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Strategic Approach
to International
Chemicals Management

**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**

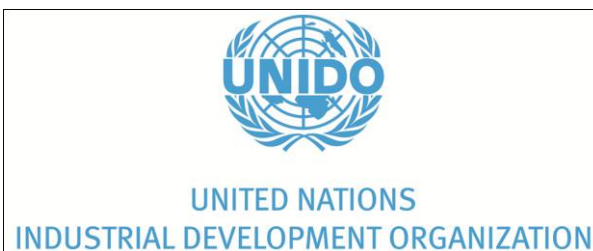
**Report of the United Nations Industrial Development
Organization Expert Group Meeting on electronic waste**

Note by the secretariat

The secretariat has the honour to circulate, for the information of participants, the report of the United Nations Industrial Development Organization expert group meeting on electronic waste, held in Vienna from 22 to 24 September 2014 (see annex). The report is reproduced as received by the secretariat, without formal editing.

* SAICM/OEWG.2/1.

Annex



UNIDO E-waste EGM

**“Promoting sustainable e-waste solutions”
22- 24 September, Vienna, Austria**

Meeting Report

October 2014

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1. Introduction and Background

The growing amount of e-waste in developed and developing countries is a major concern to the international community. The increasing functionality of complex EEE requires the use of scarce materials like rare earth and precious metals (e.g.: gold, silver and palladium), which has high value for recycling. At the same time EEE contains toxic components like mercury, lead, palladium and others. In developing countries often no regulations are in place and rudimentary methods are used to handle e-waste. Unsound treatment methods, like burning of cables or leaching to recover precious metals, result in severe impact on the human health as well as on the environment. Due to its complexity and its two folded nature e-waste management is an emerging issue on the national and international agendas. International organizations, NGOs, governments and the private sector started to get active in finding solutions to overcome the burdens of unsound management of e-waste.

In this respect and in line with UNIDO's Green Industry Initiative, UNIDO actively contributes to identify and promote sustainable solutions for e-waste management in developing countries. UNIDO implements e-waste management related projects around the globe. Currently the Cleaner Production Unit implements projects in East Africa (Tanzania, Uganda and Ethiopia), the Stockholm Convention Unit has projects in the pipeline for Latin America and East and South East Asia. In addition to this the Regional Office in Thailand implements a project in Cambodia focusing on employment creation along the e-waste management chain.

UNIDO entered several strategic partnerships with the private sector, academia and non-governmental-organizations to join forces to identify sustainable solutions for e-waste management on an international level taking into account regional and national circumstances.

UNIDO's portfolio on e-waste management is expected to grow in the near future and a need to align ongoing and planned activities is identified. To do so, UNIDO initiated an internal process to review the ongoing activities and define a future strategy in order to efficiently reply to incoming requests. As a second step, UNIDO decided to organize an EGM on e-waste management to involve its key strategic partners in the discussion to receive feedback on the current activities as well as to strengthen existing partnerships.

2. Objective

The main objective of the EGM was to

- get a better understanding of the current situation and ongoing activities within the sector of e-waste management
- strengthen the relationship with all stakeholders and strategic partners
- get a shared understanding of the future perspective on e-waste management in developing countries
- Get a better understanding of UNIDO's role and planned activities

3. Detailed report

3.1. Introduction of participants

The afternoon of day 1 was used to introduce the various stakeholders around the table. Each participant had the chance to give a short introduction and their involvement in e-waste management around the globe. An overview of the main activities ongoing by the participating organizations is summarized in Table 1 below – for more detailed information please refer to the respective websites (see Annex B):

