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Implementation of the Strategic Approach to International Chemicals Management: emerging policy issues

Background information in relation to the emerging policy issue of lead in paint

Note by the secretariat

1. The secretariat has the honour to circulate, in the annex to the present note, relevant background material on the emerging policy issue of lead in paint as outlined in document SAICM/ICCM.2/10 for the information of participants. The preparation of the material has been facilitated by Ms. Judy Stober, Intergovernmental Forum on Chemical Safety, and Ms. Maria Doa, United States Environmental Protection Agency. The material has been reproduced as received and has not been formally edited

2. The background material has been developed from the original submissions received on this issue from stakeholders ahead of the informal discussions held in Rome on 23 and 24 October 2008. The facilitators have followed the additional guidance developed by the informal Friends of the Secretariat planning group in preparing the document and have provided the opportunity for comment by Strategic Approach to International Chemicals Management stakeholders by making drafts of the material available for comment on the Strategic Approach website. The background material aims to set out how this issue meets the screening criteria for emerging policy issues developed during the informal discussions held in Rome and to provide the rationale for the proposed cooperative actions on this issue contained in document SAICM/ICCM.2/10/Add.1.

3. There will be an opportunity for participants in the session to discuss the background material at a technical briefing to be held on Sunday, 10 May 2009, from 9.30 a.m. to 1 p.m.

* SAICM/ICCM.2/1.

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Annex

Background information in relation to the emerging policy issue of "lead in paint"

Introduction

In 2002, the World Summit on Sustainable Development (WSSD) made two decisions to protect children's health from exposure to lead. Paragraph 56 (b) of the WSSD Plan of Implementation (POI) called for: "*Supporting the phasing out of lead in gasoline.*"

The other decision was paragraph 57. It states:

> *"Phase out lead in lead-based paints and in other sources of human exposure, work to prevent, in particular, children's exposure to lead and strengthen monitoring and surveillance efforts and the treatment of lead poisoning*."[i]

At WSSD, the *Partnership on Clean Fuels and Vehicles* was established to contribute to the implementation of WSSD POI paragraph 56, and to help developing countries eliminate lead from fuels.[ii] At a 2005 Partnership meeting held in Kenya, it was agreed that the partnership was on course to "phase out leaded gasoline by the end of 2008 worldwide."[iii] The global campaign to eliminate lead from gasoline appears to be approaching success. This will make an important contribution in substantially reducing childhood lead poisoning in many developing countries.

In contrast, there has been less concerted international action aimed at helping to implement WSSD POI paragraph 57. There are no international or regional organizations that address lead in paint. Paints containing lead are still widely manufactured and sold for use in many countries of the developing world. Therefore, it is very likely that most of the world's population lives in countries where domestic paints with high lead levels are readily available. It has long been known that paints containing lead can be a significant source of childhood lead exposure and poisoning, especially when they are used to paint the interiors and exteriors of homes or schools, and when they are used to paint toys, furniture, playground equipment and other articles with which children come in contact. Moreover, paints containing lead are used in a variety of infrastructure (*e.g.*, bridges), industrial (*e.g.*, automobile parts), and marine (*e.g.*, ships) applications which can contribute to lead in soils and roadway and sidewalk grit which can be tracked into homes or become airborne and make its way into homes.

In addition to the Toxics Link submission on lead in paint to the International Conference on Chemicals Management (ICCM) at its second session, the Intergovernmental Forum on Chemical Safety (IFCS), in its submission on substitution and alternatives, proposed the consideration of a global partnership addressing lead in paint.[iv] IFCS notes that the Johannesburg Plan of Implementation of the World Summit on Sustainable Development paragraph 57 calls for the phasing out of lead in lead-based paints and in other sources of human exposure, the prevention of exposure to lead, particularly for children, strengthening monitoring and surveillance efforts, and the treatment of lead poisoning. In response to the request of Forum VI, IFCS has developed terms of reference for a global partnership for consideration by ICCM2[v]. At Forum VI, IFCS also endorsed overall efforts by governments and others to reduce risks to human health and the environment of lead throughout the life cycle of this substance. At Forum V, the IFCS considered the topic of toys and chemical safety and recommended actions towards the elimination of use in toys of substances such as lead that are likely to result in adverse toxic effects.[vi] The United States also proposed cooperative action on lead, including areas related to lead in paint, such as encourage efforts by

governments and others to reduce risk to human health and the environment from lead throughout the whole life cycle of the substance, encourage efforts by governments and other to reliably eliminate the use of lead in products intended for children, and calls for research in the area of alternatives for lead-based products. Submissions by the European Union and Japan regarding an information system related to the chemicals in products could be relevant to lead in paints as well.

The purpose of this paper is to provide background information on how the nominated emerging policy issue meets a number of screening criteria and to provide the rationale for the proposed action requested by the Conference. Attachment 1 contains a list of those who have contributed to the preparation of this document by providing comments during its development.

Consistent with the guidance provided by the informal Friends of the Secretariat planning group, this document is specific to lead in paint. Several contributors suggested that the scope of this information document and the proposed actions be broadened to include other sources of human exposure to lead. While lead paint is a significant source of exposure, there are other sources such as lead in batteries and lead in toys that may also be significant sources of exposure. The ICCM2 may wish to consider modifying the scope of the proposed actions in its deliberations.

