











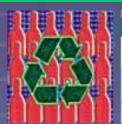




3Rs Initiatives in Thailand













Pollution Control Department
Ministry of Natural Resources and Environment

Series Of Presentation

- Current status of solid waste management
- 3Rs initiatives
 - National level
 - Local level
 - Industrial and NGOs cooperation
 - International cooperation
- Examples of 3Rs good practices
- Impacts of the 3Rs implementation
- 3Rs key success factor

Municipal Solid Waste Management (As of 2005): Quantities, Collection, Recovery, and Disposal

Generated 100%



Potential Recyclable/Utilized 80%



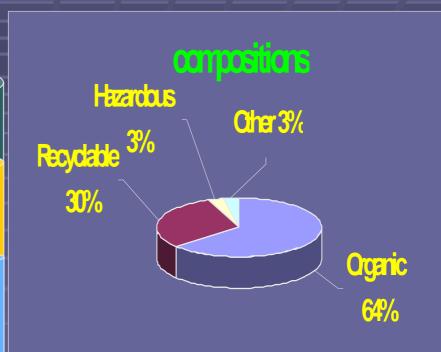
Collected 84%



14.3 Million Tons

11.4 million Tons

12 Million Tons



Control/Sanitary
Disposed 36%



- National Level
 - National integrated waste management plan
 - Legislative development for good practices of waste management
 - Take back program for end-of-life products
 - Capacity building on the 3Rs

- Local Level
 - Initiatives of recycling oriented society
 - Community participation on the 3Rs



- Industrial and NGOs Cooperation
 - Waste exchange program
 - Thailand green purchasing network







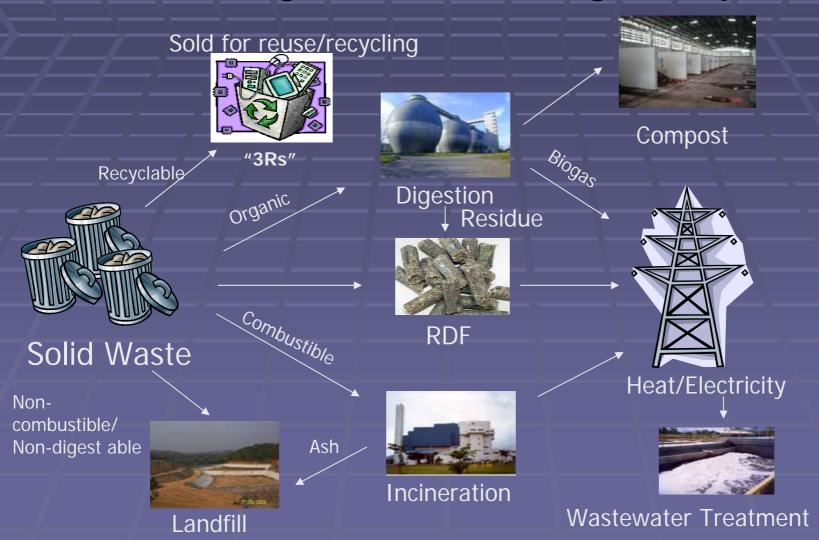


- International Cooperation
 - Green manufacturing technical assistance program
 - Fluorescent lamp partnership program





National integrated waste management plan



- Take-back Program for End-of-life Products
 - As of 2005, used lead-acid batteries are returned up to 85%



