
**Open-ended Working Group of the International Conference
on Chemicals Management**

Second meeting

Geneva, 15–17 December 2014

Item 5 (a) of the provisional agenda*

**Emerging policy issues and other issues of concern:
report on progress on emerging policy issues**

Progress on emerging policy issues and other issues of concern

Note by the secretariat

I. Introduction

1. One of the functions of the International Conference on Chemicals Management, as set out in paragraph 24 (j) of the Overarching Policy Strategy of the Strategic Approach to International Chemicals Management, is “to focus attention and call for appropriate action on emerging policy issues as they arise and to forge consensus on priorities for cooperative action”.
2. Lead in paint, chemicals in products, nanotechnologies and manufactured nanomaterials, hazardous substances within the life cycle of electrical and electronic products and endocrine-disrupting chemicals have been identified as emerging policy issues by the Conference.
3. At its third session, held in Nairobi from 17 to 21 September 2012, the Conference adopted the omnibus resolution III/2 on emerging policy issues, and resolution III/3, on managing perfluorinated chemicals and the transition to safer alternatives, both containing a series of collaborative actions to be undertaken by stakeholders of the Strategic Approach during the intersessional period leading to the fourth session of the Conference.
4. Attention is drawn to the following documents prepared by the relevant participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), which provide additional information on progress achieved in relation to these issues:
 - (a) Report of the third meeting of the Global Alliance to Eliminate Lead Paint (see SAICM/OEWG.2/INF/9);
 - (b) Report on nanotechnologies and manufactured nanomaterials (SAICM/OEWG.2/INF/10);
 - (c) Draft chemicals in products programme proposal (see SAICM/OEWG.2/INF/11);
 - (d) Making the business case for knowing chemicals in products and supply chains (see SAICM/OEWG.2/INF/12);
 - (e) Report of the UNIDO-hosted expert group meeting on hazardous substances within in the life cycle of electrical and electronic products (see SAICM/OEWG.2/INF/13);

* SAICM/OEWG.2/1.

- (f) Compilation of best practices on hazardous substances in the life cycle of electrical and electronic products (see SAICM/OEWG.2/INF/14).

II. Possible action by the Open-ended Working Group

5. The Open-ended Working Group may wish:
- (a) In respect of emerging policy issues:
- (i) To review progress made on each emerging policy issue, including whether the actions called for in respect of each issue by the International Conference on Chemicals Management are being adequately implemented;
- (ii) To consider recommendations for continuing cooperative action on each emerging policy issue as necessary;
- (b) In respect of managing perfluorinated chemicals and the transition to safer alternatives, to review progress made in managing perfluorinated chemicals and the transition to safer alternatives.

III. Summary of progress achieved on emerging policy issues

A. Lead in paint

1. Mandate

6. At its third session, the Conference recognized the need for continued efforts to eliminate the use of lead pigments and lead in paints. In its resolution III/2 B, the Conference encouraged all Governments, civil society organizations and the private sector to provide technical and financial assistance wherever possible, including in the following areas: filling information gaps on the presence or absence of lead paint in the consumer market and expanding information on lead exposure pathways for vulnerable populations; building capacities to conduct blood lead testing and surveillance programmes, to assess residential and occupational risks and to implement public and professional education on the mitigation of lead poisoning; promotion of international third-party certification of new paint products to help consumers; prevention programmes to reduce exposure in and around housing, childcare facilities, schools and other buildings and in industrial facilities producing or using paint that contains added lead compounds; promotion of national regulatory frameworks, as appropriate, to stop the manufacture, import, export, sale and use of lead paint and products coated with lead paint; encouraging companies to substitute lead compounds added to paint with safer alternatives.

7. In addition to the mandate set out in resolution III/2, the African, Asia-Pacific, Central and Eastern European and Latin American and Caribbean regions have all encouraged the holding of regional awareness-raising and training workshops as part of the overall efforts on lead paint as an outcome of their respective regional meetings. The African and the Asia-Pacific regions both adopted resolutions on lead in paint. In so doing, both the African and the Asia-Pacific regions supported promoting the introduction of regulatory frameworks to stop the manufacture, import, export, sale and use of lead-based paints; the testing of paint for lead; and increased capacity for data collection. In addition, Africa called for paint manufacturers, importers and vendors to discontinue the manufacture, import, export, sale and use of lead paint.

2. Progress to date

8. The efforts of the Global Alliance to Eliminate Lead Paint are focused on its established business plan. The business plan lays out eight priority actions for 2012–2013 and additional actions for 2014–2020. The business plan approach is being pursued within five focal areas: health aspects, environmental aspects, workers' health, legislation and regulation, and outreach to industry.

9. One of the business plan priority actions of the Global Alliance for 2012–2013 was to fill information gaps on the presence or absence of lead paint in the consumer market of those countries where little or no data is available. In 2012, UNEP supported a global non-governmental organization network to sample and test the lead content of decorative paints on the market in nine regionally and linguistically diverse developing countries and countries with economies in transition where no current data on lead in paint appeared to be available. Three of the countries were in Latin America and the Caribbean (Argentina, Chile and Uruguay), four in Africa (Côte d'Ivoire, Ethiopia, Ghana and Tunisia), and two were in Central and Eastern Europe (Azerbaijan and Kyrgyzstan). The report, and relevant annexes, are available from:

www.unep.org/chemicalsandwaste/Portals/9/Mercury/Documents/publications/Lead_in_Enamel_decorative_paints.pdf.

