

BATTAMBANG

SOLID WASTE MANAGEMENT

STUDY REPORT



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Executive Summary

Introduction

The Battambang Solid Waste Management Study aims to collect evidence to identify appropriate solutions to support Multi-Stakeholder Network to implement Battambang Smart City Vision 2030 by collecting and incorporating evidence from research and local data, experience from public, private and civil society stakeholders, and perspectives from Battambang local communities. It is part of a project entitled “Localizing the 2030 Agenda through a Sustainable Urban Resource Management (SURM) approach”.

Battambang Municipality

Battambang Municipality is the capital of Battambang province situated in northwestern region of Cambodia. Battambang has rich historical, cultural and natural heritages. Battambang Land-Use Master Plan 2015-2030 was approved on 9 February 2015. According to the Master Plan, Battambang’s vision 2030 is to become environmentally friendly, socially responsible and economically successful and at the same maintain its uniqueness.

Battambang Municipality covers an area of 115.44 km² and is divided into 10 administrative Sangkats (or communes) and 62 villages. According to Battambang Municipality, the city has a total population of 30,368 families with a total of 145,446 people, of which 77,446 are females. Based on Land-Use Master Plan 2030’s projection at three different scenarios, Battambang Municipality’s population in 2030 will be 216,114, 201,883 and 188,524 at growth rates of 3%, 2.5% and 2%, respectively.

While a commercial hub, Battambang also recorded floods in almost every Sangkat of the city in 2000, 2003, 2005, 2006, 2007, 2011, and 2013. Rainfall has also heavily affected the city since 2014, and total rainfall and average maximum temperature are predicted to increase by 8.3% and between 1.8-1.9 °C

Regional Practices of Solid Waste Management

The practices of solid waste management vary across countries in the region. Countries in the region are working to promote 3Rs programs and while a more developed country such as Singapore is more advanced in terms of SWM technologies. Regional practices include: composting, zero waste management programs, 3Rs and waste bank. The major challenges of solid waste management in Asian countries are the absence of adequate policies, enabling legislation, and an environmentally stimulated and enlightened public.

Municipal Solid Waste Management in Battambang

In the past decade, there are a number of cassava public and private investment projects in Cambodia to respond with fast growing cassava production in recent years. Cassava harvested areas has been rapidly expanded, attract more private investments into new cultivation areas.

Key major national policies and legislations which are fundamental for Battambang municipal solid waste management are:

- 1996: Law on Environmental Protection and Natural Resource Management
- 1999: Sub-Decree on Solid Waste Management, No. 36
- 2003: Inter-Ministerial Declaration of Ministry of Interior - Ministry of Environment on Waste and Solid Waste Management in Province / Municipalities of Cambodia, No. 80
- 2006: Environmental Guidelines on Solid Waste Management in Kingdom of Cambodia
- 2009: Sub decree on water pollution control, No. 27
- 2015: Sub - Decree on Urban Solid Waste Management, No. 113

The main problems relating to municipal solid waste are waste segregation, collection services, the enforcement of regulations, coordination and monitoring system and capacity. In Battambang Municipality, there are three major sources of waste generation: household, institutional and medical wastes. According to a baseline study in Battambang by Comped in 2011, waste generated per capita for low income household is 0.54kg/day, middle income household is 0.68kg/day and high income families is 0.58kg/day. For household waste composition, vegetables accounted for 66%, plastics was 12% and others made up remaining 22%. A recent study by IGES (2018), the disposal of solid waste to the Battmabang landfill has increased from 59 tonnes/day to 170 tonnes/day, in which compost component has increased from 1.2 tonnes/day to 3.5 tonnes/day.

There is limited awareness of community in municipal solid waste management. The challenges are to those identified earlier. However, there is strong interest of community to participate in addressing the municipal solid waste management, The community can be socially and economically empowered through engage in solid waste related livelihood strategies and waste bank.

Recommendations

The main recommendations to address the Battambang municipal solid waste management are:

- Develop a Master Plan for sustainable solid waste management in Battambang
- Implement community and institutional capacity development in SWM
- Support in establishing policy environment for SWM
- Implement community waste bank project
- Implement a pilot project for integrated solid waste management
- Ensure the effectiveness of stakeholder platform

ABBREVIATIONS

| | | | |
|-------|---|------|--|
| 3Rs | Reduce, Reuse, Recycle | LGUs | Local Government Units |
| AD | Anaerobic Digestion | MIS | Management Information System |
| ADB | Asian Development Bank | MOI | Ministry of Interior |
| ASEAN | Association of Southeast Asia Nations | MSW | Municipal Solid Waste |
| CARDI | Cambodian Agricultural Research and Development Institute | NGOs | Non-Governmental Organizations |
| CCAC | Climate and Clean Air Coalition | PPCP | Public-Private-Community Partnership |
| CDIA | Cities Development Initiative for Asia | PPP | Public-Private Partnership |
| CIAT | International Center for tropical Agriculture | RUA | Royal University of Agriculture |
| CSR | Corporate Social Responsibility | SDGs | Sustainable Development Goals |
| FDGs | Focus Group Discussion | SOPs | Standard Operating Procedures |
| GDA | General Department of Agriculture | SURM | Sustainable Urban Resource Management |
| GIS | Geographic Information System | SWM | Solid Waste Management |
| GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit (German International Cooperation Agency) | SWOT | Strength, Weak, Opportunity and Threat |
| GPP | Green Procurement Program | UBB | University of Battambang |
| IGES | Institute for Global Environmental Strategies | UNEP | United Nation Environmental Programme |

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