The 4 th Workshop of the Asian Network for Prevention of Illegal Transboundary Movement of Hazardous Wastes

28-30 -January 2008, Tokyo, Japan

Presentation on

Used Electronic and Electric Equipments Management and Its Problem in Cambodia

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Contents

1. Background information

- 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.
- 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

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

2- Statistic of import EEE into Cambodia

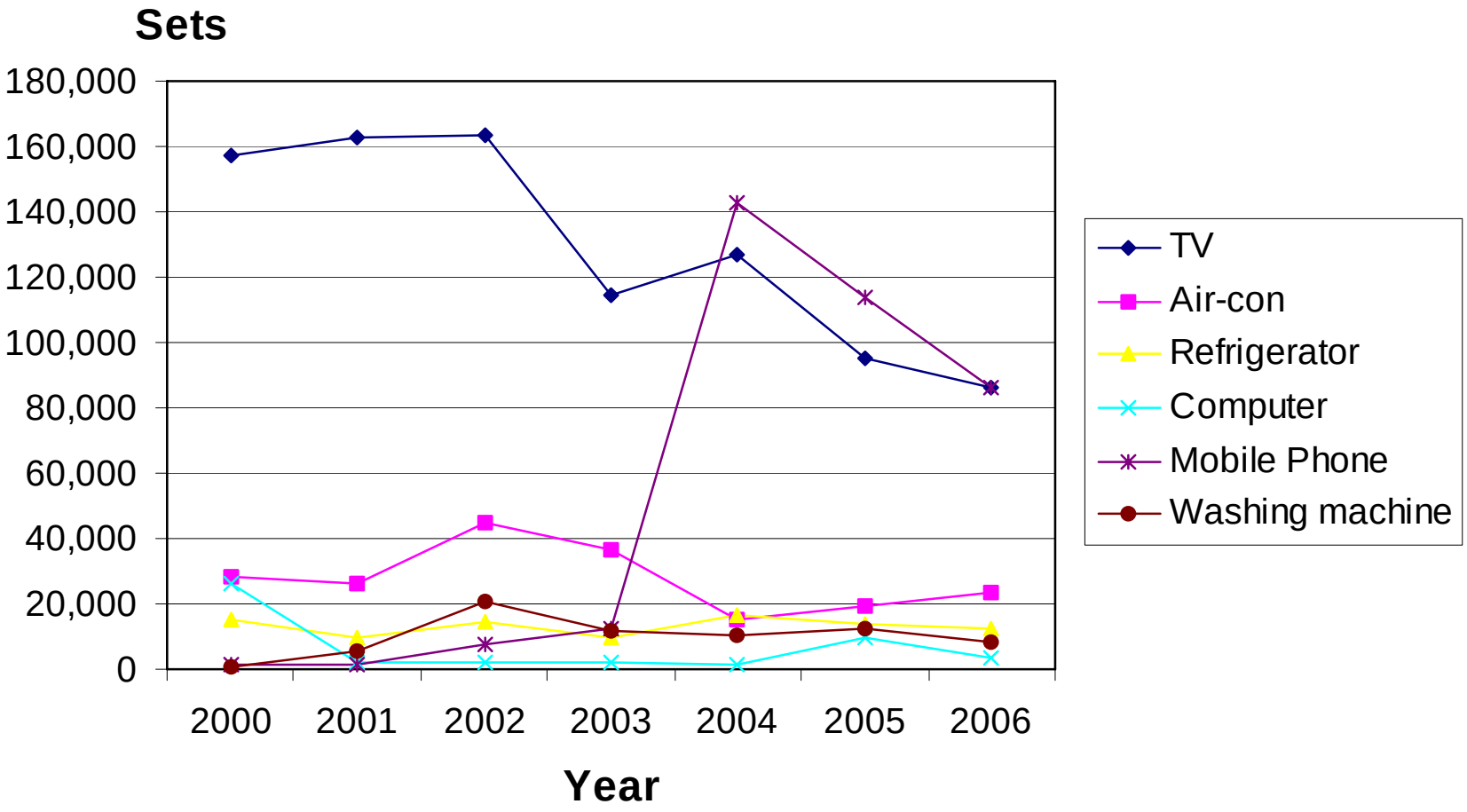
Year	TV		Air Con	Refrigerator	Computer		Mobile Phone	Washing Machine
	Color	BW			Desktop	Laptop		
2000	66,127	90,969	28,408	15,172	26,342		1,486	529
2001	52,642	109,915	26,450	9,640	1,863		1,407	5,697
2002	44,463	119,200	44,920	14,645	1,990		7,356	20,404
2003	29,257	85,133	36,698	9,895	1,852		12,222	11,554
2004	29,868	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)