10. These efforts complement the existing paint testing data in 28 countries, and additional projects under way by Global Alliance partners through the SWITCH-Asia Programme to test paints in Bangladesh, China, India, Indonesia, Nepal, the Philippines, Sri Lanka and Thailand.

11. In response to a July 2014 call by the Global Alliance secretariat requesting official confirmation of the status of lead paint regulation in countries, as at 24 September 2014 some 44 Governments had indicated that they had legally binding restrictions in place regarding lead paint. This relates to the following targets established in the business plan of the Global Alliance for the number of countries that have adopted legally binding laws, regulations, standards and/or procedures to control the production, import, 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: 30 countries by 2013; 70 or more countries by 2015; and all countries by 2020.

12. The Global Alliance conducted an international awareness campaign on lead poisoning prevention from 20 to 26 October 2013, with an initial focus on eliminating lead paint. Activities took place in more than 100 cities in 44 countries. In addition to raising awareness about lead poisoning, the campaign highlighted countries' and partners' efforts to prevent childhood lead poisoning and urged further action to eliminate lead paint. As part of the campaign, the Alliance developed, and shared via the campaign website, customizable outreach materials for country specific efforts, which were disseminated via print media, web banners and social media. Outreach materials are available on the website in Arabic, Chinese, English, French, Russian and Spanish. The campaign website can be consulted at: www.who.int/ipcs/pb_campaign/en.

13. A brochure entitled "Elements of a national legal and regulatory framework for the elimination of the use of lead in new decorative paint" has been developed by UNEP in cooperation with the interim advisory group members of the Global Alliance. The brochure provides guidance to Governments considering establishing a national framework for implementing and enforcing legal requirements for the control of lead in decorative paint used in homes, schools and other locations that pose high exposure risks for children. The objectives of lead paint legislation and/or regulation could include: (a) prevention of the manufacture, import, use and export of lead paint; (b) the development of a system with effective means of enforcement and compliance; and (c) the establishment of institutional responsibilities and arrangements for the management and enforcement of legislation and/or regulation. The brochure is available at the following weblink: www.unep.org/chemicalsandwaste/Portals/9/Lead_Cadmium/docs/GAELP/GAELP%20Documents/NRFlyer-.pdf.

14. As at August 2014, there were 35 contributors to the Global Alliance, of which a limited number are from Governments, including two from Latin America and the Caribbean (Honduras and Paraguay), two from Africa (Cameroon and Kenya) and three from Western European and other States (Canada, Switzerland and the United States of America). Three contributors to the Global Alliance come from intergovernmental organizations (UNEP, the United Nations Industrial Development Organization (UNIDO) and the World Health Organization (WHO)). The International Paint and Printing Ink Council (IPPIC), an organization whose membership comprises trade associations from around the world representing the interests of the paint and printing ink industries, has also joined the Global Alliance. There are also 25 contributors to the Global Alliance from a variety of non-governmental organizations from different regions. The list of current contributors is available at the following link: <http://unep.org/chemicalsandwaste/LeadCadmium/PrioritiesforAction/LeadPaints/PotentialPartners/CurrentContributors/tabid/104120/Default.aspx>.

15. In response to a July 2014 call by the Global Alliance secretariat to Alliance contributors to provide information about progress in relation to business plan priority actions and targets, the secretariat of the Alliance compiled such information and made it available for further discussion at the third meeting of the Alliance, held in New Delhi on 24 September 2014, and elsewhere, as appropriate.

16. The third meeting of the Global Alliance was held in conjunction with a workshop on establishing legal limits on lead in paint on 22 and 23 September 2014. Both events were hosted at the WHO Regional Office for South-East Asia in New Delhi. The purpose of the third meeting was to review progress in terms of actions to eliminate lead paint and to catalyse new activities to implement the business plan priorities of the Global Alliance. The third meeting also provided a forum to discuss matters that could be brought to the attention of the Open-ended Working Group at its second session in preparation for the fourth session of the International Conference on Chemicals Management. The workshop was intended to provide participants with the necessary tools and information to take further

steps at the national level to establish legal limits on lead in paint. Further information about the meeting, including the meeting documents and final report, is available from: <http://www.unep.org/chemicalsandwaste/LeadCadmium/PrioritiesforAction/LeadPaints/GAELPWorkshop/tabid/1036780/Default.aspx>.

17. Through the Quick Start Programme, two projects relating to lead in paint have been funded. The Research and Education Centre for Development in Cameroon completed an evaluation of lead concentrations in domestic and imported paints, and developed and distributed education materials on lead hazards. An ongoing project in Nepal, through the Society for Legal and Environmental Analysis and Development Research, aims to document the import and export and the production and consumption of decorative paints that may contain lead. Awareness-raising pamphlets have been developed and an informal meeting has been held with concerned paint manufacturers' workers, the media, the general public, policymakers and non-governmental organizations working on environmental health. Additional information on these Quick Start Programme projects is available from the Quick Start Programme website: www.saicm.org/index.php?option=com_content&view=article&id=109&Itemid=504.

