The Second Global Conference of the International Partnership for the *Satoyama* Initiative (IPSI)

Contribution Papers submitted by IPSI Members

Nairobi, Kenya

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From the Chair of the IPSI Steering Committee

Under the theme 'Strategy for Realising Societies in Harmony with Nature', the second global conference of the IPSI has an ambition of showcasing IPSI's effective presence on the socio-ecological production landscapes of many countries. This assembly of partners symbolises the emergence of a new dynamism in countering global crises such as biodiversity loss, land degradation and its attendant loss of soil fertility and productivity.

As a mechanism that was just established a few years ago, the International Partnership for the *Satoyama* Initiative (IPSI) is utilizing the mode of operation of the *Satoyama* Initiative, which was accepted/ approved by the international community as a major tool to better understand and support human-influenced natural environments during COP 10. With the application of the *Satoyama* Initiative as an operational tool of the sustainable use concept and as a cross cutting issue of the Programme Of Work of the Convention on Biological Diversity, the IPSI has the capacity, through its partners and the provision of small grants of the Community Development and Knowledge Management for Satoyama Initiative (COMDEKS), to promote harmony between societies and nature.

As the Chair of the Steering Committee of IPSI for its first and second global assembly, I am proud that we can boast of membership in our partnership cutting across the world including various governmental, academic, intergovernmental, civil society, indigenous and local community organisations as well as representatives from the industrial and private sector. This is the beauty of the IPSI's operations, as it portrays a wide array of experiences in overcoming problems of socio-ecological production landscapes.

I invite you to read and perhaps absorb the various forms of information that have been presented here by the partners.

Professor Alfred Oteng-Yeboah
Chair, IPSI Steering Committee

From the IPSI Secretariat

With the diversity of challenges currently facing societies and natural areas around the world, it is heartening that the International Partnership for the *Satoyama* Initiative (IPSI) has drawn so much global support and interest since its establishment in 2010. From an initial group of 51 founding members, the IPSI has now more than doubled in size to include over 100 members from around the world.

In this volume, readers will find short papers from organizations around the world currently committed to furthering the objectives of the *Satoyama* Initiative with its vision of realizing societies in harmony with nature. I invite you to read through these papers – not only to reflect on the work being done around the world today, but also to identify like-minded organizations and projects and to increase synergies and collaboration within the partnership.

The IPSI may be young, but it enjoys the strength, expertise and enthusiasm of people around the world working to improve their surroundings for current and future generations. Such ideals resonate across cultures and across boundaries and we look forward to increasing collaboration within the partnership while welcoming new members in the years to come.

Please enjoy the contribution papers included in this volume and let them serve as encouragement for renewed action.

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NATIONAL GOVERNMENTAL ORGANISATIONS

Executive Secretariat of National Council for Environment for a Sustainable Development (NCESD) – Republic of Niger

Enabling Vulnerable Local Communities to Adapt to Climate Change in Arid Climate Farming Systems

Boukar Attari, Counselor at the NCESD Executive Secretariat

I. Introduction

The Republic of Niger is a landlocked country, which covers an area of about 1,267,000 sq km, three-quarters of which is covered by desert. The agricultural farmlands and pastoral zone cover around 12% of the total land size. This zone has a mean rainfall of between 300 to 800 mm. The environment in this zone is characterized by recurrent drought, a reduction in land fallowing and an overuse of forest resources. The Republic of Niger is characterized by an arid climate, which makes the country the hottest spot in the globe. Annual rainfall is too variable in terms of time and spatial distribution and this makes the country vulnerable to climate change and climatic phenomenon. This situation leads to a decrease in ecosystem productivity. In response to this situation, the Republic of Niger has developed additional actions to enable the local communities to cope with these changes through pilot projects and programs like assisted natural trees regeneration on farmlands in order to improve livelihoods conditions of the most vulnerable populations.