Magnitude of the problem: health impacts and significant sources of lead-paint exposure

Lead Poisoning in Children

Lead exposure is a well-known source of injury to human health, and particularly to the health of children and to workers in lead industries. No level of exposure to lead is considered safe.[vii] [viii] [ix] There is clear evidence of neurocognitive decrements being associated in young children with blood lead concentrations in the range of 5 to 10 micrograms per deciliter (µg/dL) and possibly lower. Recent analyses appear to show lead effects on the intellectual attainment of preschool and school age children at population mean concurrent blood lead levels as low as 2 µg/dL.[x] The rate of decline in intellectual impairment is greater at blood lead levels less than 10 µg/dL than at concentrations greater than 10 µg/dL [xi]

Functional manifestations of lead neurotoxicity during childhood include sensory, motor, cognitive and behavioral impacts, including learning disabilities; attention deficits; disorders in a child's coordination, visual, spatial and language skills, and anemia. [xii] [xiii] [xiv] Some studies indicate linkages between lower-level lead toxicity and behavioral problems (*e.g.*, aggression, attentional problems, and hyperactivity) in children[xv]. Effects of lead on neurobehavior have been reported with remarkable consistency across numerous studies of various designs, populations studied and developmental assessment protocols. Negative lead impacts on neurocognitive ability and other neurobehavioral outcomes are robust in most recent studies even after adjustment for numerous potentially confounding factors (including quality of care giving, parental intelligence, and socioeconomic status). Lead toxicity is irreversible and its effects generally appear to persist into adolescence and adulthood.[xvi]

Children's exposure to lead from paint

Exposure to lead in paint has long been one of the most common causes of clinical lead.toxicity. House dust is the most common exposure pathway through which children are exposed to lead paint hazards. Dust created during normal wear of lead paint (especially around windows and doors) can create an invisible film over surfaces in a house. Children, particularly younger children, may also ingest lead paint chips from flaking walls, windows, and doors. Lead from exterior house paint can flake off or leach into the soil and dust around the outside of a home, contaminating children's play areas. Renovation activities actually increase the threat of lead paint exposure by dispersing lead dust particles in the air and over

accessible household surfaces. Dust can be resuspended through household activities, including through cleaning, thereby posing an inhalation risk as well. Lead exposure is often due to ingestion from hand-to-mouth activities and pica, which are common in children. For children, dust ingested via hand-to-mouth activity is often a more important source of lead exposure than inhalation. However, inhalation lead exposure to children can also be increased markedly during renovation, repair or demolition projects.[xvii]

Lead paint used on interiors and exteriors of homes, schools, public and commercial buildings and structures such as bridges can be a source of exposure to children. Normal weathering as well as repair, renovation, and painting activities which disturb lead paint can contribute to lead loadings in soil and dust. Soil and dust containing lead from lead paint can be tracked into homes and other buildings where it can be a significant source of exposure. The percentage of indoor dust that is from soil and other exterior sources is estimated to be typically greater than 70%.[xviii]

Adults' exposure to lead in paint

Lead can cause neurological effects in adults at levels encountered in occupational settings. Effects on adults of low-level lead exposures include some renal effects and cardiovascular effects, including increased blood pressure and incidence of hypertension.[xix]

In addition to exposures from living in homes with lead paint, adults can be exposed occupationally to lead from lead paint. Workers can be exposed during the manufacture and processing of lead paint, and its use (such as in painting activities) Residential renovation and paint removal can also be major sources of lead exposure for workers as well as residents. Dry sanding, abrasive blasting, and burning, welding, or heating surfaces covered with lead paint typically generate highly dangerous airborne lead levels. [xx] [xxi] Lead paints have been used as coatings on highway bridges for many years. Paint removal during bridge renovation projects has also been cited as a major source of lead exposure for workers. As with residential renovation, lead concentrations during industrial paint removal depend largely on the technology used. Generally, abrasive blasting techniques are used, which breaks lead coatings into small particles that can be inhaled or ingested if hands are not washed prior to eating or smoking.[xxii]

Relevance of the issue: continued use of lead in paint

Use of lead in paint

Lead paint was the dominant form of house paint in the developed world for many decades, and a significant percentage of homes still contain lead paint on some surfaces. Many of these countries phased out the use of interior and exterior paints containing lead. Titanium dioxide is now often used as a substitute for lead in paint. In the United States the use of lead in paint decreased markedly after World War II. In 1978, the United States banned the use of paint containing more than 0.06 percent (600 ppm) lead by weight on toys, furniture, and interior and exterior surfaces in housing and other buildings and structures used by consumers.[xxiii] New standards for lead in paint and consumer products in the United States which will be effective 14 August 2009 require that any product designed or intended primarily for children 12 years of age or younger will be banned if it contains more than 300 ppm total lead content by weight for any part of the product and the lead content standard for surface paint in furniture, toys and other children's products will be reduced from a maximum of 0.06 percent (600 ppm) lead by weight to a maximum of 0.009 percent (90 ppm) lead by weight.[xxiv] A similar pattern took place in European countries, too, before the general sale of leaded paint was prohibited in the European Union in 1989.[xxv] In Australia, restrictions on the use of lead in paints for domestic application were initiated in the early part of the 20th century. Appendix I of the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP), known as the Uniform Paint Standard, provides control of paints sold to consumers. [xxvi] For such applications, the supply of

paint with a lead concentration greater than 0.1% is prohibited. In 2007, the Australian Paint Manufacturers Federation lobbied the Australian industrial chemicals regulator NICNAS to restrict the importation and use of 14 lead compounds still used in paints. In 2008 and 2009, restrictions were placed on the manufacture and import of 14 lead compounds as components of industrial surface coatings and inks at concentrations greater than 0.1%. South Africa passed legislation in 2008 restricting the use of lead in household paints to less than 600 ppm, effective in March 2009. Although in Thailand action to phase out paint containing lead was taken almost two decades ago in essentially a voluntary initiative by the paint industry, five of seven brands of paint recently sampled in Thailand contained lead levels as high as 30,000 ppm.[xxvii,xxviii]