Organization	Description	Ongoing projects related to e-waste management
Dismantling and Recycling Centre (D.R.Z)	The Dismantling and Recycling Center is a social enterprise focusing on the treatment of obsolete e-equipment in terms of reuse & refurbishment, manual dismantling and upcycling & trash design. Further the DRZ conducts awareness raising activities and provides basic and planning data for research purposes.	<ul style="list-style-type: none"> Establishment of an Business Plan for a manual dismantling facility in Uganda
BOKU University of Natural Resources and Life Sciences Vienna	The institute on waste management at the BOKU has its main research focus on <ul style="list-style-type: none"> Waste analytic and emission monitoring Waste prevention Optimization of Waste Collection and Recycling Biological treatment Aftercare and emission mitigation of landfills Incineration residues Development cooperation and transfer of knowledge Sustainability assessment based on Life Cycle Approach 	<ul style="list-style-type: none"> Several projects focusing on treatment and recovery, hazardous materials, EPR schemes REWIN project implemented in China aiming at closing the material cycles in electronics production and recycling. Fluorescent Lamps Waste in China Project partner within EWIT project
United Nations University	The UNU is a global think tank and the research arm of the UN-System. UNU is the host institution of the Solving the E-Waste Problem (Step) Initiative. UNU has developed high expertise in e-waste management around the globe during the last years, key activities being the implementation of e-waste capacity building activities and leading the establishment of the Step Worldmap.	<ul style="list-style-type: none"> UNU is a partner in the GEF financed e-waste project in Ethiopia CWIT EWAM and EWAS Person in the Port Project in Lagos (Nigeria) WEEE quantification in Portugal UNU Task Group on E-waste in the UN Partnership on Measuring ICT for development For European Commission: WEEE recast PROSUM Development of UN-E-waste

Organization	Description	Ongoing projects related to e-waste management
World Loop	WorldLoop is an international non-profit organization committed to extending the positive impact of ICT projects in developing countries by offsetting the negative environmental impact of its hardware. WorldLoop has the ability to transform an environmental hazard into something that is socially, environmentally and economically positive. WorldLoop is active in Africa and Latin America, supporting local entrepreneurs in establishing sustainable businesses for e-waste treatment.	Supports 13 project partners in Africa and Latin America.
ISWA	The International Solid Waste Association (ISWA) is the largest waste management network worldwide. ISWA is organized in working groups focusing on different waste streams. So far e-waste is not covered by a single working group but by its working group on hazardous waste and working group on recycling and waste minimization. As this specific waste streams gains a lot of attention, ISWA plans to become more involved in e-waste management discussions and eventually to support the setting up of well-structured e-waste management systems	EWIT project
World Resources Forum	The World Resources Forum (WRF) is the science-based platform to exchange knowledge about the economic, political and environmental implications of global resource use. The WRF promotes innovation for resource productivity by building bridges among researchers, policymakers, business, SMEs, NGOs and the public. The WRF is an initiative of the Technology and Society Lab of the Swiss Federal Laboratories for Materials Science and Technology (Empa).	<ul style="list-style-type: none"> • Sustainable Recycling Industries • Partner within the UNIDO implemented project on employment creation within the e-waste recycling chain in Cambodia
SOFIES	Sofies is a consulting firm that specializes in sustainability issues. We work with private and public organizations to find solutions to their environmental and socio-economic problems. Optimize the use of your resources thanks to services from Sofies based on industrial ecology and the circular economy.	<ul style="list-style-type: none"> • Partner within the UNIDO implemented project on employment creation within the e-waste recycling chain in Cambodia
DELL	Dell began integrating sustainability features into its products and processes nearly 30 years ago with designs that were upgradable, serviceable and recyclable because it was good for business, customers, and the environment. Dell has a goal to eliminate two	Support of EARC in Kenya