18. A three-year project, approved by the secretariat of the Global Environment Facility (GEF) in December 2013, will be implemented in Cameroon, Côte d'Ivoire, Ethiopia and the United Republic of Tanzania. The objective of the project is to minimize and ultimately eliminate the manufacture, import, sale and use of decorative lead paints in participating countries and to develop strategies to replicate actions elsewhere in the African region and beyond. GEF funds for the project total \$1 million and co-financing totals \$3,234,365.

3. Next steps

19. The outcomes of the third meeting of the Global Alliance are set out in the report of the meeting (see SAICM/OEWG.2/INF/9). Governments and other Strategic Approach stakeholders are warmly encouraged to participate in the priority activities identified by the Global Alliance for the next implementation period.

20. The Global Alliance has been instrumental in coordinating and supporting activities and has benefited from strong civil society engagement. Only a few Governments have participated directly in Global Alliance activities to date, however, and there has been insufficient donor support.

21. Governments that have not yet responded to the request to confirm the status of lead paint regulation in their countries are invited to do so without delay in order that the Global Alliance secretariat can track progress in achieving the 2020 goal on the elimination of lead paint.

22. This is an issue that has long been recognized, and given that cost-effective alternatives are available to support the elimination of lead in paint, it is inherently different from other emerging policy issues. While the 2020 goal of eliminating lead in paint is achievable, greater impetus is crucial, given that many countries have not begun to tackle the issue.

B. Chemicals in products

1. Mandate

23. In its resolution III/2 C, the Conference agreed to continue the multi-stakeholder project established under resolution II/4 C to undertake cooperative actions to address the need to improve the availability of and access to relevant information on chemicals in products in the supply chain and throughout their life cycles. In the same resolution, the Conference invited UNEP to continue to lead the project, and decided that a proposal would be developed for a voluntary international programme for information on chemicals in products along the supply chain and throughout their life cycles with the aim of facilitating and guiding the provision and availability of, and access to, relevant information on chemicals in products among all stakeholder groups. The Conference agreed that in the development of the proposal, the following tasks should be undertaken: identification of the roles and suggestions for responsibilities of the major stakeholder groups; development of guidance on the modalities of information exchange, including what information on chemicals could be exchanged, and how; and implementation of pilot projects in one or more priority sectors to demonstrate the applicability of the guidance. At its third session, the Conference recognized the importance of the involvement of chemicals management experts and proposed the inclusion of experts representing final product manufacturers and the waste sector in the current steering group. It also urged the chemicals in products project to avoid duplicating the efforts of the Globally Harmonized System of Classification and Labelling of Chemicals.

2. Progress to date

24. The results of the chemicals in products project findings to date show advancing progress towards the Overarching Policy Strategy objective related to knowledge and information in some sectors and with some actors.

25. UNEP has developed a workplan for the intersessional period between the third and fourth sessions of the Conference, which has been reviewed by the chemicals in products project steering group. The workplan includes the development of the proposed chemicals in products programme and pilot testing of the programme in one or more priority product sectors. The steering group has also reviewed the proposed structure for the programme proposal to be submitted to the Conference at its fourth session. The structure of the governing principles and guidance for implementation is based on a common approach adopted by similar voluntary programmes, including the United Nations-supported Principles for Responsible Investment initiative. It would include an information exchange on principles for chemicals in products and guidance on a chemicals information exchange. At the same time, outreach to key sectors has continued.

26. The development of the chemicals in products programme is actively under way. The chemicals in products programme has been designed as a voluntary initiative aimed at businesses and organizations and other participants throughout the product life cycle and is intended to engage all the stakeholders in the product chain, which includes those involved in raw material supply, component and product manufacture, distribution, retailing, use and end-of-life management. Each of these actors has a need for specific types of chemical information and, under the chemicals in products programme, each would exchange chemicals information with others in their product sector. The programme also recognizes the information needs of stakeholders who may not necessarily handle a product, such as Governments and non-governmental organizations, but which nonetheless require chemicals in products information.

27. Draft principles and guidance on the implementation of the chemicals in products programme were developed and reviewed for stakeholder feedback, including through a consultation meeting held in Boston, United States, on 5 and 6 December 2013. The report of the consultation meeting is available from the chemicals in products project website. The elements of the chemicals in products programme were formulated to allow stakeholders to demonstrate their commitment to the sound management of the chemicals contained in products throughout their life cycle: as they are fabricated, transported, bought and sold, used, become part of reuse systems and recycling operations for material recovery and, finally, when they are discarded as waste. In addition to the development of the guidance, there has been ongoing outreach to key stakeholders who could be involved in demonstrating the chemicals in products programme through a pilot project in their sector. The possibility of a pilot project has helped to generate growing interest among and the involvement of numerous brands and companies and their supply chains.

