials.

6. Guidance on Building Blocks for a Legal Framework and Global/Regional Status of Lead in Paint – Eisaku Toda, UNEP

- Introducing elements of a lead paint model law or regulation in the region

Mr. Toda said the guidance for establishing a legal framework for lead in paint is based on Module J on Establishing a Legal Framework to Regulate Lead in Paint presented earlier. The elements of a possible framework include:

1. Defining Lead Paint
2. Determining the Lead Content of Paint
3. Setting Effective Dates of Legislation and/or Regulations
4. Establishing a Mechanism to Promote Compliance
5. Setting out the Consequences of Non-Compliance
6. Additional Controls on Lead Paint Violating Legislation and Regulation
7. Periodic Review



The module focuses on how to determine the best approach to eliminating lead in paint in a particular country. Prior to developing or modifying legislation and/or regulatory requirements to limit lead in paint, a suggested first step is to review existing requirements and/or voluntary standards to determine whether a new legal framework or law is needed to adequately protect the public from the risks of lead in paint. The case studies in Module H provide examples of how four different countries addressed these risks, by enacting new laws and strengthening existing legal regimes.

Mr. Toda highlighted key principles of effective legal limits which are:

1. Gather scientific data
2. Provide for public awareness and public input
3. Include clear and understandable definitions of regulated substances and regulated activities
4. Set effective dates for new requirements
5. Establish a mechanism to promote compliance
6. Set clear, transparent consequences for non-compliance
7. Include provisions in the legal framework relating to disposal of existing paint
8. Provide periodic review to assist in determining the effectiveness of new laws

Module H – Case studies on existing lead paint laws

Mr. Toda referred to existing legal paint laws as follows:

1. EU Legal Framework – It includes Regulation (EC) No 1907/2006 – REACH (Registration, Evaluation, Authorization and Restriction of Chemicals); Regulation (EC) No 1272/2008 on "Classification, Labeling & Packaging of Substances & Mixtures" and Directive 2009/48/EC on "Safety of Toys"
2. USA Legal Framework – This includes restrictions on lead in new consumer paints or consumer products bearing lead-containing paint. The first restriction on lead in paint took effect in 1972 when Federal Hazardous Substances Act (FHSA) Section 2(q)(1)(B) was established to ban the sale of paint or similar coatings with a lead content greater than 5000 ppm, which is 0.5% of the total weight of dried paint film. In 1977, the Consumer Product Safety Commission (CPSC) regulation reduced the lead limit on consumer paint to 600 ppm (Consumer Product Safety Act, CPSA). The limit was further reduced to 90 ppm in 2008 (Consumer Product Safety Improvement Act of 2008, Pub. L. 110-314 (CPSIA) Section 101).
3. Uruguay legal framework passes several stages from 2004 to 2011. In 2011, the limit on lead content in paint was set at 600 ppm with labeling requirements of lead-containing products and percentage of lead content. In 2012, a national paint test conducted by IPEN and UNEP demonstrated the success of the law as all tested paints had low total lead concentrations, with 63 ppm maximum.
4. Legal framework in the Philippines passed different stages from general act on toxic substances to 2013 when established Chemical Control Order (CCO) for Lead and Lead Compounds (DAO 2013-24) to regulate, limit and prohibit the selected uses of lead and lead compounds. This regulates paints (as a pigment, a drying agent or for some intentional use) with more than 90 ppm threshold limit beyond three (3) years (2013-2016)



for architectural, decorative, household applications and six (6) years (2013-2019) for industrial applications. Paint manufacturers in the Philippines have expressed their commitment to comply with the lead paint phase-out policy as well as participating in the third party certification programme, 'Lead Safe Paint Certification Program' that independently verify and certify the lead content in paints.

7. Elements of an effective lead paint law: Recommendations based on US Experience – Ms. Darlene Leonard, US EPA

Ms. Leonard reported that the US ban on lead paints has strengthened overtime from 1972 when instituted initial control. In 1972, Regulation under Federal Hazardous Substances Act banned any paint or similar coating with lead content from 5000 ppm total weight of dried paint film. In 1977, Consumer Product Safety Commission (CPSC) regulation reduced total lead limit in consumer paint to 600 ppm, and amended the law to reduce total lead limit to 90 ppm in 2008. She informed participants that U.S. limit of 90 ppm total lead content is technology-based, rather than health based standard. The goal is to reduce lead content as low as technically feasible. During the amendment of the law to 90 ppm standard in 2008, manufacturers were allowed to phase out paint stock with lead above 90 ppm in a year.

While paint manufacturers are required to self-certify that lead content is below 90 ppm, based on laboratory tests, manufacturers of children products must use government-accepted third-party laboratory to certify lead in paint is below 90 ppm. On its side, the government conducts monitoring and enforcement program where manufacturers are subject to inspection by the government. Failure to meet the requirements subjects the company to a significant penalty or even seizure of the products.

Ms. Leonard put forward the following recommendations based on the US experience:

1. Low concentration limit for lead in paint (90 ppm *total* lead).
2. Ban on all types of paints over the lead limit (not just consumer use).
3. Mandatory certification requirements, based on international accreditation programs.
4. Effective compliance and enforcement program.
5. Close coordination among health, environmental and other relevant government agencies
6. Certification of paints:
 1. Specify who must provide the certification – manufacturers, importers, etc.
 2. Specify what information must be provided in the certification.
 3. Specify where the information must be submitted.
 4. Consider requiring the use of existing standards and internationally accepted protocols (ISO, ASTM).

Q & A

Question: Who conducted the review studies, academia or others researchers?



Answer: The studies were conducted by the US – Centre for Disease Control (US CDC). In other countries similar studies can be conducted or supported by relevant government bodies.

Question: Want to know more about the compliance mechanism, was the certification product or system certification?

Answer: It was product certification. For example, someone importing toys, the certification is based on the toys themselves.

8. Update and next steps in promoting elimination of the use of lead paints in China–

Mr. Wen Xuefeng Government of the People's Republic of China

Mr. Wen provided global coating statistics for 2015. He said that according to China Coatings Industry Operation in 2015 and Trend Forecast, the total volume of Global Coatings Industry is 41 billion liters. Out of this, Asia Pacific region weights 51% of the total volume and China shares around 28%. The Chinese coating output in 2015 was 17.17 million tons.