Organization	Description	Ongoing projects related to e-waste management
	billion pounds of used electronics by 2020, which will be achieved through Dell's convenient recycling programmes for homes and businesses in 78 countries.	
Microsoft	Microsoft OEM teams works with companies that build, sell, refurbish and recycle Windows devices. The Microsoft Refurbisher Programs enables access to Microsoft software to support the reuse of Windows PCs, extending their life and enabling access to technology.	<ul style="list-style-type: none"> • Greener IT Challenge • Cooperation with iFixIt to create green jobs
UNEP/ SAICM	The Strategic Approach to International Chemicals Management (SAICM) is an international non-legally binding policy framework that sets out to promote chemical safety around the world. SAICM has as its overall objective the achievement of the sound management of chemicals throughout their life cycle so that, by 2020, chemicals are produced and used in ways that minimize significant adverse impacts on human health and the environment. One Emerging Policy Issue (EPI) focuses on "Hazardous Substances within the life-cycle of electrical and electronic products".	The SAICM secretariat has commenced efforts, together with SAICM stakeholders, to identify, compile and create an international set of best practice resources on topics in this area in accordance with the resolution adopted by the International Conference on Chemicals Management at its third session and drawing on existing initiatives and opportunities.
Secretariat of the Basel Convention (SBC)	The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Its scope of application covers a wide range of wastes defined as "hazardous wastes" based on their origin and/or composition and their characteristics. E-waste is identified by the Parties to the conventions as a priority waste stream. Based on a mandate from the Parties to the convention, the Partnership for Action on Computing Equipment (PACE) has developed guidelines on the environmentally sound management of used and end-of-life computing equipment and is carrying out pilot projects.	PACE pilot e-waste assessments carried out in Burkina Faso, El Salvador, Jordan and Serbia. Pilot projects ongoing in Burkina Faso, Jordan and Serbia, as well as pilot activities in El Salvador, Suriname and South Africa.

3.2.E-waste in 2020

The participants formed three Groups to discuss how the situation regarding e-waste management will change within the next 6 years in developing countries. The main points that were highlighted by the groups included:

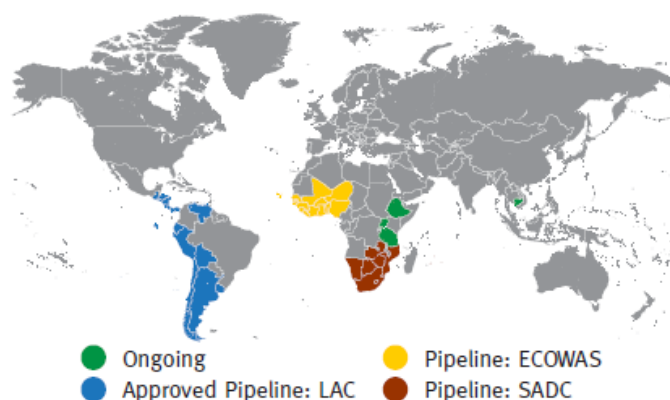
- Existence of e-waste legislation within the majority of the countries, including incentives for the treatment of hazardous fractions

- The refurbishment market will grow in developing countries whereby the dismantling activities will decrease
- The informal sector will be included in the formal e-waste recycling system
- Efficient global supply chains are available and a circular economy is strengthened
- Incentives to enhance and facilitate recycling will be provided by OEMs
- National e-waste issues will be bigger
- Regional and global coordination platforms will be available and strengthened
- Better understanding of the Basel Convention will be available
- Recycling solutions for all fractions, e.g. Plastics, and better access to these solutions on a global scale
- Minimum standards for e-waste treatment facilities will be available and applied

3.3. UNIDO's approach and portfolio

UNIDO's vision of inclusive and sustainable industrial development (ISID), coupled with its Green Industry Initiative (GII), gives potential to industries to decouple economic growth and revenues from excessive and increasing resource use and pollution. In-line with this vision, UNIDO supports developing countries and countries with economies in transition to develop sustainable recycling industries, e.g. in the sector of e-waste management. To do so, UNIDO tackles all stages of the e-waste recycling chain starting from collection to pre-treatment, recycling and final disposal. Aside from establishing an effective recycling chain, UNIDO supports countries to develop effective legal frameworks and identify financing options to sustain the recycling system.