(**NATIONAL INVENTORY OF USED EEE IN CAMBODIA 2007**)

2- Statistic of import EEE into Cambodia cont..



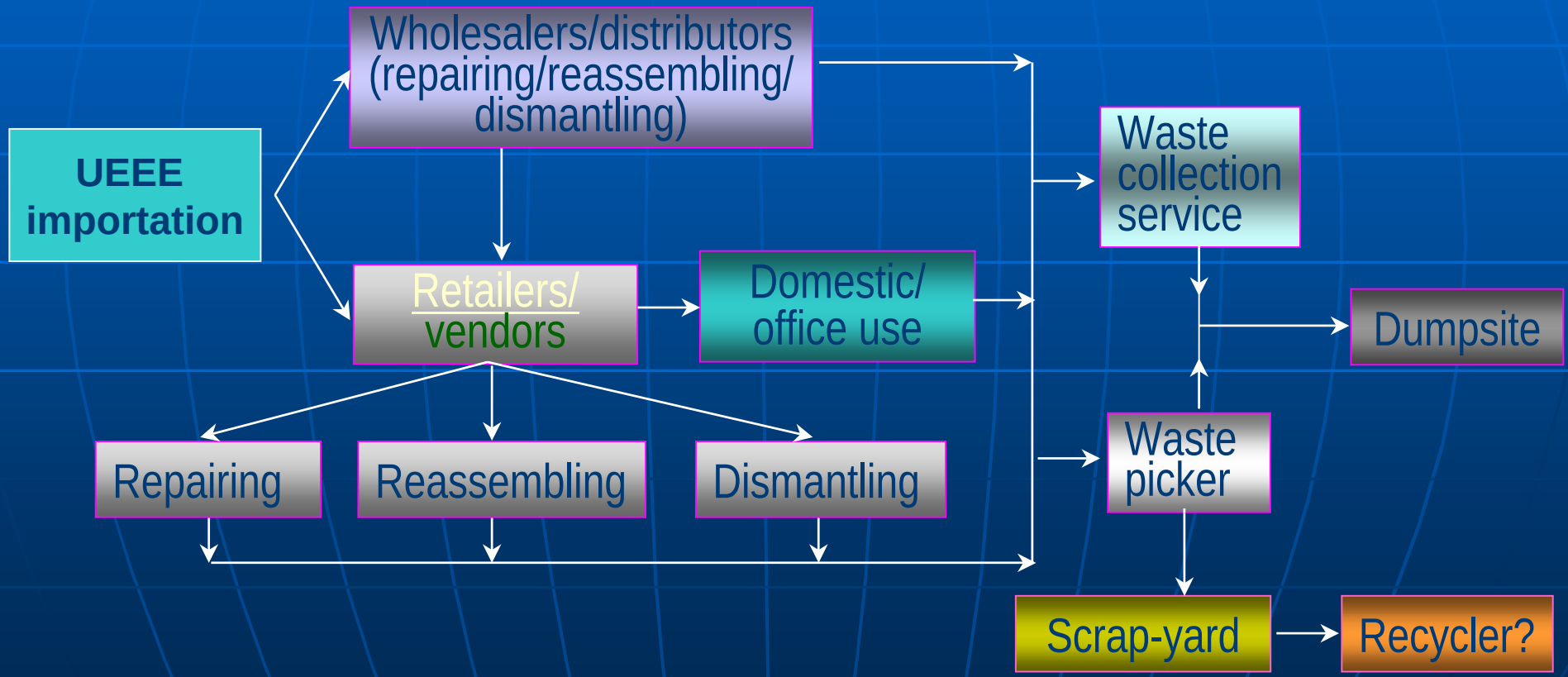
3. Repairing/dismantling and recycling process

- The process of repairing and dismantling of few items of UEEE is simply done, 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

3. 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.