On policies and regulations to eliminate lead paint in China, the country has a standard for household paint (90 ppm soluble) and other paints. There are several control measures related to eliminate lead in paint under different Ministries. For example, Catalogue of the toxic and harmful raw materials (products) substitutes encouraged by the state (2012 Edition) under the Ministry of Industry, Ministry of science and technology and Ministry of Environmental Protection; "High Pollution and High Environmental risk" Product Catalog (2013 Edition) under the Ministry of Environmental Protection; and the Ministry of Industry on 'The Elimination of Backward Production Technology and Equipment and Product Guidance Catalogue (2010 Edition)' and Development and Reform Commission 'Industrial Structure Adjustment Guidance Catalogue (2011 Edition).

China is implementing a project 'Promoting Elimination of the Use of Lead Paints in China' which its objective is to minimize and ultimately eliminate the manufacture, export, import, sale and use of decorative lead paint in China by promoting the elimination of the use of lead paints in China. The project will involve conducting national market survey of lead paints; market analysis and sample testing (using the total lead test methodology); and awareness raising and outreach activities; and drafting and proposing amendments to existing national legal or regulatory framework instrument for standards that are higher than 90 ppm. . The project is now at the laboratory sample analysis stage, then will compile and finalize national market survey. The results dissemination and awareness raising is expected in another forum, the China Coating Annual Conference to be held in 2017.

Q & A

Question: Interesting about the scope, paints used are both interior and exterior as in playing grounds, why focusing only on interior architectural paint?



Answer: The project was designed to focus on the interior paints.

Question: Is the project checking other parameters other than lead?

Answer: Only lead is being analyzed

Question: From the global data, China share a big share of paints, can you assure that paints exported to countries like to Africa that the lead content is within the permissible level of 90 ppm total lead?

Answer: It is the role of the importing countries to ensure what is imported meets the required standards.

9. Draft Tanzania standard: Update and next steps in the process of developing standards – Mr. Safari Fungo, TBS

Mr. Safari Fungo highlighted the facts of the EA region whose population is about 160 million people (which now includes a new member – South Sudan). He emphasized their purchasing power potential and insisted on the potential for regional trade. Went on that the principles of the region are: 1 people, 1 standard, 1 acceptance meaning that once the product is certified in one of the member states, then it has to be accepted in all other members states without further testing.

He mentioned that the EA region endorsed a 100 ppm soluble lead in May 2016. Procedurally, once the standard is endorsed regionally, the member states have to endorse it within six months. Tanzania is in the process for such endorsement which is expected to be completed in October 2016. He indicated clearly that the countries' move is towards 90 ppm total lead, so they will wish to review the EA standard as soon as possible. Once the standard is endorsed, TBS will organize a pre-implementation workshop for all key stakeholders and inform them on the new standard and implementation plans. TBS is inspired to continue working with all key stakeholders like NGOs who have significant contribution in the process, testing labs, and manufacturers. TBS also has drafted several standards which are in the process to be endorsed as national standards.

Key success factors include legal infrastructure which ensures interagency collaboration such as TBS through its Standards Act of 2009; NEMC through Environmental Management Act Cap 191, Environmental Impact Assessment and Audit Regulations, 2005 (G.N NO. 349 of 2005); GCLA through The Industrial and Consumer Chemicals (Management and Control) Act, CAP 182 of 2003. There is also good relationship among key actors including collaboration with other stakeholders - NGOs, manufacturers, government agencies as well as readiness of paint manufacturers to adopt to new standards.

Next steps encompass pre-implementation workshop proposed for October 2016, seek interagency collaboration preceded by inter agency meetings, dissemination of information on new standards on lead in paints and continued collaboration with other NGOs.

Q & A

Question: Is that understood that Tanzania has adopted 90 ppm total lead?



Answer: The EA standard to be adopted is 100 ppm soluble lead for 10 categories of paints. However, Tanzania is proposing 90 ppm total lead for adopted EAC standard plus other 20 new standards of paints and varnishes and this will be proposed for the EA standard review for all categories of paints.

The EA standards will be adopted without any deviation. The review to 90 ppm total lead will be easier as the partner countries are now in agreement with 90 ppm.

10. Kenya Lead Paint Standard – Progress and next steps in the development of the Std – Dr. Faridah Hussein Were, KIRDI

Dr. Faridah Were informed participants that in March 2016, the Kenya Bureau of Standards (KEBS), a statutory body established through the Standards Act (CAP 496) in 1974 under the Ministry of Industry, Trade and Cooperatives, began the process of developing the National lead paint standard with agreement of 90 ppm total lead.

The Technical Committee involved in the development of the lead paint standard involves key institutions - Kenya Industrial Research and Development Institute, Ministry of Transport and Infrastructure Materials Division, Kenya Ferry Services, National Environment Management Authority, Government Chemist Division, Consumer Information Network, University of Nairobi, Kenya Ports Authority, Southern Engineering company. The manufacturers are Maroo polymers, Galaxy, Sadolin, Crown Paints and Basco Products.

Guidelines on sampling and analysis involve determination of total lead in paints, varnishes, coatings and related products - Part I: preliminary examination of samples and sampling procedures and Part II: Maximum permissive content of total lead in paint based on the dry weight. During the process, reference was made to the tool kit. The drafts went for public notice – developed two drafts to regulate total lead content in paints, varnishes, coatings and related products. The Technical Committee is evaluating the public views before sending its comments to the Standards Approval Committee for approval. The approved Standards will be gazetted as Kenya Standards ready for implementation by December 2016. Thereafter, the Kenyan lead paint standard shall then be harmonized at the EAC.

Q & A

Comment: Kenya is the major supplier of paints in EAC, therefore it is necessary for Kenya to take the lead to ensure the standard is the acceptable one.

Response: The issue of standards is of priority, that's why Kenya established the technical team to guide the process.



Question: After EAS is out, countries need to adopt within 6 months. Does this mean that Kenya is not going to adopt EAS?

Answer: We had an initial standard that was like Tanzania and it was soluble lead of 100 ppm. But we revised after meetings with other countries, as Kenya is a major supplier of paint so manufacturers have to make sure that they meet a common standard so no barriers to trade.

Question: Is the Kenyan standard a process standard? What is the objective? Is it a guideline? Code? Process standard?

Answer: You are right that the standards has to be clear and need to have objectives. Originally we had a product quality standard – it was just ISO performance standard for paint – e.g. will paint run off, stand up to weather? Now this specification is for a 90 ppm total lead concentration and how determine content of lead in paint.