Case project: Implementation of main actions of the National Adaptation Programme to enhance the resilience and agricultural sector ability to adapt to climate change

Thus, with the support of GEF, the UNDP and all the stakeholders, the Republic of Niger, through the Executive Secretariat of the NCESD, has developed a programme to help local communities enhance their abilities to cope with climate change in the farming sector.

These actions have three intended results:

(i) The resilience of food production systems and the local communities living with food scarcity is reinforced in order to face climate change;

(ii) The institutional capacity in the agricultural sector in terms of information and extension services to help the local communities to adapt to climate change is reinforced;

(iii) A database of the lessons learned is established.

Pilot project actions were mapped out and implemented in the eight local districts identified as the most vulnerable.

II. Implementation of activities

In the implementation of the pilot project, many activities to enhance adaptation were conducted, but in this presentation, only two activities related to agricultural and pastoral landscape restoration are highlighted:

- ✓ Promotion of rude climate seeds,
- ✓ Pastoral lands restoration activities.

a) *Extension of arid climate resistant seeds*

Photo 1: Farm with improved arid climate resistant seeds

With the reduction in rainfall due to climate change, traditional seeds used by local communities cannot reach maturity and plant growth stops during its climbing or flowering stage. With the support of some research institutes, a variety of arid climate-resistant seeds (millet, sorghum and cowpea) were identified, developed and tested; these seeds were given to selected peasants to use on pilot farmlands before undertaking large scale use.

Around 6 varieties of seeds with a yield greater than the traditional seeds were tested. The use of these improved seeds has made it possible to triple the cereals production

(from 400kg/ha to about 1000 to 1200kg/ha). Presently, about 50 peasants are using the improved seeds and many others are willing to follow them.

Some peasants have been trained as trainers in order to continue the process by training more farmers. In 2010, 140 farmers, including 35 women, were trained. Many extension activities were conducted in order to convince local communities to use the proposed improved seeds.

Photo 2: Millet/maize farm at flowering stage

To reduce risks which may affect peasants, namely the best time to plant seeds, training workshops on how to integrate weather forecasts in agricultural decision making, were organized in the 8 pilot districts. These workshops were conducted with the support of weather forecast services at the National Weather Forecast Office. The local communities received additional training on how to improve soil fertility and restore degraded lands through the use of organic manure, 1mx1m plant density method and the planting of three seeds at a time.

Photo 3: Anti-erosive structures on a degraded land.

b) *Degraded land restoration activities in pastoral zones ;*

The degradation of land in some areas covered by the pilot project has caused compacting of the soils and made them infertile, less permeable and less productive. The land restoration activities consist of using anti-erosive techniques to reduce soil erosion, water runoff, increase soil infiltration and grass production (see photo 3).

Anti-erosive structures were planted with grass seed, which be used for animal feed.

With the support of specialized institutions of the Ministry of Environment, some farmers are trained in the collection of high quality seeds, which will be planted in the anti-erosive structure. The main objective of this activity is to put into place a long term distribution of improved seeds resistant to the arid climate. These seeds will be of great impact for the vulnerable communities and for the production of grass for animal feed. The pilot program on degraded lands was able to increase the production of dry biomass by about 70 to 80% of biomass production on (see photo 4).

In order to achieve sustainability in these activities, training on anti-erosive structure construction was conducted for the members of a local management unit, which was put into place.

C) Capitalization on lessons learned

In order to capitalize on lessons learned, a website was created; new methods and approaches to assess good farming practices were put in place. These techniques were taught to local farmers in order to get an assessment of the techniques and to replicate them throughout the country.