28. A proposal for a \$1 million GEF project aimed at identifying and demonstrating practices which facilitate access to information on chemicals contained in textile products was developed by UNEP and approved by GEF in February 2014. This project proposal is strongly supported by a number of leading apparel, footwear and outdoor-clothing brands, generating \$3 million in co-finance from member companies in the Outdoor Industry Association and the Zero Discharge of Hazardous Chemicals group. The project outcomes will assist the textile industry in practising sound chemicals management and taking appropriate measures to reduce the use of less desirable chemicals in their products. The executing agency, the Ministry of Environmental Protection of China, will work closely with the national production base for the textiles industry – a sector with which it already cooperates closely on chemicals issues. The Ministry will also coordinate with the Chinese Academy of Inspection and Quarantine, a government institute that provides support for overseeing exports. In this regard, the UNEP chemicals in products programme pilot will work in a supportive manner with government activities and textile industry initiatives (e.g., the chemicals management module developed by the sector's chemicals management working group), ensuring coordination and efficiency in promoting shared goals. The project will engage with textile supply chains in China, and with other stakeholders globally, to pilot the information exchange. Project planning is under way between UNEP, national and international textile sector actors and Chinese governmental organizations. The inception meeting for this project is scheduled for 20 October 2014.

3. Next steps

29. The Open-ended Working Group may wish to provide feedback on the draft chemicals in products programme proposal developed in consultation with relevant stakeholders (see SAICM/OEWG.2/INF/11).

30. As called for by the Conference in its resolution III/2, a chemicals in products workshop is planned in advance of the fourth session of the Conference in order to gather final comments on the programme proposal and to build the required support for the programme. The proposal will then be forwarded to the Conference at its fourth session for its consideration as requested in resolution III/2.

31. The implementation of the textile sector pilot project has commenced and efforts have been initiated to pilot the chemicals in products programme in another priority product sector, resources permitting.

C. Nanotechnologies and manufactured nanomaterials

1. Mandate

32. In its resolution III/2 E, on nanotechnologies and manufactured nanomaterials, the Conference encouraged all Strategic Approach stakeholders to facilitate the exchange of information in order to improve global transparency and to allow better decision-making processes; invited relevant international organizations, including the participating organizations of IOMC, such as the Organization for Economic Cooperation and Development (OECD) and the United Nations Institute for Training and Research (UNITAR), to continue to support efforts to facilitate capacity-building information exchange, develop guidance and training materials, and support public dialogue; and recommended that further pilot projects be developed at the national level to enhance stakeholder capacity for the sound management of nanotechnologies and manufactured nanomaterials. In addition, 13 actions were added to the Global Plan of Action regarding nanotechnologies and manufactured nanomaterials at the third session of the Conference.

2. Progress to date

33. UNITAR, with funding from the Government of Switzerland, has embarked on a second phase of pilot projects (building on the results of the phase 1 projects) on nanotechnology and manufactured nanomaterials for the Arab, Asia-Pacific, and Central and Eastern European regions. The countries participating in the second round pilot projects are Armenia, Jordan and Viet Nam. National planning workshops were held in Armenia and Viet Nam between March and April 2014. An e-learning course entitled "Introduction to nanomaterials safety" was launched on 5 May and offered until 29 June 2014 with positive reviews from participants. Experiences from the pilot projects in both phase 1 and phase 2 were shared with Strategic Approach stakeholders at regional meetings held between August 2013 and March 2014.

34. In order to address the occupational risks of nanomaterials, WHO is developing guidelines on protecting workers from the potential risks of manufactured nanomaterials. These guidelines are intended to facilitate improvements in occupational health and the safety of workers potentially exposed to nanomaterials in a broad range of manufacturing and social environments. The guidelines will incorporate elements of risk assessment and risk management and contextual issues. They will support government policymakers with scientific evidence and recommendations for standards and guidance for the safe handling of nanomaterials in the workplace. In addition, the guidelines will serve as a basis for the development of an implementation guide containing user-specific guidance and recommendations for target groups, and providing key facts for risk assessment and management. Systematic evidence reviews to provide the basis for the guidelines are under way.

35. OECD aims to ensure that the approaches for hazard, exposure and risk assessment for manufactured nanomaterials are of a high quality, science-based and internationally harmonized. With this in mind, OECD continues to review all existing methodologies to identify and implement the changes necessary for their application to nanomaterials through the development of guidance documents. In addition, work continues on exposure. For example, a three-tiered approach has recently been developed for conducting field-based, real-time workplace release and exposure measurement and assessment for airborne nano-objects, and their aggregates and agglomerates greater than 100 nm, and offline analyses of measurement samples. This approach can also be part of a risk management and mitigation strategy and can be used to assess the effectiveness of risk mitigation measures. Overall, the Strategic Approach has been instrumental in broadening the reach of OECD discussions and progress in relation to the safety testing of nanomaterials.

3. Next steps

36. National training workshops on nano-safety are scheduled to be held in Armenia, Jordan and Viet Nam in early 2015. Other activities planned for 2015 include subregional workshops on nano-safety for Africa, Latin America and the Caribbean and Asia and the Pacific, in partnership with OECD. The second round of the nanotechnology e-learning course started in October 2014.

37. Side events, in partnership with OECD, are planned for the second meeting of the Open-ended Working Group and the fourth session of the International Conference on Chemicals Management, to be held in 2015. OECD will continue to provide information arising from its programme on the safety of manufactured nanomaterials, which will assist in this work.