Paints with added lead are still commonly available in the developing world. In Russia, interior paints containing lead are restricted by the legislation adopted in the USSR in 1929 and 1984 and later by the Russian Federation in 1991 and 1992.[xxix] I n 1991 Russia ratified the ILO White Lead (Painting) Convention, 1921 (No. 13)[xxx]. Independent research has shown that paints containing lead, mainly exterior paints, can easily be found on the Russian market.[xxxi] A recent study in China showed that 50 percent of new paint samples tested contain lead at levels equal to or exceeding 600 ppm. Despite a wide range in retail prices, there was no correlation between price and lead content among the 58 paint samples collected.[xxxii] A similar study of new residential paints being sold in India indicates that 84 percent of enamel paints have lead levels that exceed 600 ppm.[xxxiii] However, one nationally distributed major brand that is available within the same price range as their competitors appears to have eliminated the use of lead pigment and other lead additives. This suggests that price should not be a deterrent for paint companies to shift to lead-free alternatives and still remain competitive.

After lead in gasoline, lead in paint is overall one of the largest source of lead exposure. Lead paint can remain a source of lead exposure and poisoning for many years after the paint has been applied to surfaces. For example, even though the use of lead in paint was essentially banned in the United States in 1978, there are still 38 million housing units that have lead paint[xxxiv]. Furthermore, despite efforts to reduce the exposure to children from lead in paint there are still about 185,000 children aged one to five with blood lead levels greater than 10 µg/dL and approximately 837,000 children with blood lead levels greater than 5 µg/dL.[xxxv] Low-income children and African-American children are disproportionately affected.

Relevance of the issue: effects at the societal level

Societal impacts of lead poisoning in children

Even low level lead poisoning of children can have significant societal impacts. As Weiss[xxxvi] and Gilbert and Weiss[xxxvii] have shown, the societal effects of low-level lead poisoning can be seen when looking at the population-level. Gilbert and Weiss note that while small IQ changes in an individual child may not seem significant, when viewed at a population level the impacts are substantial:

> *"Assuming a mean IQ of 100 for a large population and a normal distribution, the tails of the curve represent those with superior IQ (greater than 130) and those with lower IQ (less than 70). IQs below 70 require significant societal support such as remedial education. A five-point drop in IQ would significantly change the number of people in the tails of this distribution. For example, in a population of 100 million with a mean IQ of 100 there would be 6 million people with IQs above 130 and an equivalent number with IQs below 70. A shift in the mean of 5 IQ points (5%) would result in only 2.4 million gifted people with IQs above 130 and 9.4 million people with IQs less than 70 who also require remedial assistance. The consequences to society will clearly be enormous. Figure[1]"*

These data are not simply of statistical interest but point to the substantial decline in the societal intellectual resources (*i.e.*, those with IQs greater than 130) and the significant resources (*e.g.*, special education) needed to address the large increase in the population with IQ less than 70.[xxxviii] This impact will be even more significant for disadvantaged populations in which the mean IQ is lower, *e.g.* 85 rather than 100. They will be impacted more significantly and suffer disproportionately by the IQ decrements resulting from lead exposure.

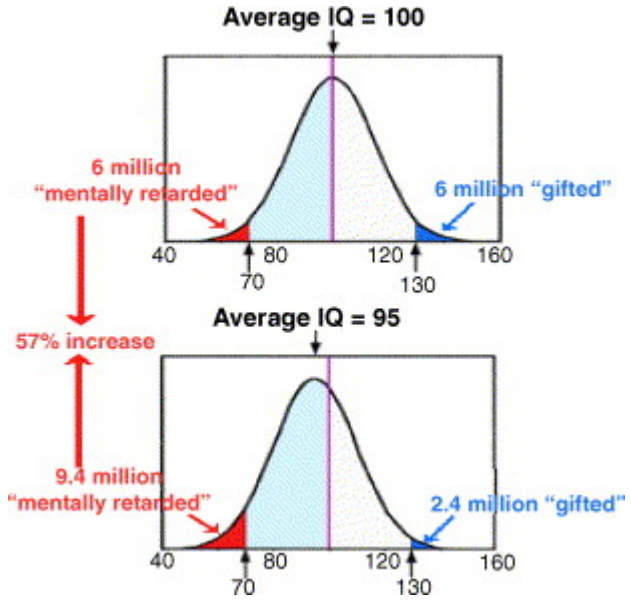


Fig. 1. Losses associated with five-point drop in IQ on a population of 100 million. Based on Weiss (1988) and modified by http://www.ourstolenfuture.org/NewScience/behavior/iqshift.htm. [From Gilbert, S.G. and Weiss, B. A rationale for lowering the blood lead action level from 10 to 2µg/dL. NeuroToxicology. 27(5), September 2006, p. 697]

In 2002, WHO *World Health Report* identified lead exposure as one of twenty leading selected risk factors contributing to the global burden of disease and stated that worldwide, 40 percent of children have blood lead levels greater than 5 µg/dl, and that 97 percent of the affected children live in developing regions.[xxxix] In addition, the WHO *World Health Report* looked at Disability Adjusted Life Years for different risk factors and as illustrated below ranked lead as 16th.