Photo 4: Degraded land which has been restored to produce biomass

D) Difficulties

The difficulties noticed in the implementation of these activities are:

- ✓ Low participation of local populations in land restoration activities due to the fact that the farmers were busy with harvesting activities,
- ✓ Late acceptance of some of the farming techniques by the producers, especially for the planting of three seeds at a time, due to early stoppage of rainfall,

e) Lessons learned

The implementation of these activities has made it possible to draw the following lessons:

- ✓ The farmers have internalized most of the cultural techniques like: manure supply and fertilizer dosage;

- ✓ The introduction of improved seeds is well accepted by farmers who have shown a real interest in the process,
- ✓ The learning of new cultural techniques by the farmers;
- ✓ A better yield as compared to local seeds variety;
- ✓ The introduced improved seed varieties reach maturity earlier than local varieties;
- ✓ The use of 1mX1m plant spacing has increased production ;
- ✓ Land restoration has made it possible to hold some young people in the villages through the “cash for work” program;
- ✓ There has been an increase in the income of households which could face minimum daily expenses;
- ✓ The farmers have understood all the land restoration techniques;
- ✓ There has been an increase in the understanding of adverse effects of climate change and environmental protection by the local farmers.

Ghana National Biodiversity Committee (NBC)

As part of its mandate, the Committee has initiated the development of a revised National Biodiversity Strategy and Action Plan (NBSAP) along the lines of the Aichi Goals for the 2011-2020 Biodiversity Strategy.

The highlights of the revision have involved the inclusion of new programmes at the national level to be undertaken by the Metropolitan, Municipal and District Assemblies, CSOs, the local communities and the private sector. There is intensive consultation with all stakeholders, in particular the local communities, to get them fully involved in the development of the Action Plan.

The programmes that have received a boost include:

- The development of policies for Pollinator Conservation
- Sustainable use activities along the lines of the *Satoyama* Initiative in the communities
- Conservation of Important Bird Areas as Land bird sites
- Extensive public education, communication and awareness campaigns
- The development of guidelines for the implementation of the Nagoya Protocol on Access and Benefit Sharing as part of preparation to ratify the Protocol.

Ministry of Environment - Cambodia

Ministry of Environment's Activities Involving Landscape Protection and Conservation through SATOYAMA Program in Cambodia

The General Department of Administration for Nature Conservation and Protection (GDANCP), Ministry of Environment (MoE) has managed Protected Areas and Ramsar sites. MoE has set up Community Protected Areas (CPAs) inside each protected area aiming at providing opportunities for local communities to participate in natural resources conservation and protection, and legal and sustainable use of the resources for long term benefit. The activities that MoE has implemented for landscape area protection through the SATOYAMA program are the following:

1. Sow and plant seedlings in public areas and around homes in the local community.
2. Restore mangroves through the planting of mangrove seedlings in degraded areas.
3. Train and raise awareness of local community to use organic fertilizer instead of chemical fertilizer.
4. Train and raise awareness of local community to use natural pesticide instead of chemical products.
5. Set up eco-tourism sites to reduce NTFPs collection activities with the purpose of job and income generation.
6. Train local people to be aware of the gender mainstreaming concept in CPAs and maintaining the customs and cultural values of indigenous people.
7. Protect and conserve coastal areas and resources.
8. Conserve fisheries and biodiversity at The Tonle Sap Great Lake.
9. Educate and promote local people to generate income by engaging in aquaculture (fish farming), raising animals and vegetable gardens.
10. Obstruct environmental pollution activities; patrol and strengthen law enforcement in PAs.
11. Protect watershed and wetland areas.
12. Educate local people on climate change issues, climate change mitigation and adaptation.
13. Train and raise awareness of indigenous people in communities about the negative impacts of shifting cultivation and methods to avoid it by reducing deforestation and using natural fertilizer instead of chemical fertilizer.
14. Encourage local and international NGOs to participate in improving local livelihoods and poverty reduction through fruit plantations, raising animals, production of handicrafts from NTFPs and creating eco-tourism opportunities.

15. Disseminate and train local people to dig ponds for raising fish and to plant trees around the pond.
16. Disseminate and train local people to use biogas from animal waste in order to reduce firewood collection in the forest.

