

ABSTRACTS OF PRESENTATIONS FOR ACTIVITY CLUSTER 2: POLICY RESEARCH

1. Aichi Prefectural Government, Japan
2. Faculty of Science, Centre for Ecology and Natural Resources – CEPRES,
University of Sarajevo
3. Ghana National Biodiversity Committee (NBC)
4. Government of Japan
Ministry of the Environment, Japan (MOEJ)
Ministry of Agriculture, Forestry and Fisheries (MAFF)
5. Hydrology for the Environment, Life and Policy (HELP) Davao Network
6. Islands Knowledge Institute (IKI)
7. Kanazawa University
8. Kathmandu Forestry College
9. Ministry of Environment, Cambodia
10. Ministry of Environment and Sustainable Development, Gabon
11. Ministry of Environment, Peru
12. Ministry of Natural Resources and Environment, Thailand
13. NGO Circle for Conservation of Natural Resources (NGO Ce.Sa.Re.N)
14. World Agroforestry Centre (ICRAF)

1. Title: Working for Improved Harmony with Nature ~Aichi's Environmental Initiatives based on Aichi Environment Conservation Strategy

Member organisation: Aichi Prefectural Government, Japan

Presenter: Haruko Ishida, Director, Natural Environment Division, haruko_ishida@pref.aichi.lg.jp

Aichi has launched a new initiative aiming to create a society where humans and nature can live in harmony. Since Aichi is very active in the business sector and is enthusiastic about regional development, conservation and sustainable use of biodiversity are major objectives. To fulfil these, efforts have been in progress to combine “ecosystem networking” and “compensatory mitigation”.

Ecosystem Networking intends to reconnect fragmented and isolated natural environments by arranging greenery and aquatic areas to facilitate the movement of living creatures, in order to conserve and restore the unique ecosystem of the region. Through ecosystem networking, we can combine the development of economic activity and the conservation and regeneration of biodiversity.

To promote the establishment of Ecosystem Networking, the Aichi prefectural government has made a map of potential habitats for the first time in Japan. This map is composed of sixteen species that serve as indicators of biodiversity in Aichi. It shows the places that are suitable habitats, such as aquatic systems and forests, and gathers information for the inhabitation of the indicator species. Ecosystem networks will be established using these maps.

Compensatory Mitigation is a system by which the persons/organisations responsible for development activities compensate for any loss in biodiversity in the area. The compensatory actions would target areas not affected by the development. Although compensation would be preferable in the development-affected area, it may be difficult to organize. Compensatory measures would therefore be implemented on land meant for public use, such as schools, parks or green spaces of companies, which will help maintain ecosystems. Compensatory measures are to be implemented in a manner that supports ecosystem networking and strengthens the willingness of developers by allowing them to implement compensatory measures in public lands. This method wherein compensatory mitigation supports ecosystem networking is referred to as the Aichi method.

Three areas in Aichi prefecture have been chosen for the implementation of model projects. Over the next three years, ecosystem networking will be created and compensatory mitigation introduced through the model projects. We plan to make guidelines for residents, companies, and prefectural governments on the basis of achievements of the model projects. The roles of each sector will be clarified based on guidelines and used as tools to develop ecosystem networking and compensatory mitigation all around the prefecture.

We believe that efforts should focus on the three goals of seeking harmony with nature, supporting the clustering of energy-efficient industries, and making greater use of recycled resources. Industries, academic institutions, the government and residents of Aichi would thus work together to develop integrated approaches toward the implementation of a sustainable society.

2. Title: In the light of policy actions: the landscapes of the karst fields in Bosnia-Herzegovina

Member organisation: Faculty of Science, University of Sarajevo

Presenter: Senka Barudanovic, Associate Professor, sebarudanovic@gmail.com

Karst fields are the most interesting phenomena within a karst region in Bosnia-Herzegovina (BiH). They are unique phenomena with specific surface and ground hydrological networks and have a high level of biological and ecological diversity. As primary centres of endemic flora and fauna, karst fields make Bosnia-Herzegovina's biological and ecological diversity recognisable at the European scale.

