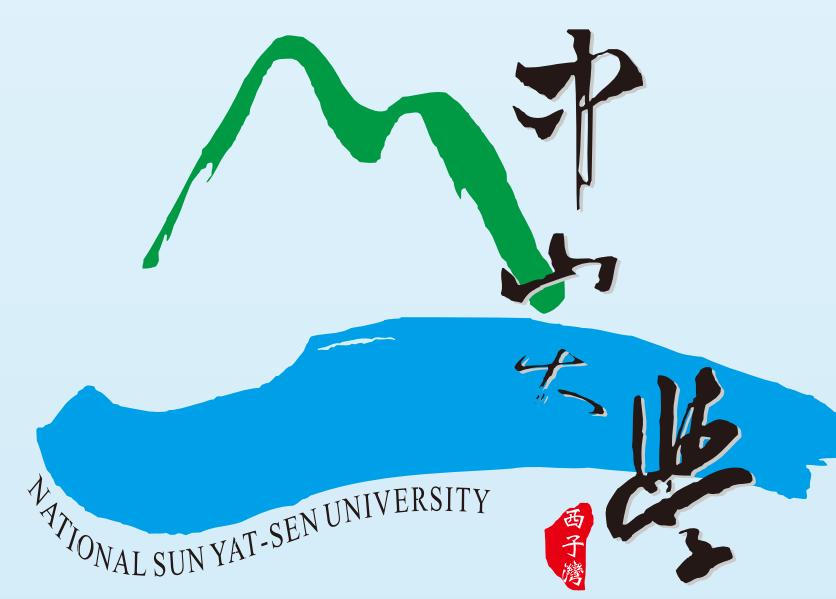


# Marine Protected Area Management: Enhancing Effectiveness through Stakeholder Participation in Taiwan and Japan



