

# Project for improving sanitation and water environment in slum areas in Indonesia by introducing Portable Toilet System

Ministry of the Environment  
Government of Japan



## Project developer

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## Background

- Ministry of Public Works and Housing (PUPR) is currently implementing "100-0-100" program, which aims to achieve population's 100% access to toilet by end of 2019. However, considering the progress made in the past, it is considered to be difficult to achieve the target.
- The main reason for this is that toilet access in slum areas has not been improved, where around 12% of Indonesian population lives. Since 10 - 40% of houses in slum areas do not have toilets, residents are using not well - maintained public toilets or defecate directly to the river, thus causing poor sanitation conditions and environmental degradation.
- Since slum areas are often located along rivers, on swampy lands, and routinely get flooded, installation of centralized wastewater treatment system is difficult. Under such conditions, a system for taking out sludge from slum areas and providing appropriate treatment is necessary.

## Project overview

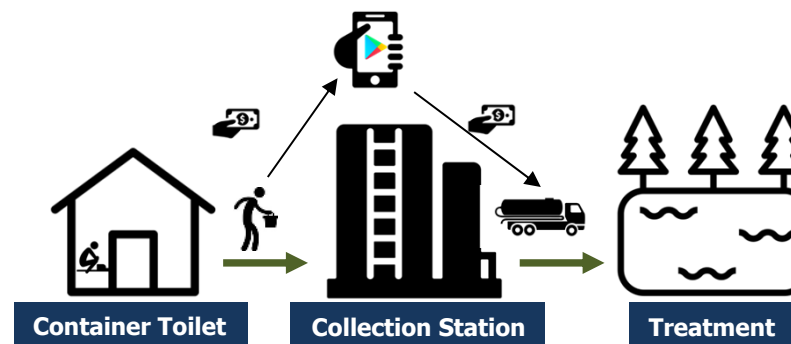
- Based on the above background, this project aims to install portable toilets in slum area houses currently without toilet, and create a system (PTS: Portable Toilet System) where sludge is taken out and treated outside the residential area.
- A system in which residents in the community bare the cost for maintenance and sustainably maintain the system will also be introduced, which contributes to the improvement of residents' living standard and sanitation environment.

## Project location

Kota Palembang, South Sumatra province, Indonesia

## Overview of technology

- PTS consists of 3 items - Portable container toilet, collection station, and fee management system.



### [Sludge Treatment Flow of PTS]

- Once tanks of portable container toilets become full, users bring container tanks to the collection station and discharge the content into the station.
- Once the station become full, responsible person arranges a vacuum vehicle.
- Vacuum vehicle will take the sludge to the treatment facility for the treatment/recycle.

## Expected outcome

- Residents' living standard will be improved due to the installation of toilets to the houses which currently do not have toilets.
- Green house gases ( $\text{CH}_4$ · $\text{N}_2\text{O}$ ) emitted from direct discharge of human waste to the environment (such as sea, river and lake), caused otherwise, will be reduced.
- Sustainable management system in which residents bare the cost of maintenance will be introduced, and this will contribute to resident's improved awareness towards environmental protection.