

Bridging Landscapes: Adapting Satoyama Principles for Biodiversity and Climate Resilience in the Tropical Global South

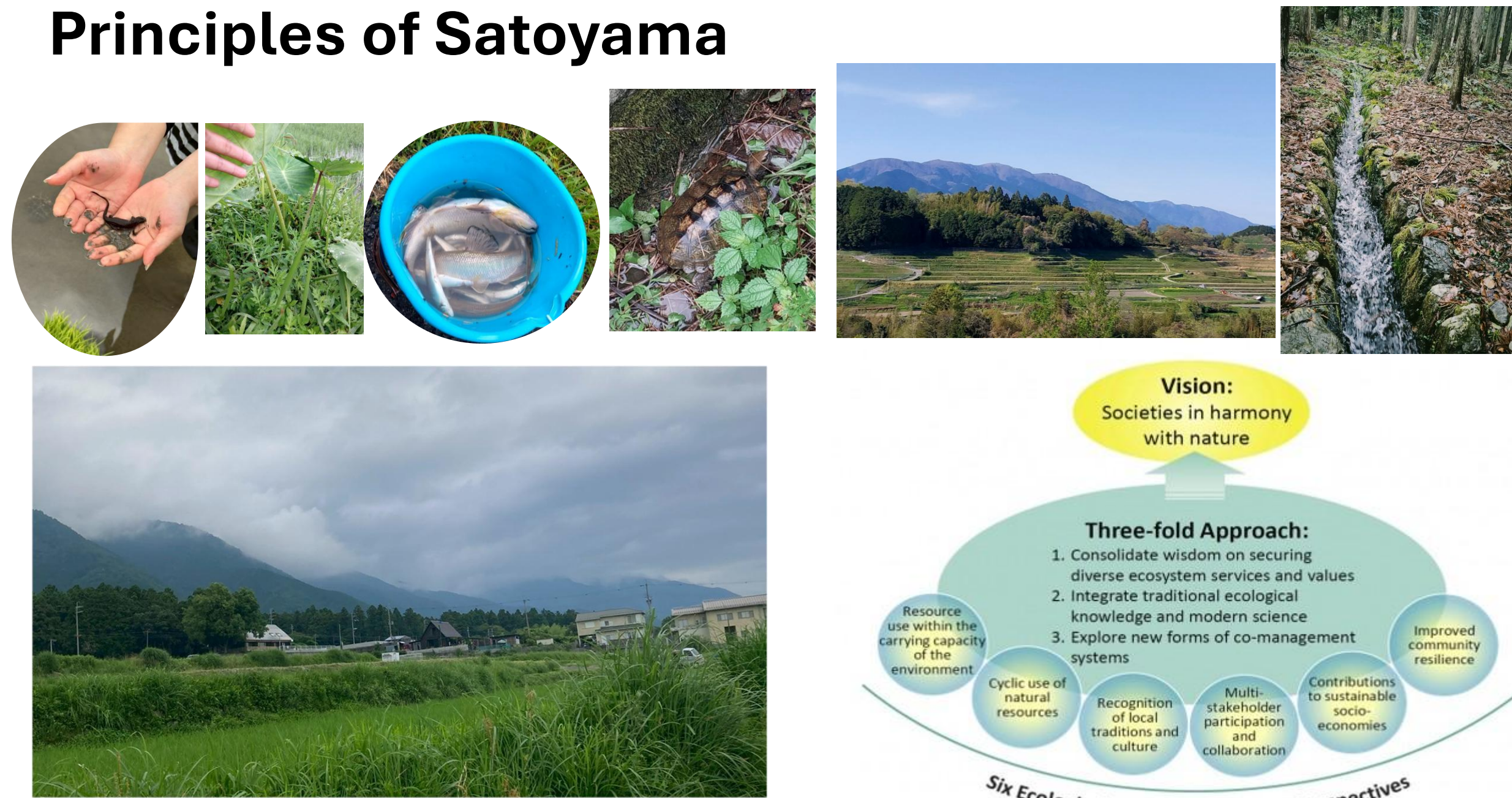
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Study Motivation

- ◆ Rural communities possess invaluable traditional ecological knowledge and integrating this knowledge is crucial for effective and culturally appropriate conservation and adaptation strategies.
- ◆ Furthermore, promoting agroecological practices and diversifying farming systems can enhance local-level resilience.
- ◆ This concept could be extensively applicable to addressing biodiversity loss and climate change which are frequently exacerbated by poverty, limited livelihood options, and unequal resource access in the Global South.

