

COMPLETION REPORT

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Subject of Research Project: Exploring ” Machizukuri” on Successful Disaster Risk Reduction Management (DRRM) in Japan: A Lesson Learned of Participatory Community Resilience Building in Thailand

The research project “Exploring *Machizukuri* on Successful Disaster Risk Reduction Management (DRRM) in Japan: A Lesson Learned of Participatory Community Resilience Building in Thailand” has been to end. A more recent example of *Machizukuri*’s effectiveness is seen in the response to the 2016 Kumamoto Earthquake. In Kumamoto, *Machizukuri* has been embraced not just as a recovery tool but as a continuous, community-driven effort that fosters mutual support and local engagement. The research team visited Kumamoto and engaged with a diverse range of stakeholders, including local government officials, non-profit organizations, academic experts, and residents. These interactions revealed how *Machizukuri* operates on two levels: as an institutional framework for immediate disaster response and as grassroots initiatives aimed at addressing long-term challenges like climate change and environmental preservation. In Kumamoto, *Machizukuri* has facilitated the development of a volunteer-driven movement that supports local government efforts to tackle grassroots issues. This collaboration has been particularly effective in addressing the challenges posed by both rapid and slow-onset disasters. For example, Kumamoto’s *Machizukuri* initiatives have been instrumental in water management, with the community playing a crucial role in preserving local water resources. This has made Kumamoto a leading example of sustainable water management in Japan. Additionally, the use of traditional knowledge, such as designing terraced rice paddies to prevent flooding, has been a key factor in building resilience against natural disasters. The lessons from Kumamoto and Kobe underscore the importance of *Machizukuri* in disaster risk reduction. In the case of rapid-onset disasters like earthquakes, *Machizukuri* has proven effective in enhancing preparedness and response capabilities. Meanwhile, for slow-onset disasters, such as those linked to climate change, *Machizukuri* has supported adaptation efforts, environmental preservation, and overall community well-being. These activities align closely with several Sustainable Development Goals (SDGs), including SDG 3 (Good Health and Well-being), SDG 6 (Clean Water and Sanitation), and SDG 11 (Sustainable Cities and Communities). This research highlights that the principles of *Machizukuri* can be effectively applied to other regions, particularly in Southeast Asia. Thailand, with its similar demographic and social characteristics to Japan, stands to benefit significantly from adopting these practices. For instance, in Chiang Rai province, where the community faces both rapid and slow-onset disasters, integrating *Machizukuri*’s participatory approach could enhance local resilience and sustainability. By empowering local communities to take an active role in disaster preparedness and environmental management, Thailand can build a more resilient society capable of facing future challenges. In conclusion, the *Machizukuri* model from Kobe and Kumamoto offers valuable lessons in community-driven disaster risk reduction and environmental sustainability. These insights are particularly relevant for donors and foundations interested in supporting projects that enhance community resilience and contribute to the achievement of global sustainability goals.

Publication of the Results of Research Project:

Verbal Presentation (Date, Venue, Name of Conference, Title of Presentation, Presenter, etc.) 1) 29-30 September 2022, University of Sydney, Australia, 14 th AIWEST-DR, “Mapping Civic Engagement in the Face of Disaster Through <i>Machizukuri</i> Japan’s Resilience: A Social Capital Perspective” 2) 20-22 December 2023, Faculty of Political Science and Public Administration, Chiang Mai University, Thailand, 8 th Japan-ASEAN Conference, “Toward Resilient-Communities through <i>Machizukuri</i> on Post-Recovery Disasters: An Analysis of the Social-Ecological Actions in Kumamoto, Japan”
Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.) 1) The 14 th AIWEST-DR Proceeding Indexed Scopus, “Mapping Civic Engagement in the Face of Disaster Through <i>Machizukuri</i> Japan’s Resilience: A Social Capital Perspective”, Reni Juwitasari (<i>on-going</i>) 2) Political Science and Public Administration Journal, “Toward Resilient-Communities through <i>Machizukuri</i> on Post-Recovery Disasters: An Analysis of the Social-Ecological Actions in Kumamoto, Japan”, Reni Juwitasari, Yuki Miyake, Wanwalee Inpin, Sawang Meesaeng, & Maya Dania (<i>on-going</i>).
Book (Publisher and Date of the Book, Title and Author of the Book, etc.)