Ministry of the Environment, Japan (MOEJ)

Ministry of the Environment, Japan (MOEJ) facilitated and coordinated the development of the *Satoyama* Initiative through the establishment of a new program, statements highlighting the Initiative, and implementation of *satochi-satoyama*-related national policies in accordance with Decision X/32.

1. **Community Development and Knowledge Management for the *Satoyama* Initiative (COMDEKS)**
   On June 24 2011, the implementation agreement on the COMDEKS was signed between the United Nations Development Programme (UNDP) and the Secretariat of the Convention on Biological Diversity (SCBD).

   Within the context of cooperation among MOEJ, SCBD,UNU, and UNDP, with the latter acting as its implementing agency, and utilizing mechanisms including GEF-SGP, COMDEKS is meant to support local community activities to maintain and rebuild socio-ecological production landscapes (human-influenced natural environments) and to collect and disseminate knowledge and experiences on the results of such local community activities, toward the realization of "societies in harmony with nature" as defined as the vision of the *Satoyama* Initiative.

2. **On the occasion of the following Ministerial Meetings, the representative of MOEJ highlighted the significance of the *Satoyama* Initiative and informed the participants of the Initiative and the progress of IPSI;**

   (1) Bonn Challenge on Forests, Climate Change and Biodiversity (1-2 September 2011, Bonn, Germany)

   (2) Ministerial Dialogue on Green Economy and Inclusive Growth (3-4 October 2011, New Delhi, India)

3. **On the occasion of the following Symposium and Side event, MOEJ cooperated with the IPSI Secretariat;**

   (1) Great East Japan Earthquake Rebuilding Symposium – Exploring Integrative Approaches from Land to Sea – (5 August 2011, Tokyo, Japan)

   (2) SBSTTA15 Side event, "Restoring Life – Challenges and Hopes in Ecosystem Restoration and Potential Role of the CBD" (8 November 2011, Montreal, Canada)

4. **Global Launching of the United Nations Decade on Biodiversity 2011-2020**
   MOEJ organized "Global Launching of the United Nations Decade on Biodiversity 2011-2020" with UNU, SCBD, Ishikawa Prefecture and Kanazawa City on 17-19 December, 2011. In the Commemorative Forum, MOEJ promoted public awareness of "COP10 and realization of a society in harmony with nature" which includes concepts of IPSI among others.

5. **Memorandum for Cooperation on the *Satoyama* Initiative with the Global Environment Facility Secretariat**
   MOEJ and the Global Environment Facility Secretariat signed a MEMORANDUM FOR COOPERATION ON THE SATOYAMA INITIATIVE on December 17, 2011. This Memorandum enables the development of mutual cooperation for implementing the *Satoyama* Initiative and carrying out related activities under the GEF-5 Biodiversity Focal Area Strategy.

6. **International Symposium; Ecosystem Services from *Satoyama*, *Satochi*, and *Satoumi* Landscapes: Strategies for a Nature-Harmonious Society**
   MOEJ co-sponsored the "International Symposium; Ecosystem Services from *Satoyama*, *Satochi*, and *Satoumi* Landscapes: Strategies for a Nature-Harmonious Society" organized by UNU-IAS on January 30, 2012. MOEJ shared our policy in harmony with *Satoyama* and *Satoumi* Landscapes including "New *Sanriku Fukko* (Reconstruction) National Park (Tentative)".

7. **National Action Plan for the Conservation and Sustainable Use of Socio-ecological Production Landscapes (Satochi-satoyama)**
   MOEJ promoted the National Action Plan for the Conservation and Sustainable Use of Socio-ecological Production Landscapes (Satochi-satoyama) as a nationwide movement.
   To assist in developing human resources for conservation activities, the website "Satonavi" has been upgraded. On this website, MOEJ provided information on local communities engaged in conservation activities and on experts in the field of ecosystem management in Satochi-satoyama areas, and provided local communities with technical training.

