

## **Thematic Working Group on Solid and hazardous waste Workplan for 2010-2013**

### **1. Background**

Asia's economic growth and population is now increasing in a fast rate. The rate of economic growth is now 7.4% (2005, ESCAP) and the population is increasing by 1.1% (2006-2010, United Nations Population Fund, "State of World Population 2006"). While Asia has been experiencing a rapid increase of population and economic development, waste problem has been becoming common to all countries in Asia.

Except some advanced countries, increase of volume and variety of solid waste are common challenges to countries in Asia. Increase of volume gives pressure to waste disposal site and enhance illegal dumping. Hazardous waste causes a large number of environment and health problems for people. These are threatening to the environment and our health.

Based on the highlighted above issues in Asia, the Regional Forum on Environment and Health in Asia and the Pacific launched in 2007 selected solid and hazardous waste as prioritized issues in the first three year plan of the forum. In line with the Charter of the Regional Forum, Thematic Working Group on solid and hazardous waste (Waste TWG) was established and started its activities based on the first three year programme. The member countries of Waste TWG include: Brunei Darussalam, Cambodia, China, Indonesia, Japan, Republic of Korea, Lao PDR, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

In this context, the Waste TWG deals with municipal waste and medical waste which are common issues to the member countries.

### **2. Progress based on the first three years workplan**

The first three year workplan (2007-2009) of Waste TWG has three objectives: (1) to ensure environmentally sound management of solid and hazardous waste; (2) to prioritize issues by analyzing status-quo of municipal waste and medical waste management in the member countries; and (3) to provide useful information.

The first Waste TWG meeting was held on 28-29 February, 2008 in Singapore where the meeting agreed that:

- i. Member countries will develop their own national inter-ministry/agency steering committees;
- ii. Member countries will identify national contact points;
- iii. Each country is allowed to have up to 2 focal points for contact and they have to work closely;
- iv. Membership will depend on the main topics to be discussed, where relevant or appointed person can participate.

The Second meeting of Waste TWG was held in City Angkor Hotel, Siem Reap, Cambodia on 1-3 December 2008, back to back with the Second Workshop of 3R Knowledge Hub (3RKH). The meeting i) reviewed the reports of status-quo and issues of municipal and medical waste management; ii) shared good practices and lessons learnt on municipal and medical waste management; and iii) discussed and identify appropriate recommendations drawn from the status-quo and issues of waste management. The participants of the Second meeting also agreed with action points (please refer to the progress report of the Regional Forum on Environment and Health).

As the result of the first three years activities, TWG provided the following major output successfully.

TWG establishment	Work plan, including a meeting schedule, reporting schedule and budget
Municipal Waste	Report on status-quo and issues of municipal waste management in the member countries *Output was provided to 3R Knowledge hub and Environment and Health
	Recommendation on necessary actions
Medical Waste	Report on status-quo and issues of medical waste management in the member countries *Output was provided to 3R Knowledge hub and Environment and Health
	Recommendation on necessary actions

Recommendations from Municipal Waste Management Report and Medical Waste Management Report are summarized in Annex.

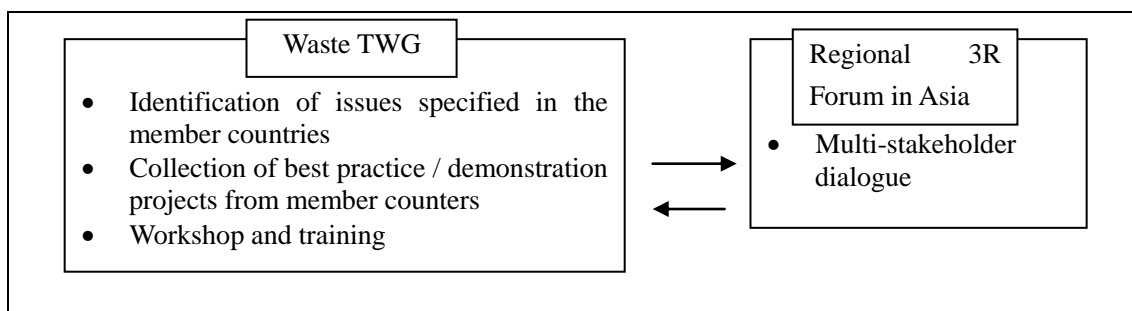
### 3. Objective

As mentioned in the previous section, thanks to member countries' contribution and a fruitful discussion in Waste TWG of the first phase, Waste TWG made essential recommendations to tackle with issues of municipal waste management as well as medical waste management in member countries.

In this context, Waste TWG of the second phase will explore an efficient implementation mechanism in municipal waste management including medical waste management.

According to the outcome from the first three year activities and the other initiatives relevant to waste management issues in Southeast and East Asian countries, it has become clear that due to crucial obstacles in waste management such as lack of finance, inappropriate technology, and so on, most of the public sectors in the region does not seem to have enough capacity to develop and implement entire waste management systems, and private and informal sector could have key roles to improve waste management in the region.

