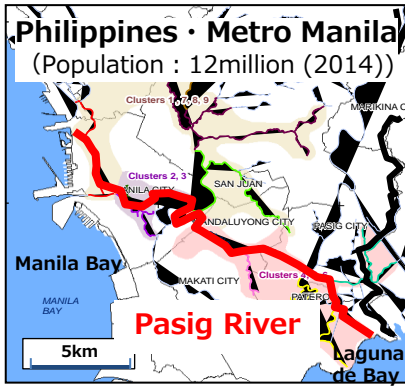


# Pasig River basin water environment improvement project using Hi-Beads (Coal Ash Granule)

## Implementing/Co-operative Agency

**MI Consulting Corporation, Hiroshima University**, The Chugoku Electric Power Co.,Inc. ,etc. ESTII (local water treatment company), Pasig River Rehabilitation Commission(PRRC), Philippine Institute of Civil Engineers (PICE), University of the Philippines (UP), ABS-CBN Foundation, etc.

## Implementation place



## Background

- Pasig River basin is now facing **serious water pollution** caused by **the continuous direct inflow of enormous amount of sewage** which stems from the recent rapid population growth which surpasses the environment infrastructure development.
- Philippine government, with the PRRC as a prime initiator, has implemented a variety of initiatives over the past more than 15 years, but **drastic improvements have not yet been achieved.**

## Project Overview

- To aim to improve water environment (**water direct purification**) in Pasig River Basin by utilizing **Hi-Beads (Granulated Coal Ash)** which has been verified in the **Environmental Technology Verification [ETV] Program of Ministry of the Environment** in cooperation with the PRRC.
- To **develop a Hi-Beads laying plan** (study of the installation method and its locations) in this F/S (Feasibility Study in 2016) for the verification test (will be conducted in 2017) through **water quality and sediment monitoring**, etc. in creeks of the Pasig River basin.

## Technological Overview

(Establishment of the mechanism for water quality and bottom sediment improvement)

- **Laying Hi-Beads onto the sludge promote purification by mineral** to new sedimentation depositions **of the organic mud.**
- Purification by mineral will **create an environment**, in which microorganisms decompose and circulate organic matter **which can be further utilized by animals and plants.**
- **Reduction of the deposition amount of the organic mud and hydrophilic improvement** can be expected by the progress of the weight loss and separation of organic matter through purification.

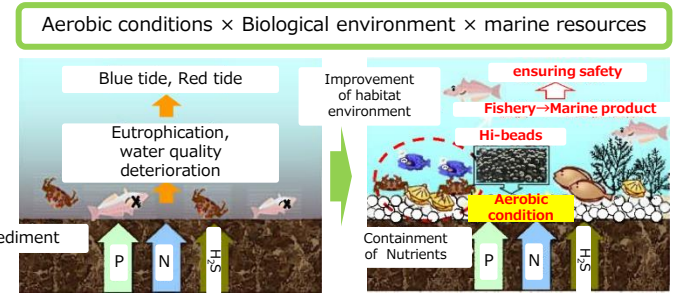


(Source : Brochure of Chugoku Electric Power Co., Ltd.)



## Expected results Business prospects

- **Expected results** : Water environment improvement (suppression of sludge deposition and off-odor generation, transparency improvement, ecosystem recovery, etc.), improvement of sanitary conditions, furthermore, improvement of stress, stability of security, improvement of environmental awareness, etc.
- **Business prospects** : Widespread deployment of Hi-Beads to the entire basin and neighboring countries, promoting application to the related technologies (water treatment), etc.



(Source : Brochure of Chugoku Electric Power Co., Ltd.)