11. Update on the progress of Ethiopia to draft lead paint regulations – Mr. Atalo Belay, PAN Ethiopia

Mr. Atalo Belay from PAN Ethiopia updated the workshop on the regulation on lead in paints that it is among the regulations to be implemented in the 2016/2017 fiscal year and will be under pollution control proclamation

Lead paint regulation Working Group is under discussion on whether to use less than 90ppm or less than 600ppm. PAN Ethiopia was given a role to provide justification. They are expected to provide evidence. PAN Ethiopia was also given an assignment to draft the objectives of the regulation.

The regulation is also expected to define who should be regulated and how. License renewal should be only to those who meet the regulation requirements of the regulation. The regulation is also defining who will be monitoring paint manufacturers whether they follow the regulations or not and whether labeling will be mandatory or voluntary. The regulation will also state the grace period for manufacturers to finish their stock. The meeting of the Working Group was happening the same time with the workshop and expected to provide response to the pending items.

Q & A

Question: Who will be enforcing the elements, if one does not comply?

Answer: The Ministry of Forest and the Environment (MoFE) will be the enforcement agent.

Question: Did you have laboratory testing of paints before the developing the regulations?

Answer: Yes, PAN Ethiopia did paint analysis in 2012 and 2015 and some paints had as high as 130,000 ppm.



Question: Where are you planning to specify the lead limits, in standards or regulations?

Answer: The standards will specify the limit and the regulation will refer to the standards. The standard body will give licenses and the MoFE will enforce the standard.

12. Case study presentations: South Africa – Ms. Angela Mathee, South African Medical Research Council

Ms. Angela Mathee reported that blood lead level test conducted in 2002 found out an average level of 7.4µg/dl. The maximum blood lead level recorded was 44.44µg/dl to 51.5µg/dl. Home paint lead levels were found to have lead content up to 46,000 ppm.

South Africa had a lead paint regulation in 2009 with 600 ppm limit which was implemented in 2010 but the enforcement was not strong and didn't work well in eliminating lead in paints. Paint test of lead concentrations in "off the shelf" enamel paints was conducted in 2012 and lead level detected in paints ranged from 0.25-169,000ppm which was 282 times higher than South Africa regulations; and 1878 times higher than USA reference level. 40% of enamel paint samples had elevated lead concentrations. The study also revealed mislabeling, for example lead paint with no warning label or with label indicating "lead free". In 2016, South Africa is working to lower the current maximum permissible level of lead in paint from 600 ppm to 90 ppm total lead and for all paints. This has a support from paint industry and other stakeholders.

Q & A

Comment: Lessons from South Africa calls for the EAC to work hard on the implementation/enforcement of the standards and regulations to be adopted as it has been shown that having the regulations alone is not enough to control lead in paint.

Question: In the map, Algerian and South Africa were shown as green, how were they labeled as green while Algeria has a lead concentration limit of 5000ppm and South Africa 600ppm?

Answer: The green color for a country was based on whether they had laws/regulations to regulate lead in household paints, regardless of lead paint concentration limit, and thus does not mean the paints are below 90 ppm total lead. This does not mean that it is good to have a high concentration standard.

Question: Did you work with Algeria? (the only other country on the African continent with laws)

Answer: No, we did not. We saw high levels of lead in South African paint and minister of health was alarmed and decided to act and held one meeting with industry.

Question: Is the law being enforced?



Answer: No it is not being enforced. We know that lead is being added illegally but not one manufacturer has been prosecuted.

Question: will you revise the law to lower the lead concentration limit?

Answer: Yes, we are lobbying but have not been successful but hope this meeting will give new motivation to change to 90 and expand to industrial and improve enforcement.

13. East African Community's process for establishing harmonised national and regional standards: focus on lead in paint – Ms. Stella Apolot, East Africa Community Standards

Ms. Stella Apolot provided background of the EAC Treaty on the cooperation in the areas of standardization, Quality Assurance, Metrology and Testing (SQMT). She told the workshop that SQMT Protocol was negotiated in 2001 and later in 2006 enacted as an SQMT Act. The Standardization, Quality Assurance, Metrology and Testing (EAC SQMT Act 2006), provides a framework for the development and implementation of SQMT activities in the EAC. It stipulates objectives for harmonization and provides for establishment of structures for harmonization.

Ms. Apolot outlined the objectives for harmonization of standards as to protect and improve the health and safety of consumers; facilitate regional and international trade; increase opportunities for companies within the community to participate in international technology transfer. It also prevent deceptive practices and protect animal or plant life or health.

She added that the SQMT Act provides for the establishment of structures for SQMT activities including East African Standards Committee (EASC); Liaison office; Technical Subcommittee e.g. Standards Management committee (SMC); and development of procedure for harmonization of standards.

Adoption of harmonized standards by the partner States entails enforcement of compulsory standards; declaration and acceptance of certification marks; approximation and alignment of laws and regulations; and defines the roles of the National Standard Bodies (NSBs) in regard to the SQMT activities. The Act has total 28 different provisions to guide the development and harmonization of SQMT activities in the EAC.

EAC Principles and Procedures defines the principles to be followed during harmonization based on international best practice as well as defining the roles of the different stakeholders i.e. Council of Ministers, EAC Secretariat, EASC, SMC, TC, SCs and WGs. It also outline the key stages and duration of each stage in the development of the EAS i.e. (preliminary, proposal, committee, enquiry; ballot, approval, declaration and publication. Further, it defines procedures for the formation of TCs, conducting meetings, notification, adoption of international and regional standards, review and amendments of standards, issuance of corrigenda and the appeals. Organizational structure for the development of EAC Standards and process for development of work programme and key steps in harmonization of East African Standards by TCs is also articulated.



The roles of NSBs in harmonization of standards are to adopt within a period of six months without deviation from the approved text the East African standard as a national standard. NSBs have to provide standards and standards related information to the public and the private sector, publish harmonized EAC standards and promote and facilitate the use of standards as a basis for the development of technical regulations.

The paint standards have been developed under EASC/TC/070: Paints and Varnishes whose Technical Committee (TC) Secretariat is Burundi. This reviewed and harmonized 10 standards. Standards are performance based and lead limit is at 100ppm and approved and declared by SCTIFI. The Standards are ready for Partner States adoption. Review of the standard as per procedures will require justification backed by data.

Regulations and standards international best practice entail – policy and impact assessment. Technical Measures involves legislation, product/process characteristics (i.e. technical requirements, regulator), and administrative procedures (conformity assessment, sanctions).

Proposed way forward include involve all the stakeholders; develop policies and regulations; undertake the baseline study on the current levels of lead in the paints; agree on the timeline for reduction/elimination of lead in the paints; and review the standards.

