



Enhancing sustainable use of biodiversity through the *Satoyama* Initiative

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This paper describes the *Satoyama* Initiative, which has been promoted by the Ministry of the Environment of the Government of Japan and United Nations University Institute of Advanced Studies for discussion at CBD COP10. It highlights linkages and potential contributions of IUCN's work to this initiative.

What is *satoyama*?

The Japanese term *satoyama*¹ originally signified secondary woodland which was used to support traditional agricultural practices by providing fodder, leaves and other biological components as fertilizer that supported sustainable agricultural production in rural areas. Recently, the concept of *satoyama* has been attracting much increased attention from the government and more widely as a new focus for conservation because this kind of land use has been shown to provide important ecosystem services, such as watershed protection, conservation of genetic resources (including threatened species), pollination, carbon sequestration, and maintaining cultural values.

However, *satoyama* are also rapidly diminishing and deteriorating as a result of development activities and abandonment of these areas by the aging and decreasing rural population. Modern agricultural technologies have also replaced these traditional and sustainable uses of landscapes.

The original meaning of *satoyama* has broadened to include not only woodlands used for traditional agriculture practices but also other types of secondary forests such as fuel wood forests, traditional agricultural landscapes that include paddy fields, grass lands and ponds. This wider concept of *satoyama* is the patchwork and the landscape mosaic that includes various types of these land uses rather than individual habitats on their own; this small-scale mosaic enables biodiversity to be conserved or even enhanced. Recently, a new concept *satoumi*² has also emerged to apply the basic concepts of *satoyama* to coastal areas where traditional natural resource use practices have been maintained for many years, demonstrating their contribution to sustainable forms of resource management.

These diverse *satoyama* landscapes and *satoumi* seascapes have been formulated and maintained through interaction between humans and nature for centuries. Sometimes managed as commons by local communities, such land- and sea-scapes are closely linked and related to the local traditional knowledge, culture and livelihoods of people living in them. They typically consist of a mosaic of different type of habitats, sometimes encompassing core protected areas of biodiversity conservation

¹ *Sato* means small rural village and *yama* means mountain or woodlands in Japanese

² *Umi* means ocean in Japanese

significance, which provide a home for a variety of species and also provide various other ecological services including provision of fresh water, non-timber forest products such as mushrooms and bamboo shoots, and reduction of the impacts of natural disasters. The issue of maintaining *satoyama* has been identified as one of the most pressing challenges in the National Biodiversity Strategy and Action Plan of Japan and the Government of Japan is now striving to restore and conserve *satoyama* through revitalizing sustainable agriculture and forestry, promoting eco-tourism and small-scale use of biomass for energy, and mobilizing support from city dwellers.

What is the *Satoyama* Initiative?

Given the recognition of important linkages between sustainable use and conservation of biodiversity in *satoyama*, the Government of Japan and United Nations University Institute of Advanced Studies (UNU-IAS) have initiated a global *Satoyama* Initiative³ as a contribution to achieving the three objectives of the CBD⁴. The *Satoyama* Initiative seeks to highlight the important roles of **socio-ecological production landscapes**⁵ such as *satoyama*, often as buffers around protected areas. The roles of these landscapes may include biodiversity conservation, especially for threatened species, which need particular landscapes for their survival, and the ecological processes on which these species depend, as well as maintaining and enhancing various ecosystem services that contribute to human well-being.

Today, protected areas⁶ cover nearly 13% of lands and around 1% of oceans globally⁷. However, some of these protected areas are not managed to achieve conservation objectives, and are only sometimes planned and managed to contribute to the conservation of biodiversity and maintenance of ecosystem services in surrounding landscapes and seascapes. The proportion of land and coastal areas used in some form of cultivation, forestry, grazing, fisheries and other human activities for people's livelihoods is about 30 percent of the total global land and coastal area. The *Satoyama* Initiative seeks to link protected areas with agricultural production lands, and in so doing highlight the important role of sustainable use of such areas in order to conserve biodiversity. This Initiative offers an opportunity to analyze and enhance good practices, in collaboration with partners involved in comparable initiatives throughout the world.

In fact, *satoyama*-like landscapes can be found in many parts of the world, including (among others) *muyong* in the Philippines, *kebun* in Indonesia and Malaysia, *mauel* in Korea, *dehesa* in Spain, *terroirs* in France and other Mediterranean countries, and *chitemene* in Malawi and Zambia. Globally, these approaches are often called "ecological agriculture", "ecoagriculture", or "sustainable agriculture". All these areas are characterized by being formed and maintained through long-term human influence and are targets of this Initiative. Some of these areas are also formally recognized as protected landscapes/seascapes under the IUCN Protected Area Category V⁸ and other legally

³ <http://satoyama-initiative.org/en/>

⁴ CBD Objectives: "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding."

⁵ UNU-IAS has studied various *satoyama* and *satoumi* in Japan under the framework of Millennium Ecosystem Assessment Sub-global Assessment in which they defined *satoyama* and *satoumi* landscapes as a dynamic mosaic of managed socio-ecological systems producing a bundle of ecosystem services for human wellbeing.

⁶ IUCN defines protected areas as 'A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.'

⁷ IUCN and UNEP-WCMC (2010) The World Database on Protected Areas (WDPA): January 2010. Cambridge, UK: UNEP-WCMC. <http://www.wdpa.org/Statistics.aspx>

⁸ IUCN Protected Area Management Category V is defined as 'a protected area where the interaction of people and nature

recognised designations.

