

Fourth Regional 3R Forum in Asia

“3Rs in the Context of Rio+20 Outcomes – The Future We Want”

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Country Analysis Paper

(Draft)

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This country analysis paper was prepared by Cambodia as an input for the Fourth Regional 3R Forum in Asia. The views expressed herein do not necessarily reflect the views of the United Nations.

Country Analysis Paper

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a. List major initiatives and achievements in the areas of 3R policies, programmes, and institutional measures;

Rapid growth of economic urbanization and industrial development are the cause of more concerns within solid waste management. In this regard, the Ministry of Environment is the institution responsible for protecting the environment and human health has developed the guidelines as well as related orders to solve the problems and enhance environmental quality in Cambodia that include: the development of legal instruments and related regulations. Refer to annual report conducted by Department of Pollution Control, solid waste collection and disposal at dumping sites in cities and districts is about 933,144 tones with increasing rate amount 10% every year. In addition, the Royal Government of Cambodia is also pays great attention on this matter by releasing the mandate that no flying trashed plastic bags in the air along the street and this objective needs to be achieved by 2015 in all cities of the Kingdom of Cambodia. In addition, there are more activities have already put in place that include the contest of Clean City, Clean Resorts and Good Service, the establishment of the National Committee for Coastal Management and Development of Cambodia and National Council for Green Growth of Cambodia. To implementation this order, Municipality of Phnom Penh has also established a committee to implement the rubbish separation plan and also lead the penalty campaign for the people who throw the rubbish on the street or in the public area.

Currently, the draft of National Strategy plan on integrated solid waste management within target until **2025** have been developed and discussed internally (at the ministry of the environment). The draft will send to council minister very soon for approval in which consist of the following component:

Situation of integrated solid waste management

- Prevention and reduction of solid waste in production, services and consumption have not been carried out yet.
- At-source household waste sorting has not yet be practiced
- Industrial waste: usually sorted at-source.
- Medical waste: sorted according to Ministry of Health regulation.
- Recycling technologies are used very old with no pollution prevention measure

Vision to 2030

The vision of integrated solid waste management is to ensure public health safe, secure and environmental quality will be improved in order to country become more beauty civilization as developed

Viewpoint

The main views of the Strategy plan are:

- Integrated solid waste management is a key element of environmental pollution prevention, toward sustainable development.
- Integrated solid waste management would be focused on reduction generation of waste through sorting at-source and be promoted reduce, reuse, recycling to decrease amount of waste which have to be landfill.
- Integrated solid waste management is the responsibility of the whole society.
- Integrated solid waste management should be based on “polluter pays principle (PPP).

Objective to 2030:

- 100% of urban areas will have solid waste recycling systems and implement sorting at household.
- 100% of total generated urban waste will be collected and treated, in which 90% will be recycled, reused, recovered energy or produced into compost.
- 100% of industrial hazardous waste and medical waste generated in healthcare center clinic and hospitals will be collected and treated in proper manner.
- 90% of plastic bags used in supermarkets and other trade centers will be reduced

Solutions

Develop and implement a priorities project of the strategy which includes such as:

- + Complete policy, legal framework and institutions of integrated solid waste management
- + Develop regulations and guidelines for sorting of solid
- + Build and improve landfills for final solid waste disposal
- + Establish Integrated Resource Recovery Centre (IRRC)
- + Educate and raise public awareness
- + Promote scientific researches to serve effectively integrated solid waste management and
- + Strengthen cooperation of stakeholders and international cooperation

b. List major initiatives and achievements in promoting 3R technologies and infrastructure development

Achievements

Even the Program to Reduce, Reuse and Recycle (3R) is still unofficially develop; however, some activities have already in placed through the groups of waste collection for selling that include: Aluminum can, used iron, tissues wastes, used battery, etc, for export and some others are locally recycling that include used paper, plastic, used iron and oil waste etc,. In city of Phnom Penh there are 15 private companies running waste recycling and 107 junk shops buying recyclable waste and sale to recycling companies or sale those waste to oversee. In fact organic wastes (Market waste and slaughter house) are very common use for composting and biogas.

Recently, UNESCAP in cooperation with the Department of Environment Pollution Control have successfully established two Integrated Resource Recovery Centers at Kampot and Battambang Provinces and the Ministry of Environment will continue to expend this program with other provinces in the Kingdom of Cambodia in the near future.

c. List examples of specific policy initiatives or measures in dealing with new emerging waste streams such as - e-waste, plastics in coastal-marine environment, chemicals and hazardous wastes

New emerging waste (E-wastes)

Currently, the environmental law and related sub-decrees already entered into force for the protection of human health and the environment, such as the Sub-decree on solid waste and hazardous substances which were approved in 1999 by the Council of Ministers. However, these are not specific to e-wastes management. In order to fill the gap under above mentioned Law and the Sub-Decree, Cambodia has been developing the Sub Decree on the Electronic and Electrical Wastes which will be interring into force by 2015. Moreover, Cambodia

conducted already the inventory and series trainings on e-wastes including TV debate programme for public awareness raising and capacity building to stakeholders involved in the country.

d. List specific policy initiatives or strategies for promotion of 3Rs in industry and business sectors, including small and medium size enterprises (SMEs)

Development of Cambodia Green Industry Award

The objective was to develop a mechanism to encourage companies to improve their environmental performance while increasing their profitability and competitiveness.

The goals of the Cambodian Green Industry Award

- Disseminate and broaden the activities in the fields of climate change mitigation, resource efficiency and cleaner production, environmental management accounting and system.
- Stimulate and support other industries in whole Cambodia to undertake voluntarily activities in the field of climate change mitigation, resource efficiency and cleaner production, environmental management and corporate social responsibility.
- Raise environmental awareness in industries and in the public in general.

