Zero Waste Management in Thailand: The Situation and Practices

Supported by Thai Health Promotion Foundation

Sombat Haesakul
The Project of Waste Management Networking
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Overview: Thailand’s Waste Situation
Thailand’s Waste Situation

**Waste Quantity**
- approx. 14 million tons/year (40,000 tons/day), annual growth rate 3-5%
- 25% in Bangkok (10,000 tons), 2-4% /year
- 35% in municipal area, 3-5% /year
- 40% in rural area, >5% /year
Thailand’s Waste Situation

- **Type of Waste**
  - Organic waste 55-60%
  - Recycling Waste 25-30%
  - Hazardous Waste (incl. E-Waste) 5-7%, It’s highly increasing.
  - Infectious Waste 3%
  - Other 2%
Thailand’s Waste Situation

• Waste Management Policy
  ➢ Gov. policy emphasize collect, disposal, and waste-to-energy (incineration plant). In 2006, MOF proposed packaging tax act, but now, the act has not active. In 2007, MOEng adjusted Power Development Plan that target on energy alternative from waste energy 100MW, now it active.
  ➢ Municipal depend on Gov. Policy. 5 Biggest municipal have waste-to-energy development plan there support by Thailand Electrical Power Authority.
การจัดกลุ่ม Cluster
ในการจัดการระยะไกลไฟอย่าง

- กลุ่มขนาดใหญ่ (L)
- กลุ่มขนาดกลาง (M)
- กลุ่มขนาดเล็ก (S)
Thailand’s Waste Situation

- **Waste Management Policy (cont.)**
  - Industry Council policy, they established Institute of packaging waste management in 2007. They have disagree with gov. policy and want protest gov. policy on packaging tax.
  - Community policy, they develop social instrument from waste therefore social movement, exp. waste to charity, waste to community financing, job creating.
Thailand’s Waste Situation

- **Waste Management Budget**
  - Budget per year approx. $14 b – $25 b ($500 – $750 M), 0.2 % of GDP.
  - Bangkok waste management expends is 10% of Bangkok Budget but 100% of local revenue (local tax).
  - Municipal waste management expends is 12-15% of the budget, but 80-120% of local revenue.
  - LOAs is not data available.
การเปรียบเทียบงบประมาณแต่ละด้านที่สำคัญกับการจัดการขยะ

ปีงบประมาณ

การศึกษาและการวิจัย  การสาธารณสุข  การสังคมสงเคราะห์  งานกำจัดขยะมูลฝอยและสิ่งปฏิกูล
Thailand’s Waste Situation

- **Waste Business**
  - Market Volume per year approx. ฿250 b – ฿300 b ($7,500 – $9,000 M), 3 % of GDP.
  - Create a job, approx. 500,000 persons
  - All wastepicker is poorer approx. 400,000 persons (100,000 family).
Review : Zero Waste Movement in Thailand
History of Movement

- participate with GAIA, Waste not Asia
  - In 2003, Soul, South Korea
  - In 2005, Keralla, India
  - In 2007, Hondarribia, Spain

- Thai Health Promotion Foundation
  - grant to
    - 2005-2006, Review Waste Management Strategic in Thailand
History of Movement (cont.)

• 2009, The Project of Waste Management Networking, The Centre of Research and Training on Environmental Study, and Association of Local Authority Organisation
  ➢ 3 party co-operate training ZWM conceptual framework for Local Authority Organisation (LAOs) about 1,000 LAOs and 2,500 persons.
  ➢ Develop tools and guideline for LAOs practices

• Next Step, The Project and Ass. LAOs will establish ZWM Networking in Thailand
  ➢ Communication and Media
  ➢ Academics and Movement
Review : Thai Society
Perspective on Waste
Whom are perspective on “Waste”

Government Officer: Wastes is waster, it is uselessness

Village and LAOs: Waste is social management tools

Federal Thailand Industrial: Wastes is raw material for reproduction

Green Community Group: Waste is revenue, there are everything to Quality of life

Waste Picker: Waste is revenue, there are everything to Quality of life

Community (school, village, Buddha Monk): Wastes is charity to poor man,
Best Practices on Waste Movement

• I. Waste is social administration tools such as, education administration, charity for poorer, created job, learning centre, disease control etc.
• II. Waste is strategic movement such as; social charity for community development, community welfare development etc.
• III. Waste is Inter-media it indicate environmental impact problem that effect community life
Best Practices on Waste Movement

• IV. Waste is social indication or social symbolic (social identity) that indicated poorer group and marginalist group; waste picker association, homeless group ect.