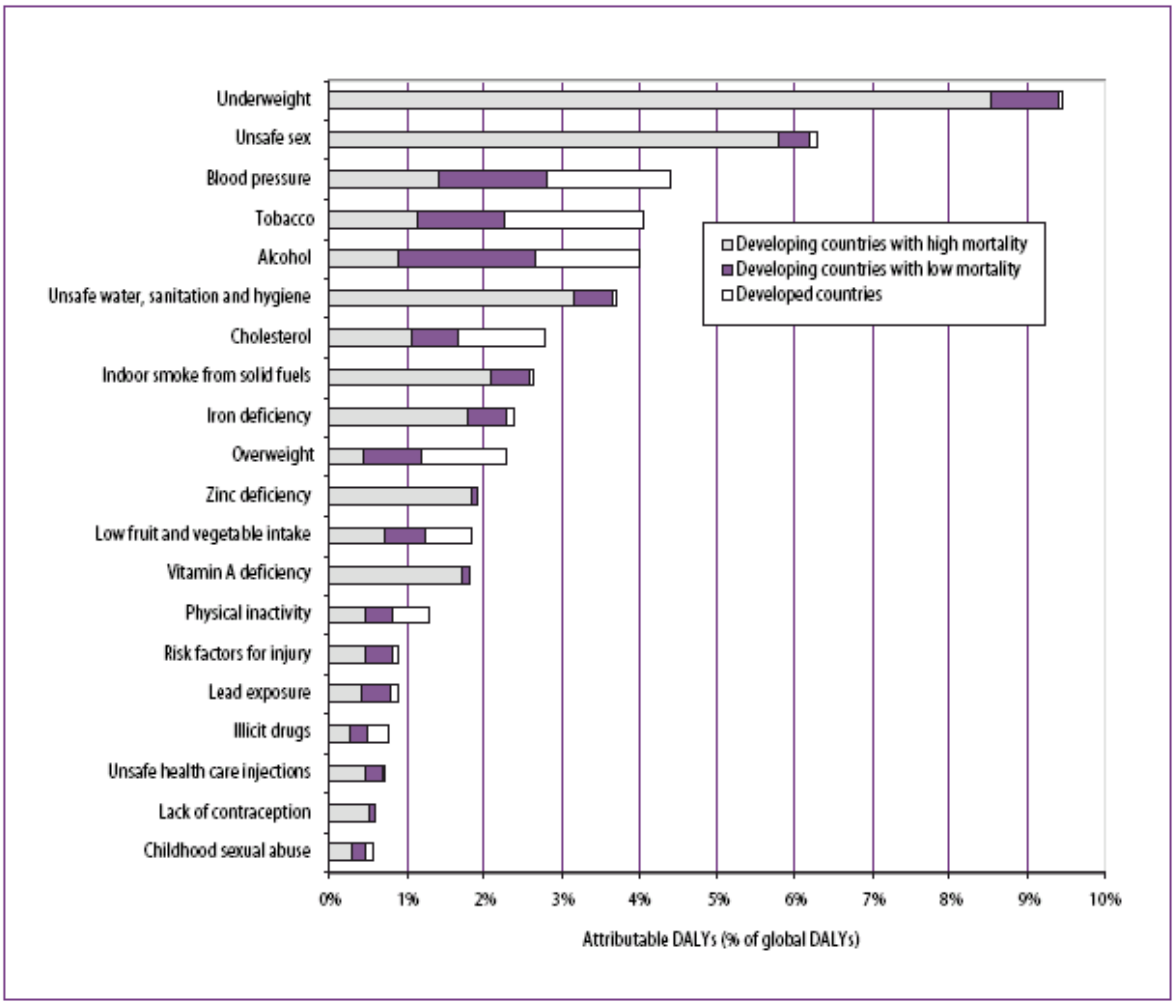
In a 2004 study,Valent and others[xl] estimated that in European subregion C (most countries of the former USSR) approximately 58% of all children have an IQ loss of more than 0.65 IQ points due to lead exposure. As a consequence the authors expect an incidence of mild mental disease (50<IQ<70) in the order of 0.61-1 per 1000 children one year old or younger in this region. IQ loss and incidence rates are lower in the more developed European subregions A and B but still significant.

A 2002 study by Philip Landrigan and others investigated the socio-economic impacts of lead exposure in children in the United States. It estimated the cumulative reduction in childhood intelligence associated with current levels of lead exposure and correlated this to reduction in a child's lifetime earning potential. The study concluded that the economic losses that can be attributed to the level of childhood lead exposure at the time of the study amount to US$43.4 billion per year.[xli]

There appear to be no similar studies that have been conducted to quantify the socio-economic costs of childhood lead exposure in developing countries; however, since childhood lead

exposure in many developing countries is generally much higher than in the United States, it is reasonable to assume that it represents a major socio-economic burden in developing countries and is an important impediment to achieving national sustainable development objectives. Widespread childhood lead exposure undermines educational achievement and reduces the productivity of the workforce. Therefore, public health interventions that can significantly reduce childhood lead exposure can make an important contribution to achieving sustainable development objectives including the Millennium Development Goals.[xlii]

Figure 4.9 Global distribution of burden of disease attributable to 20 leading selected risk factors



What is the level of knowledge about lead in paint?

