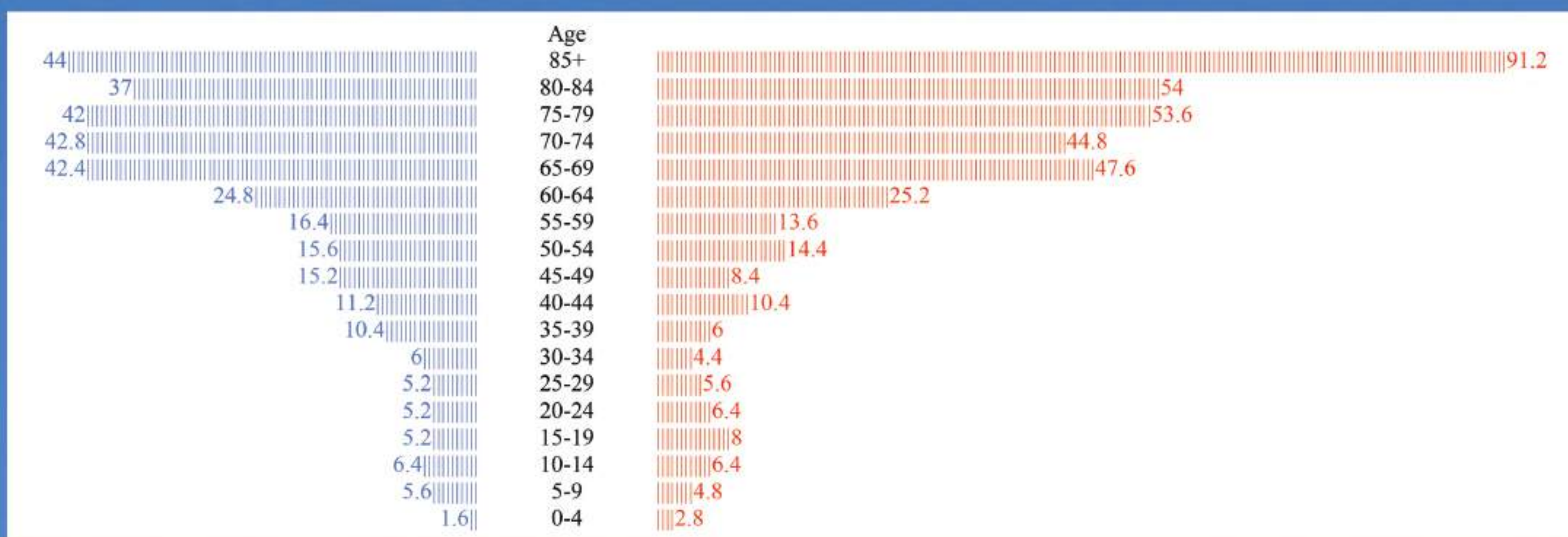
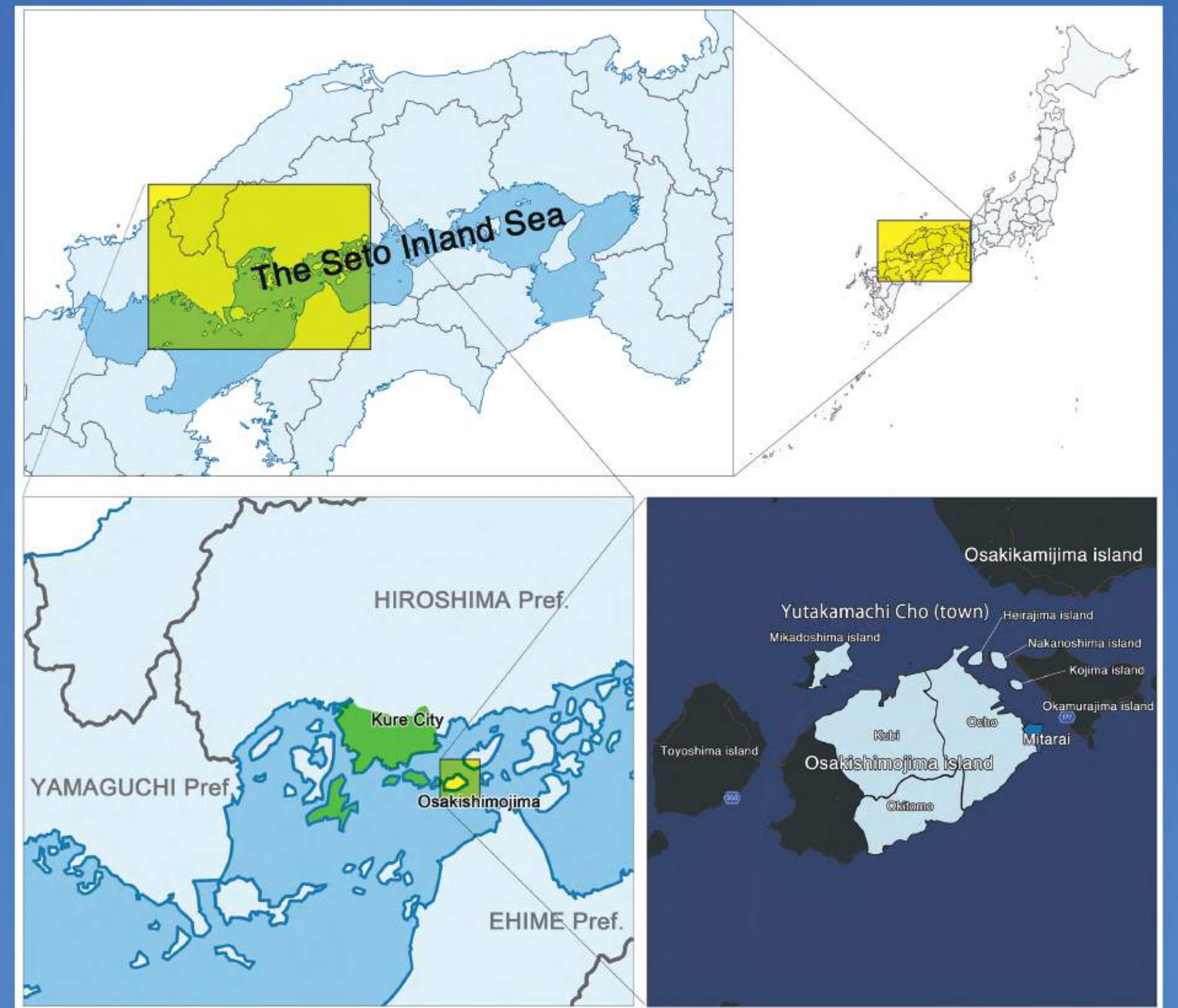