Principles of Satoyama



- ◆ Harmonious coexistence of humans and nature through the sustainable management of diverse land uses, forests, agriculture, grasslands, water bodies and so on.
- ◆ Integrated land use approach supporting mosaics of habitats, enhancing biodiversity and providing natural buffers against climate change impacts like floods, droughts, and soil erosion.
- ◆ Sense of ownership and responsibility for the environment through the landscape management and maintenance deeply rooted in traditional ecological knowledge accumulated over generations.
- ◆ Regulating resource exploitation and ecosystem health with a careful and rotational use of resources, such as timber, fuelwood, and non-timber forest products, and reliance on local communities' practices and collective resource management.
- ◆ Values and principles applied in Social-Ecological Production Landscapes (SEPLs), synonym for Satoyama in the international domain.

Contemporary Challenges of Satoyama Landscapes

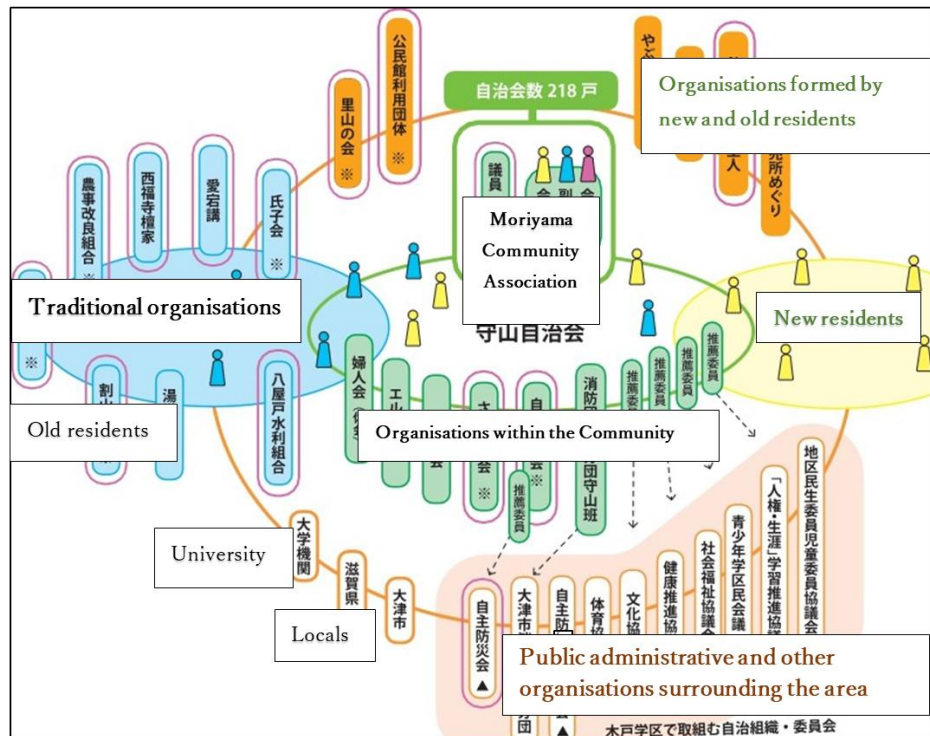
- ◆ The decline of Satoyama landscapes is linked to socio-economic changes, including rural depopulation and the shift away from traditional livelihoods.
- ◆ Looking deeper into these changes and over several decades, the pursuit of high-volume commodity production and growing financial returns can often be seen as drivers to fracturing of former interdependencies between people and nature, contributing to significant environmental damage and cultural upheaval in many economies across the world.
- ◆ Fragile, threatened, under-valued nature of Satoyama communities in competitive market economies means that policies and markets remain largely ignorant of the role and importance of these complex and dynamic systems and the knock-on effects of changes that they introduce, upon nature, culture and the functioning of SEPLs.

