

# Promotion of Textile Dyeing Industrial Wastewater Treatment in Vietnam

## Executing & Associating company

Kobelco Eco-Solutions Co., Ltd.

## Project background

- There are over 250 industrial parks in Vietnam. However industrial parks that have suitable wastewater treatment facility are less than half of them. Several industrial parks are discharging untreated water.
- There are also many companies that are not providing proper treatment.
- There are about 5,000 textile companies that constitute 8% of GDP and are the top of an export industry.
- There is not sufficient technology to treat difficult waste water such as dyeing industry.



## Project outline

- The aim is promotion of environmental conservation consistent with industrialization in Textile dyeing as one of the polluting industry.
- We carry out below survey as a F/S survey (done in 2013) and a field survey (ongoing in 2014).
  - Basic surveys (general survey of waste water treatment, etc.
  - Review of our technology. (Sort track records in Japan and tasks in Vietnam, consideration of optimum process)
  - Grasp treatment capability by process tests and demonstration experiments, data sampling such as construction cost and running cost for industrialize.
  - Feasibility study. (consideration of economical efficiency, scheme construction of industrialize, etc.)

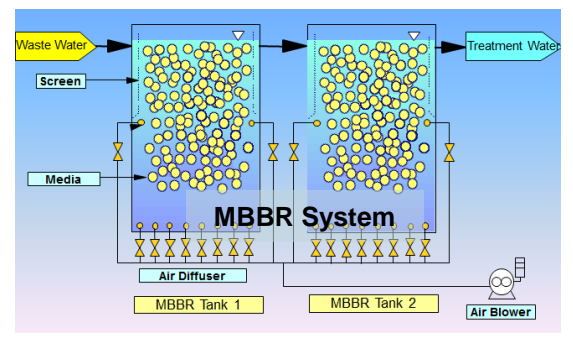
## Place of work

The suburbs of Ho chi minh city



## Outline of Technology

- Biological wastewater treatment (UASB, MBBR) : It is an extremely cost effective and energy efficient system for the removal of BOD, COD, Nitrogen etc., naturally occurring, micro-organisms are used.
- Physical/Chemical wastewater treatment (Oxidation / Reduction, Coagulation-Sedimentation) : This process for treating industrial wastewater mainly employed for the removal of heavy metals.
- Advanced wastewater treatment: It is used for color removal for dense color waste water with chemical and/or activated carbon.



## <Treatment Process>



## Anticipated results, prospects of business

- Make it possible to prevent water pollution by applying our technology that is proved its effect in this survey to existing facilities that don't have proper treatment ability.
- Dyeing industry is difficult to move into an industrial park because of its high environmental load. By making it possible to treat waste water properly, each municipality accept dyeing industry, furthermore, promote development of industrial park for dyeing industry. It can contribute to industrial development of Vietnam.
- To demonstrate establishment of economic and secure processing technology, bring in re-evaluate the Japanese water treatment technology and the adoption of Japanese technology in a wide range fields.
- To make contributions to develop economic growth and preservation of environment by suitable management of polluting industry which not only Dyeing but also galvanizing, pulp etc.