

SUCCESS STORIES

TACKLING WASTE IN CAMBODIAN CITIES



- ▶ **In 2019, a number of cities in Cambodia began delivering new waste management and sanitation projects that will benefit hundreds of thousands of inhabitants by improving health conditions and creating new, green jobs.**

The foundations of this movement go back two years when seven secondary cities set out to draft a 'Sustainable City Strategic Plan' under the leadership of the National Council for Sustainable Development and the Ministry of Interior. This enabled these municipalities to identify their main environmental issues and opportunities and develop a list of priority actions. Solid waste and wastewater management came as high priorities for most of the cities including Battambang and Kep, which triggered action on the ground.

"The development of sustainable cities in the Kingdom of Cambodia is a key policy priority," explains Minister of Environment, Say Samal. *"Cities are the center of economic activities and propel job creation and GDP growth. Cities are also the center of resource consumption, whereby energy, water and other natural resources are utilized by industries and consumers to drive economic development. The Kingdom of Cambodia has an opportunity to accelerate its growth potential further through green city development."*

Battambang, a city of 160,000 inhabitants, is currently working on improving solid waste management with a focus on plastic and organic waste recycling. As with most cities in Cambodia, waste management is a key challenge for Battambang. Strewn waste clogs up water drains and attracts vermin, while the burning of waste releases toxic gases into the air.

These sub-standard management practices are causing negative impacts on public health and the environment. They also reduce the overall livability, resilience and competitiveness of Battambang and its appeal to domestic and international tourists. The city government recognized the need to take action.

Battambang started with a plastic recycling campaign in five public secondary schools, representing close to 10,000 students and teachers. With financial support from Coca-Cola, large collection containers with educational signage have

been installed to collect a range of plastic wastes (bottles, cups, straws, and bags). The municipality will then organize collection by the private sector, with payment to the schools for the recyclable material, resulting in a win-win situation for all parties involved. The project will be of particular benefit to the schools that have no waste collection services available to them.

Battambang is also taking steps to ensure the sustainability of the project by providing formal training and more educational material with support from the private sector. The training will focus on source separation and recycling of waste, and more importantly on waste avoidance so that young people better understand the need to reduce the amount of waste generated. The school campaign will be an ongoing process, with the municipality monitoring and improving the project throughout 2020.

The municipality is now turning its attention to Battambang's markets, planning plastic source separation activities at two markets and source separation of organic waste for composting at the wholesale fruit and vegetable market.

"For a more efficient waste management system, source separation of wet and dry waste is critical. This will enable more organic waste to be processed and more recyclables to be separated from the dry waste," stated Municipal Governor, Pheng Sithy, in November, 2019. *"These initiatives will not only improve the environment, public health, and beauty of our city but will also create economic opportunities and jobs. Increasing the quantity and quality of compost would also enable our farmers to conduct more sustainable practices by using less artificial fertilizers."*

The municipality is also planning larger scale educational campaigns on waste avoidance, recycling and on the importance of following existing regulations on the management of solid waste. Finally, the municipality will work closely with other government agencies and with the private sector for more efficient and better planned waste collection, so it does not pile up in the streets.

Battambang's push to deliver green cities solutions followed a detailed GGGI analysis of the city's waste value chain, including generation, storage, collection, transport, recycling and disposal. Based on the findings, GGGI developed a set of recommendations to improve waste separation and collection, develop innovative opportunities to scale-up the local waste recycling business and create better jobs for waste pickers.

GGGI is working with local waste recycling businesses and start-ups to take advantage of these opportunities, offering the entrepreneurs coaching on business readiness, financial planning and sales' strategies so they can be in a good position to process the increased volume of recyclable material. Over time, the city's aim is to involve all schools, markets, shops, restaurants and eventually households, leading to a cleaner city and more business expansion.

"Battambang demonstrates a range of manageable and affordable public-private solutions to the waste management challenge faced by Cambodian cities," says Karolien Casaer-Diez, GGGI's Country Representative in Cambodia. *"We hope to see other municipalities follow Battambang's example and stand ready to support them in addressing the current waste crisis."*

The City of Kep, on the other hand, identified improving wastewater and sanitation on the island of Koh Thonsay as a top priority. Kep is a small coastal town along the Gulf of Thailand with a population of around 21,000 people. In recent years, Kep has made improvements to address sanitation problems, in particular along the shoreline.

However, issues remain in areas such as Koh Thonsay, an island just off the coast and a popular tourist destination attracting local and international visitors. The island's only available accommodation are bungalows concentrated on one beach at the north west side of the island. Sanitation at the bungalow area is poor, with no established wastewater or fecal sludge management system.

Kep Municipal Governor Tith Sokha expresses her concern: *"As the number of visitors increases, sanitation conditions are degrading, causing risks to the environment and human health, as well as making the island less appealing for tourists."*

To address the situation, the municipality developed a costed proposal to connect all bungalows to a decentralized wastewater treatment system (DEWATS) and included the proposal in the formal City Investment Plan which will enable it to seek government funding for implementation.

For the development of the proposal, the city partnered with GGGI to develop options for raising revenue to cover operation and maintenance costs, leveraging contributions from both the public sector and the hospitality businesses. GGGI partnered with the "Bremen Overseas Research and Development Association" (BORDA) for its specialized engineering skills to design an affordable technical solution for the island. When implemented, the project will benefit an estimated 80,000 visitors per year.

"This project could serve as a model for other coastal areas and be replicated in many other locations," says Kep Municipal Governor, Tith Sokha.

Green city solutions being rolled out in Battambang and Kep demonstrate Cambodia's commitment to take concrete action to improve environmental conditions and green economic opportunities in the country's secondary cities. It is hoped that their successes will inspire and guide other cities to follow suit.