Regional Workshop on Prevention Of Ilegal Transboundary Movement of Hazardous Waste 28-29 March 2006, Beijing, China

Presentation on

Management of Trandboundary Movement and Recycling of Hazardous Waste In Cambodia

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1. Background information

- Cambodia has an area of 181,035 km²
- 89.7% of the total population live in rural areas (General Population Census of Cambodia 1998)
- The General Population Census of Cambodia 1998 (and based on population projections):
 - > Population:
 - ✓11,437 million (1998)
 - ✓13.77 million (2003)
 - ✓14.8 million (2006)
 - ✓16.6 million (2011)

> Urban households: 322,246 (5.5 persons in average household size)

Rural Households: 1,866,417 (5.1 persons in average household size)



1. Background information (cont.)

As an estimation (ref. to NSDP 2006-2010): poverty level in 2005:

- Poverty level in 2005:
 - ✓ PPM (4.6%) and other urban areas (24.6%)
 - ✓ Rural areas (39.2%)
- > GDP per capita around 340.00 USD

The Government policy aims to facilitate and promote the living style of the people, including the poors, therefore, imported second hand facilities/equipments are permitted for objects complying with regulations.



1. Background information (cont.)

- Brand new electric and electronic equipment (EEE) and used electric and electronic equipment (UEEE) are imported into Cambodia for domestic consumption.
- Cambodia does not a country of producing of EEE products and/or exportation to other countries.
- Some imported UEEE have low quality/improperly function need to be either repaired or dismantled.
- Awareness and capacity dealing with UEEE and its residues management is commonly limited.



Law on Natural source Management and Environmental Protection

Sub-Decree on <u>Waste</u> <u>Water Control</u>

Sub-Decree on Solid Waste Management

Sub-Decree on Air Pollution, Noise Disturbance and Vibration

Inter Ministerial Declaration on SWM In Cities and Provinces



- Sub-Decree on Business Facilitation by Risk Management (2006) is another important legal instrument of Cambodia, aiming at:
 - improving the imported/exported processes of goods and other facilities in complying with the national laws/regulations and international agreements/protocols;
 - > effective management and monitor;
 - providing low cost in service comparing to other adjacent countries;
 - authorizing functions/duties of line institutions at check-points;
 - > facilitating a rapid and easier way to importers/exporters.





3- Flow of UEEE and Residues

Second Hand of Electric and Electronic Equipment are imported such as: TV

- Air Condition
- Refrigerator
- Set and Laptop Computers
- Mobile phone
- Washing Machine
- Camera
- Radio and cassette player
- Video cassette recorder
- others









3- *Flow of UEEE and Residues (cont.)* Statistic of import EEE into Cambodia

Year	TV		Air Con	Refrigerator	Computer		Mobile	Washing
	Color	BW			Desktop	Laptop	Phone	Machine
2000	66,127	90,969	28,408	15,172	NA	NA	NA	NA
2001	52,642	109,915	26,450	9640	NA	NA	NA	NA
2002	44,463	119,200	44,920	14645	NA	NA	NA	NA
2003	27,753	83,785	36,696	9,895	NA	NA	NA	NA
2004	29,886	96,887	15,070	16,606	1,467	47	142,990	10,519
2005	24,711	70,558	19,331	13,464	9,232	149	113,605	12,213
2006	25,709	60,729	23,114	12,513	3,101	14	86,438	8,209
Total	271,291	632,043	193,391	91,935	13,800	210	343,033	30,941

Source: 1. Dept. Of Custom and Excises (MoEF)

2. Statistics of Imported EEE 2004-2006, Dept. Of Kamcontrol (MoC)







- The process of repairing and dismantling of few items of UEEE is <u>simply done</u>, due to insufficiency of modern technology, and sectoral awareness.
 - First testing to identify problems as well as other useable parts
 - Connecting or replacing a spare-part from dismantled items to get a new one with appropriate functioning, although it has lower quality



Repairing/dismantling and recycling process (cont.)

Beside simple repairing, some broken/un-functioning EEE, e.g. laptop computer was sent to overseas for repairing in according to the negotiation between shop owner/manager and customer.

Same as a repairing process, there is no technology has been presented and used for dismantling and recycling of UEEE although in Phnom Penh Municipality.



- There were 3 cases of illegal import of waste into Cambodia such as below:
 - 3000 tons Mercury Waste in 1999
 - 650 tons of film waste in 1999
 - 4 containers of plastic waste in 2002

Based on those experience in case of illegal import of waste from foreign country, Cambodia take some administrative and legislative measurement to prevent illegal import of hazardous waste by concerned ministries such as MoEF, MoC MoE and Mol.

In good cooperation of relevant institutions in according to legal system, Cambodia has successfully to prevent of illegal import of hazardous waste from the year 2002 until currently.



6. Environmental and human health related issues

- There are only two way of disposal found in Cambodia including: (i) the residues from dismantling and repairing operation, which disposed directly to municipal trash-bin; and (ii) some residue sell to waste-picker (and finally to scrap yards).
- Residues are not separated by type of facilities/items. These residues are disposed closed to/behind the repairing/dismantling shops, and finally are burned in some areas where municipal-waste collection service cannot access.



6. Environmental and human health related issues (cont.)

 As an observation, there is no any cause and/or harmful problem to the environment, although environmentally unsound reuse/recycling or disposal of used EEE are practiced.
However, incident might be rarely occurred due to

However, incident might be rarely occurred due to either technical mistake or carelessness, for example, capacitor-exploded, cable-fired.



6. Environmental and human health related issues (cont.)

However, some impacts might be occurred to human health, especially, one who get directly involve with the processing of UEEE repairing/dismantling without using safety facilities, for example, mass, glove, sun-glasses, etc.

Residues of UEEE mixing with domestic wastes are disposed at dumpsites and burned. That is a cause of potential risk and hazard to <u>scavengers/waste</u> <u>pickers</u> and atmospheric pollution (also releasing of unintentional POPs by-products)



7. Conclusion

Base on the inventory, Cambodia have more experiences to do an inventory on other hazardous wastes/ residues. Through this project and the former project related used lead acid battery, Global Harmonization System (GHS) and the like, it clearly indicates to international communities about the taking into account of ultimate responsibility of Cambodia to the application of the international conventions/protocols/agreements.



7. Conclusion (cont.)

- To achieve the target of environmentally sound management of UEEE and its residues, it requires not merely a capacity and institutional strengthening, but also public awareness promotion and their participation.
- Coordination and cooperation between public and private sectors in sharing data/information and managerial experiences should be improved.



7. Conclusion (cont.)

Countermeasure to check quality of imported UEEE should be development and apply.

The preparedness of a national specific strategy and work-plan to solve the problem, including a buy-back policy (based on international procedures) should be considered and done.

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