





Quick Facts

Cambodia Country: 32 859 Inh Population: Adm. Area: 88.7 km²



Executive Member of City Alliance since 2017

Contact

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Project Start/End Year 2014-2028

Introduction

The provincial capital Krong Kracheh (Kratie Province) is situated along the Mekong river in western Cambodia. Comprising of five Sangkat's (urban districts), it is home to around 33,000 inhabitants. The city is well known for its famous Irrawaddy river dolphins, ancient pagodas and its French colonial architecture. Another historic highlight, yet less popular, is Kratie's 70-year-old sewage system. In recent years the city has outgrown the capacity of the system and now only serves the city center.

Current urban development is dominated by a project proposed and planned by the Ministry of Public Works and Transportation (MPWT) and the Asian Development Bank (ADB). The project focuses on the development of roads and bridges, drainage and wastewater treatment (currently limited to the city center) as well as solid waste management infrastructure. Implementation of the concept of Integrated Sanitation that is applied in this city contributes to achievement of a cluster of Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable Development, such as SDG 1- No Poverty; SDG 6 - Clean Water and Sanitation; SDG 7 - Affordable and Clean Energy; SDG 9 - Industry, Innovation and Infrastructure; SDG 11 - Sustainable Cities and Communities; and SDG 17 - Partnerships for the Goals.

Challenges Related to Water and Sanitation

Insufficient and outdated sanitation infrastructure causes severe challenges to the city's environment and threatens the health of its citizens. Septage management, from containment and transport to treatment and re-use is not regulated and is poorly serviced. Wastewater of all kinds usually ends up in the nearby lake or the Mekong river.

Solid waste collection coverage is limited to about 20 percent of the city's households leaving the majority of solid waste to illegal dumping or on-site burning. Current operators of sanitation services, such as desludging and waste collection are struggling with either unregulated or unenforced tariff systems. Consequently, the quality of services lacks standards and professionalism, which severely affects both clients and workers employed in the sector.



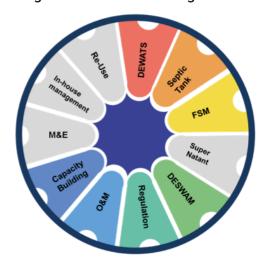






System Solution

Integrated Sanitation Management - Progressive Implementation of Infrastructure and Service Delivery



Progressive implementation of infrastructure and service delivery in Kratie applied the following seven modules:

- Decentralized Wastewater Management (DEWATS)¹
- Septic Tank Management
- Fecal Sludge Management
- Solid Waste Management
- Regulation
- Operation and Maintenance
- Capacity Building

Key Project Interventions

- Implementation of decentralized solid waste management on subdistrict level (Phase 1)
 - Community awareness raising and education campaigns
 - Development and application of standardized waste and fee collection system
 - Construction of a Material Recovery Facility
 - Operation and maintenance training to the service provider
- Implementation of decentralized cluster systems for wastewater collection and treatment complementing the ongoing ADB intervention (*Phase 2*)
- Establishment of a FSM service and implementation of a FSM treatment plant (Phase 3)

Financing Mechanism (see Case Study: Financing Integrated Sanitation, 2019)

Funding for the infrastructure components and equipment of the solid waste management intervention (Phase 1) is provided by the provincial and municipal government, the private sector partner and BORDA Cambodia. O&M costs are to be covered by collected fees and co-funded through a national subsidy schemes that is provided to municipal governments across the country.

Project Images



Annual flooding events leading to overflowing septic tanks



Part of colonial sewer network in Kratie's city center



Informal recycling activities at Kratie's primary dumpsite

Contacts

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Mallory Bellairs, UN ESCAP (Layout)

Jakrapong Tawala, UNITAR (Administrative map)

¹ UN ESCAP, UN-Habitat and Asian Institute of Technology, 2015. Policy Guidance Manual on Wastewater Management with a Special Emphasis on Decentralized Wastewater Treatment Systems.