Q & A

Question: Is there is any baseline study on lead poisonings? If there is none, then it should become a recommendation of the workshop to do this study for public health.

Answer: There is none on direct effects. We have data in the EAC on level of lead in the paints which can then be translated to the level of poisoning.

WTO says the best practice is to start with the international standards, however, not always the international standard the best option, we have to define on ourselves.

Question: What is the timeline for review of a standard and elimination of lead in paint in the EAC?

Answer: For timeline to lead paint elimination is 2020, as per Alliance and SAICM goals.

Outlook on the establishment and implementation of EAC regional standard/ regulation and Next Steps

14. Round table discussion on strategies for establishing and implementing national and regional East African Community standards/regulations on lead in paint – Moderated by Prof. Jamidu Katima, Tanzania

Discussion questions and summary of discussion:

Four guiding questions were presented to lead the discussion. The moderator introduced



them and referenced them to the presentations on progress from Tanzania, Kenya and the EAC Secretariat. Participants made their contributions and below the questions is a summary of the discussions.

1. What standard should be adopted regionally (e.g. 90 ppm total lead content)?

The wish is to have zero ppm, this is not normally practical due to background presence of lead in raw materials. Zero ppm means also remove background lead. Therefore preferred standard is 90ppm total lead, which means there is no intentionally added lead. This is technically achievable as the best practice. Amendment to 90 ppm total lead will avoid barriers of trade within the region and beyond.

Participants agreed on the need for a revised harmonized standard in EAC of 90 ppm total lead and discussed the following related issues:

- To affect a revision of the existing EAC standard, a proposing country needs to provide a justification for the change.
- Need to understand the complementary nature of the Kenyan and Tanzanian standards.
- Both Tanzania and Kenya have developed standards for 90 ppm total lead, which will be the basis of a revision to the EAC standard.
- Tanzania and Kenya may have to continue to finalize the adoption of the EAC standards nationally first.
- If the need is identified to revise the standard and provide a justification, EAC member states can propose a revision.
- In this case, it may be able to be an amendment and thus not need the full review.
- Tanzania or Kenya will submit a justification for revision to the EAC Secretariat.

Participants agreed that there is not a high barrier to propose and justify a revision to the existing EAS, because there was already agreement by EAC countries on the need for a lead paint standard. Need only to change the level and the method.

- In common trade market of EAC there is a need for harmonization of lead paint standards to avoid barriers of trade. So it is expected that paint manufacturers in the region would be supportive.
- Need to define for the proposal and justification for the revision.

Participants agreed on the need to identify this as a priority issue and then seek resources for the revision process and the enforcement of a lead paint standard.



2. What regulations will implement the standard at the national level? How is a successful implementation framework created that adheres to the mandatory standard and that is enforceable?

Regulations may differ from one country to another. Where there is no regulation in the country, the standards itself become the regulation if they are mandatory/compulsory technical standards. Given the short time to 2020, it is better to have technical standards which could also be adopted as regulation. In some cases existing regulations can be used. For example, in Tanzania, the Government Chemist Laboratory Agency enforcing the Industrial Chemicals and Consumers Act of 2003 and its regulations could also cover lead paint on the same act.

3. What can be learned from the experience of other African countries (e.g. South Africa, Ethiopia)?

Having the standards and regulations alone is not enough. More has to be done in their implementation and enforcement. Noting that in the EAC, most dumping places are also open burning places, experienced dumping into rivers among other practices even where we have regulations. For lead paint regulations to be successful, we have to start with our policy makers for awareness and support. Bring regulators and other stakeholders to work in collaboration. Commitment towards compliance with and enforcement of the standard are important issues.

4. What next steps are needed to ensure regional harmonization of a lead paint standard/regulation in the East African Community?

Member states to adopt the approved EAC standards with 100 ppm soluble lead within given 6 months through respective national processes i.e. Board of Directors. This will be followed by gazetting the standard to be ready for implementation. Kenya and Tanzania have already proposed review of the standards and think of harmonization at the EAC level. The two can lead the process and seek support of the other member states. Harmonization needs resources for participant travel to meetings; after a proposed review, the harmonization meeting could be convened to discuss promoting adoption in 6 - 9 months. This timeframe includes time for respective national consultations.

Tanzania could lead in proposing the harmonization and Kenya convene the review process meeting after adoption of the national standards. The countries have to show this as a priority within available resources while seeking external support. Baseline data on lead and public health is also needed for advocacy, awareness.

SECOND DAY, 14TH SEPTEMBER 2016

Opening of the second day was made by Mr. Eisaku Toda followed by highlights of the first day's programme. He also presented the programme and objective of the second day. Ms. Angela Bandemehr of US EPA provided summary of day one roundtable discussions and



summary of the presentations on human health and environmental impacts of lead, updates on the development of legal limits/regulations in EA and case studies from other countries. The recap of day one was followed by few presentations recalling toolkit's usefulness, roundtable discussion on further commitment of governments and stakeholders and agreement on future actions, including establishment and implementation of East African Community national and regional regulations and standards on lead in paints, agreeing on the outcomes of the workshop and closing.

Recalling toolkit's usefulness on: Alternatives to Lead in Paint; Guidance on Engaging SMEs and Paint Manufacturers; Sampling and Testing Paint; and Raising Awareness.

15. Studies of Lead in Paint, Alternatives to Lead in Paint and Voluntary Actions by Paint Manufacturers – Dr. Sara Brosché, IPEN

The presentation started by explanation of what IPEN is, how it is organized and its focus work areas. The mission of this global network of NGOs and CSOs is a toxic free future for everyone - A world in which chemicals are no longer produced or used in ways that harm human health and the environment. It identifies national issues of concern and linking local constituencies to the global process and securing and leveraging global policies and resources for on-the-ground change.

She informed participants that IPEN's Global Lead Paint Elimination Campaign was launched in 2009 in reaction to high lead levels in paint found in India. IPEN has conducted the campaign in all UN Regions and studies of lead in paint have been done in over 40 countries to date. The studies revealed that there are no legally binding limits on lead paint with high levels of lead on the market.

One of the major campaigns is being conducted in Africa through the 'African Lead Paint Elimination Project' launched in 2014 and expected to end in 2017. The project funded by the Global Environment Facility. UNEP is the implementing agency, the project in being executed by IPEN. Its focus is in four countries: Cameroon, Cote D'Ivoire, Ethiopia, and Tanzania. In addition, paint studies are being conducted in 8 more African countries and the results are expected in the fourth quarter of 2016.