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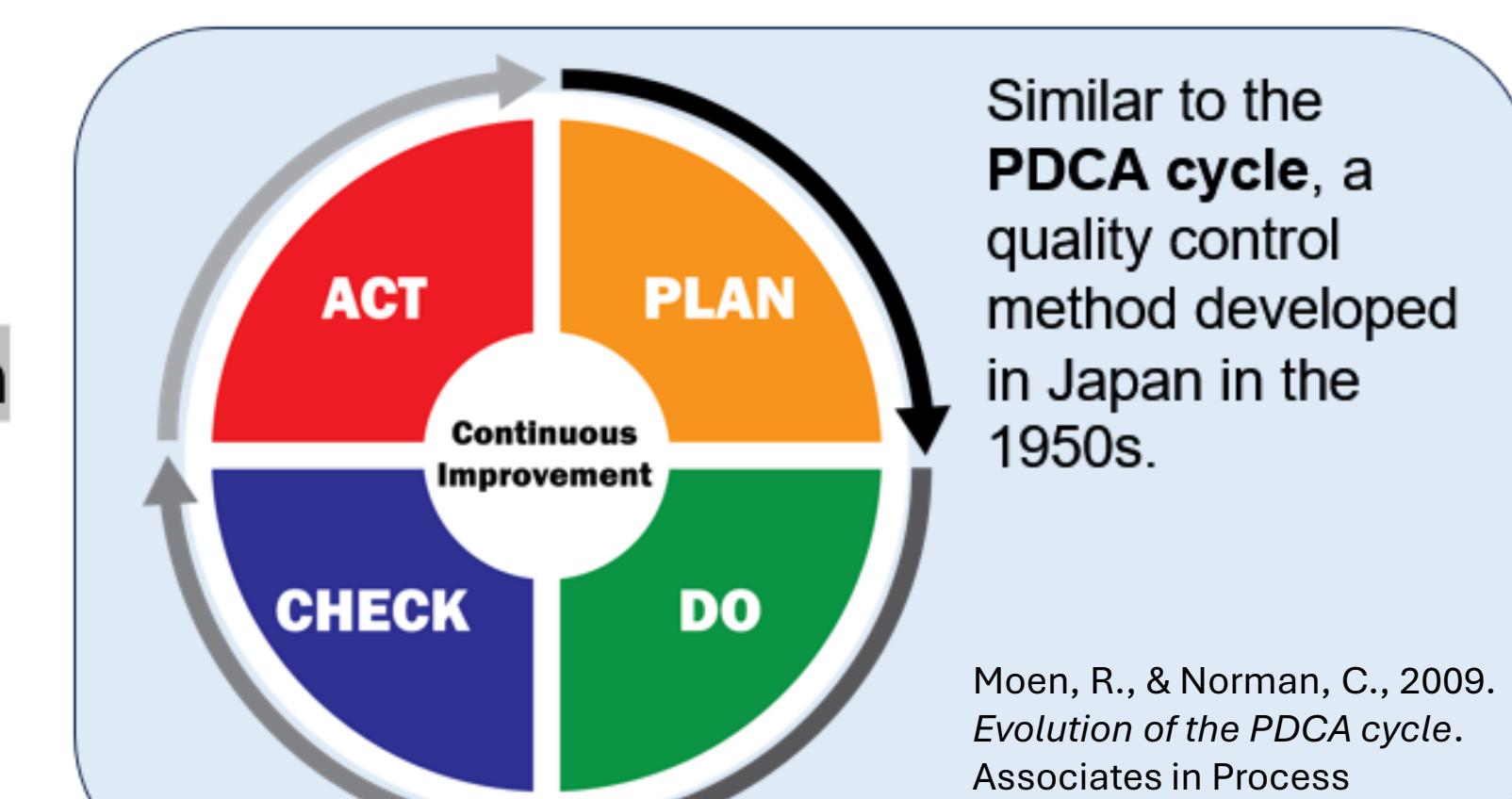
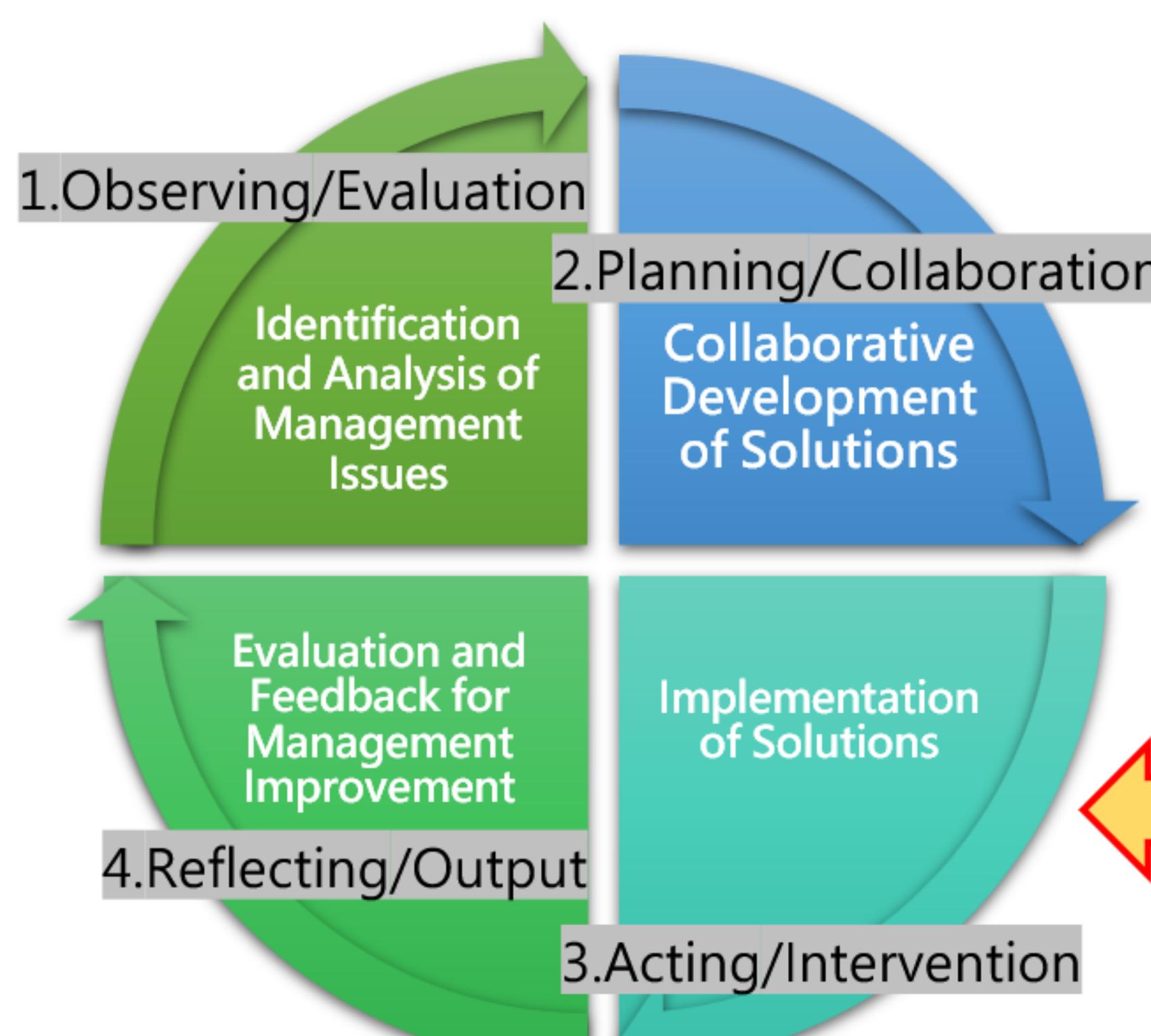
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## Background

