
Promoting 3R strategy: e-wastes management in China

State Environmental Protection Administration
of China

Zhou Guomei

For Asia 3R conference, 2006

Contents

1. Current status of e-wastes in China
 2. Regulations on e-wastes
 3. Problems and challenges
 4. Policy directions and suggestions
-

Current Status of e-wastes in China

Main sources of e-wastes:

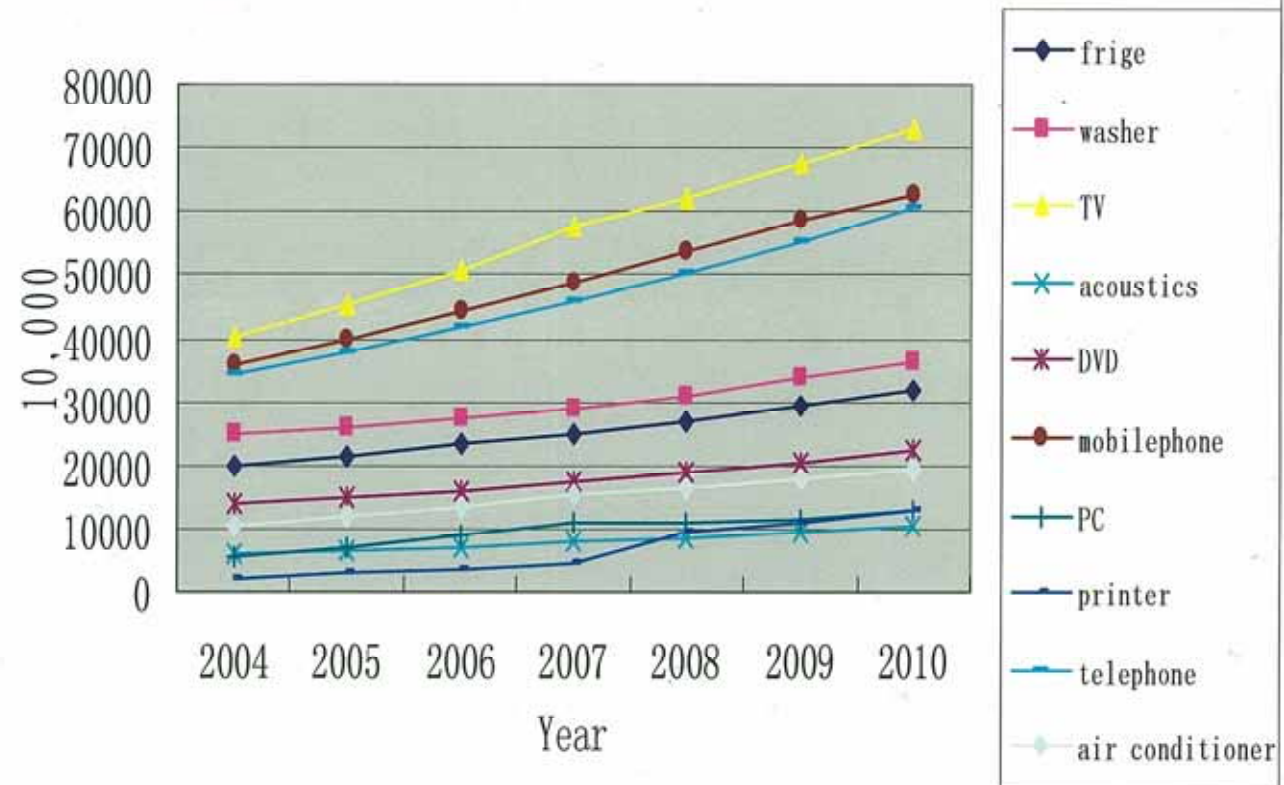
- Waste electronic products from households
 - Waste electronic products from governments, institutions and enterprises
 - Defective electronic products from manufacturer
 - Imported electronic waste
-