Lead exposure is a well-known source of injury to human health, and particularly to the health of children and to workers in lead industries. Lead's poisonous properties have been recognized since ancient times. In the first century B.C., for example, the Roman architect, Vitruvius, spoke out against the use of lead pipes for conveying water saying that water "conveyed in lead must be injurious, because from it white lead is obtained, and this is said to be injurious to the human system." He also noted that "workers in lead, are of a pallid color for in casting lead, the fumes from it fixing on the different members, and daily burning them, destroy the vigor of the blood."[xliii]

While lead is clearly recognized to cause toxicity, the extent to which lead in paint is understood to be a source of lead poisoning varies. Despite the fact that legacy uses of lead paint still provide a significant source of lead exposure in the developed world, many believe that because the use of lead in paint above certain levels has been banned for many years, lead

poisoning from lead paint is a problem of the past. Others view this as something that impacts only a small segment of society. In the developing world, the threat of lead poisoning from lead paint has also been significantly underestimated.

For example, in Zambia there is lack of knowledge of the effects of exposure to lead in paint. This is due to the fact that there is no comprehensive national law specifically to deal with lead paint. The traditional leaders and other decision makers have very little knowledge about the effects of lead in paint. Since there is no comprehensive national law to specifically focus on lead in paint, monitoring becomes difficulty and this poses a threat on health risks to children's health especially that paint is used to paint the interior school walls and households.

It is also important to consider the toxicological properties of any alternative chemicals. Experience has shown us that while an alternative may not have the same properties of concern, it may have other undesirable properties which could impact the environment in other ways. While most substitutes will not cause toxic effects as serious as lead, an assessment of the toxicity of the lead-alternatives, to ensure that these alternatives do not themselves pose unacceptable health and safety risks, is an important part of the process to enable the safe implementation of substitutes and alternatives.

The extent to which the issue is of a cross-cutting nature

Lead in paint effects a broad range of groups. As discussed above, lead exposure can have impacts on residents (both children and adults) of housing with lead paint. Children can also be exposed in schools and daycare centers. In addition to the potential for exposure in their homes, workers can be exposed during the manufacture, processing and application of lead paint and in activities that disturb lead paint (*e.g.*, by creating lead dust) such as during renovations in homes and other buildings with lead paint. Given the nature of lead toxicity, the effects on human health result in both individual impacts and broad societal impacts.

Lead in paint can also impact the environment from releases from the manufacture, processing, use of lead paint and from disposal (including the improper disposal) of lead paint wastes from manufacturing and from buildings with lead paint. Lead is persistent in the environment and releases of lead into the environment can remain as a potential source of exposure to both humans and terrestrial and aquatic organisms indefinitely.

This issue may also be relevant to industry because manufacturers of lead paint will need to transition to different formulations of paint that do not contain lead. This will also affect workers, and the general public but the extent of the impact will depend upon the chemicals contained in the new formulations.

The extent to which the issue is being addressed by other bodies

While there are a number of national laws and national programs that are specific to lead paint, there are no known international organizations that have ongoing targeted work programmes on lead paint.

It can be noted that the UNEP Governing Council in its session in 2003 adopted a decision in which it:

> 5. Requests the Executive Director, in cooperation with other members of the Inter-Organization Programme for the Sound Management of Chemicals, in particular with the World Health Organization, as well as with other partners, including the private sector, to assist Governments, through information exchange and capacity-building, in their efforts to phase out lead in gasoline, lead-based paint and other sources of human exposure, to prevent exposure to lead and to strengthen efforts for monitoring and surveillance as well as treatment of lead poisoning.[xliv]

At its session in 2005, the UNEP Governing Council reaffirmed its decision 22/4 III of 7 February 2003 on lead [xlv] and at its 25th session in February 2009 adopted a decision requesting the Executive Director to facilitate "efforts by governments and others to reduce risks to human health and the environment of lead and cadmium throughout the whole life cycle of those substances and to take action to promote the use of lead and cadmium-free alternatives, where appropriate, for instance in toys and paint as some products containing lead may cause a risk through normal use". [xlvi]

Proposed action and potential cooperative actions

Proposed action

Develop a Global Partnership to Implement Paragraph 57 of the WSSD POI, focusing on the phase-out of lead in paint. The partnership would use as models the partnership that was formed during WSSD to promote clean fuels and vehicles, which has been very effective and the UNEP Global Mercury[xlvii] which is moving forward effectively. The objectives would be to phase out lead in paints.

Potential cooperative actions

Actions proposed to address lead in paint including the significant exposures that result from previous lead paint applications on buildings:

- Information exchange on the health effects of lead;
- Information exchange on the pathways of exposure to lead paint, for both children and adults;
- Encouraging nations to conduct health monitoring to estimate the prevalence of lead in human blood.
- Providing technical expertise in the design and implementation of studies to estimate the distribution of blood lead levels in the populations of other nations..
- Building capacity and/or sharing information to conduct health monitoring to estimate the prevalence of lead in human blood;
- Building capacity and providing training to develop and maintain high quality laboratory testing for blood lead.
- Encouraging nations to conduct monitoring to estimate the prevalence of lead in the environment (*e,g*., water, soil, animals);
- Information exchange on lead levels in paints in various countries;
- Information exchange on national, provincial, state, and local regulations and legislations on lead concentrations in paints allowed in various countries;
- Information exchange on labeling and certification systems on the presence and concentrations of lead concentrations in paint;
- Discussing and providing technical assistance on steps that can be taken to phase out lead from paints and surface coatings such as lacquers, veneers and powder coatings throughout the world;
- Encouraging the use of financial incentives to support the use of lead-free paints;
- Developing guidelines for establishing national standards, including those that would allow the use only of lead-free paints;
- Encouraging nations to require that only lead-free paint be used in construction activities or renovations being supported with government funds;
- Providing guidance for and/or information on effective enforcement of national standards, including how to avoid smuggling of lead paint;
- Building capacity on legal enforcement to environmental health officers in various ministries, local authorities and mines;