Ministry of Forestry and Environment – The Gambia

Sustainable Land Management of Natural Resources Including Energy in the Gambian Perspective

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Overall objectives

To halt environmental degradation and the growing threat of desertification in The Gambia as a result of continued deforestation, through empowering communities with the legal security, skills and knowledge necessary to sustainably manage their natural resources and conserve the remaining biodiversity.

Specific objectives

- Develop and expand community forestry, ensuring legal community ownership and responsibility of forests and sustainable forest management
- Increase capacity of villagers to market forest resources through the FAO Market Analysis and Development income generation approach.
- Rehabilitation of degraded lands using various forestry techniques and practices (agro-forestry, reforestation and afforestation, fuel efficient stoves), alongside soil and water management
- Raise awareness and sensitise stakeholders on environmental issues, utilising a multifaceted approach employing a variety of different communication channels.
- Build the capacity of CBOs, local partners, DoF and local authorities and enforcement services to sustainably manage and conserve natural forests and implement forest policies and laws.

CURRENT ACTIVITIES

- Expansion and Consolidation of Community–based Forest ownership rights and Management. The new Forest Policy 2010 – 2019 objectives of The Gambia clearly stated that the country should have a well-developed forest land area covering at least 30% of the total land area and about 75% of this forest cover (200,000ha) to be managed by the communities (villages and private parties) through community forest ownership, continuous supply of a range of goods and services, providing support for food security, poverty reduction and environmental conservation.
- Bushfire awareness, prevention, control and management: Bushfire still remain the most serious threat to The Gambia's forest and bush lands, and consequently the rural population's livelihoods. To tackle the problem, the Department of Forestry, in collaboration with other institutions, has taken a two-pronged approach. Firstly, it is undertaking a Nationwide Campaign to raise awareness using radio, TV, theatre and

promotional materials. Secondly, it is strengthening the capacity of the Regional Forest Officers and Communities to prevent and fight forest fires.

- Improving opportunities for sustainable livelihoods of forest-dependent communities through support to development of small forest enterprises for income generation and capacity building based on forest products using the Market Analysis and Development (MA&D) Approach. This is done by encouraging Small Scale/Community-based Forest and Forest Products enterprises. The aim is to enhance the capacity of local communities and youth, in particular, so that they can benefit from new market opportunities through improved cash incomes, while at the same time having greater incentive to better manage and protect their forest resource base.
- Nationwide tree planting and campaigning to encourage tree farming on agricultural lands (Agro forestry), backyard grazing lands and along roadsides to improve productivity and contribute to soil and water conservation and fertility.
- Forestry for rural and urban development through the establishment of green belts, plantations and woodlots/orchards in rural, urban and semi-urban areas for landscaping, recreational, fuel wood and timber purposes.
- National Forest Monitoring and Assessment (NFMA); This is in response to the growing demand for reliable information on forest and tree resources in The Gambia. The purpose of this NFMA initiative is to introduce The Gambia to an alternative approach designed to generate cost-effective information on forests and trees outside forests, and on their social, economic and environmental functions.

PLANNED ACTIVITIES - Outputs and expected results

Expansion and Consolidation of Community–based Forest Ownership Rights and Management. Receiving ownership of forest land secures the rights and responsibilities of the tenures and raises the motivation to protect the natural resources. Sustainable use will be enhanced and resources secured for the respective community and its future generations. The Community Forestry Committees (CFC) in the West Coast Region (WCR) and North Bank Region (NBR) are often weak and de-motivated due to a lack of support by the DoF, which did not have the capacity to follow up the Community Forestry (CF) process towards ownership rights of many communities without Department of Forestry intervention. CFCs will be (re-)established and strengthened as a base for appropriate CF management and subsequently 390 CFC members will be directly trained on CF management and CFC organisation. Additionally they will be equipped with capacities to implement step-down training to a further 2550 stakeholders, thus multiplying the training effects. Another 60 members of CF-interested communities will receive sensitisation and on-site demonstrations through field trips to motivate them to enter the CF process. These activities will be directly enhanced with the option for participants to hand in their “Letter of Interest”, which is the first step (and so far often a barrier)