With regard to public private partnership in waste management, Regional 3R Forum in Asia which was launched in 2009 with aiming to promote 3Rs in the region through dialogue, information sharing, and developing cooperation among multi-stake holders will deal with public private partnership in waste management as a major topic. It would be appropriate for Waste TWG to collaborate and contribute to Regional 3R Forum in Asia in order to make the outcome from both Waste TWG and Regional 3R Forum more effective and attractive.



Based on this consideration, the objectives of the second phase (2010-2013) of Waste TWG are:

(1) To identify actual implementation scheme/procedure to realize the recommendation made in the 1<sup>st</sup> phase

(e.g. utilization of public private partnership in waste management and proper integration of informal sector etc.)

(2) To hold workshops to promote activities relevant to the recommendation utilizing the status-quo reports compiled in the 1<sup>st</sup> phase

(3) To enhance capacity building of policy makers to identify and address waste and health problems by sharing knowledge including best practices in the region .

To achieve objectives, it is encouraged to invite the experts in public private partnership and informal sector, and private sectors to Waste TWG.

#### 4. Activities

Provision on the activities proposed workplan for 2010-2013 are shown in Table 1.

Three Waste TWG meetings will be conducted for the period 2010-2013 to report the progress of the adopted TWG workplan 2010-2013 subject to available resources.

**Table 1. Draft Workplan of the Thematic Working Group on Solid and Hazardous Waste Management**

Activities	Time line	Responsible Organization	Output	Indicator
<b>To identify actual implementation scheme/procedure to realize the recommendation made in the 1st phase</b>				
Survey on potential of private sector for active participation in municipal and medical waste management - Key for success - Required legislative measure - Market potential for private sector - Collaboration between private sectors between developed countries and developing countries Etc.	Q3/2010-Q1/2012	Research institutes / Experts in the region	Report	Published report
Survey on role and method to improve situation of informal sectors in the region	Q3/2010-Q1/2012	Research institutes / Experts in the region	Report	Published report
International Dialogue between policy maker and experts (Discuss outcome from Asia Resource Circulation Policy Research with policy makers)	Q2/2012-Q1/2013	All member countries	Presentation material, etc.	Provision of Presentation material, etc.
Recommend necessary actions to address the issues in the compiled list	Q3/2012-Q4/2012	All member countries	Recommendation	
<b>To hold workshops to promote activities relevant to the recommendation utilizing the status-quo reports compiled in the 1st phase</b>				
Training workshop for private sectors (hospital, etc.) on medical waste management - Training workshop Site visit of good practice	Q2/2011-Q1/2012	To be decided	Workshop proceeding	Workshop proceeding
Resource Mobilization for developing countries to promote project on formalization and active engagement of informal sectors	Q3/2010-Q3/2012	Member countries supported by AIT/UNEP RRC.AP	New budget resource	The amount of newly mobilized resource
Collaboration with UNEP “Converting Waste Plastics / agricultural biomass into fuel” project	Q4/2010-	UNEP DTIE IETC	Report and Implementation of pilot demonstration project	Implementation of pilot demonstration project

Activities	Time line	Responsible Organization	Output	Indicator
<b>To enhance capacity building of policy makers to identify and address waste and health problems by sharing knowledge including best practices in the region</b>				
Compile activities in member countries (e.g. demonstration project) and submit it to existing initiative.	Q3/2010-Q4/2011	AIT/UNEP RRC.AP	Report, Presentation material, etc.	Provision of Report. Presentation material, etc.
Provision of relative information to Regional 3R Forum in Asia - Issues to be discussed - Outcome of existing activities etc.	Q3/2010-Q1/2013	Members of Waste TWG	Presentation material, etc.	Provision of Presentation material, etc.
Provide information on development of Medical Waste Management guidelines and manuals in member countries	Q3/2010-Q3/2012	AIT	Guideline and Manual	Published Guideline and Manual
Collect good practice information for medical waste management	Q3/2010-Q3/2012	AIT	Report	Published report
Provide the above mentioned information to the 3R Knowledge Hub	Q3/2010-Q3/2012	AIT/UNEP RRC.AP , AIT	Additional input into 3RKH	The acquired level of additional data and information
Organize Waste TWG meetings	Q3/2010-Q4/2013	AIT/UNEP RRC.AP	Meeting proceedings	-
Update membership and maintain mailing list	Q3/2010-Q4/2013	AIT/UNEP RRC.AP	Updated member list	-

