

# Feasibility Study for the Introduction of Sustainable CCS Technology

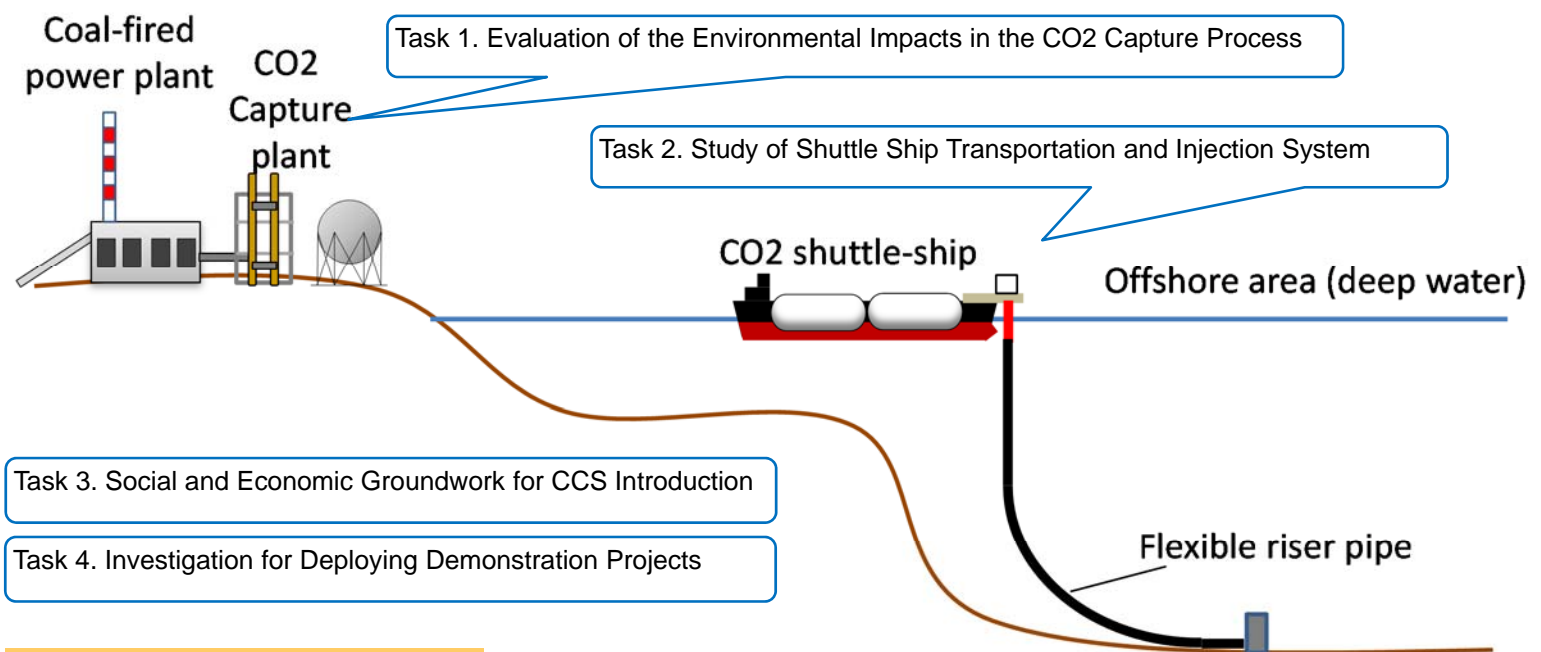
## Background

- **Zero-carbon power plants, as well as** drastic energy-saving and maximum use of renewable energy, are essential to **reduce GHG emissions by 80% by 2050.**
- Major emission sources that keep releasing large amounts of CO<sub>2</sub> during their long lifetime, especially **coal-fired power plants, etc.**, are recommended to implement CCS.
- To introduce CCS, environmental conservation should be considered by taking Japan-specific factors into account, --- for example, major emission sources spreading throughout Japan, highly-developed coastal areas, etc.