- Providing international support to developing countries by further elaboration of methods to enact comprehensive laws to completely phase out lead paint;
- Information exchange and international support to strengthen and harmonize existing national laws that focus on protection of public health in relation to the phase-out of lead paint;
- Sharing knowledge on the availability of substitutes to replace lead compounds in paints;
- Assessing the hazards of the substitutes for lead compounds in paint;.
- Assessing the feasibility of the voluntarily phase-out of the production of lead paints in cooperation with business and industry including on a (sub)regional level;
- Encouraging wholesalers and retailers to stop bringing onto the market lead paints;
- Encouraging nations to conduct housing surveys to estimate the prevalence of lead paint in their housing stock;
- Developing of guidelines with descriptions of simple analytical methods and test kits for the identification of lead paints;
- Building capacity and/or providing information and knowledge in human and laboratory equipment in order to facilitate laboratory tests for lead paint;
- Building capacity and/or providing information and knowledge to help various officials across ministries to test for lead paint;
- Information exchange on methods to make housing and other buildings with lead paint safe for occupancy by children and pregnant women;
- Minimizing risks of previously applied lead paint in buildings by using effective containment;
- Enhancing the elimination of lead paint in schools and other buildings where children will be present, given children's susceptibility to lead;
- Information exchange on suggestions for warning labels on new cans of paint alerting users to the health risks that could result if the surfaces being prepared for repainting contained lead paints.
- Information exchange on safe methods to conduct repair or renovation activities on the interior and exterior of homes and other buildings that contain lead paint to minimize exposures to residents and workers and to minimize releases to the environment (including from wastes) which may contribute to future exposures.
- Discussing and capacity building on how to reach health providers, caretakers and parents on how to minimize children's exposure to lead from lead paint hazards as part of efforts to minimize exposures to all sources of lead exposure in the household.
- Discussion on steps to reach renovators, painters and other professionals on how to minimize children's exposure to lead from lead paint.
- Information exchange on steps to reach workers on their vulnerability and exposure to lead in small and medium-sized enterprises, in particular in developing countries;
- Information exchange on promoting general public awareness on the hazards of lead paint;
- Information exchange on safe disposal of lead paint waste;
- Development of approaches to manage/store waste containing lead paints.

At the request of Forum VI, the IFCS has prepared and submitted for the consideration of ICCM a draft resolution to establish a global partnership to phase out the use of lead in paints under the auspices of the ICCM[v]. The draft resolution includes proposed terms of reference for the partnership covering a range of cooperative actions including preparation of guidelines for establishing national standards and providing guidance for the effective enforcement of these national frameworks. This draft resolution was considered by the work group on Lead in

Paint convened by the SAICM Friends of the Secretariat group. Recommendations for ICCM2 are presented in this paper.

These actions would further the SAICM objectives of risk reduction, knowledge and information, governance, capacity building and technical cooperation.

The feasibility of the action proposed

In the Dubai Declaration on International Chemicals Management, the ministers, heads of delegation and representatives of civil society and the private sector, assembled at the International Conference on Chemicals Management in Dubai from 4 to 6 February 2006, declare(d):

> 17 We will work towards closing the gaps and addressing the discrepancies in the capacity to achieve sustainable chemicals management between developed countries on the one hand and developing countries and countries with economies in transition on the other by addressing the special needs of the latter and strengthening their capacities for the sound management of chemicals and the development of safer alternative products and processes, including non-chemical alternatives, **through partnerships**, technical support and financial assistance.[1]

The establishment of a global partnership to promote the implementation of WSSD POI paragraph 57, focusing on the elimination of lead in paint, will support directly the implementation of SAICM and achievement of its objectives, in particular the following objectives with regard to risk reduction:

A. Risk reduction

The objectives of the Strategic Approach with regard to risk reduction are:

(a) To minimize risks to human health, including that of workers, and to the environment throughout the life cycle of chemicals;

(b) To ensure that humans and ecosystems and their constituent parts that are especially vulnerable or especially subject to exposure to chemicals that may pose a risk are taken into account and protected in making decisions on chemicals;

(d) To ensure, by 2020:

(i) That chemicals or chemical uses that pose an unreasonable and otherwise unmanageable risk to human health and the environment[2] based on a science-based risk assessment and taking into account the costs and benefits as well as the availability of safer substitutes and their efficacy, are no longer produced or used for such uses;

(ii) That risks from unintended releases of chemicals that pose an unreasonable and otherwise unmanageable risk to human health and the

[1] See: SAICM text at http://www.saicm.org/index.php?menuid=3&pageid=187&submenuheader=

[2] Groups of chemicals that might be prioritized for assessment and related studies include: persistent, bioaccumulative and toxic substances (PBTs); very persistent and very bioaccumulative substances; chemicals that are carcinogens or mutagens or that adversely affect, inter alia, the reproductive, endocrine, immune, or nervous systems; persistent organic pollutants (POPs), mercury and other chemicals of global concern; chemicals produced or used in high volumes; those subject to wide dispersive uses; and other chemicals of concern at the national level.

environment[3] based on a science-based risk assessment and taking into account the costs and benefits, are minimized;

(j) To promote and support the development and implementation of, and further innovation in, environmentally sound and safer alternatives, including cleaner production, informed substitution of chemicals of particular concern and non-chemical alternatives.