The largest karst fields in the country with a well-preserved landscape, are situated in the southwestern part. Livanjsko polje, especially in its northwestern part, is characterised by still ongoing post-glacial processes of alkaline bog formation. The unique type of hydromorphous soil which occurs here, planohystosol, is vitally important for the survival of wilderness in swamps.

Arable land and human settlements that are away from the reach of underground water occupy a special place within the karst landscape. Settlements are situated along the field's margin, on elevated ground, with stone as the dominant construction material in the local architecture. Due to the high biomass production of meadows, sustainable cattle breeding, agriculture and gardening are traditional land uses. As an expression of nutritional culture as well as of traditional knowledge and practices, there is a rich diversity of cheese made by indigenous biotechnological procedures from high quality milk of cow, sheep and goat. The most famous of these is the Livno cheese. Unfortunately, traditional practices have been lost or are being lost due to population displacement during the war in BiH and post-war economic and social uncertainty.

Karst landscapes are a sensitive group of ecological phenomena whose structure and functions are changing. Apart from global pressures, the most significant influences are from development activities; alteration of the water flow in streams, exploitation of the moorland's humus horizon; coal extraction; fires in the dry season; eutrophication of surface water; logging in the marginal area of the field, etc.

Appropriate targets associated with cultural and traditional values to preserve the diversity of karst fields in BiH have been determined during the preparation of National Biodiversity Strategies and Action Plans (NBSAPs). The new Law on Nature Protection, which is in the process of adoption, has recognised BiH-specific landscapes, and certain actions have been performed toward conservation at the regional and the global policy levels.

3. Title: Solving the Boti Falls dilemma

Member organisation: Ghana National Biodiversity Committee

Presenter: Prof. Alfred Oteng-Yeboah, National Chairman, otengyeboah@yahoo.co.uk

The Boti Falls in the Eastern Region of Ghana is a natural waterfall facility which represents opportunities for ecotourism destination with bigger tourism traffic and revenue and sustainable community development. There is no sustainable environmental management and the Falls are operational only during the wet season. It is believed that this situation can change and the Falls made perennial to attract tourists all year round, if appropriate environmental management systems involving the local communities are introduced.

A programme of sensitisation and direct involvement of the communities upstream along the river/stream whose waters create the Falls is envisaged. In this programme, there is a proposal to introduce the concept of Satoyama in the river basin area as a new land use approach for the landscape to utilise the land sustainably for maximum agricultural productivity and at the same time protect the water surface from direct sunlight, prevent evaporation and maintain adequate water volume at all times to result in a perennial waterfall.

The proposal will aim at enabling the farming communities to adapt to climate change conditions by diversifying their crops, promoting soil fertility, increasing their crop yields, avoiding land degradation and engaging in other livelihood activities. This will empower the farming communities to overcome poverty, fight diseases and contribute to the realisation of Ghana's goal in achieving the MDGs.

4. Government of Japan

Title: Conservation and sustainable use of socio-ecological production landscapes (*Satochi-satoyama*)

Member organisation: Ministry of the Environment, Japan (MOEJ), Government of Japan

Presenter: Junichi Onizuka, Assistant Director, Biodiversity Policy Division Nature Conservation Bureau, Junichi_onizuka@env.go.jp

Satochi-satoyama areas are important for conserving biodiversity in Japan. They also serve as a basis for citizens' livelihood and spiritual culture, provide food and water, prevent natural disasters, and preserve living conditions, landscapes and cultures. However, due to declining population and ageing, human activities have reduced in secondary environments. As a result, biodiversity in Satochi-satoyama has deteriorated.

To conserve and sustainably use Satochi-satoyama in the future, MOEJ surveys and analyzes Satochi-satoyama, disseminates unique activities through operating websites, holds training programs; and sends instructors to give advice.

MOEJ compiled the Action Plan for the Conservation and Sustainable Use of Socio-ecological Production Landscapes (Satochi-satoyama) in September 2010, and the Act on the Promotion of Activities for the Conservation of Biodiversity through Cooperation among Diverse Regional Actors (biodiversity maintenance activity promotion method) was established on 10 December 2010.

