



Implementing Organization

NJS Consultants Co., Ltd., DHS Technology Co., Ltd., Sanki Engineering Co., Ltd. and Sekisui Plastics Co., Ltd. (joint venture)

Background

- Contamination is becoming more serious in the Likas Bay in Kota Kinabalu City due to rapid urbanization, aging of sewerage facilities, and lack of maintenance.
- Lack of budget causes poor operation and maintenance, thus energy-saving and low-running cost wastewater treatment technology is required.
- Pipe installation and house connection for all the catchment area take much time, thus emergency measures are necessary.



(a) No dredged for more than 30 years, functional deterioration



Project Outline

- A model for improving water quality of water body better, faster, and cheaper by direct purification or installing additional equipment for existing wastewater treatment is proposed.
- Utilization of ICT (Information and Communication Technology) to remotely monitor these facilities from Japan will be studied.

Location

- Inside the premises of sewerage facility (pumping stations) in Kota Kinabalu, Malaysia

Outline of Technology

<Features of DHS>

- Energy saving due to the elimination of aeration system
- Less maintenance due to high concentration of sludge (20-40 kg-DS/m³-sponge) and low excess sludge generation
- Optimal technology for emerging countries where are warm/tropical climate with easy operational management.

Short-term! Compact! Packaged DHS

Domestic Real Scale Plant (2016)
B-DASH Project (Ministry of Land, Infrastructure, Transport and Tourism)

Kingdom of Thailand, Khon Kaen City (2018-19)
WOW TO JAPAN Project (Ministry of Land, Infrastructure, Transport and Tourism)
Bangkok, Kingdom of Thailand (Bongai WWTP of Housing Corporation)
Collaboration between the National Institute for Environmental Studies and Kasetsart University (Ministry of the Environment)

No need for aeration = Energy saving
(Published Patent Number: 2009-274044, and three (3) others)

Expected Results and Business Prospects

- Improving water quality and reducing odor along the Likas Bay
- Effective use of land through compact facility
- Positive impact on tourism and marine products
- Depression of water-based diseases
- Overseas business development for Japanese companies with low risks