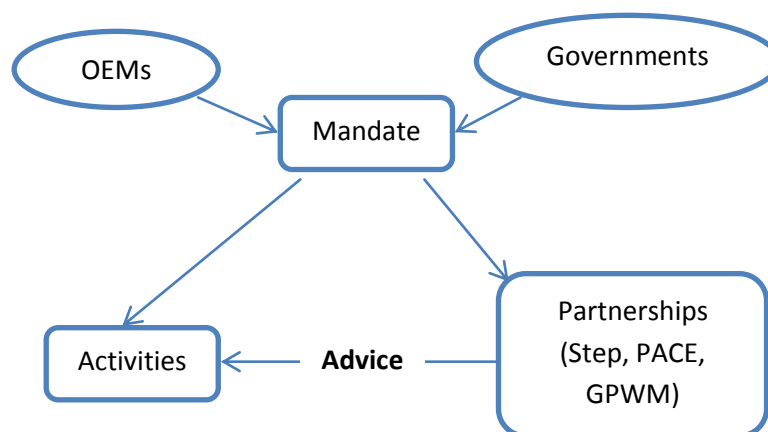
As a first step, UNIDO conducts baseline assessments to determine the further direction of the planned activities. Based on the national data the collection strategy and a business plan for a dismantling facility are established. UNIDO currently supports several countries in Africa, Latin America and Asia to establish sustainable e-waste recycling systems.



3.4.3 Key questions that have been discussed

1) What kind of partnership has to be created or how can we strengthen existing stakeholder platforms?

The current platforms (Step, PACE, GPWM) were highlighted and it was identified that all the platforms have different mandates, different stakeholders are involved and the potential outreach varies. In order to strengthen each of the existing platforms their mandate needs to be highlighted and a strong link between the platforms should be enhanced and facilitated. It was highlighted that usually the partnerships are not directly involved in project implementation.



Further questions that arose during the discussions are:

- What further partnerships are missing?
- Do we need another mandate?
- Are we happy with the current location of the partnerships just below the mandate (and in no direct connection with the activities)?
- If yes – do they need more strengthening? Who is really to be seen at the center of it all?

2) How can we create better feedback loops to solve E-waste problems?

Existing information needs to be more accessible – especially for people that are not yet experts in the field. The idea of a “clearing house”, a virtual warehouse of information, was discussed to share case studies, inventories and other relevant information with a wide range of stakeholder, including governmental agencies. To efficiently share case studies a unified way of presenting information could help as well as applying commonly set indicators to assess the activities.

A stronger link between existing networks to share information and exchange experience was strongly highlighted. Further the potential to extend Steps E-waste Worldmap was discussed in order to include more data on ongoing, planned and finalized projects within the countries.

In general the information should benefit developing countries. Through better information sharing and ensuring better feedback from developing countries to international experts, it will be easier to support the countries on the ground.

3) How can the different stakeholders make better use of each other's strengths?

The identification of each stakeholder's niche and sharing mission statements, SWOT analysis, experiences in a structured way would make it easier to team-up with the right partners and create win-win situations during project implementation. Although there are existing platforms that should facilitate this, there is still a need to further strengthen the exchange of information – the Step Worldmap could be used as an easy way to transfer knowledge about project developments.

Still a link between international stakeholder/ networks and local experts/ networks is missing. The link between international players and local needs and experts should be strengthened.

4. UNIDO project in Latin America

UNIDO is currently preparing the project “Strengthening of National Initiatives and Enhancement of Regional Cooperation for the Environmentally Sound Management of POPs in Waste of Electronic or Electrical Equipment (WEEE) in Latin-American Countries,” to be implemented in 13 countries (Argentina, Bolivia, Chile, Costa Rica, Ecuador, Salvador, Guatemala, Honduras, Nicaragua, Panama, Peru, Uruguay and Venezuela). The project focuses on two main components: (1) upscaling of existing infrastructure/ establishment of new infrastructure at the national level, and (2) enhancing regional cooperation among the participating countries.

The Global Environmental Facility (GEF) approved the Project Identification Form (PIF) in February 2014, giving additional 18 Month to UNIDO to prepare the Full Scale Project (FSP). UNIDIO is currently in the process of defining in detail the baseline scenarios in each country and the activities that will be conducted within the project implementation as well as potential partners that may be interested in joining the project. In December 2014 UNIDO will host a workshop in Panama to review the proposed FSP document in cooperation with the national Government representatives and explore the involvement of regional centers and other interested partners. It is expected that the FSP will be approved in Mid-2015 and the funds (9.5 Mio) will be transferred to UNIDO late 2015/ early 2016.