Systemic Transdisciplinary Appraisal of Satoyama SEPLs: An integrated approach combining natural and social science

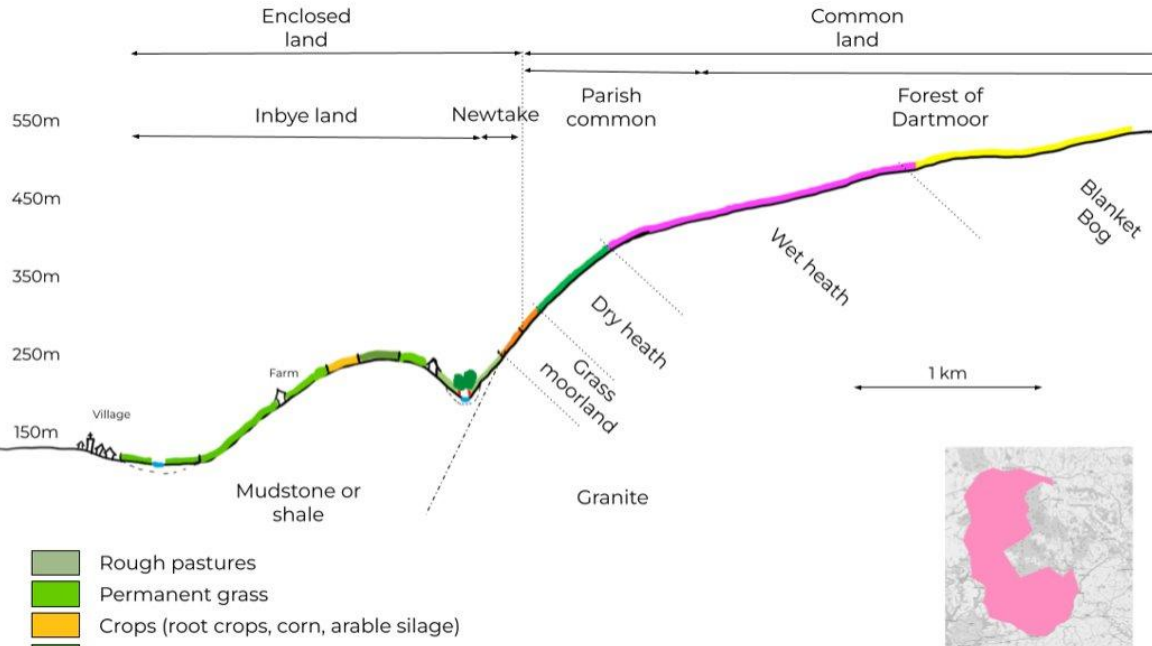
- ◆ Satoyama Integrated Land-use Appraisal adapted from the Agrarian Diagnosis method developed by AgroParisTech



Three stages of analysis using field works, secondary data, maps, satellite imagery, in-depth interviews that enable systemic and comparative analyses across the study sites.