Producer

2.5 US\$ (5% of original price) for each used battery returned

Capacity Building on 3Rs







- Guidelines/manuals









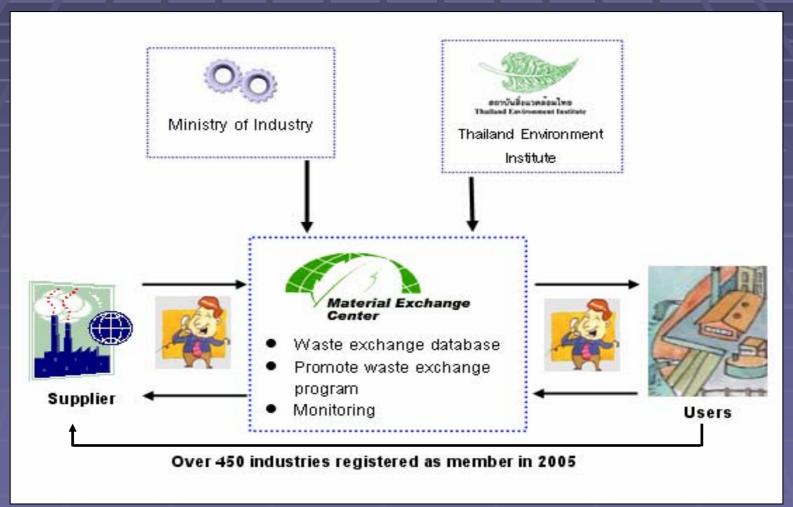


- Waste specific containers

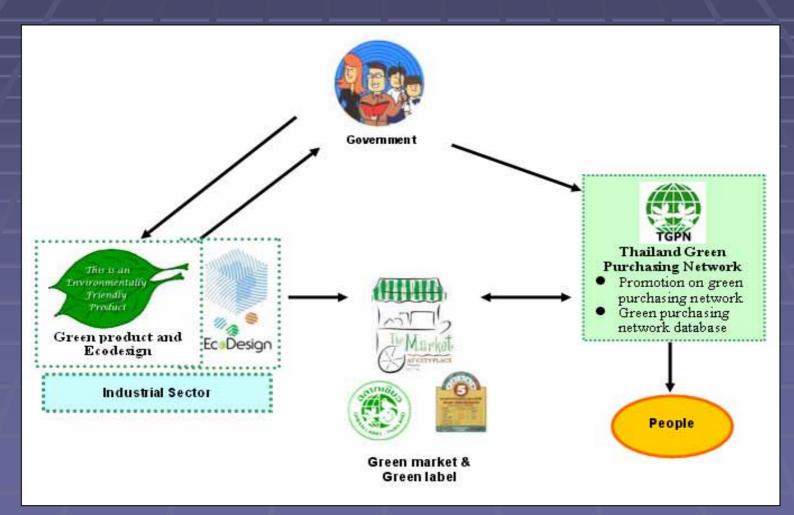
- Initiatives of recycling-oriented society
 - Over 200 communities implement the 3Rs, some municipalities reduce waste up to 30-50%



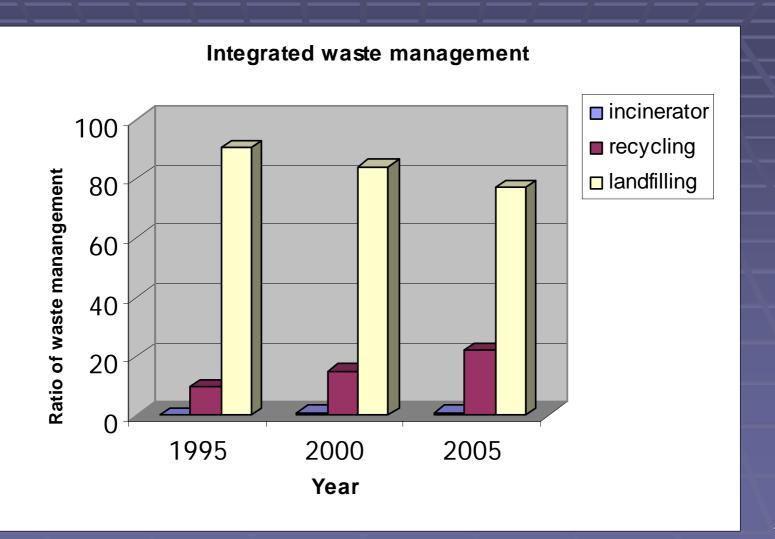
Industrial Waste Exchange Program



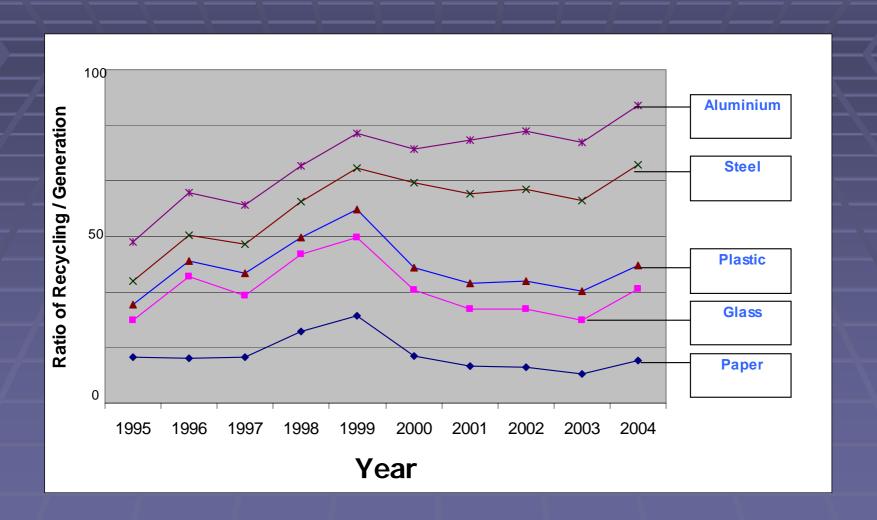
Thailand Green Purchasing Network



Impact of the 3Rs implementation



Impact of the 3Rs implementation



3Rs Key Success Factors

- Policy and Goal
- Legislative system
- Cooperation among stakeholders
- Promotion of research and technology
- International cooperation



Thank You



Pollution Control Department

Ministry of Natural Resources and Environment

THAILAND

Contact info:

Tel: 662 298 2000

Fax: 662 298 2411

www.pcd.go.th







Thailand Institute of Packaging Management for Sustainable Environment = TIPMSE

(CEMPRE-THAI)





Background

The Federation of Thai Industries (FTI)