• V. Waste is financial channel such as; capital accumulation, community liability fund, waste saving transform cash saving, social security network, saving for housing.

• VI. Waste is quality of life indication such as; number of alcoholic bottle means how much you spent consume alcohol or how much your lost money ect.
Proposal for The Zero Waste Management Strategic Movement in Thailand
• First Step: Change to perspective on Waste meaning and definition
  ➢ Waste is resource, everything do using
  ➢ Waste is social tools it can instrumental social movement
  ➢ Waste is social wealth indication, when waste decreasing there are increasing healthy wealth
New Definition: Waste is Resource and Actually Residual is waste

Raw Material from Natural Resources

Production / Commodity

Consumer

Waste

Resources
ZWM Mobilisation (cont.)

- Second Step: R&D and Networking
  - Public Policy Process and Strategic driven. **Now, National Health Commission propose HZW practices and policy proposal for Gov.**
  - training tools and guideline of practices
  - establish networking
  - Develop The Waste Management System
  - ect.
The Waste Management System

VII. Management Measurement and Tools (Economic, Market, Law)
VI. Budget and Fiscal Management Policy (Full Cost Management)
V. R&D on Social Movement and Management
IV. Social Business Link to Market
III. Social Infrastructure: Education and Empowerment
II. Social Mechanism and Institution
I. National and Local Public Policy and Strategic
Third Step: Social Movement

- Public Policy Process and Strategic driven
- Community-Public-Private Co-operation
- Linkage Economic Sectoral; Agriculture Producer require organic waste and Consumer require fresh agriculture product
- Expand Best Practices
- etc.
Educational Networking Practices

Household separate recyclable waste and student take recyclable waste to School Saving Bank (SSB) → SSB sale recyclable waste and take a profit to subsidy

- Hire English teacher teaching
- Student Activities
- Buy Computer and appliance for teaching
- Welfare for poor student
Urban Community Networking

villager save recyclable waste with Community Saving Bank (CSB)

Community activity such as; sports, community cleaning etc.

Community welfare

CSB make a profit and subsidy for

Human right

Short loan

Improve community quality of life

Improve community quality of life
การนำกระดาษ..ที่ใช้แล้วมาเพิ่มมูลค่า

• นำกระดาษที่ได้ไปแปรรูป หรือไปใช้งานได้มากมาย

• ประหยัดและไม่ทำลายสิ่งแวดล้อม
การทำภาพนูนจากกระดาษรีไซเคิล " กระดาษ หารหาร 2 "
ภาพนูน หลวงพ่อทวด หลวงพ่อเงิน ฟิจิตร
การสร้างงานสร้างอาชีพจาก "กระดาษ หาร 2 "

ด้วยการปรับโฉมกระดาษเป็นดอกไม้

ดอกไม้จากกระดาษริชีเดล
งานดอกไม้จันทน์ + พวงหรีด
• มีการพัฒนารูปแบบของผลิตภัณฑ์สามารถสร้างงานสร้างเงิน สร้างรายได้คิดพอสมควร
งานดอกไม้จันทน์ + พวงหรีด
Glass Bottle Transform to Decoration
Exercise Machine Invention
Alternative Energy from Organic Waste
The Challenge in next the Zero Waste Management in Thailand
ZWM Challenge

• Old paradigm
  ➢ Gov. and Munic. policy : waste disposal is the best way.
  ➢ politician benefit

• Free Trade Agreement
  ➢ FTA Thailand and Japan
  ➢ FTA Asean and Partnership (Japan, China, S. Korae, India, USA, EU, )
ZWM Challenge

• Oil price crisis
  ➢ effect to alternative energy form waste
  ➢ packaging price increasing

• How to change consumer behavior
  ➢ Rethinking
  ➢ Remind
  ➢ Redoing