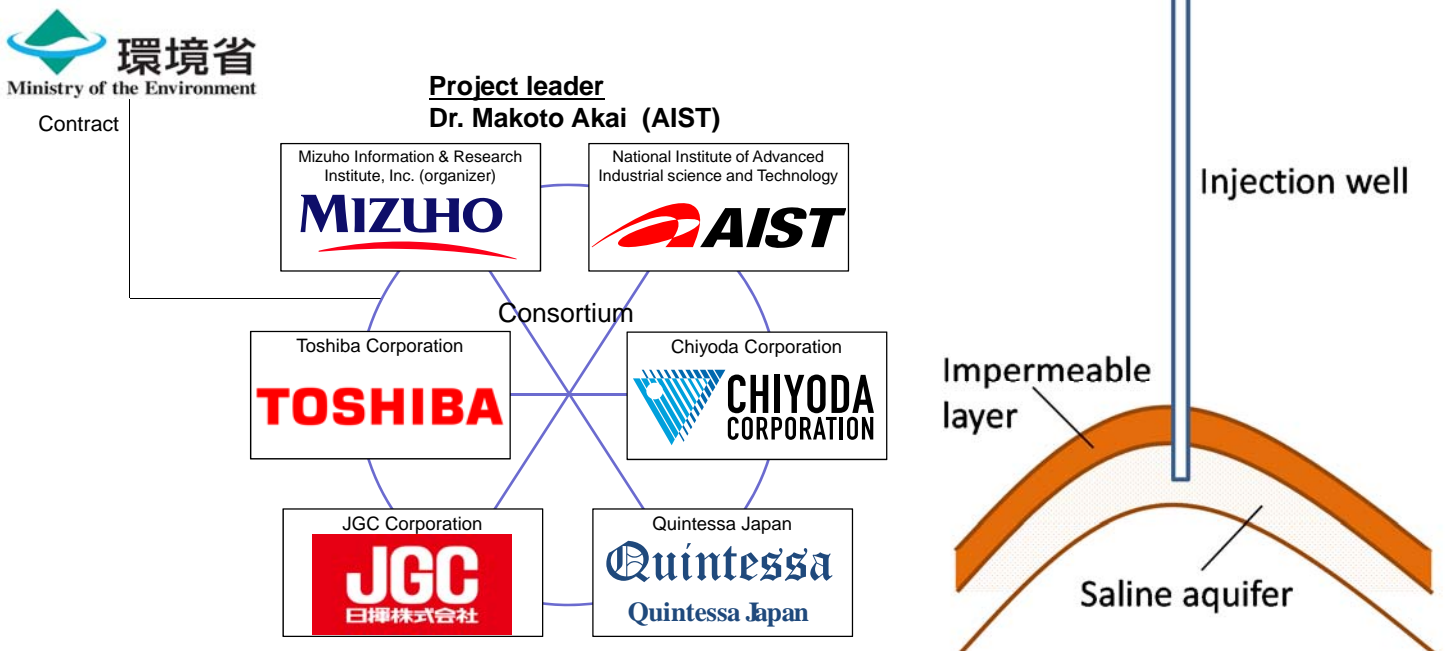
## Purpose

- **Examining the components and whole system of the shuttle ship transportation and injection concept**, which is seen as a feasible technology to efficiently transport CO<sub>2</sub> between onshore emission sources and offshore storage sites.
- **Examining environmental impacts of amine solutions** that are used to separate and capture CO<sub>2</sub>.
- Investigating the effective introduction of CCS (**policies and measures, public acceptance, economic evaluation**, etc.)

## Outline of the Project



## Institutional Arrangement



## Next Step

Conducting **integrated CCS demonstration project** consisting of CO<sub>2</sub> separation and capture at coal-fired power plants, CO<sub>2</sub> transportation via a shuttle ship, injection from the ship to under the seabed, and monitoring.