The global partnership will also contribute to meeting the following objectives on knowledge and information, governance, and capacity building and technical cooperation:

B. Knowledge and information

(b) To ensure, for all stakeholders:

(i) That information on chemicals throughout their life cycle, including, where appropriate, chemicals in products, is available, accessible, user friendly, adequate and appropriate to the needs of all stakeholders. Appropriate types of information include their effects on human health and the environment, their intrinsic properties, their potential uses, their protective measures and regulation;

C. Governance

(a) To achieve the sound management of chemicals throughout their life cycle by means of appropriate national, regional and international mechanisms, as needed, that are multi-sectoral, comprehensive, effective, efficient, transparent, coherent and inclusive and ensure accountability, taking into account the circumstances and needs of countries, especially developing countries and countries with economies in transition;

(l) To provide and support enabling frameworks for businesses to develop and improve products that advance the objectives of the Strategic Approach;

(n) To enhance cooperation on the sound management of chemicals between Governments, the private sector and civil society at the national, regional and global levels.

D. Capacity-building and technical cooperation

The objectives of the Strategic Approach with regard to capacity-building and technical cooperation are:

(a) To increase the capacity for the sound management of chemicals throughout their life cycle in all countries as needed, especially in developing countries and countries with economies in transition;

(b) To narrow the widening gap in capacities between developed countries on the one hand and developing countries and countries with economies in transition on the other hand;

Establishing a global partnership to phase out the use of lead in paints under the auspices of the ICCM falls within the following functions of the Conference (ICCM):

(a) To receive reports from all relevant stakeholders on progress in implementation of the Strategic Approach and to disseminate information as appropriate;

(c) To provide guidance on implementation of the Strategic Approach to stakeholders;

(g) To promote the strengthening of national chemicals management capacities;

(h) To focus attention and call for appropriate action on emerging policy issues as they arise and to forge consensus on priorities for cooperative action;

(k) To promote information exchange and scientific and technical cooperation;

(m) To promote the participation of all stakeholders in the implementation of the Strategic Approach.

Attachment 1

List of contributors

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[i] See: WSSD POI at: http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIChapter6.htm

[ii] See: http://www.unep.org/pcfv/pdf/InfSheet.pdf

[iii] See: http://www.unep.org/pcfv/PDF/4GPM-report-final.pdf

[iv] Dakar Resolution for Eliminating Lead in Paints, Forum VI Sixth Sessionof the Intergovernmental Forum on Chemical Safety, Final Report, Executive summary (IFCS/FORUM-VI/07w) Available at: http://www.who.int/ifcs/documents/forums/forum6/report/en/index.html

[v] Submission by the Intergovernmental Forum on Chemical Safety in relation to phasing out the use of lead in paint (**SAICM/ICCM.2/INF/29) http://www.saicm.org/index.php?content=meeting&mid=42&def=3&menuid=9**

[vi] Toys and Chemical Safety, Forum V Fifth Session of the Intergovernmental Forum on Chemical Safety, Executive Summary (IFCS/FORUM-V/05w) Available at: http://www.who.int/ifcs/documents/forums/forum5/report/en/index.html

[vii] CDC. Prevention lead poisoning in young children: a statement by the Centers for Disease Control and Prevention. Atlanta, GA USA: CDC; 2005, Available at www.cdc.gov/nceh/lead/publications/prevleadpoisoning.pdf.

[viii] CDC. Managing elevated blood lead levels among young children: recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention. Atlanta, GA: CDC; 2002. Available at www.cdc.gov/nceh/lead/casemanagement/casemanage_main.htm.

[ix] U.S. Environmental Protection Agency. Air Quality Criteria for Lead (September 29, 2006).

[x] Lanphear BP, Dietrich KN, Auinger P, Cox C. Cognitive deficits associated with blood lead levels <10 µg/dl in U.S. children and adolescents. Public Health Reports 2000;115:521-529.

[xi] R.L. Canfield, C.R. Henderson Jr., D.A. Cory-Slechta, C. Cox, T.A. Jusko and B.P. Lanphear, Intellectual impairment in children with blood lead concentrations below 10 µg/dL, *N Engl J Med* **348** (2003), pp. 1517–1526.

[xii] U.S. Environmental Protection Agency. Air Quality Criteria for Lead (September 29, 2006)

[xiii] See: WHO Euro Region, *Study on environmental burden of disease in children: key findings*: http://www.euro.who.int/document/mediacentre/fs0504e.pdf

[xiv] See also, Review of Scientific Information on Lead, developed by UNEP in response to Governing Council Decisions 23/9 and 22/4 (draft November 2008).

[xv] U.S. Environmental Protection Agency. Air Quality Criteria for Lead (September 29, 2006)

[xvi] U.S. Environmental Protection Agency. Air Quality Criteria for Lead (September 29, 2006)

[xvii] U.S. Environmental Protection Agency. Air Quality Criteria for Lead (September 29, 2006)

[xviii] Insert – IEUBK reference

[xix] U.S. Environmental Protection Agency. Air Quality Criteria for Lead (September 29, 2006)

[xx] Jacobs, D. E. Occupational exposures to lead-based paint in structural steel demolition and residential renovation work. Int. J. Environ. Pollut. 9: 126-139. 1998

[xxi] Daniels, A. E.; Kominsky, J. R.; Clark, P. J. (2001) Evaluation of two lead-based paint removal and waste stabilization technology combinations on typical exterior surfaces. J. Hazard. Mater. 87: 117-126 page.