4- Flow of UEEE and Residues



5. Existing legal instruments

Law on Natural source Management and Environmental Protection

Sub-Decree on Waste Water Control

Sub-Decree on Solid Waste Management

Sub-Decree on Air Pollution, Noise Disturbance and Vibration

Inter Ministerial Declaration on SWM In Cities and Provinces

5. Existing legal instruments Cont.

Environmental Law:

The Article 13 in Chapter 5 of the Law stipulated that *"The prevention, reduction, and control of airspace, water [and] land pollution, noise and vibration disturbances, as well as waste, toxic substances, and hazardous substances, shall be determined by Sub-decree following a proposal of the Ministry of Environment"*

5. Existing legal instruments System Cont.

- The Article 8 of the Sub-Decree on Water Pollution Control, stipulated that *"The disposal of solid waste or any garbage or hazardous substances into public water areas or into public drainage system shall be strictly prohibited. The storage or disposal of solid waste or any garbage and hazardous substances that lead to the pollution of water of the public water areas shall be strictly prohibited."*

5. Existing legal instruments Cont.

Sub-decree on Solid Waste Management

- Article 15 of the Sub-decree on Solid Waste Management stipulated that: *"The storage, transportation and disposal of the hazardous waste shall be performed separately from the household waste which will be stipulated by the Prakas of the Ministry of Environment. The disposal of hazardous waste into public site, public drainage systems, public water area, rural area and forest area shall be strictly prohibited".*

5. Existing legal instruments Cont.

- Article 20 of the Sub-decree:" *The exportation of the hazardous waste from the Kingdom of Cambodia to abroad could be conducted if there are an agreement from the Ministry of Environment, export license from the Ministry of Trade, and permit from the import country. The exportation of the hazardous waste shall be consistent with the provisions and principles of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal in1989 which come into force on May 05, 1992."*
- Article 21: *"The importation of the hazardous waste from abroad into the Kingdom of Cambodia is strictly prohibited."*

5. Existing legal instruments Cont.

☞ Annex: Type of the hazardous waste

- Plastics waste from production or use of plasticizers;
- PCB waste from use of PCB contained in discarded air conditioners, TVs and microwaves;
- Radioactive wastes
- Metal waste and their compounds:

Zinc (Zn)	Seleninium (Se)	Tin (Sn)	Vanadium (V)
Copper (Cu)	Arsenic (As)	Barium (Ba)	Cobalt (Co)
Nickel (Ni)	Antimony (Sb)	Berullium (Be)	Tullurium(Te)
Lead (Pb)	Titanium (Ti)	Uranium (U)	Silver (Ag)

- wastes from used or discarded electricity lamp;
- Wastes from production or use of battery;
- Explosive wastes
-Wastes from production and use of dioxin and furan…

5. Existing legal instruments (cont.)

- 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.

5. Existing legal instruments (cont.)

In March 2002, the Department of Customs and Excises issued the crucial announcement to SGS office in Cambodia and all custom-officers who do their jobs at offices and at respective check-points. The announcement emphasized the ***Government principle to intercept and ban the importation of old computer/spare-parts of which enter into force on 01 April 2002***, unless this importation for self consumption and/or for charity purposes with official permission from competence authorities.

6- Prevention of Transboundary movement of Hazardous Waste

- 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 MoI.
- 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.

