



3R Portfolio

- Good Practices to Promote the 3Rs -

Country: Thailand

Major Activities

1. National Policy and Plan

1.1 Thai Government policies

- On 23 March 2004, the Prime Minister has presented the policies delivered to the National Assembly. As to the Natural Resources and Environmental Policy regarding the waste aspect, the Government will implement an environment-friendly waste disposal system and enhance waste disposal capacity of local administrative authorities. The Government will also promote the private sector's role in research and development for recycling of raw material and clean technology. In addition, the Government will not allow Thailand to become an end receiver of waste, which has to bear the costs of industrial waste and pollution.

1.2 National integrated waste management plan

-The plan has been focused on the sustainable consumption of the natural resources and the application of the 'cradle to cradle' concept, including control of waste generation at sources, increase on waste segregation and enhancement of waste utilization efficiency prior to the final disposal. The targets of waste minimization in this plan are to have the waste reduction scheme, to have the waste segregation system for reuse and recycling in every community over the country, and to minimize 30% of total waste generated within 2009.

1.3 National master plan on the cleaner production and cleaner technology

-As a based line for industrial waste management, the plan promoted the cleaner production and cleaner technology in order to minimize pollutions from the production line and other industrial activities as well as the pollutions or hazardous substances in the product itself. In this regard, projects on waste reduction in pulp and paper industry and in the plastic industry have been initiated.

1.4 Formulation of the Strategic Plan on E-wastes

-Ministry of Natural Resources and Environment in cooperation with Ministry of Industry and supported by other relevant government and private agencies have developed the national strategic plan for the environmentally sound management of E-wastes. It is currently in the approval process of the National Environmental Board and Cabinet. The main objective of the plan is to improve the existing segregation and collection system of E-wastes and to manage them properly. The plan is introduced the concept of Polluter Pay Principle (PPP) by taking into account the responsibility of producer, importer and consumer and the promotion of 3Rs as a vital tools for the environmentally sound management of E-wastes.

1.5 (Draft) Strategic Plan on Packaging and Packaging Waste Management

-In an attempt to minimize the large volume of packaging waste each year, the Government has drafted the National Strategic Plan on Packaging and Packaging Waste Management, based on the integrated waste management approach and life cycle approach. It is laid down measures for all relevant parties concerned to handle wastes

generated from each stage of packaging life cycle, including design process, production, consumption, treatment and disposal. Thus, the strategies are divided into four target groups, including (1) designer, producer, importer and packer, (2) product transporter and distributor, (3) user and consumer, and (4) waste collector, transporter and processor.

1.6 Government Green Procurement Policy Project.

-Thailand Environment Institute has initiated the Government Green Procurement Policy Project in order to solve Thailand environmental problems. Toward prevent pollution through government green procurement policy; green criteria would be included into procurement procedure, in addition to quality and price. The producer practice would also be changed to include life-cycle consideration to improve environmental impacts of their products and services.

2. Reduction of Barriers to the International Flow of Goods and Materials

2.1 Free Trade Agreement

-According to the Government Policy on the Foreign and International Economic, the Government shall continue to negotiate free trade agreements with various countries for the greatest good of the country, to increase the competitive ness of Thai entrepreneurs and to pursue proactive marketing policies in both existing and new markets, so that Thai goods and services are widely known and recognized by foreign consumers.

3. Cooperation between Developed and Developing Countries

3.1 Green Manufacturing Technical Assistance Program

-The program initiats to integrate and extend its current capacity on cleaner technology and materials technology to Life Cycle Assessment (LCA), Eco-Design, Recycling & Green Materials Technology for supporting Thai industries to achieve green manufacturing and design which is performed by National Science and Technology Development Agency and National Metal and Materials Technology Center, in cooperation with Government of Japan through Green Partnership Plan during 2002-2004. The outputs and outcomes of the program during 2002-2004 include human resource development on basic to advance LCA and Eco-Design, demonstration project on development of Eco-compressor, framework and roadmap for the development of green products and services in Thailand, and the extensive network of LCA and Eco-Design with close collaboration with several active organizations and institutions.

3.2 Fluorescent Lamp Partnership Program

-With the purpose of enhancing the recycling and proper waste management in Thailand, Government of Thailand, in cooperation with Government of Japan through Green Partnership Plan, has started the Pilot Project on the Recycling of Fluorescent Lamps in Thailand in 2004. At the first phase, the project paid the attention to the scenarios of fluorescent lamp waste management by focusing on recycling. The next phase, starting this year, is an extended study of the first phase, which aims to establish a partnership among related agencies, namely manufacturers, local administrators in pilot provinces, recyclers, and waste processors.

3.3 Construction and Demolition Waste Management System

-The Construction and demolition waste management system is the cooperation project between GTZ and the Pollution Control Department, which aims to develop a guideline and

criteria for managing the construction and demolition waste. This guideline will provide stakeholders the methodology for recycling and reuse the construction and demolition waste as well as for preventing the illegal dump and the environmental impacts.

3.4 Packaging Waste Project

-In order to minimize the environmental impacts arising from packaging wastes, a long-term plan for packaging waste management has been developed. However, based on the technical, environmental, and socio-economic aspects, the packaging waste management becomes the difficult tasks due to limitation of knowledge. Thus, the GTZ cooperation on packaging waste is developed to support Thai's counterpart on formulating technical guideline and strategies on the packaging wastes management.