[xxii] Chute, D. O.; Mostaghim, N. L. (1991) Protecting workers from lead. A review of regulations and practices. J. Prot. Coat. Linings 8(4): 36-43

[xxiii] U.S. Consumer Product Safety Commission. Federal Register (42 FR 44199, September 1, 1977, as amended at 43 FR 8515, March 2, 1978

[xxiv] Consumer Product Safety Improvement Act (H.R. 4040) http://thomas.loc.gov/cgi-bin/bdquery/z?d110:h.r.04040:

[xxv] See: European Council Directive 89/677/EEC

[xxvi]Australian Uniform Paint Standard (Appendix I of the Schedule 1 - Standard for the Uniform Scheduling of Drugs and Poisons) http://www.comlaw.gov.au/ComLaw/Legislation/LegislativeInstrument1.nsf/0/3BBB39C4645284BCCA2574A6001C711F/$file/PoisonsStandard2008.pdf?bcsi_scan_3943BF699F7EFDAD=0&bcsi_scan_filename=PoisonsStandard2008.pdf

[xxvii] J. Rochow *personal communication* "highlighted at 1994 Global Dimensions of Lead Poisoning conference, convened by the Alliance to End Childhood Lead Poisoning"

[xxviii] S. Clark "Levels of Lead in Decorative Paints", presented at The 12th Asian Paint Industry Council Meeting, Kuala Lumpur, Malaysia 6-7 November 2008, pp 98-112 of meeting document.

[xxix] See: http://webknow.ru/ekologija_00167_6.html

[xxx] See: http://www.ilo.org/ilolex/cgi-lex/ratifce.pl?C013

[xxxi] See: http://www.baugid.ru/2008/02/01/masljanye-materialy.html and http://prilog.ru/materialy/kraski.html

[xxxii] Lin,G.Z.,et al.,Lead in housing paints: An exposure source still not taken seriously for children lead poisoning in China. Environ. Res. (2008), doi:10.1016/j.envres.2008.09.003

[xxxiii] Kumar, A., Gottesfeld, P. Lead Contents in Household Paints in India, Science of the Total Environment; (2008) 407:333 – 337

[xxxiv] Jacobs D.E, Clickner R.L., Zhou J.L., Viet S.M., Marker D.A., Rogers J.W., Zeldin D.C., Broene P. and W. Friedman. *The Prevalence of Lead-Based Paint Hazards in U.S. Housing*, Environ Health Perspect 110:A599-A606, Sept 13, 2002.

[xxxv] Centers for Disease Control and Prevention, NHANES 2003-2006 data.

[xxxvi] Weiss, B. Neurobehavioral toxicity as a basis for risk assessment. Trends Pharmacol Sci 1988; 9-59-62.

[xxxvii] Gilbert, S.G. and Weiss, B. A rationale for lowering the blood lead action level from 10 to 2µg/dL. NeuroToxicology. 27 (5), September 2006, Pages 693-701

[xxxviii] Bellinger, D. C. and Bellinger, A. M. Childhood lead poisoning: the torturous path from science to policy. The Journal of Clinical Investigation 116 (4) April 2006, Pages 853-857.

[xxxix] See: http://www.who.int/whr/2002/en/whr02_en.pdf

[xl] Valent, F.; Little, D.; Tamburlini, G.; Barbone, F. (2004) Burden of disease attributable to selected environmental factors and injury among children and adoles-cents in Europe. Environmental Burden of Disease Series No. 8. http://www.who.int/entity/quantifying_ehimpacts/publications/en/ebd8web.pdf

[xli] Landrigan, P. et al, *Environmental Pollutants and Disease in American Children:* http://www.ehponline.org/members/2002/110p721-728landrigan/EHP110p721PDF.PDF

[xlii] A methodology that can be used for relating lead regulations to the MDG can be found in the United Nations Development Program's *Toolkit for Incorporating the Sound Management of Chemicals in MDG-based Policies and Plans* at: http://www.undp.org/chemicals/Documents/UNDP%20toolkit%20-%20Mainstreaming%20the%20Sound%20Management%20of%20Chemi%5B1%5D..pdf

[xliii] See: Lead Poisoning and Rome, from the Encyclopedia Romana, on the web at: http://penelope.uchicago.edu/~grout/encyclopaedia_romana/wine/leadpoisoning.html

[xliv] Decision 22/4 Chemicals III Lead Adopted By The Governing Council At Its Twenty-Second Session/Global Ministerial Environment Forum

http://www.chem.unep.ch/Pb_and_Cd/GC-22-4-III-lead.htm

[xlv] Decision 23/9 Chemicals Management Adopted By The Governing Council At Its Twenty-Third Session/Global Ministerial Environment Forum

http://www.chem.unep.ch/Pb_and_Cd/GC-23-9-III-lead-and-cadmium.htm

[xlvi] Decision 25 Chemicals II Lead and cadmium Adopted By The Governing Council At Its Twenty-Fifth Session/Global Ministerial Environment Forum

http://www.chem.unep.ch/Pb_and_Cd/GC25/Draft_decisionapproved.pdf

[xlvii] See http://www.chem.unep.ch/mercury/partnerships/new_partnership.htm