necessary to call for further support by DoF extensionists. The communities' capacities for sustainable forest management and conflict resolution will be built through training by the extensionists of the local partner organisations. At least 40 communities will consolidate and expand their CF, while 10 new communities of NBR will enter the CF process, identify potential lands for CF establishment and be guided towards the ownership stage, resulting in an increase of managed CF land by 50% (2040 ha) proceeding towards legally backed ownership by the communities. 24 village promoters will be enhanced with capacities (training, push bike for transport, badge for authorisation) to support the DoF extensionists in promotion of the CF concept extending beyond the Department of Forestry's intervention. Reports by the extensionists and annual M&E reports by the DoF will collect data on the CF progress in the regions. Training materials, CF manuals (as mentioned above) and guidelines will support the existing CFCs and serve as a source of replication.

Publication: ***Practical Manual for CF Establishment and Management*** During the course by the Department of Forestry, valuable experiences will be gained throughout the training of communities in developing and managing their own community forest. As such, these experiences will be developed into a practical training manual that will enable further communities to understand the benefits of owning a community forest, the steps that are necessary to take in starting the process through to final legal ownership, and the pitfalls that could be experienced along the way. The manual can then be used by communities in assisting them to manage their resources according to best forest management principles. It will be translated into 3 local languages, Wollof, Mandinka and Jola, for use in all the regions and potentially in the Casamance region of Senegal. The manual will complement the technical manual developed by the DoF for staff use.

Increase capacity of villagers to market forest resources through the FAO Market Analysis and Development (MA&D) Income generation approach. The Department of Forestry aims to increase capacities among the rural communities towards a sustainable market plan, processes and the preservation of forest products according to the FAO MA&D approach, and to contribute to the reduction of rural poverty, livelihood improvement and food security. Realizing the value of forest resources and empowering the communities with sustainable income generating measures from sound forest utilization creates incentives for the forest dependent population to protect their forest lands. Individuals from the forest dependent rural communities will be in a stronger position to generate income from both timber and non-timber forest products and services (including ecotourism) after equipping 624 interested community members with skills and knowledge to carry out FAO's MA&D concept and to extend their expertise to another 2500 stakeholders. Establishing 40 new MA&D Department of Forestry, consolidating 16 existing MA&D Department of Forestry and linking them to appropriate national credit facilities where necessary, will result in the communities increasing income

from sustainable forest product marketing by up to 75%, as demonstrated by the ongoing Department of Forestry. Increased small-scale business development ("cottage industries"), a cornerstone of MA&D, will also lead to a greater diversity of raw, processed or preserved products, thus also supplying the region with increased market offerings, which again will have a positive influence on their livelihood, food security and health status as more food products will also be available. Income from these enterprises will be managed by the target groups themselves for their own use; hence they finally have means to also invest more in education and health. To increase sustainability and further options for experience exchange, the action will support the establishment of cooperation and consolidate the capacities of 100 interest group members for step-down training. Realizing the benefits and the actual monetary value of forest products will increase the motivation for sustainable natural resource management and forest protection. Inspired by positive examples, other communities will be inspired and encouraged to enter the CF and MA&D process or to expand their forests and take responsibility for the forest land they own and utilize. The developed training materials will remain for future use and replication options. To guarantee sustainability of the action, 44 extensionists will receive specialized skills and knowledge for dissemination and be certified as MA&D trainers to continue with their actions even after the Department of Forestry intervention is concluded. Additionally, 30 students of the National Forestry School will receive extra training on MA&D.

Publication: MA&D manual for Gambian forest products development As described above, the training will allow for the development of a practical training manual on the MA&D approach, which can be used in other regions of The Gambia and in Senegal. It will also be published in 3 local languages for wider distribution and use at the community level. The manual will outline how to develop a small enterprise for forest products, the stages necessary to assess the product, ensure sustainability, develop a feasibility study, assess markets, develop budgets and bringing the product to the market. The manual will also highlight access to credit facilities, experts that can be contacted for various enterprises, linkages to markets, etc. so that individuals can work towards self-sustaining cottage industries.