D. Hazardous substances within the life cycle of electrical and electronic products

1. Mandate

38. At the third session of the Conference, new activities on hazardous substances within the life cycle of electrical and electronic products were added to the Global Plan of Action and a number of additional activities were highlighted for action in resolution III/2 D. In the resolution, the Conference decided to continue to work to identify, compile and create an international set of best practice resources on topics in this area, drawing on existing initiatives and opportunities for collaboration, which may include: (a) tools that lead to progress in the development of designs that reduce and eliminate the use of hazardous chemicals in production; (b) business standards and practices for tracking and disclosing the presence of hazardous chemicals in the manufacturing, use and end-of-life stages; (c) tools and information on potential safer substitutes for chemicals of concern in product applications; (d) green purchasing strategies of businesses and Governments; (e) extended producer responsibility policies of businesses and Governments; (f) provisional strategies and actions in design and manufacturing that should be implemented until elimination is possible or safer substitutes are available.

2. Progress to date

39. The Secretariat has prepared a summary of key activities based on inputs received from the international organizations working in this area as set out in the following paragraphs.

40. At its eleventh meeting, held in May 2013, the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal did not adopt draft technical guidelines on transboundary movements of electronic and electrical waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention. Work on the technical guidelines continued, and they were submitted to the Open-ended Working Group of the Basel Convention for consideration at its ninth meeting in September 2014 and for possible adoption by the Conference of the Parties to the Basel Convention at its twelfth meeting in May 2015. The latest version of the draft technical guidelines is available from www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/Ewaste/tabid/2377/Default.aspx.

41. In addition, at its eleventh meeting, the Conference of the Parties advanced its work on many issues related to implementation. The framework for the environmentally sound management of hazardous wastes and other wastes, which was adopted by the Conference of the Parties, provides a common understanding of environmentally sound management, including waste prevention, minimization, reuse, recycling, recovery and final disposal. In addition, the Conference of the Parties decided to mandate an expert working group to further elaborate and implement actions on initial short-term work items and to develop a work programme for additional priorities and key work items and actions for the implementation of environmentally sound management, including developing several guidance documents and tools related to such management.¹ Furthermore, the new multi-stakeholder enforcement network, the Environmental Network for Optimizing Regulatory Compliance on Illegal Traffic,² seeks to promote compliance with provisions on the illegal trafficking of hazardous wastes through better implementation and enforcement of national laws.

42. In relation to the Partnership for Action on Computing Equipment (PACE), the Conference of the Parties at its eleventh meeting adopted sections 1 (purpose of the guidance document), 2 (environmentally sound management criteria recommendations), 4 (testing, refurbishment and repair of used computing equipment) and 5 (material recovery and recycling of end-of-life computing equipment) of the guidance document on the environmentally sound management of used and end-of-life computing equipment and confirmed that section 3 (transboundary movement of used and end-of-life computing equipment) may be revised following the adoption of technical guidelines on

¹ See: www.basel.int/Implementation/CountryLedInitiative/EnvironmentallySoundManagement/Overview/tabid/3615/Default.aspx.

² See: www.basel.int/Implementation/TechnicalAssistance/Enforcement/Enforce/tabid/3479/Default.aspx.

transboundary movements of e-waste, in particular regarding the distinction between waste and non-waste (see above), in order to avoid duplications and discrepancies. The Conference of the Parties agreed to extend the mandate of PACE until the end of 2015 to enable it to complete the work programme for 2014–2015.

43. The UNEP International Environmental Technology Centre (IETC) leads the Global Partnership on Waste Management of the Basel Convention. As part of its work in this area, an interactive e-waste project map highlighting ongoing initiatives by various organizations worldwide can be found on the IETC website. Additional input is welcomed to the interactive map, which is available from: www.unep.org/gpwm/InformationPlatform/Mapsofongoingactivities/E-waste/tabid/104457/Default.aspx.

44. In addition, IETC has published a three-part series of manuals on electronic waste, including: (a) *E-waste: Volume I: Inventory Assessment Manual*, as a guidance document to support waste electrical and electronic equipment and e-waste inventory development and assessment of risks involved; (b) *Volume II: E-waste Management Manual*, as a guidance document to develop and implement waste electrical and electronic equipment and e-waste management systems; and (c) *Volume III: WEEE/E-waste "Take-back system"*, to serve as a guidance document for practitioners and decision makers in understanding, planning, designing and implementing waste electrical and electronic equipment and e-waste take-back schemes at the national and local levels. The three-part series of manuals is intended to assist stakeholders in understanding the various aspects of take-back systems for e-waste, including a financial mechanism and policy framework. In the light of the lessons learned from case studies in different countries, the manuals could be used for building and implementing a successful waste electrical and electronic equipment and e-waste management chain. The case studies are included in the manuals as learning materials. The three-part series of manuals are available from www.unep.org/ietc/InformationResources/Publications/tabid/56265/Default.aspx.

