



● Tidal flat restoration area

2445 2 Tategami Ishibuchi, Ago town, Shima city, Mie prefecture, JAPAN.

【Access】

- KINTETSU Railway (From Nagoya, Osaka and Kyoto)
Take Kintetsu railway to Ugata station.
- Take the bus (Mie Kotsu) to Tategamiguchi bus stop.
15 minute walk from the bus stop.



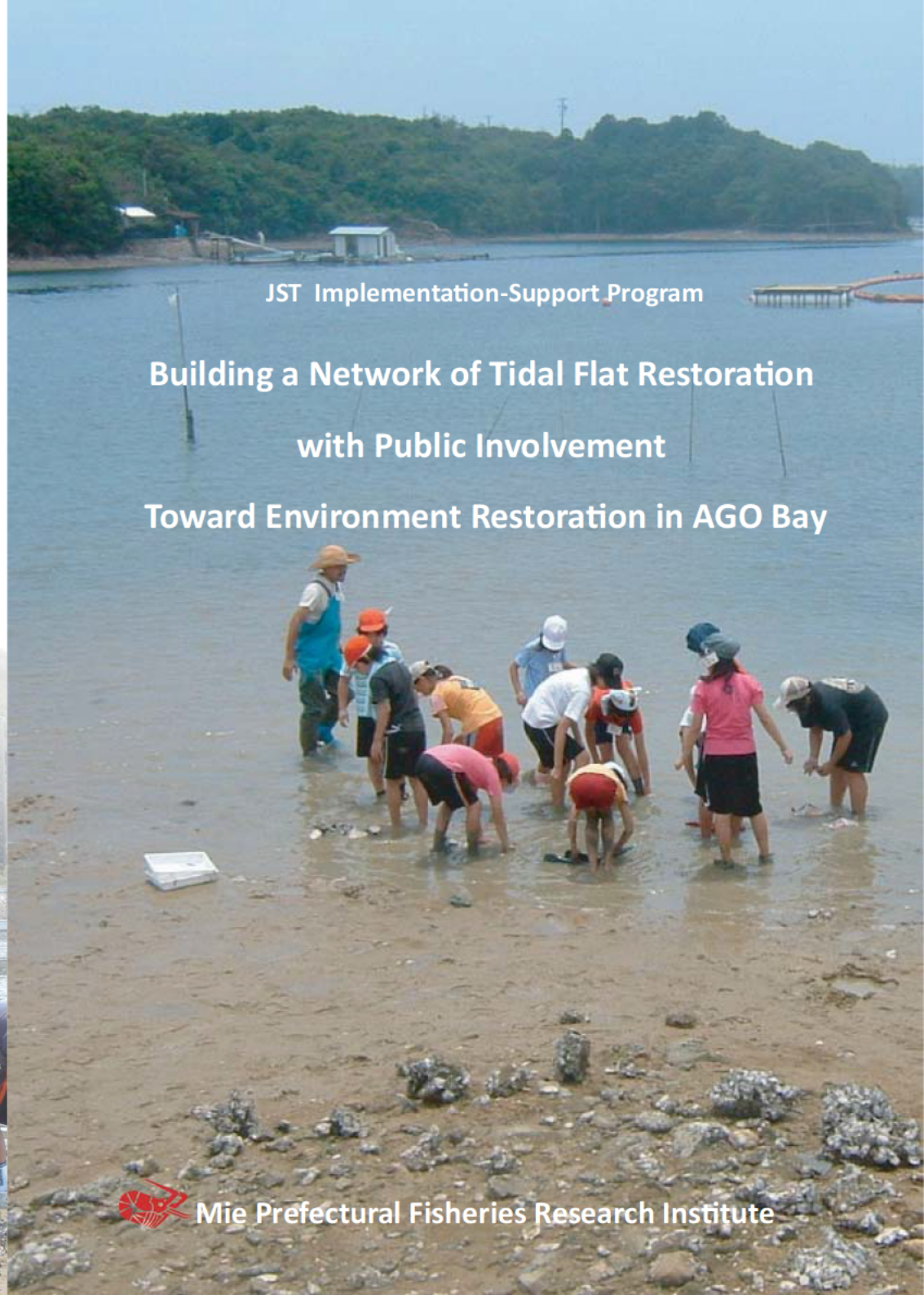
● Mie Prefectural Fisheries Research Institute

3564 3 Hamajima, Hamajima town, Shima city, Mie prefecture, Japan.
 ZIP CODE : 514 0404
 TEL : 0599 53 0016, FAX : 0599 53 2225
 URL : <http://www.mpstpc.pref.mie.jp/SUI/>

【Access】

- KINTETSU Railway (From Nagoya, Osaka and Kyoto)
Take Kintetsu railway to Ugata station.
- Take the bus (Mie Kotsu) to Hamajima Kou bus stop.
3 minute walk from the bus stop.

Let's all help restore the AGO Bay Sato-umi!



JST Implementation-Support Program

Building a Network of Tidal Flat Restoration with Public Involvement

Toward Environment Restoration in AGO Bay

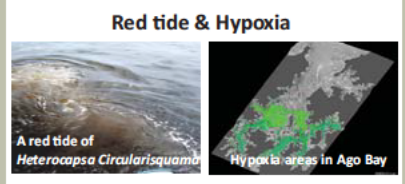


This project is supported by the Japan Science and Technology Agency in Collaboration with the Committee for the Promotion of Environmental Restoration in Ago Bay.