Title: Biodiversity in agriculture, forestry and fisheries

Organisation: Government of Japan, Ministry of Agriculture, Forestry and Fisheries, Japan (MAFF), Government of Japan

Presenter: Tetsuya Kurata, Deputy Director, Environment and Biomass Policy Division, Minister's Secretariat, tetsuya_kurata@nm.maff.go.jp

The presentation describes the main roles that agriculture, forestry and fisheries play in conserving biodiversity including securing natural habitats for numerous animals and plants. It also highlights the negative impacts that agriculture may have on biodiversity.

Some interesting activities of farmers, forest owners and fishermen aiming to recover biodiversity-rich environments through their production practices will be presented.

5. Title: A review of socio-ecological production landscapes in Davao in order to establish how policy can provide a supportive framework for resilient communities and healthy ecosystems.

Member organisation: Hydrology for the Environment, Life and Policy (HELP) Davao Network

Presenter: Declan Hearne, Coordinator HELP Davao Network, dhearne76@gmail.com

In the Davao Region of Southern Mindanao, Philippines, Integrated Water Resource Management (IWRM) has been a key framework for progressing sustainable land use in local ecosystems. The purpose of this review is to benchmark the progression of IWRM and to gauge if the current set of policies can provide a supportive environment for enabling sustainable and resilient socio-ecological production landscapes. The paper will also establish a baseline understanding of socio-ecological production landscapes in the Davao context.

In order to achieve this aim we will first look at categorising the predominant socio-ecological production systems in Davao. This categorisation will take into consideration the formal land use classification system of the Philippine government, the current predominant agricultural systems of migrant settlers, agri-business systems and the cultural and production systems of the indigenous peoples of the region.

We will then review the unique informal structures that have evolved and driven the adoption of IWRM at catchment levels. We will define the local approach through the identification of four key drivers for progress in the adoption of IWRM. Through these key drivers we will see how current coordination structures and policy has built bridges for inter-sectoral communication between current land use, traditional ecological knowledge and modern science. We will then look at how the IWRM structures, policies and other factors have effected two key socio-ecological production systems in Davao; firstly the culture of banana production and secondly the indigenous production systems of the Matisalug tribe of the Marilog area in the upper Davao Watershed.

Finally we will distil key lessons learnt from existing structures and policies. Recommendations will focus on how new (or evolved existing) forms of co-management systems can continue to respect traditional communal land tenure and allow for development of market-focused sustainable production systems. It is concluded that in order to achieve the goal of 'sustainable and resilient socio-ecological production landscapes,' these two systems will have to find ways of co-existing in Davao and that IWRM can provide an appropriate framework for moving towards this goal.

Key words: Policy, collaboration, IWRM, socio-ecological production landscapes, sustainable agriculture, indigenous people.

6. Title: Island-scapes: understanding indigenous terrains as bases for sustainable living

Member organisation: Islands Knowledge Institute (IKI)

Presenter: Paul Roughan, Chairman, Islands Knowledge Institute (IKI)

proughan@islands-knowledge.org

This presentation discusses *indigenous terrains* as the area of current research and policy action by the Islands Knowledge Institute in the Solomon Islands. Our aim in sharing these insights and progress is to contribute to a wider network of practice and knowledge creation on sustainable landscapes and sustainability, in the recognition that the Satoyama Initiative represents a unique global platform for such a network.

Islands Knowledge Institute (IKI) was founded on a conviction of the importance of unique global knowledge arising from island situations and from other margins of the world—those situations far removed from centres of paradigmatic power. Our recent programmes of research and work in the Solomon Islands, on territorial authority systems as well as the integration of biophysical and culture-social spaces, has highlighted how sustainable living is made possible by indigenous mappings of landscapes along social and cultural, as well as biological and physical structures and systems.