- To explore how stakeholder participation can improve management effectiveness in Marine Protected Areas (MPAs) governance in Japan
- The Management Effectiveness Evaluation (MEE) examines how well MPAs achieve their ecological, social, and governance objectives<sup>1)</sup>. While MPAs are essential conservation tools, their effectiveness largely depends on meaningful stakeholder participation throughout the processes of planning, evaluation, and adaptive management<sup>2)</sup>**
- A systematic review of 281 global MEE studies (1994–2023) revealed that **only 12.7% engaged stakeholders beyond evaluation stages**, indicating a gap in translating assessments into actions<sup>3)</sup>
- Action research** in Taiwan demonstrated how collaboration among stakeholders can lead to significant governance improvements<sup>2)</sup>

## Action Research



Similar to the PDCA cycle, a quality control method developed in Japan in the 1950s.

Moen, R., & Norman, C., 2009. Evolution of the PDCA cycle. Associates in Process Improvement.

Focusing on communication and collaboration with stakeholders (Education and Learning)

Lewin & Kurt, 1946. Action research and minority problems. J. Soc. Issues 2, 34–46.

## Successful Case Study in Taiwan

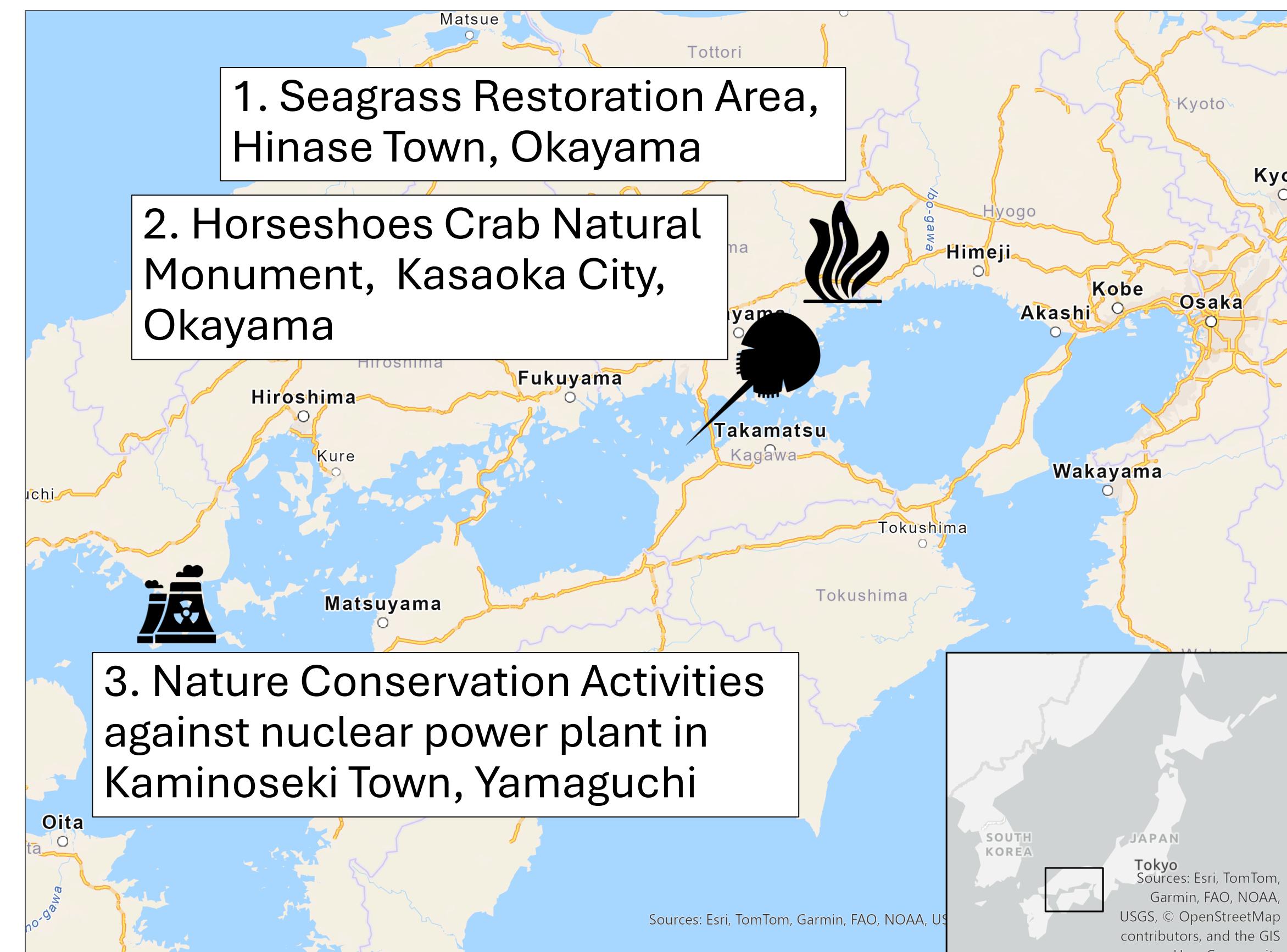
Local collaboration turned evaluation results into tangible conservation outcomes.<sup>2)</sup>