The Cambodian Green Industry Award is developed for industrial and production companies. Therefore there will be three levels of the award.

- Bronze will be the basic award, for “basic” activities;
- Silver is reserved for all applications with a more than average performance; and,
- Gold is for the activities that can serve as best practice and example for others.

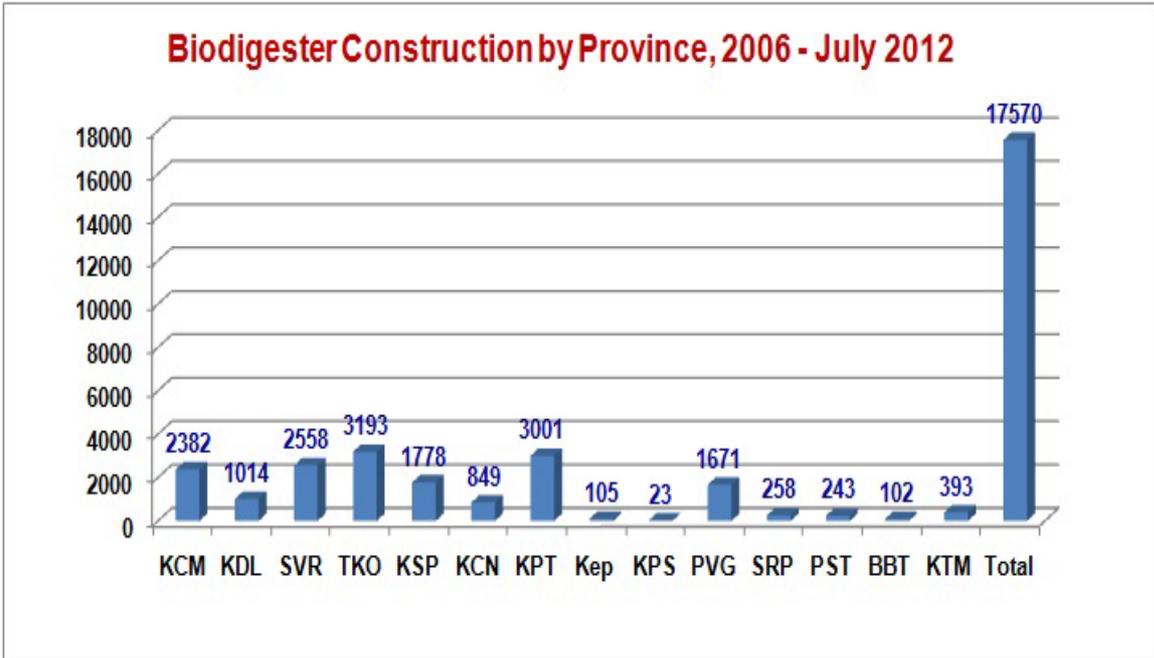
e. List specific policy initiatives or strategies for promotion of 3Rs in agriculture and rural sector in support of rural livelihood generation.

There are some programs for the 3R in the agriculture, which are under implementing, these include: to encourage farmer for using the existing resources like waste from animal, and unused vegetable for producing compost fertilizer to replace the use of chemical fertilizer. There are a few NGOs play important roles in sharing the education and awareness rising to local communities towards the protection of the environment and public health. The application of bio-fertilizer is successfully done at target areas by local NGOs. It is an important process implicating to urban waste recycling with the great usefulness of reducing chemical fertilizer use, and to cut down waste amounts for disposal at dumpsite. In addition, the Royal Government of Cambodia and the Development Partners have also every active to encourage the farmer to establish oven from Biomass in the Kingdom of Cambodia. In addition, in respect to human health the movement of vegetable plantation for using natural fertilizer instead of using chemical fertilizer is wide spread in the country.

Achievements

- Installed **17,590** biogas plants and 95% of them are in operation.
- More than 17 thousands families with 87.9 thousand people are directly benefited by biodigester plants.
- 43 private Biogas Companies have been established in 7 provinces to enhance private sector development and closer services to customers.
- 10% toilets are connected with biodigester plants
- 75% of bio-slurry is utilized as an organic compost fertilizer

Chart of Plants Construction so far:



Constraints

The current practice of solid waste management in Cambodia is commonly confronted to many constraints occurred include as follows:

- ❖ Inadequacy of data and information from specific sources, e.g. industrial and health sector, which is a crucial tool to evaluate material flow within the producing process, and waste discard. Therefore, it is very difficult to do an evaluation of the future trend and need. Indeed, limited cooperation between line agencies at national and local levels are also considered to cause the inadequacy of data/information which is required to improve
- ❖ The 3R initiative is certainly a new theme for local levels.
- ❖ Education and dissemination towards technical guideline and waste management have been provided by little amount comparing to high demands at local level.
- ❖ Imbalance between waste generation and payment for waste management service from respective generating. It means a tariff of waste management service is not based on quantity of generated wastes.
- ❖ The lacking of finance, relevant facility and knowledge toward landfill engineering. There is not a strict measure to properly control and manage dumpsite. There is also no technical guideline for dumpsite/landfill construction to abide by the environmental manner.

Conclusions

Event the 3R concept have being implemented, but the common concern is that almost activities toward the handling and recycling of recyclable materials may cause negative impact to the environment and human health due to low awareness of operator, low technology and facilities and improper management and disposal of residues from recycling process.

The government institutions should increase a better relationship with international communities in the field of environmental and human health protection to meet the MDGs concept in the target of sustainable development. Insufficiency of human resources and budget, that is a major reason to ask for supporting from international communities and other donors to apply the 3R activities through pilot projects, and seek a private partner to fully apply the next stage.

Thank you!