Building a Network of Tidal Flat Restoration with Public Involvement

① Causes of Environmental Deterioration

- Increase in domestic load
- Increase in nutrient load from pearl culture
- Decrease in tidal flats due to land reclamation



In Ago Bay, nutrient loads increased due to domestic loads and pearl culture. At the same time, natural purification capacities decreased due to land reclamation. As a result, excess nutrient loads accumulated in the bay, causing **Red Tides** and **Hypoxia** to occur every year.

② Changes of Tidal Flat in Ago Bay



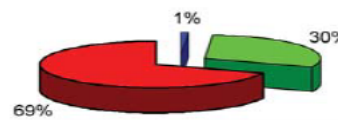
Since the 1700s, 70% of the tidal flats in Ago Bay were destroyed to make rice fields. Even worse, more than 80% of reclaimed areas have now become fallow fields.

Existing Tidal Flats

- Estuary : 3ha
- Foreshore : 81ha

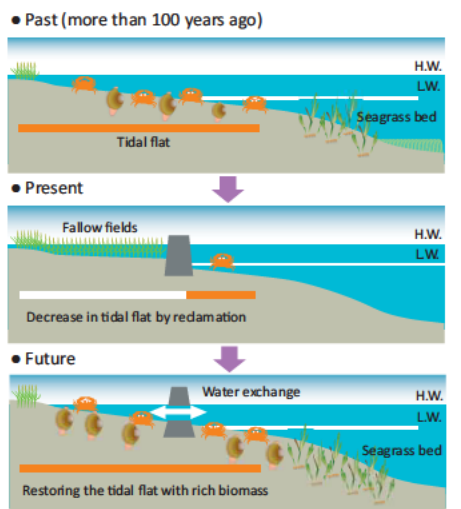
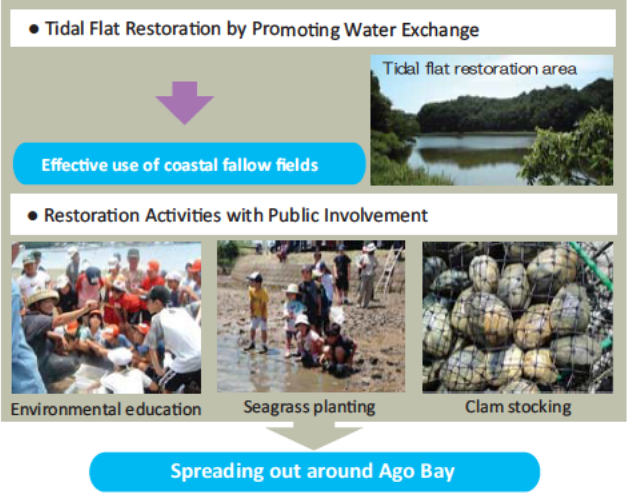
Reclaimed Area

- Reclaimed area : 185ha



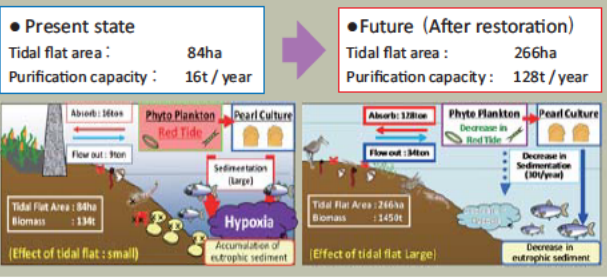
④ Purpose of this Project

Local stakeholders such as residents, local government and researchers restore tidal flats from reclaimed lands. Stocking clams, seagrass planting, and environmental education will be carried out with public involvement, and local stakeholder's understanding of tidal flat restoration will be promoted. Finally, a network of tidal flat restoration will be created by the Committee for the Promotion of Environmental Restoration in Ago Bay.

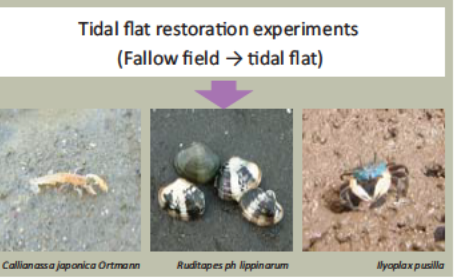


③ Results of Recent Research

① Inspection of the Tidal Flat Restoration Effect (Numerical Model)



② Tidal Flat Restoration by Promoting Water Exchange



From our research results, we expect **Red tides** and **Hypoxia** to decrease with tidal flat restoration, due to increasing natural purification capacities.

Tidal flat restoration experiments have changed coastal fallow fields to tidal flats. As a result, macro benthos have gradually increased in the experimental area.

⑤ Outline of this Project

Unused fields (Ishibuchi in Shima city) which were tidal flats in the past, were used as a demonstration site. Tidal flat restoration was carried out by opening the floodgates on the concrete dike, which was constructed for reclamation. Clam stocking, seagrass planting, and environmental education will be carried out with public involvement, and implemented by the Mie Fisheries Research Institute (FRI) and the Committee for the Promotion of Environmental Restoration (CPER) in Ago Bay. It is expected these activities will spread out around Ago Bay.

