

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

Moving the global waste challenge

Changing the Perception: Economic Opportunities in Sound Management of Chemicals and Wastes

IPM-CSD Side Event
1 March 2011, New York

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Topics:

- Consultative process on financing options for chemicals and wastes
- Examples of Chemicals and Wastes Issues in Different Sectors:
 - Electricity Transmission
 - Health care
 - Information and Communication Technology
- Conclusions

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Consultative process on financing options for chemicals and wastes

The consultative process was launched in 2009 by the Executive Director of the United Nations Environment Programme (UNEP) in recognition of the need for adequate resources in the field of chemicals and wastes management.

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Consultative process on financing options for chemicals and wastes

Objective: The consultative process is intended to consider ways and means to identify and make available sufficient resources for addressing the needs of

- The three chemicals and waste related MEAs,
- The SAICM process,
- The mercury negotiations,
- Work on other chemicals and waste related topics under the auspices of UNEP.

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Consultative process on financing options for chemicals and wastes

Confirmed at the UNEP Governing Council/Global Ministerial Environment Forum (February 2010)

Consultative Process Meetings held so far in Nairobi (July 2009), Bangkok (October 2009), Pretoria (January 2011);

Planned: New York (May 2011), Cartagena (October 2011), NN (May/June 2012), ICCM3 (late 2012), GC/GMEF (February 2013)

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Consultative process on financing options for chemicals and wastes

Four tracks were discussed so far as complementary elements towards strengthening the financing for chemicals and hazardous wastes:

- **Mainstreaming** of sound management of chemicals and hazardous wastes;
- **Industry involvement**, including public-private partnerships and the use of economic instruments at national and international levels;
- **New trust fund** similar to the Multilateral Fund; and
- Introducing safe chemicals and wastes management as a new focal area, **expanding the existing POPs focal area under GEF** or establishing a new trust fund under GEF.

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 - Health care
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Electricity Transmission Programmes

- Transformer lifetime is 20 - 40 years;

Electricity grid efficiency includes increasing efficiency in electricity transmission;

Electricity transmission programmes include often investment in equipment, such as transformers.

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Unsafe storage of capacitors



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PCB sources and practices in developing countries

- > 90% of PCB transformers are owned by electrical companies;
- 95% of transformers are distribution transformers
- 20% of transformers are over-aged
- All PCB and PCB contaminated transformers should be phased out before 2020 (Stockholm Convention)

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Indonesia Power Transmission Development Project (example World Bank, 2010):

Project Costs (extract):	Mio US\$
Expansion and construction of transmission substation in Java	103.5
Upgrading of and expansion of transmission substations in South-Central Sumatra System	150.6
Total financing requirement:	254.1

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TOWARDS A WIN-WIN SITUATION

- Disposal of PCB contaminated old transformers costs about 1,000-3,000 US\$/ton (small compared to investments in new equipment);
- 98 % of old transformers can be recycled (steel, copper) covering part of the PCB disposal costs;
- Make provision that procurement of new transformers is always linked to environmentally sound disposal of old/replaced transformers.

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Health Care



Image: theindusbusinessline.com

Health-care waste poses **hazards** to the public and environmental health due to

- their hazardous constituents (infectious, toxic, etc.), and
- potentially improper management resulting in uncontrolled burning / dioxin emissions.


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“Waste accounts for \$850B of healthcare costs annually”

- Unnecessary care accounts for 40 percent of healthcare waste;
- Administrative inefficiency contributes 17 percent of costs;
- Preventable conditions generate 6 percent of healthcare waste;
- Lack of care coordination generates 6 percent of waste. ...

(www.fiercehealthcare.com)


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How to promote « Green » Health Care?

- Treatment and disposal **costs for hazardous waste** are relatively **higher** than those for non-hazardous waste.
- It is important to **segregate** the originally non-hazardous waste from the hazardous waste in order to **reduce volume** and, ultimately, **costs**.




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TOWARDS A WIN-WIN SITUATION

- It is important for investors to ensure that the management **addresses all Occupational Health & Safety and Environmental issues** at all stages of activity:
 - Planning
 - Construction
 - Operation
 - Closure
- Make use of available **standards, guidelines, best management practices** such as those of the **Stockholm** and **Basel Conventions** to reduce running costs of the facility and avoid health risks and contamination of the environment.

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Information and Communication Technology



- PCs & Mobile Phones are the major ICT equipment
- Computing equipment lifespan decreased
 - 1997: 4-6 years
 - 2005: 2-4 years
- In 1 decade (1994-2003), 500 million PCs worldwide reached end-of-life ~ E-WASTE

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A rapidly growing problem:

The volume of obsolete PCs generated in developing regions will exceed that of developed regions by 2016-2018.

By 2030, the obsolete PCs from developing regions will reach 400-700 million units, far more than from developed regions at 200-300 million units.

Yu et al., 2010

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Material content and value of an average desktop PC 2007 resource prices:

	Amount contained in desktop PC [g/unit]	Material value 2007 [US\$/unit]
Steel	6737.5	1.70
Plastics	1579.5	0.49
Aluminium	550.2	1.49
Copper	413.2	2.99
Zinc	25.9	0.09
Antimony	18.5	0.11
Nickel	12.7	0.47
Lead	6.5	0.02
Silver	1.7	0.94
Gold	0.3	5.82
Palladium	0.1	1.38

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Two sides of recycling:

- E-waste recycling in most developing countries by informal sector:
 - Involving large number of people
 - Practices not environmentally sound
 - methods: burning, acid etching
 - no/poor worker protection
 - almost no pollution control



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Socio-economic impacts in Lagos, Nigeria:

Daily income of:	(US\$)
Collectors on dump sites	0.2 - 0.5
Door-to-door collectors	1.7 - 3.3
Refurbishing workshop employee	2.2 - 3.4
Refurbishing workshop owner	67.2 - 222



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TOWARDS A WIN-WIN SITUATION

- Technology for ESM of E-Waste exists, but, has to be linked to product life-cycle to become **economically viable**
- Introduction of life-cycle approach for e-products needs **concerted efforts** of all players (investment, producers, users, recyclers, etc.)

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Conclusions

- Hazardous chemicals and wastes cannot be meaningfully addressed in isolation from the entire economic, social, health and other waste issues;
- Need to strengthen measures applying to the entire chemicals and waste cycle, moving mindset from “costly chemical safety” and “waste” to “resources”;
- Reposition chemical safety and waste as economic opportunities, provide green jobs and contribute towards Green Economy and MDG goals.

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The Millenium Task Force on Environmental Sustainability, commissioned by the UN-Secretary General under the leadership of Professor Jeffrey Sachs concluded:



“Quite simply, environmental sustainability is the foundation upon which achieving all the other MDGs must be built.”

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Thank you !

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