5. Conclusions

The EGM was a successful meeting and gave a good platform to share information, ideas about the future regarding e-waste management in developing countries and explore options for further partnerships. The exchange with its strategic partners helped UNIDO to highlight its position regarding e-waste management in developing countries and clarify the level of intervention UNIDO focuses on. UNIDO promotes a holistic approach to support countries establishing a sustainable e-waste management system. However, UNIDOs primary focus lies on the establishment of sustainable recycling industries. Especially in cooperation with its partners UNIDO can provide support to create an enabling environment for e-waste businesses to grow in emerging markets.

Based on the feedback and inputs received from the stakeholders participating in the EGM, UNIDO will further work on its strategy regarding e-waste management and its position in the international community.

Annex A: Agenda

Sept, 22	Topic – Current situation/future perspective
1.00-1.15 pm	Welcome/Orientation/Targets
1.15-2.15 pm	Mutual Introduction + information: UNIDO representatives and each strategic partner „What have we done so far in E-waste Management?“ – short overlook (around 5’ per participant)
2.15-3.15 pm	Actual status of UNIDO’s e-waste Management – SWOT Analysis – including perspective of strategic partners <ul style="list-style-type: none"> • What potential do we have in terms of factors for success? • What is necessary for future success
3.15-3.30 pm	BREAK
3.30-4.30 pm	Future perspective - How do we see e-waste management in the future? <ul style="list-style-type: none"> • What do we want to achieve?
4.30-5.00 pm	Summary & Outlook
Sept, 23	Topic – strategic initiatives/stakeholder roles
9.00-9.15 am	Orientation/Targets
9.15-10.15 am	Stakeholder dialogue – strength of stakeholders – how can we better contribute to the future success of UNIDO’s e-waste management?
10.15-10.30 am	BREAK
10.30-12.00 am	Presentation: strategic initiatives of UNIDO’s e-waste management <ul style="list-style-type: none"> • Validation + perspective of strategic partners • Add 1 to 2 strategic initiatives
12.00-1.00 pm	LUNCH BREAK
1.00-3.00 pm	Planning the next steps in each strategic initiative <ul style="list-style-type: none"> • Key elements of strategic initiative • Important further aspects • First steps and roles of stakeholders
3.00-3.20 pm	BREAK
3.20- 4.30 pm	Feedback session on roles of stakeholders
4.30-5.00 pm	Summary & Outlook
6.00 pm	Joint dinner
Sept, 24	Topic – actual project in Latin America
9.00-9.15 am	Welcome/Orientation
9.15-10.15 am	UNIDO Project presentation plus Q&A
10.15-10.45 am	BREAK
10.45-12.15 am	Involvement of strategic partners -definition of potential stakeholder involvement
12.15-1.15 pm	LUNCH BREAK
1.15-3.00 pm	Summary & Planning the next steps and communication

Annex B: List of participants

Name	Organization	Website
ADRIAN Stephanie	US-EPA	www.epa.gov/international
DEUBZER Otmar	United Nations University (UNU)	www.ias.unu.edu
KERN Matthias	Secretariat of the Basel, Rotterdam and Stockholm Convention (BRS)	www.basel.int
NICHOLSON Sean	Microsoft	www.microsoft.com/refurbishedpc
OMOTOLA Muhammed	UNEP/ SAICM	www.saicm.org
PERRY Jonathan	DELL	www.dell.org
ROCHAT David	SOFIES	www.sofiesonline.com
SALHOFER Stefan	BOKU University of Natural Resources and Life Sciences Vienna	www.wau.boku.ac.at/abf
SCHLUEP Mathias	World Resources Forum	www.worldresourcesforum.org
SPITZBART Markus	Dismantling and Recycling Centre, Vienna	www.drz-wien.at
TANG Jiao	ISWA International	www.iswa.org
POELMANS Thomas	WorldLoop	www.worldloop.org
ALHILALI Smail	UNIDO	www.unido.org
CUEVA Alfredo	UNIDO	
ESHETU Bezawit	UNIDO	
HERBECK Elisabeth	UNIDO	
OVUIKE Sara	UNIDO	
PACHECO Milene	UNIDO	