- Assigning a working group to study and find out the suitable method of a packaging waste management
- Collaborating with Office of Industrial Economics and then assigning Chula Unisearch (Dr. Noppaporn Panich) and The National Institute of Development Administration, NIDA (Dr. Dararatna Anandranasuwong) to study waste management coped with recycled packaging

Working Group's Recommendation

Founding

Thailand Institute of Packaging Management for Sustainable Environment (TIPMSE)

(CEMPRE-THAI)

Key Success Factor

- 1. Work Through Integrated Waste Management : IWM
- 2. Work Through Networking: Private companies, government, NGOs, University, Citizens
- 3. Supporting Fund
- 4. Private Sector plays a leading role
- 5. Having permanent & independent organization and staffs for IWM

Scope of Frame Work

Government

Study&

Research

Provider

Monitor

Coordinator

CEMPRE-Thai

- 1) Non-Profit organization
- 2) Promote and develop integrated and sustainable packaging
 - & waste packaging management, except tax and fee

Companies

Financial support

Citizens

from product companies, packaging producers, and Aluminium to packaging industries (Plastic, Paper, Glass, Iron & Steel, and Aluminium)

Vision& Mission

Vision

To develop sustainable models for packaging, packaging wastes, and municipal wastes management

Mission

- •To reduce packaging waste for a better natural environment and to enhance the waste management capacity of related organizations
- To promote packaging industry
- •To promote the welfare and ability of people in the packaging and recycling industries and to improve their quality of life.

Objectives

To reduce packaging waste from total solid waste and to lower waste management expenses of related organizations



To increase the competitiveness of
Thai industries in the global market by reducing
or eliminating non-tariff barriers (NTBs),
especially the environment policy.

To enhance quality of life and rehabilitate natural environment

Goals

1. To reduce packaging approximately 19% of total waste within 5 year

Chula Unisearch (2004): Packaging Waste 31% (13.7 million tons)

Pollution Control Dept. (2001): Packaging Waste 24 % (14.1 million tons)

- 2. To develop database on packaging waste and recycling within 1 year
- 3. To submit opinions for the formulation of national policy and plans for the application in the management of packaging waste
- 4. To promote the packaging industry in the whole value chain

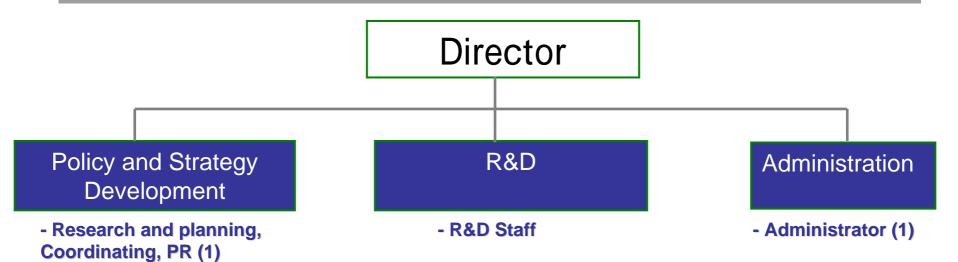
Committee (40 persons)

- Chairman, Vice Chairman, Secretary, Deputy Secretary and Treasurer of The Federation of Thai Industries (FTI) with President of Environment and Energy Department; <u>6 persons</u>
- Representative from Ministry of Finance (Fiscal Policy Office),
 Ministry of Natural Resources and Environment (Pollution Control Department and Department of Industrial Promotion), Ministry of Industry (Office of Industrial Economics), Ministry of Interior (Department of Local Administration) and Ministry of Public Health (Department of Health); 6 persons
- Permanent Secretary for the Bangkok Metropolitan
 Administration; <u>1 person</u>
- Representative from The Municipal Office Assembly Association of Thailand; <u>1 person</u>
- Qualifier Technology, Economics and Law; <u>4 persons</u>
- Representative from Co-founder of TIPMSE; <u>21 persons</u>
- Director of TIPMSE; <u>1 person</u>

Executive Committee (16 Persons)

- Chairman of Environment and Energy Department of FTI
- Vice Chairman of Environment and Energy Department of FTI
- Representative from one of financial-supported companies and President of one of the FTI's five main industry clubs (Plastic, Paper, Glass, Metal and Aluminum); 5 persons
- Representative from involved companies who are members and give financial support to TIPMSE; 8 persons
- Director of TIPMSE; 1 person

Organization Chart



Key Founders

Committed Sponsors (19)

1.Coca Cola Group (Thai Namthip, Coca-Cola Thailand, Haad Thip)

2.Boonrawd

3.Tetra Pak

4.Pepsi

5.Osotspa

6.Unilever

7. Greenspot

8.P&G

9.Heineken

10.Nestle^r

Combibloc

17. Dutchmill

18. TIPCO

19.

11. Thai Beverage Group

12.Glass Industry Club

13.Plastic Industry Club

14.Pulp and Paper Industry

Club

15.Aluminium Industry Club

16. Thai Metal Packaging

Association

Total USD 0.73 million/Year

For 5 years

That You