The project activities include sampling and analyzing paint, outreach to paint manufacturers to encourage voluntary action, and promoting legal Instruments to control lead in paints.

The project and IPEN in general is also recalling the usefulness of the toolkit to achieve the overall goal of the workshop: "...to advance understanding, commitment, and actions towards the development of national and regional regulations and standards on a total lead content limit of 90 ppm for all paints in East Africa." Reference was made to Module CII, E and G.

In addition to consumer paints, IPEN urged to consider also no-consumer paints, that take into account all paints. The reason is that non-consumer paint may still be a hazard since workers (and their families) get exposed during production and often end up in regular



stores. Leaded ingredients are primarily used in solvent-based paint, however, high levels of lead have been detected in water-based paint in a few cases. For accurate analysis and reliability of results, selection of laboratory is crucial as well as trained personnel and good quality assurance procedures.

IPEN stated the reason for analyzing lead content is to assess the availability of lead-containing paint in the market and the need for better government regulation and enforcement; provide consumers with information so they can choose non-lead paint and can push for government controls on lead paint; and draw attention to companies that produce lead-containing paint and encourage them to voluntarily reformulate their products.

In addition, total lead is recommended as it is measured by extracting all lead present in the paint and promotes harmonization for exports to countries with total lead standards for products. Analysing soluble lead is more expensive for manufacturer and enforcement agency since the lab method is more complicated and less reliable and few labs can do the analysis. In some cases, the soluble method does not detect all of the lead in the sample and the results can be misleadingly low. Ms. Brosche indicated that technical modifications to paint can hide lead levels so that they are undetectable according to the soluble test method and 13,000 ppm lead according to the total test method.

IPEN shared some of the paint study results including from Ethiopia, Kenya and Tanzania conducted in 2012 and 2015. Percentage of paints above 90 ppm total lead were 78%, 77% and 64% respectively for the three countries, while percentage of paints with above 10,000 ppm total lead were 47%, 29% and 23% respectively. The lower the legal limit, the more protective the paint is. However, a 0 ppm legal limit is not a feasible standard. 90 ppm is achieved when no lead additives are added to the paint and care is taken with raw materials and production procedures. To achieve this leaded driers and pigments need to be substituted with lead-free driers and pigments.

Enacting and enforcing legally binding restrictions is necessary to level the playing field. In addition, smaller manufacturers may need more time and/or technical support to eliminate lead paints. There are also exist voluntary actions like third party certification for 'Lead Safe Paint' that all paints under a brand contain lead levels below 90 ppm. Such programs are to be used only in conjunction with legal limits and are not a substitute for compulsory standards.

16. Insignia's safe Environment initiative story - Mr. Patrick Munguti, Insignia Limited

Mr. Patrick Munguti defined environment and safe environment drive according to Insignia which include manufacturing practices and procedures, encompassed in the Quality Management Systems (QMS), and Environmental Management Systems (EMS). This considers Best environmental management practices (BEMP) and community needs.

Insignia had a self initiative is on lead, mercury, arsenic and chrome elimination in their paint production. Though lead-free additives are available, their use poses some commercial and technological challenges to ensure that the product meetings customer expectations for performance. Mr. Munguti indicated that awareness raising would help customers accept



lead-free products. To ensure their product is lead-free, Insignia demands a letter from suppliers certifying that an additive product does not contain lead. All Coral Paints Decorative Products manufactured by Insignia from April, 2012 onwards do not contain any added lead, mercury, arsenic or chromium.

He added that a developing country like Tanzania can tackle lead poisoning, which is a serious, but preventable environmental health hazard, through proper awareness and prevention measures.

Commitment: All products offered under architectural paints both solvent and water based systems/ brands are lead-free. Insignia stands as champion for safe child and safe future generation in manufacturing sector

Raising Awareness

17. Module I: Conducting awareness-raising campaigns on lead - International Lead Poisoning Prevention Week - Ms. Joanna Tempowski, WHO

International Lead Poisoning Prevention Week of Action (ILPPWA) is a campaign initiated and supported by, the Global Alliance to Eliminate Lead paint (Lead Paint Alliance), started in October 2013. This has been annual even in each October lasts a full week of action to prevent lead poisoning. The event this year will be from 23-29 October 2016. The aims of the event are to: raise awareness about lead poisoning; highlight efforts to prevent childhood lead poisoning; and urge further action to eliminate lead paint.

Lead Paint Alliance supports its partners during the event by developing and customize awareness materials for use in local campaigns. They include posters, flyers, icons, fact sheets, Questions and Answers, videos, among others. Materials are provided in the 6 UN languages - Arabic, Chinese, English, French, Spanish and Russian.

Some previous activities include Investigating lead concentrations of paint sold at local markets; Public awareness events; Blood sampling to test for levels of lead; Training for residents on how to conduct nonviolent advocacy initiatives; Workshops involving various stakeholders; social media campaign; etc.

For effective participation and keeping global records, all who plan to participate are required to register their campaigns/ events on the WHO webpage: http://www.who.int/ipcs/lead_campaign/event_registration/en/

Also find out who else is organising events in their area and consider joining forces. In addition, consider customizing Lead Paint Alliance materials. This is important as multiple events using same icons and messages increases the global impact of the campaign.

Contact for the ILPPWA – Anyone need additional information about the campaign can send an email to: noleadpaint@who.int

And /or finding information about the Global Alliance to Eliminate Lead Paint: www.unep.org/noleadpaint



SESSION III (DISCUSSION SESSION)

Outlook on the establishment of regional standard/regulations and Next Steps

18. Round table discussion on further commitment of governments and stakeholders and agreement on future actions, including establishment and implementation of East African Community national and regional regulations and standards on lead in paints.

The moderator presented five guiding questions to lead the discussion. Participants made their contributions and below the questions is a summary of the discussions.

Discussion questions:

1. What actions are needed to engage with paint manufacturers to ensure compliance with lead paint standards/regulations nationally and regionally?

Participants agreed it was important to engage industry by providing information on alternatives and health impacts and to explain why elimination of lead in paint is a priority. Also, it is important to be able to obtain and provide lead paint testing data to raise awareness and promote and verify compliance. Industry will also need some lead time to meet the standard.

It was recognized that some of the approaches to engage industry are slightly different for small and medium size (SME) businesses than for larger businesses, in part because information about large companies may be more readily available, but SMEs are less well known. There is a need to understand more about the SME market and how best to the government can work with them collaboratively to promote compliance and how paint industry can find common ground to exchange information on best practices.

