

Fourth Regional 3R Forum in Asia

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

Ha Noi, Viet Nam, 18-20 March 2013

Country Analysis Paper

(Draft)

<Lao PDR>

This country analysis paper was prepared by Lao PDR 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.

Fourth Regional 3R Forum in Asia

18-20 March 2013, Ha Noi, Viet Nam

Venue: Calidas Landmark 72 Royal Residence Hanoi Hotel

Theme: 3Rs in the Context of Rio+20 Outcomes – The Future We Want

Brief Country Analysis Paper

Lao PDR

Jointly Prepared by:
Ministry of Public Works and Transport
and
Ministry of Natural Resources and Environment

1 General Information

Lao People's Democratic Republic (Lao PDR), is a landlocked country in Southeast Asia, bordered by Burma and People's Republic of China to the northwest, Vietnam to the east, Cambodia to the south and Thailand to the west. Lao People's Democratic Republic is comprised largely of mountains, highlands and plateaus. Despite the assumption that the country is quite small because of its population, the actual land size is equivalent to Great Britain. About 75 percent of the country is mountainous, and the remaining 25 percent is lowlands adjacent to the Mekong River, which runs for 1,800 kilometers along and within the western border.

According to the three previous population censuses, the population of Lao PDR increased by about one million in every 10 years; in 1985 Laos had about 3.5 million inhabitants, in 1995 about 4.5 million inhabitants and in 2005 about 5.6 million. With a growth rate of 2% in the population (women between the reproductive ages have 4-5 children), it is estimated that the population of Lao PDR will be 6.9 million by 2015.

Waste generation has been increased significantly in urban centres of Lao PDR, and only about 45-50 percent has been collected. From 2000 to 2008, Vientiane has more than doubled its waste generation and collection. The waste in Lao PDR consists of approximately 30 per cent organic material; 30 per cent plastic; 15 per cent paper; and 25 per cent glass, cans and other metals (STEA and Worldbank 2005). The annual waste generation in 2004 was 270 000 tons. Domestic waste accounts for most of the waste generated. The average urban waste production in Lao PDR is 0.75 kg per capita per day. Vientiane and the four secondary towns account for 0.8–1.4 kg per capita per day (Table 7.2). Hazardous and toxic wastes such as batteries, old paint cans, aerosols and other refuse are also mixed with this waste. The comparatively low content of organic material in municipal solid waste is mainly due to the agricultural lifestyle, even in urban areas, where a large proportion of food waste is recycled as animal feed.

According to surveys in 57 urban areas, only Vientiane City and the four secondary towns of Luangprabang, Thakhek, Savannakhet and Pakse use landfills for solid waste disposal. However, the disposal areas are small and have no leachate collection and monitoring wells. Elsewhere, open dumping and burning are common practices for waste disposal in Lao PDR. Hazardous and infectious wastes are often disposed in the same areas and manner as municipal waste. There is inadequate solid waste management in the secondary cities of Lao PDR. It is clear that the landfills were not monitored if they had cause groundwater quality problems, as leachate contains a wide variety of contaminants and hazardous chemicals. During raining season, Surface water run-off from the landfills could also cause waste sediment loads in receiving water bodies (rivers, lakes).

2 Major initiatives and achievements in the areas of 3R policies, programmes, and institutional measures;

Waste management has only recently developed in Lao PDR and there is no appropriate legal framework for it yet. The National Assembly approved a draft law regarding national hygiene, health care, and protection on 6 May 2001. This law defines the main responsibilities for waste management and provides a framework for more detailed regulations. But the implementation has been problematic due to lack of resources.

The main government body responsible for waste management is the Ministry of Public Works and Transport (MPWT). The main agency responsible for the environment is the Ministry of Natural Resources and Environment (MONRE). While this ministry, as focal point, is involved in the preparation of environmental laws and regulations, it is not directly involved in waste management like in many other countries.

The responsible agency for waste collection and disposal is the local authorities. In Vientiane Capital, it is the Vientiane Cleansing Unit (formally known as the Sanitation and Environment Agency) under the Vientiane Urban Development Administration Authority. For the other cities, the provincial administration and the district office of Public Works and Transport are the key responsible agencies.

The legislative basis for solid waste management in each city is by provincial decree. The provincial decree allocates the responsible agency or committee, defines the general scope of work, and sets the fees to be collected from private households, government offices and commercial enterprises. The provincial decree forms the most effective management tool for supervision and for public co-operation.

While these regulations provide a broad legal framework for waste management, there are still many gaps that need to be filled. In particular, rules to support community and private sector involvement have to be set up. The local authorities have also not yet taken serious steps to introduce recycling.

The Government has yet to formulate any wider vision on integrated waste management. An integrated waste management strategy would allow the government to introduce preventive measures targeting all producers of waste, including waste minimization, waste reuse, and recycling. The role of the Ministry of Natural Resources and Environment (MONRE) should be strengthened and clarified. The concept and implications of the 3Rs (reduction, reuse, and recycling) should be promoted, especially through awareness raising and public participation activities. The regulations and measures should be implemented and enforced properly. Finally, the element of monitoring and evaluation of the management practices should be followed up.