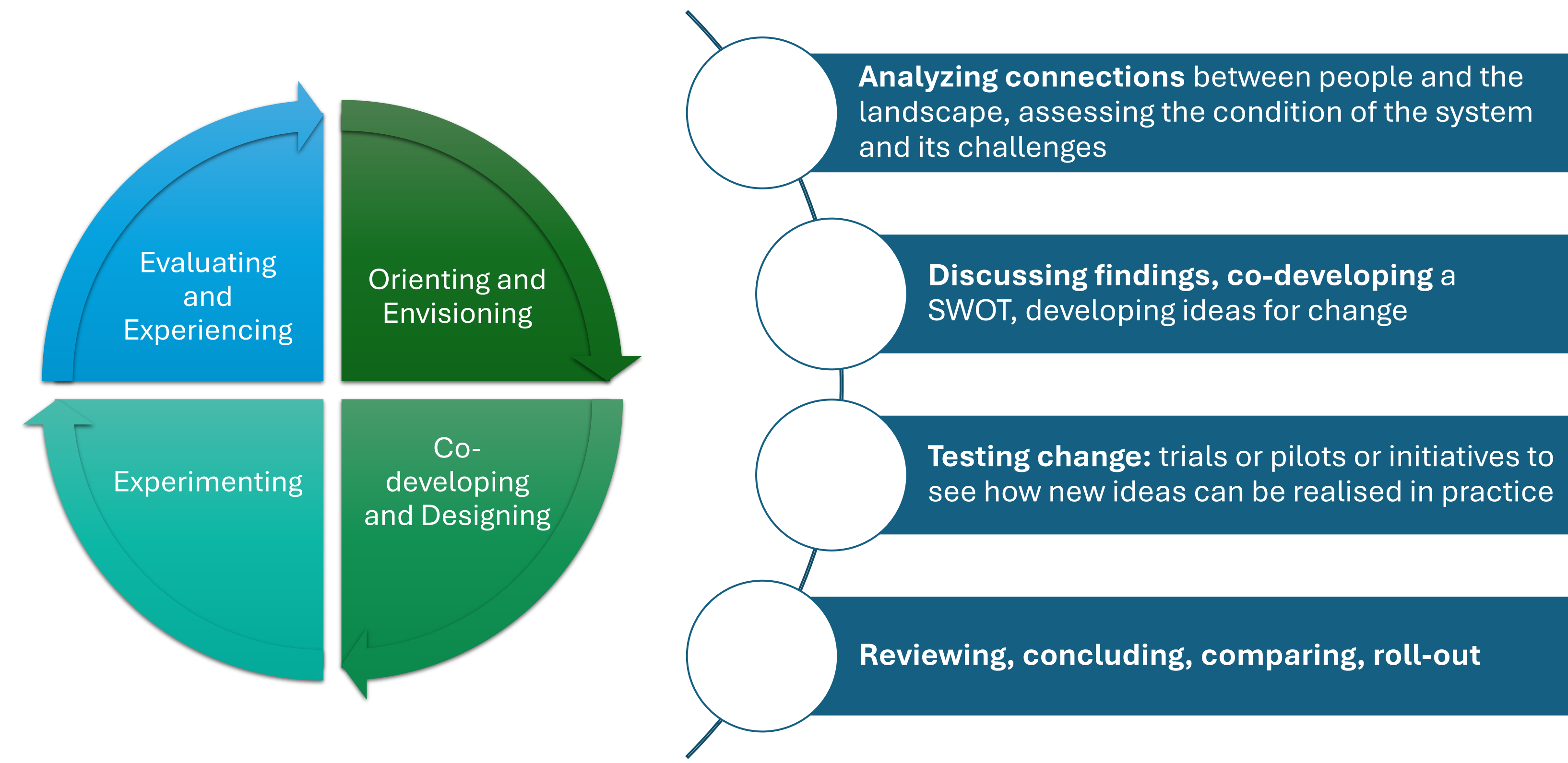
An example of organizations and stakeholders mapping in Moriyama, Hira-Ogi study site, Japan.



An example of landscape reading in Dartmoor case study in UK.

- ◆ This initial approach will be used to help the project engage with Satoyama communities in Europe and Japan. Working together in living labs, we will co-design and deliver new, more nature and climate positive and resilient land use futures through enhanced governance/ownership institutions, policies, actions and cultures, and innovations in collective management.
- ◆ The appraisal method can provide a transferable, international transdisciplinary framework and baseline process to catalogue, reinvigorate and extend Satoyama principles in order to address contemporary nature and climate challenges.

Participatory Action-oriented Research in Living Labs



Work frame of Living Labs for four years of full research: Current year – 1st year of FR (2025-2026)

Case Studies in Living Labs across Europe and Japan



Potential of Adapting the “Satoyama” Principles and Approach to the Global South

- Typical tropical **landscapes** in a mix of forests, farmlands, and human settlements
- Strong traditions** of community-based natural resource management in many tropical regions
- Needs of **promoting sustainable harvesting practices** for natural resources, based on ecological principles and community involvement in tropical developing countries
- Key roles** of developing countries in the Global South in **climate change adaptation and nature-based solutions** under the Paris Agreement
- Addressing underlying socio-economic factors—poverty, lack of alternative livelihoods, and unequal access to resources – through sustainable development initiatives, ecotourism, and payment for ecosystem services can create incentives for conservation and adaptation.

- ◆ Direct replication may appear unlikely, in careful consideration of disparities between the Global North and South landscapes and focusing on the diversity and complexity of tropical ecosystems, land tenure systems and governance structures. Greater economic pressures related to poverty, cultural contexts, and historical injustices and power imbalances have often marginalized local communities in these places.
- ◆ Despite their differences, adapting the principles and experiences of revitalizing Satoyama landscapes to the specific ecological, socio-cultural, and political contexts of different regions in the Global South, with a focus on equity and empowerment, can foster more effective and sustainable conservation and adaptation outcomes across the world.
- ◆ Particularly, the core principles of valuing longstanding cultures and deep knowledge of land management, empowering people-nature interdependence and giving voice to the understanding held within rural communities, thus fostering sustainable resource use through multi-actor mobilisation, hold significant potential.

Key references

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