4. Encouragement of Cooperation among Various Stakeholders / Promotion of Science and Technology Suitable for the 3Rs

4.1 Initiation of the recycling-oriented society

-Collaboration among all stakeholders; central government, local administration, and private sector, is a key function to promote the recycling-oriented society in the view of in-house segregation, reuse, and recycling. In addition, promoting local wisdoms and enhancing public participations.

4.2 Technical and financial support

-Central government has provided technical support as well as financial support for local government in order to improve the existing waste management system to the more reliable and more environmental friendly system.

4.3 Capacity Building on the 3Rs for Local Communities

-Capacity building on the waste management has been done by conducting workshops and training courses for waste-related workers, as well as initiating pilot projects on the proper waste management regarding segregation, reuse, and recycle in communities.

4.4 Community Participation on the 3Rs

Many local communities have successfully conducted their own waste management programs focusing on the 3Rs, such as composting program and recycling waste bank. The result of such programs showed that waste generated are reduced more than 30 percent before final disposal.

4.5 Guideline, measure, and standard related to the 3Rs

-The instructions considering the proper waste management, such as ways to reduce, reuse, and recycle wastes as well as the ways to dispose of properly, has been developed and disseminated as a guideline for local community.

-In 2003, the standard concerning the specification of the waste containers had been announced in order to stipulate the proper waste containers for different types of wastes with a view of enhancing the 3Rs.

-Quality control standard for product and its packaging that produced from used materials has been studied in order to improve the product based on its quality and customer satisfaction as well as to promote the use of the recyclable products and to enhance the segregation and take-back scheme for the recyclable wastes at source.

4.6 Industries Waste Exchange Program

-Currently, Pilot Project on Waste Exchange Programs are being conducted in Thailand to encourage recycling in industries. This program is based on the premise that one

industry's waste is another industry's raw material. Companies match their waste disposal and their raw material needs through a computerized database, and subsequently exchange waste. For the supplier of the waste, these types of transactions avoid disposal costs, while the user; the purchase of used raw materials can be done at lower prices than that of new materials and can be reduced the energy needed during the manufacturing processes. As of 2004, over 400 industries had registered on the waste exchange database established by Ministry of Industry.

4.7 Green Label Scheme

-Thai Green Label Scheme was initiated by the Thailand Business Council for Sustainable Development in 1993 and was formally launched in August 1994 by Thailand Environment Institute in association with Ministry of Industry. The Green Label is an environmental certification awarded to specific products that are shown to have minimum detrimental impact on the environment in comparison with others serving the same function. The scheme is developed to promote the concept of resource conservation, pollution reduction, and waste management. It applies to products and services, excluding foods, drinks, and pharmaceuticals. Products or services that meet the Thai Green Label criteria can be carried the Thai Green Label. As of now, there are Thai Green Label criteria for 39 categories (11 categories are under the study) Participation in the scheme is voluntary and there are 30 companies have been awarded the Green Label certification at this time.

4.8 Used lead-acid batteries recycling program

-Used lead-acid batteries recycling program has been initiated by Pollution Control Department since 2000. The program aims to encourage the recycle of used lead-acid batteries through the tax incentive by taking into account the environmental and operational monitoring. At present, the program can promote the recycle of used lead-acid batteries up to 84%.

4.9 Promotion of Material Recovery, Energy Recovery and Replacement in Cement Kiln

-Government has promoted the co-incineration of wastes in cement kilns as one optional waste disposal other than landfilling, since 2001. The benefits of this program are both energy and material recovery. The program also included the energy replacement for coal/coke and the material replacement for raw material used in the cement kiln process. There are currently seven cement manufacturers expanded their capability in co-incinerators of hazardous wastes.

4.10 Take-Back Program on End-of-Life Products

-Ministry of Natural Resources and Environment has initiated take-back program on end-of-life mobile phones including batteries and packaging in order to recycle or dispose them in the environmental sound manner. The programs are aiming at encouraging customers to take back the used or end-of-life mobile phones including accessories, such as batteries and packaging wastes to the collection points provided by manufacturers or relevant stakeholders, such as network providers in case of mobile phones and their batteries, on the voluntary basis.

4.11 Pilot Program on Plastic and Foam Waste Management

-Pilot program on plastic and foam waste management is initiated based on the integrated waste management approaches, which aims at reducing the volume of the utilization of plastic and foam. The first phase focused on the scenarios of plastic and

foam waste reduction and management. The next phase has been starting to implement the pilot program in various stakeholders, including the department stores, convenient stores, supermarkets in Bangkok and its vicinity.

4.12 Thailand Green Purchasing Network

-Thailand Research Fund, Thailand Environment Institute, Thai Industrial Standards Institute, Thailand Business Council for Sustainable Development and Thailand Network of Eco-efficiency and Cleaner Production has established Thailand Green Purchasing Network, which intends to enhance the green supply chain not only the demand but also the supply in the Thai market through the information exchange on green products, green manufacturers and green criteria. It is implemented by complied with the World summit on Sustainable Development Commitment on Sustainable Consumption and Production.

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