The amount of electronic products in use and amount of e-wastes in China

10 Major electronic products of 2005:

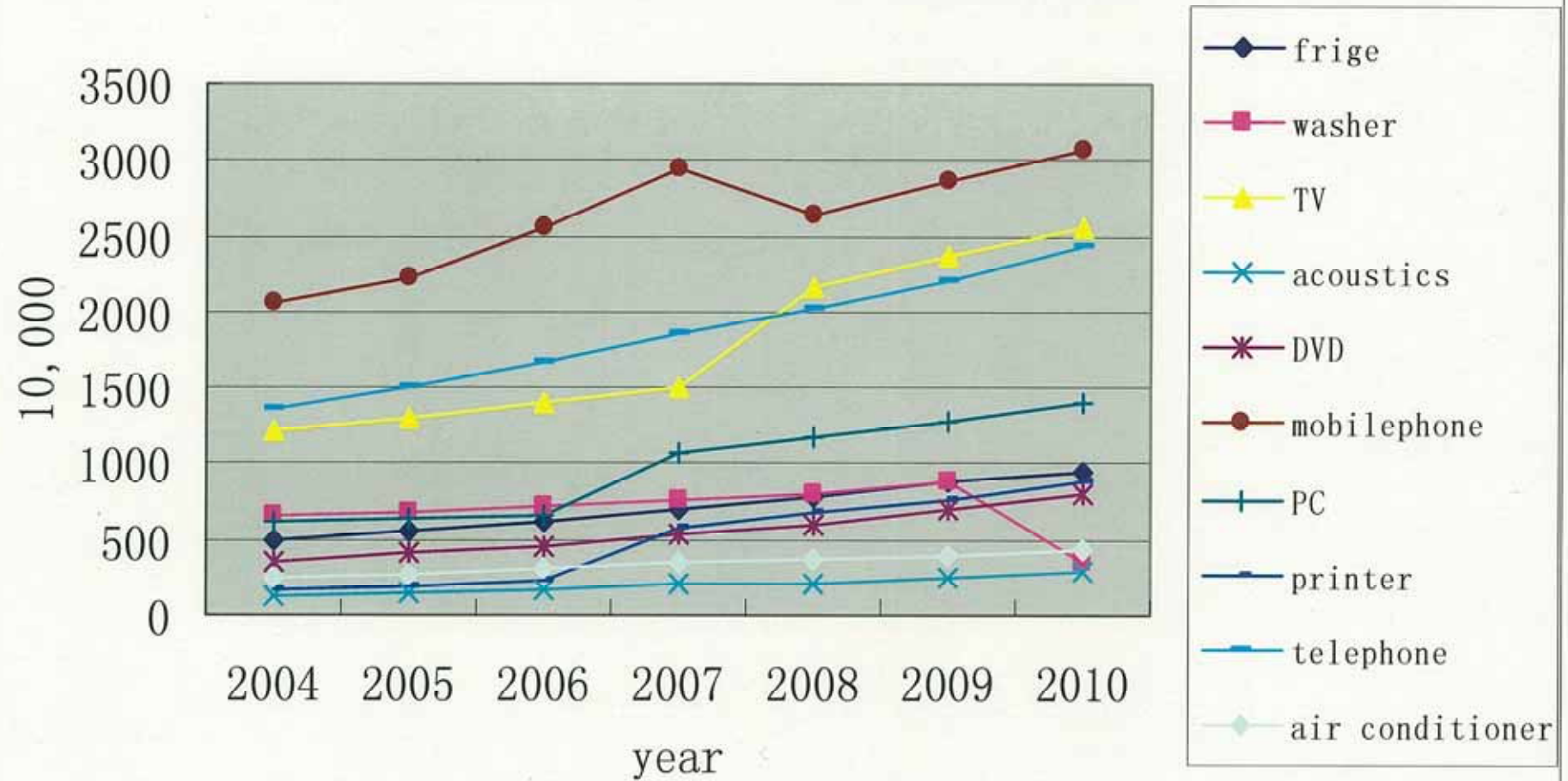
- The amounts of electronic products in use: 2.1 billion sets;
- The life year for e-products is about 10-15 years in China
- E-Waste amount generated: 79.23 million sets; about 2 million tons per year