3 Major initiatives and achievements in promoting 3R technologies and infrastructure development

3.1 Kaysone Phomvihanh Solid Waste Management

The rapid growth of the town center and sub-urban areas in Kaysone Phomvihane has created considerable demands for essential urban environment infrastructure. The collection, transport and disposal of solid waste have become the perennial concerns of the local residents given the inadequacy of the existing solid waste management system, with only some 40-50 % of the solid waste being collected and with unacceptable operation of the existing dumpsite. A recycling system exists currently, primarily based on informal collection in the city of the most valuable fractions, selling them to junkyards and dealers. A private recycling contractor is operating a simple MRF at the disposal site. The percentage recycled, however is assumable low; in the range of 5-10 % of the total waste stream. The current fees are 16 USD/year for each serviced household and varying fees for commercial customers. No system exists for hazardous waste (HW). Consequently, an improved overall solid waste management system covering whole Kaysone Phomvihane is required, including:

- Extended and improved receptacle and collection equipment and operation
- Improved and extended recycling through an improved materials recovery facility (MRF) and a pilot composting plant
- New sanitary landfill area with all environmental measures and with adequate operation
- Separate system for reception, storage and disposal of hazardous waste

3.2 Laos Pilot Program for Narrowing the Development Gap towards ASEAN Integration-Environmental Management Component (LPPE)

The purpose of this program is the enhanced promotion of environmentally sustainable cities (ESC) in Lao PDR based on the “ASEAN Initiative on Environmentally Sustainable Cities (AIESC)”.

The expected outputs are:

- Output 1: The guidelines on ESC (ESC_GL) are formulated based on the National Environmental Strategy 2020 and related strategies and action plans.
 - Output 2: As part of urban environmental management (UEM), solid waste management (SWM) in the three pilot cities (Vientiane Capital, Luang Prabang and Xaiyabury) is improved based on the Guidelines on ESC.
 - Output 3: Community-based UEM on SWM is promoted in the three pilot cities
- Promotion of Environmentally Sustainable Cities (ESC) under LPPE

Some activities for output 2 in Vientiane Capital include:

- 3Rs Promotion at Generation Sources:
 - On-site composting by compost barrel
 - Recyclable wastes separation
 - Reduction of plastic shopping bags by using the Eco-bags
- Collection System Improvement:
 - Establishment of discharge rules for collection system improvement, i.e. day, time, place, container, etc.
 - Elimination of non-collection households in the target villages.
- Final Disposal System Improvement
- Improvement of HCWM
- Institutional System Improvement
 - Preparation of proposals for decrees, regulations and rules necessary for SWM improvement
 - Preparation of proposals for financial system improvement necessary for SWM improvement

4 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

4.1 For municipal solid waste

A draft decree from 2009 exists on SWM, but this has not been officially approved yet. This has overall guidelines and requirements for all the SWM components, including hazardous and medical waste. This has been available and reviewed, and the requirements taken into consideration.

There is an existing decree on Disposal site management (No 520 / TCPC, dated 23 Feb 2007), regulating site selection and design of disposal sites.

4.2 For medical/infectious waste

Decree on Waste Management from Health Care Facilities (No 1706 /MOH, 2/7/2004).

- Article 8: Separation into 3 fractions: Infectious, Sharp and General Waste.
- Article 9: Collection & Storage
- Article 10: Handling & Internal Transfer
- Article 12-13 : Communal Storage & Duration
- Article 14-21: Disposal of different Items

Decree on Sanitation of Public Area (No 1705/MOH, 20/7/2004)

- Article 3: All people organizations have the responsibility to keep the public place clean and order.
- Article 4: There're two kind of public place
 - Open air place: Public Park, stadium, tourist area, parking, fuel station, festival area.
 - Public building: Museum, entertain hall, cultural hall, airport terminal, market, port, conference hall and others.
- Article 12: Department of Hygiene / Disease Prevention is the responsible for publishing the regulation and information for nationwide. Manage, monitor and supervise the implementation of this decree. Coordinate with all institutions concerned. Organize meeting and workshop for evaluation and planning. Summarize and report the situation to the government.
- Article 15: Measure taken for the violations and fine start from educate until 5.000.000 kips. In severe case would be send to tribunal court.

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

Presently, Lao PDR does not specific policy and strategy for promotion of 3Rs technologies in small and medium size enterprises, The country does not have a waste management strategy and with limited involvement of private sectors and government resources, international organizations are actively assisting in managing the waste crisis. National policy and rules are not adequately harmonized with the needs and capabilities of the local governments and industries.

Integrated waste management using 3R concepts into policy and strategy is one of priorities of environmental protection work contributing to pollution control toward sustainable development in Lao PDR.