This paper presents some of the key aspects of the Solomon situation which make the importance of such mappings especially clear, and outlines the notion of *indigenous terrains* we have begun elaborating for theoretical and practical purposes. Four aspects frame the Solomon Islands situation and make the reality of these mappings especially manifest:

Extremely diverse and autonomous: There are more than 70 indigenous languages with hundreds of dialects spoken among three Pacific peoples (Melanesian, Polynesian and Micronesian) numbering 540,000. Each cultural group has its own body of unique lore, practice and territory.

Dispersed, archipelagic, and indigenous: 1600 km lie between the eastern and western most inhabited points of the country. 85 per cent of the population lives in more than 5000 villages throughout the archipelago, and holds legal authority through traditional rights over a similar proportion of the land and coastal sea.

Dominated by small indigenous polities: This rural majority sustains itself from the resources in its various traditional territories, with still-limited reliance on national and global integration. Maintaining the status of these polities is the predominant basis for societal relations, rather than a public or civil society as assumed by ideas of liberal democratic statehood.

Where the state and career are newcomers: The nation state is only 32 years old, and these islands were within the last world region to experience regular European contact (only since the mid-1800s) and colonisation. The state remains a “guest” in the minds of many who live without much reliance on it, and a significant portion of the national territory lies outside the domain of state regulatory dominance.

Taken together, these factors have allowed knowledge and experiences of indigenous groups to continue to structure how the majority of Solomon territory is used and conceptualised. This paper will argue that integrated socio-ecological landscapes remain the rule, not the exception, in the country, and point out the difficulties in achieving recognition for this fact. We explain how such paradigmatic differences have been clearest where large international institutions such as the World Bank and multinational firms attempt projects within the country, and outline two key notions IKI has developed in order to translate this reality into language large globalist bureaucracies can understand; namely the VCK domain and indigenous terrains.

The paper concludes with a brief description of current IKI activities employing the two notions at the intersection of global development institutions and indigenous territories.

7. Title: From Subglobal Assessment of SATOYAMA (JSSA) to the SATOYAMA Initiative: the Role of Regional Higher Research & Education Institutes in Creating Local and Global Paradigm Shifts

Member organisation: Kanazawa University

Presenters: Koji NAKAMURA, Professor and Deputy President of Regional Collaboration, koji@kenroku.kanazawa-u.ac.jp

Setsuko NAKAYAMA, Assistant Professor and contact person for IPSI, setsnaka@staff.kanazawa-u.ac.jp

Kanazawa University is located in the Ishikawa Prefecture, where 60 per cent of the land is classified as Satoyama. As a regional academic institute, the university has played a vital role in reappraising the Satoyama concept, promoting it to the international platform, as well as reintroducing it to the Ishikawa public including the rural hinterland of Noto Peninsula. This presentation reviews Kanazawa University's involvement in the Millennium Subglobal Assessment (Japan Satoyama Satoumi Assessment = JSSA) which provided scientific grounds for the Satoyama Initiative (SI), as well as our ongoing projects towards Satoyama revitalisation, many of which are implemented in collaboration with founding members of IPSI. In so doing, it discusses the potential role of regional research and higher education institutes in creating local and global paradigm shifts in both academia and the public sphere.

The three-fold approach as employed by the Satoyama Initiative—the consolidation of traditional knowledge and practices, its integration with scientific knowledge, and the creation of a “new commons” —represents the formulation and implementation processes of the Initiative itself. By consolidating wisdom and practices associated with Satoyama and assessing its current state from a scientific viewpoint, the JSSA has worked at the sub-global level to provide the basis for the concept's promotion at the global level as manifest in the Satoyama Initiative.

Our collaboration with UNU-IAS and the prefecture mediated the bottom-up process, connecting local and regional networks to the international platform. The reappraised concept, Satoyama, has been reintroduced to the regional and local levels through the university's manifold projects, such as our Noto Satoyama Meister Training Program and Noto Ikimono Meister Training Program (capacity building), the Noto Peninsula Satoyama Satoumi Activity (urban-rural exchange), to name a few. Through our ongoing research programmes we continue to seek and reappraise positive human-nature relationships that led to the formation of Noto's Satoyama. Our position as a regional institute proved effective in mediating the three-fold process at local, regional, sub-global and global levels.