The overall description and objectives of the *Satoyama* Initiative were defined in January, 2010 in its Paris Declaration as follows:

“Measures are urgently needed to support and, where necessary, revitalize or rebuild socio ecological production landscapes including through broader global recognition of their value and by addressing the issues identified above. The Satoyama Initiative has been developed to respond to these needs. Its overall objective is to promote and support socio-ecological production landscapes to maintain their contribution to human well-being and the three objectives of the Convention on Biological Diversity.

The Satoyama Initiative recognizes the importance of other ongoing initiatives dealing with socio-ecological production landscapes and seeks to provide a platform for cooperation and support.

The Initiative can also be considered as a tool, consistent with the Ecosystem Approach, for the implementation of the proposed post-2010 Strategic Plan of the Convention , in particular the 2020 targets relating to the sustainable management of all areas under agriculture, aquaculture and forestry; the reduction below critical ecosystem loads of pollution from excess nutrients (nitrogen and phosphorus) and other sources; the management of the multiple pressures on vulnerable ecosystems impacted by climate change and ocean acidification; the improvement of the status of crop and livestock genetic diversity in agricultural ecosystems and of wild relatives; the raising of awareness of the role of biodiversity; the safeguarding or restoration of terrestrial, freshwater and marine ecosystems that provide critical services, and contribute to local livelihoods; the guarantee for all of adequate and equitable access to essential ecosystem services; the protection of traditional knowledge, innovations and practices, as well as the rights of indigenous and local communities; and the increase of capacity (human resources and financing) for implementing the Convention.”

In order to achieve these goals, the initiative seeks to establish an International Partnership for the *Satoyama* Initiative (IPSI) with various partners dealing with socio-ecological production landscapes and their contributions to biodiversity conservation, to foster synergies in the implementation of their respective activities, as well as other activities planned under the Initiative.

What are the linkages between IUCN’s existing work and *Satoyama* Initiative?

IUCN welcomes the leadership of Government of Japan and UNU-IAS in promoting sustainable use of biodiversity through the *Satoyama* Initiative. This initiative could play an important role in further implementing the CBD and use the tools developed under the Convention, such as the Ecosystem Approach and the Addis Ababa Principles and Guidelines (AAPG) for the sustainable use of biological diversity.

IUCN recognizes the contribution of the *Satoyama* Initiative to conserve the integrity and diversity of nature, in particular through the work of its commissions including: IUCN Commission on

over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.’

Environmental, Economic and Social Policy (CEESP), Commission on Ecosystem Management (CEM), Species Survival Commission (SSC), and World Commission on Protected Areas (WCPA). IUCN also recognizes that the concept and objectives of the *Satoyama* Initiative are consistent with many existing IUCN activities. Examples include:

- IUCN already recognises some *satoyama*-like areas, through IUCN Protected Area Category V, UNESCO World Heritage Convention cultural landscapes or mixed sites, and Indigenous and Community Conserved Areas (ICCAs) which IUCN WCPA has long promoted;
- Initiatives under the Sustainable Use Specialist Group (SUSG) of IUCN's Species Survival Commission (SSC) are also closely linked with the initiative especially through application of their knowledge on sustainable use of wild species;
- IUCN's Livelihoods and Landscapes Strategy (LLS), which is a global initiative examining the rights and access of the rural poor to forest products in the context of the entire landscape in which people and forests interact, is closely related to the *satoyama* initiative through its promotion of sustainable forestry;
- IUCN has been promoting conservation and sustainable use of biodiversity in tropical timber production forests since the 1990s and developed collaboration with ITTO which is also relevant to *Satoyama* Initiative in relation to sustainable forestry;
- IUCN's Economics unit has been working on various economic studies in socio-ecological production landscapes; concepts such as economic valuation of ecosystem services and payment for ecosystem services can contribute new approaches to the *Satoyama* Initiative; and
- IUCN's Business and Biodiversity programme has been promoting the concept of "biodiversity business" as commercial enterprises that generate profits via activities which conserve biodiversity, use biological resources sustainably, and share the benefits arising from this use equitably such as ecotourism and certified agricultural products. This could be a solution for maintaining *satoyama*-like landscape while generating additional income for local communities.

What is the role of IUCN in the *Satoyama* Initiative?

IUCN believes knowledge and information accumulated through IUCN's past and on-going experiences as indicated above could greatly contribute to the *Satoyama* Initiative. Examples of include:

- IUCN could promote the *Satoyama* Initiative by communicating the importance of socio-ecological production landscapes such as *satoyama* in biodiversity conservation through its world-wide member and commission network;
- IUCN could strengthen the *Satoyama* Initiative through providing knowledge and experiences related to socio-ecological production landscapes;
- IUCN could also integrate *satoyama* concept in its own programmes and develop joint initiatives with other partners to better implement objectives of the *Satoyama* Initiative; and

To name a few more specific contributions, IUCN could:

- Promote the *Satoyama* Initiative, which by definition involves the recognition of different governance types which are linked to culturally embedded principles of landscape and seascape conservation, and participatory approaches that engage different stakeholders;
- Support the integration of *satoyama* with protected areas approaches by mainstreaming the

satoyama socio-ecological matrix as the buffer zone around or corridor between key biodiversity areas, including by applying IUCN Protected Area Management Categories;

- Highlight the linkage between *satoyama* and the conservation of threatened species identified on the IUCN Red List of Threatened Species (<http://www.iucnredlist.org>), especially those with large area requirements or dependent on broad-scale ecological processes (see, e.g., 'Conservation Letters' 1: 37–43; and
- Integrate specific *satoyama* information into WDPA and ICCA databases.

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Key Resources

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