amount of major electronic product in use in China

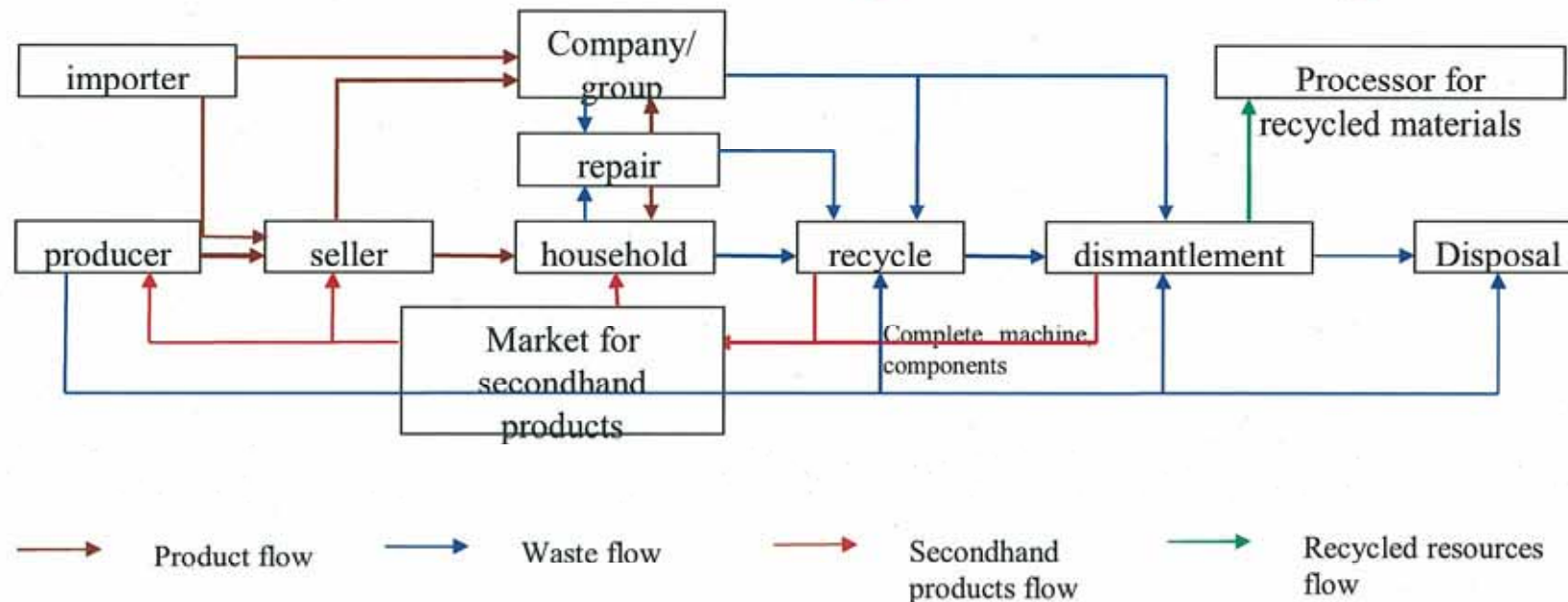


E-wastes generated in China

waste amount of major electronic product



Flows of e-wastes recycle and disposal



- e-wastes are sold by producers to small peddlers (informal sectors)
- Secondhand products resold to the market for reusing
- Recovery of valuable items and metals, such as steel and iron, waste plastics, waste metal.

Current Status of Electronic Wastes Treatment in China

- Classification and dismantlement by hand
- Treatment on circuit board
- Treatment on electrical wires and cables
- Treatment on CRT
- Treatment on printing ink



Serious adverse impacts to environment and damage to the public health by inappropriate way for recycles and disposals of e-wastes in China



Why the problems are serious

- Direct reasons:

- Labour intensive sectors, operated mainly by small business and informal sectors, with weak capacity to handle the e-wastes disposal
 - Driven by economic benefits and the environmental cost is externalized
 - Application of very backward technology, recovery only valuable metals, and disposal of the heavy metals and toxic pollutants
 - Low awareness of damage caused to the health and environment
 - Electronic wastes flowed to the regions with low labor cost and poor supervision and management on environment protection, causing great environmental risk
-

In-depth reasons: lack of regulations and weak enforcement in China

- Problems existed in “The Law on Prevention and Control of Solid Wastes”
 - E-wastes are difficult to be categorized to current three classifications of solid wastes: industrial, municipal and hazardous wastes;
 - Hard to define polluters causing e-wastes pollution: producer, consumer, recycle and disposal firms or individuals
 - Hard to ensure treatment and disposal fund
 - EPR has been proposed in the law as a principle but no operational system
-

Existing polices for e-wastes

- **Polices formulated by several ministries**
 - “Management regulation on pollution control of electronic information products” issued by 7 ministries including Ministry of Information Industry, NDRC, SEPA, etc.
 - “Provisions for management on recycle and treatment of waste household appliances and electronic products” is being drafted by the National Development and Reform Committee since 2003
 - “Technical policy for pollution prevention and control of waste household appliances and electric products” is being formulated by SEPA
-