45. The United Nations University hosts the secretariat of the "Solving the E-waste Problem" (StEP) initiative, a global consortium of more than 65 members (private companies, research institutes, government agencies, international organizations and non-governmental organizations) from all continents. StEP is dedicated to advancing the management and development of environmentally, economically and ethically sound e-waste resource recovery, reuse and prevention through the adoption of a holistic approach, which therefore also intentionally addresses design, policy and capacity issues. The StEP initiative seeks to provide science-based, applied recommendations towards a sustainable solution of the e-waste issue. StEP is implementing more than a dozen projects in the areas of research, the drafting of white papers, the conduct of pilot studies, development of e-waste management systems, the quantification of the e-waste stream and the provision of policy advice to regular e-waste academies for policymakers, managers and scientists.

46. UNIDO is the lead organization of the e-waste focal area under the Global Partnership on Waste Management and is a member of the StEP initiative. UNIDO is responsible for a number of ongoing projects in this area.

(a) In Uganda, a business plan calculation tool has been developed to assist with the calculations required in order to develop a five-year business plan. The tool was tailored to the situation in Uganda and shows that one of the main influencing factors is the treatment of the cathode ray tube. The tool, which can be adapted for use in other countries, is particularly useful for decision makers, providing an overview of the costs of treatment and the level of financial support required for the recycling system;

(b) In the United Republic of Tanzania, UNIDO is working closely with WorldLoop in setting up an e-waste dismantling facility. As a starting point, an inventory and an economic feasibility study were conducted. Based on the outcome of those studies, UNIDO identified companies active in e-waste collection and dismantling. A joint venture between an e-waste collector and a plastic recycling company, which is seeking to invest in e-waste dismantling, was selected to be supported through the project;

(c) The UNIDO project on e-waste management is the first such project to be funded by GEF. The project aims to develop and implement a holistic e-waste management strategy. In Ethiopia, a State-owned e-waste dismantling facility already exists. However, the operations at the facility need to be scaled up and improved to deal with the e-waste generated within Ethiopia. The project is focused on establishing an enabling environment to facilitate the improved operation of the dismantling facility.

47. UNIDO has various other projects in the GEF pipeline for funding. The project identification form for a GEF-funded regional project in Latin America was approved during the first quarter of

2014. This project will be implemented in 13 Latin American countries and focuses on scaling up national e-waste management infrastructure as well as facilitating regional cooperation. In addition, projects in the South African Development Community and the Economic Community of West African States regions are under development.

48. The WHO children's environmental health team has started working on electronic waste and its effects on children's health. This initiative was prompted by a 2011 ongoing pilot initiative developed by WHO collaborating centres in the Netherlands (Institute for Risk Assessment Sciences, Utrecht University) and Thailand (Chulabhorn Research Institute) that are assessing the exposure of children to e-waste in selected areas. WHO held a working group meeting to review the current situation of e-waste exposure and child health, including main exposures, priority health issues, research gaps and successful interventions. The objective of the meeting, which was held at the headquarters of WHO in Geneva on 11 and 12 June 2013, was to identify needs and to define next steps with key partners in the public health arena. Subsequently, WHO launched an e-waste project and network to establish and expand cooperation between experts and international stakeholders in the area of e-waste management. The aim of the project is to improve coordination and foster collaboration between WHO and other United Nations entities, WHO collaborating centres, non-governmental organizations and other partners, and to involve new stakeholders in the network. In June 2013, participants at the working group meeting published the Geneva Declaration on E-Waste and Children's Health, in which they called for appropriate action to prevent adverse health consequences resulting from improper e-waste management practices. The network on e-waste exposure and children's health seeks to balance health protection for vulnerable groups – pregnant women, unborn babies and children – and the potential economic gains of recycling e-waste. The network is also working on a training module to raise awareness among health professionals on the effects of e-waste on child health. The launch of the e-waste project and the network took place at the fifteenth International Conference of the Pacific Basin Consortium for Environment and Health, held in Honolulu, United States, from 24 to 27 September 2013.

49. UNIDO hosted an expert group meeting, held in Vienna from 22 to 24 September 2014, aimed at further strengthening relationships among strategic partners and defining a joint approach to e-waste management in developing countries and countries with economies in transition. The report of the meeting is available in document SAICM/OEWG.2/INF/13.

3. Next steps

50. UNIDO intends, subject to the availability of resources, to host a global workshop on hazardous substances within the life cycle of electrical products and electronics with all the key players in 2015. The workshop would strengthen cooperation between international organizations and facilitate communication between key players. Such meetings are helpful in enabling participants to draw on each other's expertise and to learn from each other.

51. Work to identify, compile and create an international set of best practice resources in accordance with the mandate provided by the International Conference on Chemicals Management at its third session and drawing on existing initiatives and opportunities, will continue.

52. WHO and the network on e-waste exposure and children's health are working towards raising awareness and integrating health and child health into other international initiatives. A WHO training module on the issue for the health sector will be published in 2014. A meeting is being planned for 2015 in coordination with the National Institute of Environmental Health Sciences of the United States with the objective of identifying effective preventive strategies to avoid children's exposure to e-waste.