7. Environmental and human health related issues

- Based on inventory report we do not find any cause to human health such as repairer, dismantlement person, or seller but it cause problem to the environment, although environmentally unsound reuse/recycling or disposal of used EEE are practiced due to technical mistake or carelessness, for example, capacitor-exploded, cable-fired.
- 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.

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

- residues of UEEE repairing/dismantling are disposed mixed with urban/town wastes are disposed at dumpsites. In this case it cause harmful to waste picker or scavenger or people who living or working close to burned areas, air pollution when there are unintentionally fired at dumpsite under high temperatures without any control of responsible agencies.

General view of dumpsite where some EEE residues were disposed

Opened burning of any kind wastes/residues at dumpsite

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

Pic. 21: Unsafe practice for health protection and maintenance during a repairing process, PPM

Pic. 22: Impractical repairing of air-con by local fixers, Kandal Province

Pic. 23: Impractical repairing of refrigerator by local fixers, Kandal Province

Pic. 18: The disposal of TV screen mixing with

Pic. 19: Un-environmentally sound disposal of

Pic. 20: Un-environmentally sound disposal of

7. 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 either technical mistake or carelessness, for example, capacitor-exploded, cable-fired.

7. 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 scavengers/waste pickers and atmospheric pollution (also releasing of unintentional POPs by-products)

8. Conclusion

Based on the inventory report of Used EEE in Cambodia clearly identified that the main issues associated with un-environmentally sound management of UEEE and its residue disposal include as follows:

- Improper disposal of EEW/residue at public areas, inside or at areas close to the shops/houses. Some hazardous wastes of UEEE were disposed with domestic wastes at urban dumpsite, and openly burnt afterward.
- Discharging of liquid wastes, gases or other pollutants into the environment (soil, water) during the UEEE repairing/dismantling process. Additionally, the storage of EEW at scrap yards might be caused pollution to the environment and human health.
- People who are engaged in the UEEE repairing/dismantling have never considered their personal health and public health too. In other words, they do not consider or pay attention to potential risk and hazard caused by environmentally un-sound management of UEEE/EEW.
- The gaps of related data and information as well as action plan aiming at UEEE/EEW management.
- The cooperation and coordination between concerned parties in the case of management and exchange the data/information is still limited.

8. Conclusion (cont.)

- Obviously, imported UEEE were not thoroughly checked for quality (e.g. identifying remaining lifetime). Therefore, after shortly period of use, some UEEE are sent to repairing/dismantling shops or sold to waste collectors. Un-control of UEEE quality is a cause of increasing EEW.

- There is little activity on UEEE/EEW management, although related legal tools have entered into force. In this regard, EEW/residues are mixed with domestic wastes and disposed at urban dumpsite. Meanwhile, government officers' knowledge about EEW management, human health and environmental risk is limited.

8. Conclusion (cont.)

Based on these findings, activities and programs should be considered and developed in the second phases of the project, these include as below:

- Transparent action plan to effectively monitor and control the quality of imported UEEE as well as manage EEW generated from repairing/dismantling processes in an environmentally sound manner.

- Capacity building and institutional strengthening program should be developed for concerned government officers, and so should be raising of public awareness and the private sector. In this regard, Cambodia should learn more about 5R experience (reduce, recycle, reuse, repair and refurbishment) and the technical guideline from Basel Convention member-countries, and transforms this knowledge to real practices (realizing the environmentally sound management of e-waste.

7. Conclusion (cont.)

- Strengthening the application of legal tools via mainstreaming to public and private sectors. This main concept aims at urging public and private sector to fully take care UEEE related occupation and EEW management without harmful to the environment and human health. Consistent with this matter, the understanding of international regulations/agreements/protocols also encourage.
- Developing and promoting the networking system including exchanging experiences in UEEE/EEW with line institutions and other countries in the region.
- Strengthening the cooperation with international communities in the application of Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.
- RGC should consider the concept of extended producer responsibility (e.g. UEEE/EEW buy-back policy) with countries in the region, including EEE manufacturing countries in order to elaborate feasible approach to effective management of end-life UEEE and its residues.


Thank You For Your Attention