As a higher research and education institute with strong emphasis on regional collaboration, we have thus found that thinking globally and acting locally is simply not enough. By thinking *and* acting locally and globally, thereby mediating processes at various scales, we have been able to produce the paradigm shift towards the creation of the new local and global commons.

8. Title: Fitting Regression Models for Sustainable Management of Non-Timber Forest Products in National Forests and Private Lands: a case study from the mid-western region of Nepal

Member organisation: Kathmandu Forestry College

Presenter: Bishnu Hari Pandit, Principal, kafcol@wlink.com.np

This study is a part of an ongoing action research project of Kathmandu Forestry College entitled Assessment of Contribution of Selected Non-timber Forest Products to Poverty Reduction and Factors Influencing the Sustainable Management of Non-Timber Forest Products (NTFPs) in Forests and Private Lands, implemented across three elevation ranges, from the Terai-Dang district to Pyuthan district in the middle hills-, and Rolpa district in the high hills of the mid-western region of Nepal. Four Community Forestry User Groups (CFUG) were selected from each of the study districts, and an inventory of NTFP was done. A total of 259 households were randomly sampled for household data collection. Two Focus Group Discussions (FGDs) were conducted in each district and a key informant survey was carried out to assess preliminary information and data.

The study revealed that farmers have planted some NTFPs, such as *Cinnamomum tamala* (prickly ash), *Swertia chireita* (Chiretta), *Zanthoxylum armatum* (toothache tree) and *Sapindus mukorosi* (soap nut tree) in their private farmlands and community forests in the study districts. These species are mostly found growing naturally along farm boundaries, terrace walls and gullies. NTFP cultivation in farmlands is not significant. Preferred NTFPs for sale in the study area are Soap nut tree, prickly ash tree, bay leaf) *Persea* species (Kaulo), *Cinnamomum glaucescens* (*Sugandhokokila*, Cinnamon leaf which provides an essential oil) and *Pinus wallichina* (Pine) for pine resin.

The NTFP distribution pattern shows that of the six NTFPs of importance, pine trees are dominant in community and government-managed forests. No pine trees were found in private lands. Soap nut, bay leaf and prickly ash were mostly found on private lands. *Sugandhokokila* is found mostly on private lands at lower elevations below 1000 metres. *Kaulo* on the other hand is found on both private land and government forests at the upper elevation zone above 1500 metres. The NTFP marketing analysis showed that a total of 420 tons of raw pine resin, 107 tons of soap nut, 100 tons of prickly ash, 78 tons of bay leaf, 175 tons of *Kaulo* bark and 37 tons of *Sugandhokokila* fruit were collected and exported from the study districts every year. The findings revealed that collectors and producers have received a very small amount from the final sale of the selected NTFPs.

This study basically discusses two regression models fitted for sustainable management of NTFPs in forests and private lands. A regression analysis of constraining factors explored in a household survey revealed that cultivation of NTFP species is significantly influenced by the household labour force engaged in agriculture cultivation on marginal lands, farmers' affiliation with community-based local institutions and complicated private land NTFP registration process of the government. The constraining factors for sustainable management of NTFP in government and community forests are the distance from home to forest, food production, open access condition of forest, active labour force, training on forest management, and household labour force involved in agriculture. Policy recommendations include transferring management to local people by means of changing the open-access status of

national forests, providing NTFP collection permits to local residents, amending inappropriate policies hindering private land NTFP registration, promoting group marketing, and taking an adaptive, collaborative approach to community forestry.