Location: Qimei Conservation Zone, Penghu County, Taiwan



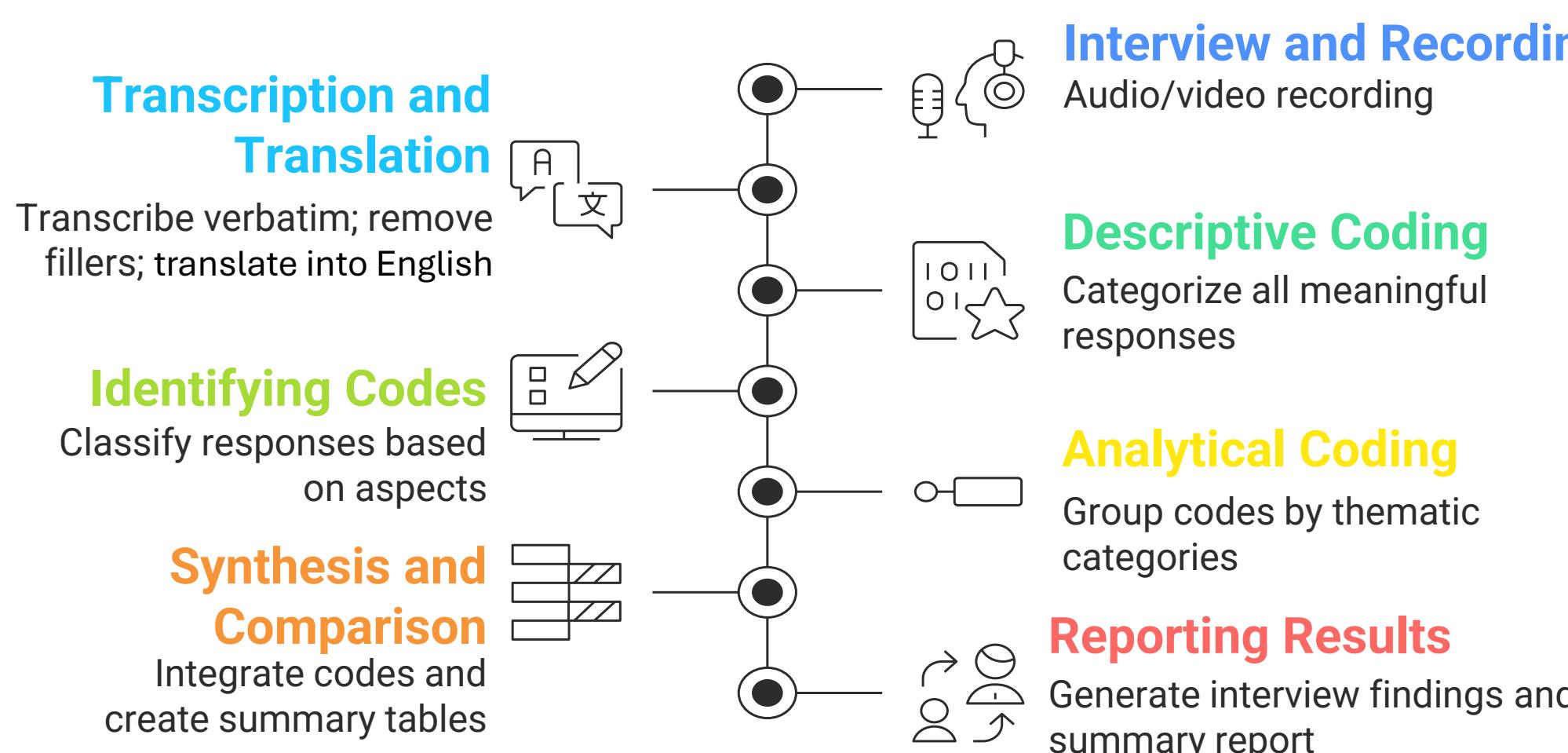
## Ongoing Case Studies in Japan

Focuses on three coastal community case studies in Japan to examine participatory MPA governance.



## Materials & Methods

Semi-structured and focus group interviews were conducted and analyzed<sup>4)</sup>, supported by literature reviews and on-site visits.



Enabling factors were synthesized through cross-analysis of stakeholder interviews and insights from a prior systematic review on MPA effectiveness evaluation<sup>3)</sup>.

## Conclusion

Stakeholder participation is central to effective MPA governance. Comparative insights from three Japanese cases highlight that:

- Local leadership and program continuity** (e.g., satoumi councils, museum-led programs) anchor long-term community-based management.
- Citizen science, youth education, and intergenerational engagement** foster lasting stewardship and ecological awareness.
- Cross-sector collaboration** among fishers, NGOs, municipalities, and scientists bridges capacity gaps and enhances co-management effectiveness.
- Place-based identity and grassroots mobilization** play a vital role in sustaining momentum and ensuring social legitimacy of conservation efforts.

## Stakeholder Roles and Enabling Factors for Effective Management

### Enabling Factors

Hinase 5,6)	Kasaoka 7,8)	Kaminoseki 9,10)