Ideas discussed included:

- Raise awareness to manufacturers to know why lead is to be eliminated, ask them about the advantages to comply
- Know / identify the paint manufacturers and suppliers in the region, show the competitive market.
- Policy review in the countries to capture the requirements by the Fourth International Conference on Chemicals Management (ICCM4) Identify and involve SMEs. Know how many are there and whereabouts, find out challenges they are facing and their needs – involvement is very much important. A number of them exist but not registered, no addresses, need cooperation of all type of researchers including academia/ universities, CSOs, public and private, Cleaner Production Centres.



- Provide incentive for SMEs, give them services for free for some time (such as copies of the standard) - tell them you are there to assist them, assure them of availability of facilities to confirm their compliance.
- Encourage formation of associations of small scale manufacturers as well as of large scale manufacturers to easily reach them for training, awareness, implementation of standards, etc.
- Conduct surveys, doing inspection and monitoring of importation of materials containing lead, going in the market, taking samples and assess lead level in the samples and disseminate results through various media.
- Consider grace period - enforcement can come in after a year or so to allow for the phase out lead paints. Strengthen awareness during this period. Awareness to employees within manufacturers/importers, to the public for informed choices; laboratory officers; decision makers -liaise with the Ministries of Health - when human health is the central issue, then the standard is compulsory.
- Encourage lead free labeling /certification scheme - voluntary certification is functional only when you also have compulsory standards to verify the label claim and have sophisticated consumers – awareness efforts on labelling would focus on manufacturers and consumers.

a. What is known about the paint market in the East African Community?

Market share is not well known. Manufacturers are not disclosing market information. It is rare to find this information.

b. What is known about lead levels in paint?

For countries where paint analysis was conducted like Ethiopia, Kenya and Tanzania the lead level is known. In Uganda they expect to have analysis data later this year.

c. Are alternatives to lead in paint available?

Alternatives are available and this has been demonstrated by some manufacturers (presentation by Insignia during the workshop). Also a number of paints of some manufacturers were found to contain lead below 90ppm total. Switching to alternative is not that much more expensive. SMEs need a common agenda to promote and adopt safe paints.

2. What is the level of awareness of the dangers of lead in paint and the need to establish laws to remove that danger in the East African Community? Does awareness need to be raised to ensure establishment and implementation of lead paint laws?



Participants noted that there have been efforts to create awareness of the dangers of lead in paint but that there is room for more awareness raising to manufacturers, workers, the public and regulators.

The group noted that the EAC product standards are usually voluntary unless a standard is health-related. The lead paint standard will be mandatory (compulsory) because it protects human health and the environment.

Awareness raising is important to ensure effective compliance and implementation of a lead paint standard. Having a standard does not mean the end of cheating; there is need for further sensitization, enforcement, compliance and monitoring. There is a need for regulations to elaborate implementation of the standards or compulsory standards formulation and implementation.

A discussion of the merits of labelling noted that voluntary labelling is not effective. A mandatory standard combined with enforcement to ensure that the product complies with the standard is necessary for effective implementation of a standard.

Kenya and Tanzania pointed out that awareness raising will occur during development and implementation of their respective national lead paint standard and also when an amended regional standard comes into effect.

3. What are the next steps at the regional and national level to ensure establishment of a harmonized lead paint standard/regulation in the East African Community?

Participants agreed on the need to amend the lead limit in the East African Community paint standards to 90 ppm total lead.

Tanzania offered to take the lead to develop a justification to amend the existing EAC standard of 100 ppm soluble lead. Those involved in developing the EAC standard noted that the 100 ppm limit was primarily a policy agreement and thus can easily be changed.

The most important difference between the existing EAC standard and the proposed standard is the change in the concentration limit measurement methodology from soluble to total. The justification for this will be informed in part by IPEN's lead paint testing studies. The basis for the proposed methodology for measuring total lead concentration will be an existing ISO standard.

Tanzania and Kenya agreed to work together to draft an amended EAC standard based on their proposed national standards, which have slightly different approaches.

The EAC Secretariat has provided guidance on the timeline and process for the revision of the EAS. This can be an amendment rather than full revision of the existing adopted standard.



1. Member states propose amendment to the EAS – this is possible even before the six months when there is a concern – Tanzania can write to the TAS Secretariat – provide data from analysis for justification
2. Member states hold national consultations – 3 months
3. A regional harmonization meeting for the lead paint EA is held – decisions are respected when the invitations are sent from the EAC Secretariat
4. Draft standards open for public comment in the region – 60 days
5. Evaluate comments and develop final version
6. Approval of revisions by the standard management committee 2-3 months
7. Ratification of the revised standard by the Council of Ministers
8. Member states must adopt the standard within 6 months

The EAC Secretariat indicated that it would be possible to use available reliable scientific data i.e. WHO data, to propose the amendment. And it would be possible to use the information and the US experience and refer IPEN's work. Tanzania volunteered to raise the development of a justification for amendment in consultation with stakeholders.

Unleaded fuel was highlighted as a good example of how a standard was harmonized throughout Africa to achieve the phase out of leaded fuels. Tanzania worked through the EAC, SADC and COMESA to achieve the harmonization of an unleaded fuel standard.

4. What is needed to ensure that a regionally harmonized standard/regulation is enforced?

- Conduct inspection of paints as part of monitoring – institutional arrangement – important to involve key stakeholders and identify who will do what...This can be clarified during the pre-implementation workshop.
- Human and financial resources – inspection/ monitoring.....training of inspectors, provide guidelines and inspection checklists, laboratory /equipment
- Capacity building and awareness to regulatory bodies, compliance to environmental tools like EIAs and EAs.
- EAC peer review on market surveillance, import inspection and product risk profiling – plan how often need to conduct the inspection, conduct special and joint inspection, compulsory inspection/pre-shipment inspection; quality mark inspection – a period of one year followed by surveillance inspection in the market and in the industry.
- Gazetting the standards in the government gazette
- Partner states meeting, share information on paint suppliers, market in the region



UNITED NATIONS ENVIRONMENT PROGRAMME

Programme des Nations Unies pour l'environnement Programa de las Naciones Unidas para el Medio Ambiente

Программа Организации Объединенных Наций по окружающей среде برنامج الأمم المتحدة للبيئة