E. Endocrine-disrupting chemicals

1. Mandate

53. In its resolution III/2 F, the Conference decided to implement cooperative actions on endocrine-disrupting chemicals with the overall objective of increasing awareness and understanding among policymakers and other stakeholders, and invited the participating organizations of IOMC, within their respective mandates as part of their programmes of work, to lead and facilitate cooperative actions on endocrine-disrupting chemicals in an open, transparent and inclusive manner. In the same resolution, the Conference invited the IOMC participating organizations to develop a plan of work for these cooperative actions on endocrine-disrupting chemicals, in consultation with participants of the Bureau of the Conference, and to publish the plan on the Strategic Approach clearing-house website.

54. In addition to the mandate provided by the Conference at its third session, resolutions on endocrine-disrupting chemicals were adopted in the Latin American and the Caribbean, African and Asia-Pacific regions, reinforcing resolution III/2 F. Among other things, the resolutions invited UNEP

and WHO, subject to the availability of resources, to: (a) develop a report on endocrine-disrupting chemicals with regional input that is targeted to the situation and needs of developing countries and countries with economies in transition; and (b) recommend a robust series of awareness-raising activities on endocrine-disrupting chemicals.

2. Progress to date

55. Since the third session of the Conference, UNEP and WHO have published a report entitled *State of the Science of Endocrine Disrupting Chemicals – 2012* together with a summary for decision makers. These documents, launched during the twenty-seventh session of the UNEP Governing Council in February 2013, provide, respectively, a detailed report on the current scientific information on endocrine-disrupting chemicals, and the key highlights of the scientific material in a summarized format to assist decision makers in determining key areas of concern. The summary document was circulated to all Strategic Approach focal points in April 2013, along with a letter highlighting key findings and calling for additional information and expressions of interest.

56. The participating organizations of IOMC were invited in resolution III/2 F to prepare a workplan for their cooperative activities in support of implementation of the resolution. The workplan, developed collaboratively by UNEP, WHO and OECD, was presented to the Bureau of the Conference at its meeting held on 9 and 10 July 2013 for its consideration and comment.

57. In line with the workplan, UNEP convened awareness-raising workshops on endocrine-disrupting chemicals back-to-back with the Strategic Approach regional meetings in the Latin America and Caribbean, Central and Eastern European, African and Asia-Pacific regions. The workshops have provided an opportunity for the regions to be briefed on the current state of scientific knowledge by lead authors of the *State of the Science of Endocrine Disrupting Chemicals – 2012* report. Participants in each region held extensive discussions on the issue, including the consideration of possible activities at the national and regional levels. The need for increased awareness on the issue was widely recognized, including the need for gathering information on levels of endocrine-disrupting chemicals in the environment. It was also widely recognized that there was limited or no control over substances with endocrine-disrupting potential at the national level in most countries. The need for further awareness-raising and research activities was highlighted in resolutions adopted in the African, Latin America and the Caribbean and Asia-Pacific regions. OECD representatives participated in all the regional workshops organized by UNEP and gave presentations on the achievements, tools and methodologies developed by the Organization and available to regulatory authorities in any country.

58. WHO convened an expert meeting in Bonn, Germany, on 7 and 8 July 2014, to discuss methodologies for health risk assessment of endocrine-disrupting chemicals. In particular, the meeting discussed experiences in exposure assessment, health surveillance, epidemiological study design and performance, as well as capacity-building at the national and international levels. Participants in the meeting also discussed means to facilitate activities to prevent the health impacts of endocrine-disrupting chemicals as well as to support countries in the implementation of resolution III/2 F. The report of the expert meeting will be published on the WHO website. During the expert meeting in Bonn, a presentation was given on a publication entitled *Identification of Risks from Exposure to Endocrine-Disrupting Chemicals at the Country Level*, produced by the WHO Regional Office for Europe in 2014, which is available from the WHO website. The report provides information on activities related to endocrine-disrupting chemicals in Denmark, France, Japan, the Republic of Korea and the United States.

59. WHO has established a global network of chemical risk assessment institutions in order to provide a forum for scientific exchange and collaborative actions, including on endocrine-disrupting chemicals. The first meeting of the network was held in Paris from 8 to 10 October 2014.

3. Next steps

60. Subject to the availability of funds, UNEP plans to conduct awareness-raising activities to provide information on the key concerns identified in the *State of the Science of Endocrine Disrupting Chemicals – 2012* report, and to build networks of interested experts to develop additional data and to further raise awareness of the environmental concerns.

61. UNEP is developing a project planning document on endocrine-disrupting chemicals; proposed activities include a gap analysis and a stakeholder analysis and consultation. As part of this process and subject to the availability of funds, UNEP plans to convene a multi-stakeholder consultation on endocrine-disrupting chemicals in the near future. In order to disseminate information on endocrine-disrupting chemicals, UNEP plans to update its website. In addition, the summary for policymakers of the *State of the Science of Endocrine Disrupting Chemicals – 2012* report is being translated and will soon be available in the six official languages of the United Nations.