Rehabilitation of degraded lands using various forestry techniques and practices (agro-forestry, reforestation and afforestation, fuel-efficient stoves), alongside soil and water management. The Department of Forestry targets the increase of agro-forestry as a valuable alternative to conventional agriculture patterns, halting environmental degradation while improving livelihoods. Therefore, two training centers, six satellite cluster demonstration sites and multiple demonstration lots will be established for agro-forestry promotion. 125000 seedlings of multipurpose tree species will be planted to convert 75 ha of degraded lands of 50 communities into agro-forestry managed area and creating further training options for intercropping, woodlot establishment and live fencing,

demonstrating effective measures to re-establish soil, woodlands and biodiversity, which are also effective methods to adapt to the impacts of climate change. Through direct on-site training, 360 farmers of forest dependent communities will be equipped with an understanding of the multiple benefits from agro-forestry and afforestation (i.e. crop yields, green manure, fruits, fodder, medicinal herbs and fuel wood) as well as skills and knowledge for direct implementation. The know-how will be extended by the certified agro-forestry farmers through step-down training to another 1350 farmers. Additionally, 1000 farmers will be sensitized and encouraged to implement agro-forestry practices through farmer-to-farmer visits. 18 herbalists will be equipped with agro forestry skills to practice more effectively and improve traditional health services. The implementation of agro-forestry will result in an increased self sufficiency in terms of food, fodder, health and energy security, helping to reduce the 'Hungry Season' (experienced in The Gambia annually for as much as three months during the rainy season) through alternatives to conventional farm products. Overall health and nutritional status of the family will be improved in this manner, which leads to fewer outbreaks of disease, while increasing the workforce and education options. Affordable and appropriate locally made fuel-efficient stoves will be introduced on the market and promoted to potential vendors and users. Their use decreases the pressure on natural resources as fuel wood, GHG emissions and the workload on women and youth due to firewood collection and (banned) charcoal production. To guarantee the sustainability of the action, 44 extensionists will receive specialized skills and knowledge for dissemination and be certified as trainers in agro-forestry, livestock and fire management to continue the action beyond the conclusion of the Department of Forestry intervention. The training centers and demonstration sites, as well as other training materials, will remain for future use and replication, and sustainably enhance the capacity of the local partner organizations.

Publication: Herbal medicine directory Finally, through the implementation of training on the management, utilisation and development of local traditional medicines, the Department of Forestry aims to develop a manual of the species (trees and shrubs used for this purpose) used and their properties, so that information is not lost due to the dwindling resources at hand, the movement of people to urban areas and the use of more formal western medicines. The directory will be managed by the DoF, which will note the details of individuals who submit information, so that where possible, intellectual property rights can be awarded, if future uses of the medicines are found to be profitable.
The Department of Forestry will use a multi facetted media campaign to increase environmental awareness among a large number of people. As a result, the distinguished target groups (school children, adults, farmers, men, women, authorities, service providers, etc.) will be inspired and mobilized to protect the environment according to their roles, abilities and needs. Mass media channels (TV, radio, print) will sensitize approximately 500000 people from the general public (including the Greater Banjul Area) on diverse environmental issues. Furthermore, the action focuses on youth empowerment,