联合国环境规划署



- Develop a testing scheme, performance criteria, check the quality and safety parameters
- Once standard is adopted, manufacturers are required to comply- a product certified by one national standards body, it is recognized, accepted by the other member states.
- To ensure effective enforcement it is a priority to know roles of relevant agencies; institutional collaboration on implementation is important.
- Tanzania and Kenya plan on conducting coordinating meetings with relevant agencies in their countries.
- The lead paint standard is part of an EAC product specification, which includes many parameters; and manufacturers have to comply with all parameters to get a certification/quality mark. Once the product is in the market, national regulatory agencies enforce the standards and can focus on specific parameters based on their mission. For example, in Tanzania the Government Chemist Laboratory Agency would focus on checking on lead in paint as an indicator of impact to human health and the environment. In Kenya, an environmental audit would be conducted periodically by the National Environmental Management Agency to confirm compliance. It was suggested that for the lead paint standard some guidance on enforcement could be provided to the relevant regulatory agencies.
- Kenya and Tanzania Bureaus of Standards outlined their procedures for implementing a mandatory standard. For example, for imported products TBS conducts a pre-shipment verification showing that the product complies with the standard; for local products TBS has a quality mark scheme, where they conduct inspections in the factory and the market to issue and assess compliance with a quality mark. TBS would work with the Government Chemist and Laboratory Agency, the National Environmental Management Council and other relevant agencies to ensure compliance with all national regulations, including mandatory standards.
- The Kenya Bureau of Standards would work with a consumer network and manufacturers to conduct awareness raising about a lead paint standard. NGOs would have a role in conducting testing. Once the standard is final, manufacturers have to comply, and it will also be used to inform public procurement programs, for example. Inspectors will conduct random sampling to test for compliance.
- The need for lab capacity and inspector training, including at customs agencies, was noted.
- It was pointed out that the US approach to the lead paint standard enforcement (self-certification by industry or use of third-party labs) works because awareness



is high, sufficient laboratory capacity exists and because there is legal accountability, such as for providing accurate data. This would not be the case in developing countries and the government will need to conduct sampling and market surveillance.

5. How can the East African Community be a model for regional harmonization of a lead paint standard/regulation for the rest of Africa?

The participants recognized that EAC is already working with several other regional groups. For example, as members of the South Africa Development Community (SADC) and the Common Market for Eastern African and Southern Africa (COMESA) and of a proposed a EAC-COMESA-SADC Tripartite Free Trade Area, EAC member states have the opportunity to promote a harmonized lead paint standard beyond the EAC. If the EAC process is a success it will be easy for the member states that are in the other regional groups to influence review within the blocks and others like ECOWAS and cover the whole continent. Any country in another block can propose development or harmonization of standards and regulations in another block.

In another way, once the regulations are finalized in one sub-region or block, it will be difficult to import paints without meeting required standards, then the control can be through chain markets forcing other blocks to comply to market needs. Because the African region is connected through various regional economic blocks, there is a motivation to harmonize standards. Once EAC leads the way with a standard, other regions will be more likely to follow suit to avoid trade barriers.

In addition, the Tanzanian and Kenyan Bureaus of Standards are members of the African Standards Organization (ARSO) and an Africa-wide standard could be proposed through this body.

It was noted that it will be important to conduct outreach to manufacturers throughout Africa, so that they are aware of the standard, especially if they are exporting to other African countries.

19. Workshop Outcomes and Next Steps - UNEP / All

Workshop overarching outcomes and next steps for the EAC regional harmonization of a lead paint standard are:

1. Participants recognized the national efforts in Tanzania and Kenya to establish a 90 ppm total lead limit in all paints produced, sold, used and imported.



2. Participants of the workshop agreed on the need to amend the lead limit in the EAC paint standards to 90ppm total lead.
3. Tanzania agreed to develop a justification to amend the EAC lead paint standard by October 2016.
4. Kenya has offered to explore hosting regional harmonization meeting to agree on a draft amended standard of lead in paint, next steps and timeline for finalization.
5. Participants acknowledged the leadership of the EAC and the importance of promoting harmonization of the EAC 90 ppm total lead limit for paint throughout Africa in support of the continental free trade area and SADC-EAC-COMESA tripartite initiatives.

20. Closing

UNEP representative, Mr. Eisaku Toda expressed UNEP's appreciation for the active participation and the outcome of the workshop. He asked participants to work on the agreements and promised UNEP will follow-up for further work including possible funding to the EAC to be champion to lead the African region towards legally binding lead paint standards and regulations.

Mr. Francis Kihumba on behalf of participants thanked the organizers, sponsors and facilitators- UNEP, WHO, US EPA, Tanzania government and IPEN and on behalf of the fellow EAC partners assured commitment to continue the work as agreed in the workshop.

Ms. Mary Meela, TBS Standards Manager said that TBS has been honored to host the workshop and expressed their appreciation to all who made the workshop possible from organizers, sponsors and participants. She reiterated that Tanzania is committed to initiate the justification for amendment of the EAC Standards and put aside budget for sponsoring harmonization meeting in the coming year as this year's budget has already been approved. She extended a welcome note to all coming outside Tanzania for another visit other than the workshop. She thanked all the participants once again and declared the workshop closed at 16.08hrs.

21. Media Event

UNEP, TBS, WHO, US EPA, EAC and KIRDI participated in a media event, briefing about the workshop, its outcomes and next steps.

During the media event, The Tanzania Bureau of Standards (TBS) stated it "is planning in the next four years to remove from the market all paints with lead substances, as it has been proved to cause health and mental problems to children and pregnant women due to cumulative toxicant." (quoted from Tanzania Daily News (Dar es Salaam)).



ANNEXES

Annex A: WORKSHOP PROGRAMME

DAY ZERO (Monday, 12 September 2016): PRE-MEETING

Venue: The Blue Pearl Hotel, Morogoro Road, Ubungo Plaza, Dar es Salaam.

