

# Environmentally sound management of used electrical and electronic equipment (e-waste) in Asia-Pacific

Concern is growing over the large quantities of used and end-of-life electrical and electronic equipment (e-waste) being exported to developing countries for the purpose of re-use, repair, refurbishment, recycling and recovery at facilities that may not meet the Basel Convention standards of environmentally sound management (ESM).

The sixth meeting of the Conference of the Parties to the Basel Convention (convened in 2002) recognized that the issue of the management of e-waste required urgent attention, particularly in the Asia-Pacific region. The Secretariat of the Basel Convention, in consultation with selected countries in this region and the Basel Convention Regional Centres in China (BCRC China), Indonesia (BCRC-SEA) and the South Pacific (SPREP), developed a proposal for a pilot project on the ESM of e-waste. This proposal was welcomed with support when presented at a side-event held in conjunction with the Ministerial Conference on the '3R' Initiative held in Tokyo in April 2005 and at the fourth session of the Open-ended Working Group of the Basel Convention in July 2005.



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## Launch of the e-waste programme in Asia-Pacific

Basel Convention Programme on the Environmentally Sound Management of Electrical and Electronic Wastes for the Asia-Pacific Region was officially launched in Tokyo, Japan, in November 2005. The over-arching goal of this programme is to enhance the capacity of Parties in the Asia-Pacific Region to manage electrical and electronic wastes in an environmentally sound manner through the establishment of public-private partnerships, and the prevention of illegal traffic.

This Programme was further strengthened at the ninth meeting of the Conference of the Parties to the Basel Convention in 2008, with the adoption of the Nairobi Declaration on the Environmentally Sound Management of Electrical and Electronic Waste (decision IX/6). By this decision, the Secretariat was requested to continue to facilitate work and activities on the ESM of e-waste, focusing on the needs of developing countries and countries with economies in transition.

To achieve the over-arching goal of the Programme, the following strategic approach has been adopted:

- Assessment of the situation through the development of national inventories, the establishment of mechanisms for information exchange at the national and regional levels, and monitoring of the impacts on human health and the environment of activities concerning, or related to, the management of electrical and electronic wastes.



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- Prevention and minimization of e-waste through the establishment of goals, both intermediate and long-term, to reduce the quantity of electrical and electronic wastes destined for landfill.
- Introduction of cleaner production approaches to minimize, and where feasible, eliminate, hazardous substances in electrical and electronic equipment and consequently their wastes.
- Achievement of ESM by promoting best practices and the use of sound recycling technologies adapted to national specificities, including the development of appropriate methods for evaluation, testing, characterization and classification of e-waste.
- Promotion of information exchange and training through the establishment of a regional information collection and dissemination 'clearing house' accessible to all relevant stakeholders, including the development of training curricula for trainers.



## Plans of action

At the Programme's launch in 2005, the following national and regional plans of action were identified for implementation, subject to the availability of resources:

### National Plans of Action

1. Carry out awareness raising activities.
2. Carry out detailed inventories.
3. Initiate pilot schemes on the collection and segregation of e-waste, including take-back schemes.
4. Initiate pilot repair, refurbishment and recycling schemes.
5. Training of customs and enforcement officers, as necessary, to control or verify export or import of e-waste and work on the identification of e-waste in the Harmonized System of the World Customs Organization.
6. Evaluation of various projects for their effectiveness and sustainability.

### Regional Plans of Action

1. Coordination of implementation through the Basel Convention Regional Centres (BCRCs) in the Asia-Pacific Region.
2. Development of a regional focus to address illegal traffic in e-waste.
3. Exchange of information and strengthening of information and enforcement networks in the region.
4. Harmonization of national regulatory procedures to improve the control of those electrical and electronic wastes characterized as hazardous wastes.
5. Development of public-private partnerships for the implementation of the project.



## Programme implementation and progress

6. Harmonization of information-sharing activities at the regional level, to include the following:
  - Establishment of a directory of recycling companies, including the identification of technologies involved, and the types of materials that are recycled by these companies in the region.
  - Identification of markets for recyclable materials.
  - Identification by the BCRCs of appropriate experts for the region, to assist in various e-waste activities at the national level.
  - Establishment of an information-sharing system on transboundary movements of e-waste.
  - Cooperation of all BCRCs in the region, and other institutions, to develop an information management system on e-waste and awareness raising tools.
7. Development of environmental management systems, standards, guidelines or principles and best practices for the environmentally sound management of used electrical and electronic equipment.
8. Development of environmental management systems, standards, guidelines or principles and best practices for certification schemes and the testing of used electrical and electronic equipment.
9. Initiation of pilot projects on the enhancement of laboratory capacities.
10. Development of generic awareness-raising and communication tools adjusted to the needs of the countries in the region.
11. Development of feasibility studies on the establishment of a regional environmentally sound recycling scheme.
12. Organization of an international conference on environmentally sound management of e-waste.

Programme implementation was initiated with a project on the development of two sets of guidelines entitled “Technical Guidelines for the Methodology of E-Waste Inventory” and “Environmentally Sound ‘3R’ (reduce, reuse, recycle) of End-of-Life E-Products”, as well as a related regional training workshop under the leadership of the BCRC-SEA. Since then, further projects have been undertaken in Cambodia, India, Indonesia, Malaysia, the Philippines, Sri Lanka, Thailand and Viet Nam. BCRC China and SPREP have also undertaken regional projects involving the countries they serve. In addition to technical guideline development, other projects have included the development of national inventories, specific studies on partnerships, feasibility of mobile phone collection, import/export management and awareness raising or training workshops.

The governments of Canada, Japan, and the Netherlands have provided financial support for the implementation of the project and further efforts are being made to secure funding from other sources. In 2009, the Government of Japan supported the Secretariat, in cooperation with BCRC-SEA, BCRC China and the Government of Viet Nam, in conducting a regional training workshop aimed at building capacity of the Parties and the BCRCs in the Asia-Pacific region in developing ESM of E-Waste projects. Stemming from the workshop, more projects on tools development (regional database on the ESM of e-waste), awareness raising, technical training and pilot schemes for the environmentally sound collection of e-waste, at both the national and regional levels, have been initiated.

## Looking to the future

It is expected that the Programme will continue with the initiation of more pilot schemes on the collection and segregation of e-waste, including take-back schemes, the initiation of pilot repair, refurbishment and recycling schemes and the training of customs and enforcement officers to control the import and export of electrical and electronic wastes so as to combat illegal traffic. The development of appropriate methods for evaluation, testing, characterization and classification of e-waste, including the development of environmental management systems, extended producer responsibility, standards and guidelines for ESM and certification schemes will be initiated. Moreover, the establishment of mechanisms for information exchange at the national and regional level and the monitoring of impacts on human health and the environment of the management of electrical and electronic wastes will be a priority.

Parties, the BCRCs and relevant stakeholders are invited to continue work on the development of pilot projects in support of the Nairobi Declaration on the ESM of E-Waste.



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