<b>Collaboration</b> 	Deep co-management with fishers Shared monitoring and restoration planning ensure ecological and economic goals align.	Expand fisher–museum monitoring Ongoing partnerships between the museum and local fishers enhance data accuracy and trust in species protection.
<b>Citizen Involvement</b> 	Seeding & Education Participation Residents, and companies join eelgrass planting and learning programs, fostering responsibility and awareness of coastal restoration.	Strengthen roles in conservation events Public participation in breeding and release activities builds awareness and ownership.
<b>Program Leadership</b> 	Fisher-led satoumi council Local fishers manage decision-making, demonstrating bottom-up governance in practice.	City & museum-led program Municipal initiative ensures institutional continuity and resource allocation.
<b>Long-term Engagement</b> 	Youth engagement & visible seagrass recovery Hands-on results motivate sustained local commitment and learning.	Grassroots leadership & NGO support Community leaders coordinate with NGOs to fill policy and management gaps.
	Long-term school and fisher participation Intergenerational programs nurture lasting stewardship of the coastal environment.	Strong public mobilization and local identity Collective resistance and pride in place sustain conservation momentum.

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Acknowledgements This research is funded by the Ocean Conservation Administration, Ocean Affairs Council, Taiwan (R.O.C.), and the Department of International Cooperation and Science Education, National Science and Technology Council (NSTC).