ON-SITE TEAM PROJECT TEAM 12: WHICH POSSIBILITIES FOR RURAL REVITALIZATION? CASE STUDIES FROM YUTAKAMACHI, OSAKISHIMOJIMA ISLAND

Qu Meng, Tran Quan Anh, Swagata Das

Osakishimajima is a part of the Tobishima island chain. The population is approximately 2000 living in small villages on the coastline of this island. Like other rural areas of Japan, this island is suffering the consequences of aging and depopulation. Many of the young have left this island for job and study chances in the mainland. This contributed into the close of shops and schools at site. The quality of life for the local residents is descending in general. Facing this issue, several voluntary groups were established for the Osakishimajima resilience program. Their main goal is to remain the current population for this island and increasing its human resource by calling for outside immigrants. The Kure city government also had efforts to promote immigration and settlement. However, the number of new settlers is still limited.



Depopulating Regions within Hiroshima Prefecture (The Hiroshima Official Site of Prefectural Government, 2011)

Cultural Creation

Promote the community image to attract potential in-migrants



We found that the island community is eager to have more young Japanese I-turn and U-turn in-migrants, compared to foreigners and people who only work or live seasonally on the island. From the outsiders' point of view, the island might attract a lot of potential visitors, both domestic and international. However, most of them are just willing to visit or join local events rather than to become stable residents. Mitarai is also more attractive to foreigners. From the interviews and participant field observations, we found that some people who don't live in the community or people who are highly mobile trans-migrants play key roles in renovating old houses and create new businesses, creating urban-rural linkages with their own networks, participating to local events and even creating new ones that can attract more tourists. Finally, residents do not give importance to the value of sustainable development of the community. However, this might be a significant factor in attracting future in-migrants.

Technical Creation

Improving the quality of life of the elderly



Previous research has proved that robot-assisted repetitive movement training has the ability to induce better improvements in terms of decreasing impairment, improving strength, and increasing reach extent as compared to conventional treatment. Since the gaming task designed for elderly in this work showed better improvements for the subject who was FA-assisted, it gives serious possibilities of having positive results in the long term as compared to conventional rehabilitation. In future work, more concrete evaluation needs to be done to prove that the PGM-enabled forearm has the qualifications for providing faster or better rehabilitation. This also needs to be done with a larger number of subjects with lesser bias. Moreover, we plan to measure the muscle unloading effects on shoulder-elbow flexion as soon as we receive the consent.

Social Implementation

Evaluating and improving accessibility of low-density communities to local retail stores



The firstly prioritized goal in island resilience is to maintain its current population and increasing its human resource by calling for migrants. Increasing interaction chance and bringing more impressive experience (such as short travel time, smooth traveling, less tiredness) for both outside and local people are very necessary to achieve this goal. However, the capital investment and operation, maintenance and monitoring cost will be a big challenge, which could be solved by a cooperation of some private investors (ferry, tourism, freights and service provision) under promotion commitments of local government (tax reduction, financial support) as well as efforts of local communities (holding more attractive events).

Conclusion

Qu Meng conducted survey on expectations of the I/U-turn Immigrants and making cultural image promotion video by drone. He also cooperated successfully with the local artists to hold one-month art exhibition in Hiroshima University museum. This exhibition aimed to introduce the good images of Mitarai town to young people and expected to bring more visitors into this town. Swagata paid attention to developing a complete wearable suit (PAM enabled glove) for the elderly in at-home rehabilitation exercises. Under the support of Yutakamachi rehabilitation center, she did interview with the rehabilitation staff and active patients to know more about their training sessions. After that, several practical experiments were implemented with her PAM-enabled glove in a simulated environment powered by virtual reality and force-feedback. The analysis results will help her complete this product in near future. Through practical observations and questionnaire surveys with local stakeholders, Quan found the difficulties in accessibility to local retail stores for small-scale communities (i.e. Mitarai) in which the majority of the elderly has been living and accessibility to service in the mainland (i.e. Kure city) for the whole island community. Some measures for improving external and internal transportation were suggested to enhance life convenience for local residents and increasing interaction chances between the island and mainland. Our project results are expected to improve the current quality of life for the islanders.