## 5. Resources

Activities	Cost	Available/proposed resource
<b>To identify actual implementation scheme/procedure to realize the recommendation made in the 1st phase</b>		
Survey on potential of private sector for active participation in municipal and medical waste management - Key for success - Required legislative measure - Market potential for private sector - Collaboration between private sectors between developed countries and developing countries Etc.	Personnel cost for Secretariat Meeting cost : preparation, venue, travel, accommodation, etc.	
Survey on role and method to improve situation of informal sectors in the region	To be decided	
International Dialogue between policy maker and experts (Discuss outcome from Asia Resource Circulation Policy Research with policy makers)	To be decided	
Recommend necessary actions to address the issues in the compiled list	Personnel cost	
<b>To hold workshops to promote activities relevant to the recommendation utilizing the status-quo reports compiled in the 1st phase</b>		
Training workshop for private sectors (hospital, etc.) on medical waste management - Training workshop Site visit of good practice	Personnel cost for Secretariat Workshop cost : preparation, venue, travel, accommodation, etc.	
Resource Mobilization for developing countries to promote project on formalization and active engagement of informal sectors	Personnel cost	AIT/UNEP RRC.AP , AIT
Collaboration with UNEP “Converting Waste Plastics / agricultural biomass into fuel” project	-	Member countries
<b>To enhance capacity building of policy makers to identify and address waste and health problems by sharing knowledge including best practices in the region</b>		
Compile activities in member countries (e.g. demonstration project) and submit it to existing initiative.	Personnel cost, cost for report, presentation material, etc.	AIT/UNEP RRC.AP
Provision of relative information to Regional 3R Forum in Asia - Issues to be discussed - Outcome of existing activities	Personnel cost, cost for report, presentation material, etc.	Members of Waste TWG

Activities	Cost	Available/proposed resource
etc.		
Provide information on development of Medical Waste Management guidelines and manuals in member countries	Personnel cost, cost for printing etc,	AIT (ADB)
Collect good practice information for medical waste management	Personnel cost, cost for printing etc,	AIT (ADB)
Provide the abovementioned information to the 3R Knowledge Hub	Personnel cost, maintenance cost etc,	AIT (ADB)
Organize Waste TWG meetings	Personnel Cost for Secretariat Meeting cost : preparation, venue, travel, accommodation, etc.	
Update membership and maintain mailing list	Personnel Cost for Secretariat	

## 6. Monitoring and reporting

The monitoring and reporting of the progress of implementing the work plan will be carried out by contacting the TWG members on-line and through TWG meetings subject to availability of resources.

Annex:

Recommendations from Municipal Waste Management Report and Medical Waste Management Report

(1) Recommendations from Municipal Waste Management Report

Recommendations from Municipal Waste Management Report include:

Implementing an effective and efficient municipal waste management relative to 3Rs can be achieved with the following recommendations to the Waste TWG:

- Establish data and information management systems for municipal waste management at the National/local level with consideration to a bottom-up approach in reporting e.g. Information and data from LA to MoE.
- Develop guidelines and/or policies at national/local level addressing municipal waste management and governing Sound Material Cycle Society through 3R principles, therefore looking into the effects of public health and impact on the environment
- Strengthen capacity building and technical support activities to enhance partnerships among municipal waste and other concerned stakeholders
- Promote dialogue, consultation and consensus building among municipal waste management stakeholders
- Disseminate information on the importance of and good practices in municipal waste management with 3R
- Establish a network for capacity-building for urban waste management governing 3R
- Mobilize funding and resources from institutions and/or donor agencies for the implementation of effective Municipal Waste Management practices at the national/local level
- Form an effective network or organization from among the informal sector in order to provide information and tangible support in terms of occupational safety and health (i.g. proper equipments like carts and masks may be given along with information on waste handling for waste pickers)
- Recognize the role and importance of the informal sector and provide long-term support in the form of health insurance or other forms of savings, with which the informal sector can access

## (2) Recommendations from Medical Waste Management Report

### Recommendation from Medical Waste Management Report

A synthesis of information from all the 12 countries evidently illustrates three key areas for immediate action and is presented in the Figure, in the order of importance.

#### 1<sup>st</sup> Priority

##### POLICIES & LEGISLATIONS

National Government - Formulate healthcare waste policy and legislations considering other countries' experiences and local needs; Assign clear responsibilities and create dedicated departments for monitoring and overseeing healthcare waste management.

##### Healthcare facility

Healthcare waste management should not be contingent upon law or regulation; it should come out of duty of care; A healthcare facility-level policy on HCWM should be the correct start Cooperate with national government through proactive, rather than hindering, inputs clear assignment of waste management responsibilities to personnel

#### 2<sup>nd</sup> Priority

##### BUDGET

##### National Government

Fiscal incentives for performing hospitals are best ways to encourage HCWM with low cost; Encourage centralized treatment facilities under Build, Operate, Transfer / Build, Own, Operate, Transfer, Adopt clustering of healthcare facilities to share costs

##### Healthcare facility

Choose a low-cost waste management plan and implement it Institutionalize a recycling system and use the proceeds to recursively fund the overall healthcare waste management system

#### 3<sup>rd</sup> Priorities

##### TECHNOLOGY & KNOWLEDGE MANAGEMENT

##### National Government

Build capacity of relevant department staff on:

- technical and management topics for HCWM
- implementation of HCWM plans
- monitoring of HCWM plans
- safe and sustainable HCWM technology selection
- management of HCWM technologies

##### Healthcare facility

Raise awareness of staff in handling, safety and exposure to HCW;  
Conduct periodic induction trainings for new staff and updates for existing staff;  
Monitor and evaluate waste management activities and their impact; and  
Track the progress of HCWM and report the successes and reward staff