

E-Wastes: The Way Forward

1. Background

- The ongoing IT revolution has improved people's lives in many ways. Electronic products have become part and partial of our everyday life. Because of economic growth and technological advances, it's often cheaper and convenient to buy a new electronic product than to upgrade an old one. Growing dependence on electronic products has given rise to a new environmental challenge, e-waste.
- Currently, e-waste is one of the fastest growing segments of waste stream in Asia and the Pacific as in the other parts of the world. For example, 4 million PCs are discarded every year in China. E-waste worth \$1.5 billion was generated in India last year and PCs, telephones, and televisions are projected to reach 14.3 million, 39.4 million and 18.2 million respectively by 2010. In the United States, about 5% of all municipal solid waste is e-waste and it increases 3-5% each year, which is 3 times the rate at which general waste increases.
- Common e-wastes include: PCs, Televisions, telephones, mobile phones, air conditioners, electronic toy, etc. According to the estimates PC used in Asia was nearly 150 million in 2002 and that is growing at about 16 percent annually. 150 million PCs contain 0.86 billion kg of plastics, 215 million kg of lead and 86 thousand kg of mercury.
- E-wastes, often ends up in landfills or incinerators. Toxic substances like cadmium, mercury and lead that are commonly used in electronic products can contaminate the land, water and air. For example, the cadmium from one mobile phone battery is enough to pollute 600,000 litres of water. Batteries from forecasted 800 million mobile phones in Asia could pollute nearly 4,800 trillion litres of water by 2007, if disposed improperly.
- Despite the initiatives by some of the countries, agencies with the mandate on waste management in the region have no specific knowledge of composition of e-wastes or their management. UNEP Regional strategy identifies e-waste as an emerging issue and proposed to promote e-waste management in Asia and the Pacific by initiating a regional level activity for knowledge sharing.

2. Expert Group Meeting

- An expert group meeting on e-waste management was organised from 22 – 23 June 2004 at UNEP RRC.AP. The meeting was participated by experts from Government and specialized institutions as well as the Basel Convention secretariat and the Basel Regional Center and derived the proposal for the next step.



3. Proposal

- **Objectives:** The goal is to control and prevent the potential damage of e-wastes in Asia and the Pacific by: (i) enhancing the capacity of countries for implementing responses incorporating awareness, technical, administrative and legal measures; and (ii) promoting the use of environment friendly design, marketing approach, materials and energy in electronic products.
- **Approach:** the objectives are proposed to be achieved through the following activities:
 - **Establishment of network:** Building on the existing initiatives such as Basel Convention Regional Centers, an e-waste network comprising policy makers and experts is proposed to be established. The network will facilitate the need assessment and participate in the preparation of baseline studies and knowledge sharing & capacity building programs.
 - **Preparation of baseline studies and action plans:** Baseline studies will include: inventories and existing technical as well as policy measures for e-waste management. Based on the baseline studies strategies for e-waste management will be developed at national and sub-regional levels.
 - **Establishment of knowledge base and capacity building:** It is proposed to establish a knowledge base on e-waste in order to promote the quantitative base. The knowledge base will include guidelines and good practices on e-waste management. Capacity building activities such as training and awareness programmes will also be carried out to enhance the knowledge on e-waste management.