Policies, regulations and problems

Collection of e-wastes:

- Coordination of responsibility of different stakeholders
 - Not very much clear responsibility of stakeholders for e-waste management in China, SEPA, NDRC, Ministry of IT products, Ministry of Commerce, Ministry of construction, etc.
 - Formal wastes recycle companies decrease rapidly
 - Collected mainly by informal sectors
 - Insufficient sources of e-wastes for formal sectors
 - State tax preferential policy for wastes recycle industry and distortion of implementation in practices
-

Chinese government strengthen e-wastes management

- Management regulation on pollution control of production of electronic sectors and IT, by 7 ministries will be effective on March, 2007, national directories will be set up.
 - The national regulations on e-wastes management in China (draft) has been submitted to the State Council for approval and expected the end of 2006.
 - The pollution control for e-wastes will be strengthened in the process of dismantling, shredding, treatment, recycle and final disposals, regulations are drafted by SEPA.
-

Key policy tools for e-wastes management

- EPR and national directories of product for EPR;
 - Encouraging the formal collection system of e-wastes;
 - Funding support for e-wastes sectors with good environmental performances and other economic instrument;
 - Research on some key advanced technology of recycling of e-wastes;
 - National demonstrations for eco-town construction in Qingdao, Shenzhen city, etc.
-

Imported e-wastes management

- Forbidden lists of the e-wastes imported in 2000;
 - Joint efforts by SEPA and Customers on illegal movement of hazardous e-wastes;
 - Strengthen the environmental enforcement for e-wastes recycle and disposal firms
 - Training and education, raising awareness of the publics
-

Stakeholder Analysis and Challenges

- For government and related sectors
 - Environmental pollution
 - Absence of management regulations fit for China and no formal collection system
 - How to regulate waste electronic products
 - For manufacturers, importers and sellers
 - Worries on increase of production costs by adding recycle and disposal fee
 - Difficulties in collection, storage, transportation and treatment process
 - Unfair competition caused by weak implementation of laws and regulations due to regional disparity
-

Stakeholder analysis and Challenges

- For firms in charge of recycle and final treatment
 - Worries about shortage of wastes resulting in inadequate treatment amount for treatment plant
 - No idea on how to select treatment facilities and pollutants discharge standards
 - Hard to identify proper treatment technologies
 - Poor management and control on recycle process and causing secondary pollution
 - For public
 - Residential environment deteriorates
 - Collection system of wastes
 - Compensation mechanism
-

Suggestion 1

- **Learn Good practices of international experience on recycle and reuse of electronic products**
 - Turning from emphasis on end of pipe treatment to priority given to pollution prevention and control in the whole process of production and consumption
 - System should be formulated and implemented beforehand
 - Policies and measures should be comprehensive and diversified, and give emphasis on economic incentive means and market instrument
 - Promoting public participation and setting up partnerships among government, enterprises and the public
-

Suggestion 2

- **Improvement of the legal system for recycle and reuse of electronic products in China**
 - Relative balance of social subjects embodied in the life cycle of products under the rules of responsibilities, obligations and interests
 - Recycle and reuse of electronic wastes should accord with 3R principle
 - System planning and design must follow life attributes of products in different phases of life cycle
 - National law, regulations, and standards, technical guidelines need to established targeting e-wastes management and coordination of regulations are needed.
-

Suggestion 3

- **Setting up legal system for recycle and reuse of electronic products in China**
 - Definition and scope of electronic products
 - Responsibilities of governments and stakeholders (including manufacturer, importer, seller, consumer, persons in charge of reuse and final disposal of wastes) during life cycle of products
 - Policies and measures to promote recycle and reuse of wastes
 - Supervision, management, legal liability and etc.
-

Suggestion 4: Promotion 3R strategy and international cooperation

- Preventing illegal movement, joint efforts by export and import countries are needed;
 - Border control and cargo inspection;
 - Monitoring and keep track of recyclables movement
 - Capacity building for e-wastes recycle and disposal in a proper ways in developing countries in terms of monitoring, enforcement, technology and policy-making;
 - Education and public participation, the role of NGOs
-

In summary: key system for e-wastes

- Improving products responsibility system
 - Implementing EPR (Extended Producer Responsibility) system
 - Charging system for electronic wastes recycle and treatment
-

Thank you!
Welcome to
www.sepa.gov.cn
www.prcee.org

Contacting information:
Dr. Zhou Guomei
Zhou.guomei@prcee.org
