

AOA2011-02NSY-NEWCOMMONS

Building Resilience with Common Capital

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ABSTRACT: In Japan, Satoyama landscapes have been rapidly declining due to various factors including increased rural–urban migration, rapidly aging population, depopulation, land-use conversion and the abandonment of traditional agricultural cultivation. The loss of collective management of Satoyama and Satoumi landscapes may be termed a loss of the “commons.” Critical to the success of a more integrated and holistic approach to ecosystems management is the creation of a new “commons,” understood both as a system of co-management of ecosystem services and biodiversity within private, communal, and public land; and as a single system to produce a bundle of ecosystem services that exhibit both public and private properties, and for direct and indirect use by society with a long-term perspective. The new “commons” could provide the basis for sustainable development in both developing and developed countries. The series of workshops explored ways and means of enhancing resilience of communities to climate and ecosystems change by identifying new governance systems overseeing the management of the New Commons, supply of ecosystem services and enhancement of socio-ecological resilience against climate and ecosystem changes in an efficient and equitable manner across a range of stakeholders.

KEYWORDS: *satoyama, ecosystem services, governance, mismatch, resilience*



Introduction

Satoyama is a Japanese term for traditional rural production landscapes. These traditional landscapes, however, can be characterised as a mosaic of different ecosystem types — secondary forests, farmlands, irrigation ponds and grasslands — along with human settlements, which have been managed to produce bundles of ecosystem services for human well-being. Satoyama, found largely in rural and peri-urban areas of Japan, is a way of life. In other words, it is a classical illustration of the symbiotic interaction between ecosystems and humans.

The Japan Satoyama–Satoumi Assessment (JSSA, 2010; Duraiappah et al., 2012) shows how Satoyama landscapes have been rapidly declining due to various factors including increased rural–urban migration, the rapidly aging population, depopulation, land-use conversion and the abandonment of traditional agricultural cultivation. If this trend continues, vital services provided by Satoyama will be adversely affected causing changes in human wellbeing across a range of stakeholders.

There is no doubt that short-term increases in certain aspects of human wellbeing have been accompanied by degradation of ecosystem services, which, over the long term, may have negative consequences on human wellbeing. Two factors have been critical in these win–lose scenarios between human wellbeing and satoyama ecosystems. First, with the uprooting of the Japanese population in post-war years as rural populations declined and urban ones swelled, there is collective loss of connection to one's landscape.



Wherein traditionally, those who worked the land and the waters assumed collective responsibility for maintaining and protecting them, in a rapidly urbanised and industrialised Japan, this sense of obligation to one's surroundings has been quickly lost. Thus, it becomes possible to pursue economic development that produces short-term benefits to human wellbeing, while simultaneously degrading the ecosystems necessary to sustain wellbeing over the long haul.

This loss of collective management of Satoyama and Satoumi landscapes may be termed a loss of the “commons.” Critical to the success of a more integrated and holistic approach to ecosystems management is the creation of a new “commons,” understood both as a system of co-management of ecosystem services and biodiversity within private, communal, and public land, and as a single system to produce a bundle of ecosystem services that exhibit both public and private properties, and for direct and indirect use by society within a long-term perspective. The new “commons” could provide the basis for sustainable development in both developing and developed countries.

The essence of landscapes such as Satoyama is that coexistence of human society and the natural environment is achieved through sustainable management of a mosaic composition of different ecosystem types each operating under a variety of tenure regimes. This essence has the quality of contributing to the maintenance of biodiversity cultivated by human intervention and management of secondary nature.

Learning from this essence of the traditional human and nature relationships, we should focus on establishing new governance mechanisms that can manage

private, public and communal lands as a single integrated system. This approach is similar in some ways to the already existing concepts of agroforestry but still falls short of addressing the full range of ecosystem services that are provided and the missing markets for some of the public services that are offered by Satoyama-type landscapes.

The series of workshops explored ways and means of enhancing resilience of communities to climate and ecosystems change by identifying new governance systems overseeing the management of the New Commons, supply of ecosystem services and enhancement of socioecological resilience against climate and ecosystem changes in an efficient and equitable manner across a range of stakeholders.

Methodology

A series of three 3-day workshops were organised. A group of experts attended the workshops to ensure continuity of the process and the development of a New Commons framework and to showcase studies in Japan and other countries in the Asia-Pacific that have Satoyama-type landscapes. For each workshop, around 15 core participants were invited. The first workshop was held in Tokyo, Japan (23–25 January 2012), the second in Colombo, Sri Lanka (28–29 May 2012), and the final workshop was in Kobe, Japan (3–5 December 2012). For the second and third workshops, participants visited Satoyama districts. On the third workshop field trip, they visited Kurokawa in Kawanishi City, Hyogo Prefecture and learned that Satoyama landscapes have been conserved through sustainable use of natural resources such as the production of kiku-zumi charcoal.



Results

Our point of departure is that human wellbeing is increasingly associated with the stability and functioning of local environments as much as it is with regional and global ecological processes. We recognise ecological processes and functions responsible for the flow of services as critical natural capital (CNC) and consider them as “new commons” requiring specific institutional arrangements, which recognise the connectivity within which local and regional economies and wellbeing are embedded. In this article, we present a conceptual framework that articulates the linkages between socioeconomic processes related to human wellbeing and of the provision of multiple ecosystem services — called “bundle of ecosystem services” — at multiple scales. The end goal is to design a framework to manage ecosystems supporting these bundles of ecosystem services ensuring overall CNC is retained. We pay particular attention to the intrinsic and cross-scale interdependency of society on CNC and the role of (bundles of) institutional arrangements, at different levels, mediating these relationships.

In the project, three key mismatches relating to ecology, institutions and values were illustrated and we showed how these mismatches have perpetuated the decline of ecosystem services and wellbeing at different scales. The project provides a conceptual framework for understanding and managing these identified mismatches and lays out the key components underlying the concept of the New Commons and the main interlinkages and relationships both within and across scales to address the three mismatches. These results will be published





in detail in peer-reviewed literature and some articles are currently being drafted by the core group.

References

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Acknowledgments

This project was conducted as a Hyogo Activity of APN. The project team extends its sincere thanks to Hyogo Prefectural Government of Japan for supporting the project.

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PROJECT TITLE

Building Resilience with Common Capital — Managing Shared Resources: Meeting the Challenges of a Rapidly Modernising World under Climate and Ecosystems Change

COUNTRIES INVOLVED

France, Germany, Japan, Indonesia, USA, Cambodia, Canada, South Africa, Sri Lanka, Thailand

DURATION

2 years

APN FUNDING

US\$ 50,000

LEAD INSTITUTIONS

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