Proposed Timing	Agenda Item / Suggested Presenter(s)
PRE-MEETING SESSION(S)	
14:00-17:00	Pre-meeting of presenters and key stakeholders <ol style="list-style-type: none"> Overview of the workshop programme, <ul style="list-style-type: none"> Confirmation of presentations Session chairs Discussion questions Outcome document and press release

WORKSHOP

Venue: Tanzania Bureau of Standards, Ubungo Area, Morogoro Road / Sam Nujoma Road

DAY ONE (Tuesday, 13 September 2016)

Proposed Timing	Agenda Item / Suggested Presenter(s)
08:00-09:00	Registration
09:00-09:30	Welcome and introduction of the participants and Objectives of Workshop Welcome by Tanzania Bureau of Standards/UNEP
09:30-09:40	Group Photo
SESSION I: OVERVIEW	
09:40-10:00	Re-calling the outcomes and progress made post- Addis Ababa Workshop UNEP/ Government of Ethiopia
10:00-10:20	Introduction on establishment of national and regional standards/ regulation on lead paint. UNEP
SESSION II: TECHNICAL SESSIONS State of the art case studies on legal perspectives and toolkit	
10:20-10:40	Importance of lead in Paint laws to curb: Health, Environment, and Economic Impacts in African Context WHO / UNEP/ US Government
10:40-11:00	Coffee break
11:00-11:20	Guidance on key building blocks for a national or regional legal framework to



	limit lead in paint (Introducing the law portals Info MEAs and elements of a lead paint model law or regulation in the region) UNEP-DELC
11:20-11:40	Elements of an effective lead paint law: Recommendations based on US Experience Government of the USA
11:40-12:00	Update and next steps in Promoting elimination of the use of lead paints in China and Africa Government of the People's Republic of China
12:00-12:20	Draft Tanzania standard: Update and next steps in the process of developing standards Government of Tanzania
12:20-12:40	Draft Kenya standard: Update and next steps in the process of developing standards Government of Kenya
12:40-13:00	Case study presentations: Ethiopia and South Africa Governments of Ethiopia and South Africa
13:00-14:00	Lunch
14:00-14:25	East African Community's process for establishing harmonised national and regional standards: focus on lead in paint East Africa Community
14:25-14:50	African Union's perspective: harmonisation of lead paint standards across Africa Africa Union
SESSION III (DISCUSSION SESSION): Outlook on the establishment and implementation of EAC regional standard/regulation and Next Steps	
14:50-16:00	Round table discussion on strategies for establishing and implementing national and regional East African Community standards/regulations on lead in paint All Discussion questions: 5. How can we work toward a 90 ppm total lead content standard in the East African Community? 6. What regulations will implement the standard at the national level? How is a successful implementation framework created that adheres to the mandatory standard and that is enforceable? 7. What can be learned from the experience of other African countries (e.g. South Africa, Ethiopia)? 8. What are the next steps, key milestones and timeline to ensure regional harmonization of a lead paint standard/regulation in the East African Community?
16:00-16:15	Coffee break
16:15-18:00	Continuation: Round table discussion on strategies for establishing and implementing national and regional East African Community standards/regulations on lead in paint All
18:00-18:15	Wrap Up Discussion UNEP



18:15-18h30	Workshop Reception (tbc) All
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DAY TWO (Wednesday, 14 September 2016)

Proposed Timing	Agenda Item / Suggested Presenter(s)
SESSION II: TECHNICAL SESSIONS (Continuation)	
State of the art case studies on legal perspectives and toolkit	
08:30-08:50	Welcome / Highlights from the First Day / Purpose of the Second Day UNEP
08:50-10:00	<u>Recalling toolkit's usefulness on:</u> Alternatives to Lead in Paint IPEN / Paint manufacturer(s) Guidance on Engaging SMEs and Paint Manufacturers IPEN Sampling and Testing Paint IPEN Raising Awareness WHO
10:00-10:15	Coffee break
SESSION III (DISCUSSION SESSION): Continuation	
Outlook on the establishment of regional standard/regulations and Next Steps	
10:15-13:00	Round table discussion on further commitment of governments and stakeholders and agreement on future actions, including establishment and implementation of East African Community national and regional regulations and standards on lead in paints. All Discussion questions: 6. What actions are needed to engage with paint manufacturers to ensure compliance with lead paint standards/regulations nationally and regionally? a. What is known about the paint market in the East African Community? b. What is known about lead levels in paint? c. Are alternatives to lead in paint available? 7. What is the level of awareness of the dangers of lead in paint and the need to establish laws to remove that danger in the East African Community? Does awareness need to be raised to ensure establishment and implementation of lead paint laws? 8. What are the next steps, key milestones and timeline for action at the regional and national level to ensure establishment of a harmonized lead paint standard/regulation in the East African Community? 9. What is needed to ensure that a regionally harmonized standard/regulation is enforced? 10. How can the East African Community be a model for regional harmonization of a lead paint standard/regulation for the rest of Africa?
13:00-14:00	Lunch
14:00-16:00	Continuation: Round table discussion on further commitment of governments and stakeholders and agreement on future actions, including establishment and implementation of East African Community national and



	regional regulations and standards on lead in paints All
16:00-16:15	Coffee break
16:15-16:30	Workshop Outcomes and Next Steps UNEP / All
16:30-17:00	Workshop Closure UNEP / Government of Tanzania
17:00-18:00	Media Coverage Event

Annex B: OPENING SPEECH

OPENING SPEECH BY Ag. DIRECTOR GENERAL OF TANZANIA BUREAU OF STANDARDS, Eng. EDNA NDUMBARO DURING THE EAST AFRICA WORKSHOP ON THE DEVELOPMENT OF NATIONAL AND REGIONAL REGULATIONS AND STANDARDS ON LEAD IN PAINTS

PLACE: TANZANIA BUREAU OF STANDARDS, UBUNGO – DAR ES SALAAM

13TH SEPT. 2016

Coordinators,
Government's officials
Invited guests
All delegates
Ladies and gentlemen

It gives me pleasure to welcome you all in the East Africa Workshop on the Development of National and Regional Regulations and Standards on Lead in Paints, which will take two days, with overall objective to advance understanding, commitment, and actions towards the development of national and regional regulations and standards on a total lead content limit of 90 ppm for all paints in East Africa.

It is my great honor to welcome you all to Tanzania and in particular to TBS, it is my sincere hope you will enjoy your stay.

Ladies and gentlemen,

I wish to commend you all for your commitment towards the global initiatives on elimination of lead in paints as well as your participation in this regional workshop. This is a great forum where you will share experience and discuss the challenges and opportunities facing the campaign. I urge all of you to participate effectively and looking into ways to ensure the objectives are attained.

Ladies and gentlemen



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With our philosophy of “*Hapa kazi tu*” i.e. just work only, I would not like to take much of your time as I know you have a big task ahead that requires time for discussions. It is my sincere hope that you will fully concentrate on the topic and come up with practical deliberations not only for the betterment of the East Africa Region but also for the global. I wish you all, fruitful deliberations and now declare this workshop is officially opened.

“The elimination of lead in paint by 2020 is possible, let’s play our part.”

Thank you for listening!

Annex C: LIST OF PARTICIPANTS

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