

Project developer

DAIE Industry
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Background

- In Indonesia, coverage of centralized wastewater treatment system is only 1% and dominant wastewater treatment system is decentralized wastewater treatment system of conventional septic tank. However, since wastewater treatment capacity of septic tank is not sufficient and grey water (wastewater from kitchen, bathroom, washing machine etc.) is not treated in many cases, water environment in Indonesia is not improved.
- Based on current condition, Ministry of Environment and forestry introduced new reinforced wastewater discharge standard in 2016. This new regulation is applicable not only to newly installed facility but also to existing septic tanks. However, considering current wastewater treatment capacity of septic tanks, meeting new BOD or Ammonia standard seems challenging.
- For immediate recovery of water environment in Indonesia, intensive improvement of existing septic tanks is necessary. However, replacement of existing septic tanks seems not feasible because of necessary cost for replacement. Therefore, further measure for existing septic tanks need to be developed.

Project overview

- Based on above background, this project aims to develop cost-effective new business solution for improvement of wastewater treatment capacity of existing septic tank in Indonesia.
- Also, necessary capacity for maintenance of additional wastewater treatment unit will be transferred to the local government.

Project location

Kota Balikpapan, East Kalimantan province, Indonesia

Overview of technology

- Additional wastewater treatment unit based on *Johkasou* technology will be connected to exit pipe of the existing septic tank. Further, grey water pipe will be connected to inlet of existing septic tank and grey water will be treated by septic tank and additional wastewater treatment unit.



Additional wastewater treatment unit based on *Johkasou* technology

Expected outcome

- Compared with replacement of exiting septic tank with new advanced treatment unit, necessary cost for facility and installation is reduced.
- Since capacity of additional wastewater treatment facility is decided based on evaluation of existing septic tank capacity, over capacity or shortage of capacity is avoided (Therefore leading to an installation with appropriate cost).
- User will not be forced to stop using toilet during installation of additional wastewater treatment unit.