62. WHO continues to implement the health-related aspects of the collaborative workplan, including actions in follow-up to the July 2014 meeting. These include providing advice and practical recommendations for the implementation of monitoring of exposure to endocrine-disrupting chemicals, endocrine system disorders surveillance and planning, and implementation of epidemiological studies to assess the risks of endocrine-disrupting chemicals in countries. Information will be disseminated through scientific journals and capacity-building will take place with the engagement of WHO collaborating centres and medical professionals' societies. WHO will also consider exposure to endocrine-disrupting chemicals as part of its upcoming activities on the early developmental and environmental origins of health and disease.

63. Chemical risk assessment institutions (for human health) that have not yet joined the WHO Chemical Risk Assessment Network are warmly invited to apply to become participants.

64. Work on endocrine-disrupting chemicals at OECD is of a scientific and technical nature. OECD is pursuing the development of methodologies for testing and assessing chemicals for endocrine disruption. Test guidelines are under development for in vitro assays on the detection of (anti-) estrogenic substances, and for in vivo assays on long-term fish and amphibian toxicity via endocrine modes of action. An advisory group on endocrine disrupters testing and assessment will meet in October 2014 and discuss opportunities for (a) merging and/or updating existing test guidelines to include endocrine endpoints where feasible and appropriate; (b) reconsidering dose selection in toxicological studies to address low-dose effects; (c) developing in vitro assays for the detection of thyroid disruption; and (d) test method development emanating from the adverse outcome pathways development programme. Generally, the advisory group on endocrine disrupters testing and assessment is always looking at ways to further harmonize approaches across countries and regions with regulatory needs in terms of the testing and assessment of chemicals for endocrine disruption.

65. Further information on details of the joint UNEP, WHO and OECD workplan as part of the IOMC cooperative actions in response to resolution III/2 F will be provided in an information document at the fourth session of the Conference.

IV. Summary of progress achieved on managing perfluorinated chemicals and the transition to safer alternatives

A. Mandate

66. In its resolution III/3, on managing perfluorinated chemicals (PFCs) and the transition to safer alternatives, the Conference noted the establishment of the Global PFC Group by OECD and UNEP. The Conference invited the Global PFC Group to broaden participation in the work on PFCs beyond the member countries of OECD as an important mechanism for achieving further progress in this area and to report on progress to the Conference at its fourth session. The Conference also invited the Global PFC Group to collaborate closely with the secretariat of the Stockholm Convention on Persistent Organic Pollutants and UNIDO on activities related to PFCs.

B. Progress to date

67. Since the third session of the Conference, the Global PFC Group, led by UNEP and OECD, has put much effort in trying to expand participation in the Group. To date, participants beyond the OECD membership include: Benin, China, Russian Federation, Viet Nam and Zambia. Efforts continue to expand participation and engage countries more actively in the different activities of the Group (e.g., participation in webinars, contribution to reports).

68. The Global PFC Group is drafting reports aimed at increasing awareness and sharing experiences with regard to a transition to safer alternatives. Since the third session of the Conference, the Global PFC Group has developed a synthesis paper on perfluorinated and polyfluorinated chemicals. The paper provides a detailed report on these substances and their uses in the chemicals industry. The paper, which highlights the negative impacts of the substances as well as identifying potential alternatives, is available from www.oecd.org/ehs/pfc/.

69. The Global PFC Group is currently working on the development of a cross-country analysis of risk reduction approaches for PFCs, which is intended to provide an analysis of in-development and in-place risk reduction approaches for PFCs in a number of OECD countries and emerging economies. It will highlight (a) the pre-existing conditions necessary for the development and implementation of risk reduction approaches in the countries under observation; (b) the strengths of the different approaches and the benefits gained from their implementation; and (c) the challenges faced during their development and implementation.

70. At its seventh meeting, to be held in May 2015, and every second ordinary meeting thereafter, the Conference of the Parties to the Stockholm Convention is scheduled to evaluate the continued need for perfluorooctane sulfonic acid (PFOS), its salts and perfluorooctane sulfonyl fluoride (PFOSF) for the various acceptable purposes and specific exemptions provided in Annex B to the Convention, on the basis of available scientific, technical, environmental and economic information (paras. 5 and 6 of part III of Annex B). As requested by the Conference of the Parties at its sixth meeting, the Persistent Organic Pollutants Review Committee of the Stockholm Convention, at its ninth meeting held in October 2013, adopted terms of reference for the assessment of alternatives to PFOS, its salts and PFOSF and for the evaluation of those chemicals at the seventh meeting of the Conference of the Parties. The Committee established an intersessional working group to prepare a draft assessment and invited parties and observers to submit to the secretariat information on alternatives to PFOS, its salts, PFOSF and their related chemicals by 31 January 2014. Furthermore, the Committee adopted the revised guidance on alternatives to PFOS, its salts, PFOSF and their related chemicals (UNEP/POPS/POPRC.9/INF/11/Rev.1) and agreed that it would review the guidance at its tenth meeting, to be held in Rome from 27 to 30 October 2014, taking into account the outcomes of the assessment of alternatives mentioned above.

C. Next steps

71. The consideration of PFCs should foster coordination and cooperation among entities such as OECD, UNEP, UNIDO and the Stockholm Convention and expand participation in discussions on this issue. With OECD taking the lead on ongoing activities and UNEP injecting a developing country perspective into the matter, this partnership has the potential to bridge a North-South divide on this issue.