9. Title: The Integration of Participatory Land Use Planning (PLUP) Tool

Member organisation: Ministry of Environment, Cambodia

Presenter: Somaly Chan, Director of international Conventions and Biodiversity,
somalychan@hotmail.com

Forest land encroachment and conflicts over land ownership are huge issues in Cambodia. Local people have illegally cleared the forest for shifting cultivation and newcomers have illegally cleared the forest for housing and for permanent agriculture. Conflicts have arisen between local people, newcomers, and those from bordering villages because of the absence of legal land titles. Since the move of government policy to a participatory approach, some of these issues have been solved and others mitigated. The integration of Participatory Land Use Planning (PLUP) tools has contributed to addressing and solving these issues. Key tools and methods included increasing awareness amongst the community on key Forestry Laws, encouraging communities to safeguard the community and outside forests and most importantly, involving all stakeholders in demarcating community boundaries. However, there is a need for technical assistance to help the community convert from shifting to permanent agriculture, land use planning and forestry management. Planning should therefore be carried out together, and possible job opportunities and alternative sources of income for the village should be explored.

10. Title: Biodiversity: Opportunities and benefit for the development of Gabon

Member organisation: Ministry of Environment and Sustainable Development

Presenter: Marthe Mapangou, Adviser to the Minister in Charge of Environment and Sustainable Development, marthy.mapangou@laposte.net

Located in the heart of the Congo Basin, considered the second ecological lung of the planet after the Amazon forest, Gabon is one of the richest biodiversity zones in the world.

Recognising this advantage, the country, like other nations of the continent, intends to Ensure the best use of resources from biodiversity and terrestrial and aquatic ecosystems in order to:

Ensure sustainable and equitable economic development

Fight poverty by providing the means to ensure the continuance of ecosystem services and access to them, particularly for the most vulnerable populations that are directly dependent upon them

Strengthening integration and consideration of biodiversity and ecosystem services in strategies, inter-sectoral policies and in relevant sectors at all levels so as to accelerate and facilitate the achievement of the Millennium Development Goals and their budgeting

In this regard, the Government has set targets and work programmes based on the social project of the President of the Republic, Ali Bongo Ondimba, with pillars Green Gabon, Industrial Gabon and Gabon of Services (environment, industry and social services). This project has the ambition of implementing new modes of production and sustainable consumption in both industrial production and in miscellaneous services including markets and finance of goods and environmental services.

A fundamental thrust axe of the implementation of this programme is the development of scientific and technical research as a tool to provide policy makers with the necessary information for effective decision making.

In this context, the Government of Gabon, as well as all the countries of the continent, strongly support the establishment of a Pan-African committee for the establishment of a science-policy intergovernmental platform on biodiversity and ecosystem services.

In addition, the authorities have undertaken to explore the creation of a Centre for Biodiversity, with a regional focus.

11. Title: Legal establishment of agro-biodiversity zones in Peru

Member organisation: Ministry of Environment, Peru

Presenter: Miriam Cerdán-Quiliano, Dirección General de Diversidad Biológica, Ministerio del Ambiente, mcerdan@minam.gob.pe

Peru has a complex geography, varied landscapes, multiple autochthonous cultures and a vast diversity of animal and plant species. This biological diversity joined with cultural experience allowed ancestors to domesticate almost two hundred species of plants. These species were first wild ones, and through a patient and dedicated process of domestication/cultivation that lasted around ten thousand years, were adapted to be part of the diet of our Peruvian ancestors. Some of them, such as the potato, the corn and the quinoa, are of critical importance for global food security today. Even in these days, rural Peruvians manage their crops and seeds in such a way as to make possible the conservation of many varieties of some species, as is the case with the approximately three thousand varieties of potatoes.

The rich biodiversity harboured by Peru led to the establishment of a system of laws and regulations aimed to protect it. With passing time, the Peruvian legislation has evolved to show the country's focus on conservation and sustainable use of biological diversity for the benefit of the population. The first conservation initiatives were related to the establishment of protected areas. The first protected area was created in 1961. In 1993 the Peruvian congress approved the subscription to the CBD, and this fostered the approval of the most important laws in the country related to conservation and sustainable use of biodiversity:

- Law on Sustainable Use of Biological Diversity (1997)
- Law on Natural Protected Areas (1997)
- National Strategy on Biological Diversity (2001)
- Law for the Protection of Access to the Peruvian Biological Diversity and the Collective Knowledge of the Indigenous People (2004)

In 2008, the Ministry of Environment was officially created, along with the National Service of Protected Areas (SERNANP).

As mentioned, protected areas have officially existed in Peru since 1961 and altogether form the National System of Protected Areas by the State that is currently managed by the National Service of Protected Areas (SERNANP). SERNANP is the national authority for protected areas and a specialised technical public organism assigned to the Ministry of Environment. The establishment of this national system that covers more than 15 per cent of the surface of the country, is the main strategy for the conservation of our biological diversity. These areas harbour a strategic bank of wild relatives of domesticated species that are critical for conservation. However, there is a great amount of biodiversity, located not in protected areas but in the lands of local peasants, that must be protected as well. This is the basis for proposing a law that promotes the creation of agro-biodiversity areas within the country. Official recognition as agro-biodiversity areas by the State will not challenge ownership of the lands, but

intends to protect the property, to establish an innovative model of conservation that may complement the National System of Protected Areas, and would also help in the consolidation of biological corridors.

12. Title: Develop Satoyama-like landscapes in Thailand

Member organisation: Ministry of Natural Resources and Environment, Thailand

Presenter: Patama Domrongphol, Environmental Official, Office of Natural Resources and Environmental Policy and Planning, pimdomrongphol@yahoo.com

A Working Group to develop guidelines for Satoyama-like landscapes was set up under the National sub-committee on Convention on Biological Diversity, National Committee on conservation and sustainable use of biodiversity; Ministry of Natural Resources and Environment, Thailand. The mandate of the working group is to perform the following tasks:

Collect Satoyama-like landscape case studies from all regions of Thailand

Analyze, synthesize and compare case studies, and distil lessons learned.

Develop national guidelines for the selection of Satoyama-like landscape sites the guidelines will develop under the guidance of Satoyama concept.

Undertake activities to strengthen collaboration and create synergies among relevant organisations and other existing programs.

Facilitate collaboration and coordination between national and local governments, academic institutions, NGOs, private sector, relevant to the conservation and sustainable use of natural resources in Satoyama-like landscapes in Thailand.

Provide policy guidance and direction, and undertake the overall supervision of the implementation of Satoyama-like landscape conservation in Thailand.

Future work plan:

Drawing its inspiration from the Satoyama Initiative, we will pursue our activities as follows:

Distil lessons learnt from case studies and make these available for dissemination to aid capacity building activities. A research program will also be conducted to further explore the possibilities to link to the tourism sector. Regional Organization (RECOFTC), business and private sector will also be encouraged to participate to this program.

Since the Ministry has 76 Natural Resources and Environment Provincial Offices and 16 Regional Offices, the Office of Natural Resources and Environment (ONEP) plans to cooperate with these offices to select other case studies and conduct workshops to share experiences obtained from those case studies. We also plan to conduct workshop to develop capacity of the officials and local communities on sustainable use of biodiversity concept under the SATOYAMA Initiative.

At the celebration of the International Day of Biodiversity (22 May, 2011), the Ministry will confer an award to the local community which best encapsulates the Satoyama concept in their landscape management practices.

Based on the One Tambol One Product (OTOP) program, we continue to encourage village communities to improve the quality and marketing of their local products. We will select one superior product from each Satoyama-like landscape, to receive formal branding (the name of the branding has yet determined) and provide both a local and international stage for the promotion of these products in the future.

13. Title: Incorporation of Sacred Forests into the Protected Areas System of Benin

Member organisation: ONG Cercle pour la Sauvegarde des Ressources Naturelles (Ce.Sa.Re.N)

Presenters: Achille Orphée Lokossou, Forests and Natural resources Manager, lokossou@yahoo.fr

Benin is a country with an area of 122,600 square kilometres located in West Africa and containing approximately 2 940 sacred forests covering an area of 18,360 hectares. These forests have not received legal protection status from the State like the official protected forests (protected areas) but were able to maintain the integrity of their resources until recently. As an integral part of the landscape, sacred forests have three strong functions: ecological (protection of water sources, preventing soil erosion, providing a habitat for sacred animals and plants), religious function (providing shelter for deities, acting as places of worship, rituals or other ceremonies), socio-economic and cultural function (providing dead wood for fuel, medicinal plants or food, acting as a cemetery, providing places of initiation and blessing).

Sacred forests are a refuge and sanctuary for the native biodiversity. They represent a successful model of sustainable traditional management and conservation of biodiversity. Sacred forests represent a significant tool for conservation and the sustainable use of biodiversity. First, they are highly important as refugia within the productive landscape for numerous species, some of which provide important benefits to the surrounding productive lands, such as hosting pollinating insects and birds, and important plant species. Secondly, sacred forests also function as *in-situ* seed banks and genetic reservoirs. Some species of flora and fauna found within the sites or in their vicinity include threatened and endangered species. Thirdly, as landscapes that have been carefully managed over tens and even hundreds of years, sacred forests' ecosystems and species assemblages are somewhat different from any cultivated landscapes by which they are surrounded. The principle of this method of conservation is based on fear and respect for traditional local beliefs, the strength of traditional authorities, the power of dignitaries and religious leaders. Currently as the power of traditional authorities within the community is weakening, taboos are no more respected. Most sacred forests are affected by uncontrolled exploitation and are subject to alarming deterioration. The Government of Benin through the General Directorate of Forests and Natural Resources is engaged in a strategy for integration of sacred forests in the protected area system through a new form of co-management that integrates traditional knowledge and practices and modern science. The main objectives are (i) to grant protected status to forests and other ecosystems that are sacred and ecologically representative of the country, (ii) to support conservation activities and participatory management based on the traditional business model, and (iii) to promote sustainable use of natural resources in these ecosystems to reduce the pressure on their resources through activities such as the cultivation of medicinal plants and promoting cultural activities and ecotourism. To reach these objectives, sacred forests' local management committees comprising stakeholders are put in place in every forest. The NGO Ce.Sa.Re.N works with local authorities, traditional authorities, practitioners of traditional medicine and religious leaders for the conservation and management of these ecosystems.

Keyword: sacred forests, protected areas, participatory management, legal framework

14. Title: The role of Agroforestry research in enhancing socio-ecological production landscapes globally

Member organisation: World Agroforestry Centre (ICRAF)

Presenters: Delia C. Catacutan & Miyuki Iiyama, World Agroforestry Centre, Nairobi, Kenya

The World Agroforestry Centre's mission is to generate science-based knowledge about the diverse roles that trees play in agricultural landscapes and to use its research to advance policies and practices that benefit the poor and the environment. The Centre also seeks to contribute towards the Millennium Development Goals for the eradication of poverty and hunger, the promotion of social equity, and the mitigation of global concerns related to climate change and environmental degradation by understanding and promoting agroforestry in the tropics.

Inherently, agroforestry is multi-faceted and requires an integrated research approach—the Centre's business portfolio embraces six Global Research Programmes (GRPs) to encompass the multidimensional nature of agroforestry— GRP1 is focused on intra- and inter-species biodiversity, GRP2 on the farm-level interactions, GRP3 on the market value chains, GRP4 on land health, GRP5 on climate variability and change, and GRP6 on the landscape context of environmental services and policies. All six global programmes are relevant to *Satoyama*—its ultimate aim is to enhance the role of trees, and rural communities and their institutions, in transforming lives and socio-ecological landscapes. Of particular relevance to *Satoyama* and to this theme session, is the Centre's work on policies, institutions and market-based incentive mechanisms that stimulate rural investments in agroforestry for the sustainable production of goods and services, including enhancement of landscape beauty and cultural integrity. Two exemplars are i) Landcare, a community-based approach to INRM that is globally promoted by ICRAF in association with Landcare International (LI), through a network of landcare practitioners, promoters and supporters around the world; and ii) negotiation-support for Rewarding Upland Poor for Environmental Services (RUPES) in Asia and Pro-poor Rewards for Environmental Services in Africa (PRESA). In this presentation, we will highlight these two examples as our key contribution to the objectives of the International Partnership of the *Satoyama* Initiative (IPSI).