and is therefore targeting 100 evenly distributed schools to support the implementation of 100 Environmental Green Clubs for about 2000 students, equipping them with the capacity to disseminate environmental messages and to undertake activities concerning environmental protection. Annual Reforestation Competitions, including the participation of approximately 1000 students, are aimed at reducing the area of degraded land and carry the message of the need for forest rehabilitation outside the school. The Annual Arts Competition for approximately 1000 students also serves as a base for environmental discussion, whereby the message will be carried to the homes of the children. Additionally, the elementary schools will be supported with the development of an environmental teaching unit of 40 lessons. Sports events proved to be effective channels for message dissemination and will be repeated to reach a broad public. As an innovation, the Department of Forestry will also cooperate with religious institutions, which share the environmental concern and will provide powerful help in disseminating messages. As a result of the campaign, protection activities are expected to be undertaken by decision leaders and the workforce immediately, while the youth is also sensitized and empowered with knowledge and skills for future action. To guarantee sustainability of the action, 44 extensionists will receive specialized skills and knowledge for dissemination and be certified as trainers for biodiversity conservation and environmental law to continue the action even after the conclusion of the Department of Forestry intervention. 24 village promoters will be enhanced with capacities (training, push bike for transport, badge for authorization) to support the extensionists in promotion of environmental issues which extend beyond the end of the Department of Forestry's intervention.

Primary school environmental lessons Through the Department of Forestry, over 40 primary school lessons will be developed that will bring students from a basic understanding of the environment towards a more holistic understanding of the importance and inter-linkages of all components of the environment, so that students and their families will start to take responsibility for its management. Lessons will incorporate community forest management, watershed management, farming of trees, benefits of forests, non-timber forest products and sustainability, etc, so that students view the natural resources in a new light. Courses will be interactive with lessons not confined to the class room. The lessons developed will be passed on to the local education office for further distribution to other schools outside the Department of Forestry area and outside the two regions initially targeted.

Increased capacity of local partners, local authorities and law enforcement agents The action will create sustainable multiplication effects through capacity building of Community Based Organizations (CBOs), local partners and the Department of Forestry (DoF). They will be equipped with skills and knowledge for dissemination, while training manuals, guidelines, demonstration centers and plots also remain in their responsibility for further training purposes. Special capacity building and conflict resolution training for

30 local authorities (village heads, area councils, chiefs, village development committees, religious leaders), 90 law enforcement service agents (police, customs, fire department) and forest scouts will increase knowledge, transparency and accountability and link local authorities, enforcement services and community members for improved cooperation - also across the border into Senegal - against uncontrolled forest harvesting and illegal trade, and bush or forest fires.

Forestry School Curriculum for Gambian forestry students The Department of Forestry planned to train thirty students over four years (forestry extensionists and workers) at the state-run Kafuta Forestry Training School. In order to maximise the value of the training, a new curriculum will be developed with experts from the DoF and external bodies to ensure an international standard curriculum in community forest management and extension. The curriculum will be assessed annually to update the information used.

Build the capacity of Community Based Organisations (CBOs), local partners, Department of Forestry (DoF) and local authorities and enforcement services to sustainably manage and conserve natural forests and implement forest policies and laws. This action targets sustainable multiplication effects through capacity building of CBOs, local partners, DoF and local authorities and enforcement services. They will be equipped with skills and knowledge for dissemination, while training manuals, guidelines, demonstration centers and plots also remain in their responsibility for further training purposes. To increased transparency and accountability, links with local authorities, enforcement services and community members will improve cooperation, e.g. against uncontrolled forest harvesting and illegal trade.

Popularization of the New Forest Legislation of 2010 and Forest Policy of 2010 – 2019. The Forest Legislation and Forest Policy promote the decentralization of forest resource management to the rural communities, thus reducing state involvement and expenditure in the Forestry Sector. It provides specific provisions pertinent to sustainable forest resource management.

Ministry of Natural Resources, Energy and Environment (Malawi)

Preamble

Malawi is a small land-locked country located in southern-central Africa, bordered by Tanzania to the north, Zambia to the west and Mozambique to the east and south. According to the World Bank[1], the country's GDP was estimated at US$3.5 billion in 2007, equivalent to per capita income of about US$230. As a result, forest resources play a very significant role in influencing social and economic development at both the household and national levels. About 90 per cent of the nation's energy requirements is satisfied by woodfuel derived from natural and planted forests and trees on farms. In rural Malawi, where most people live, livelihoods depend on the continuing existence of forests. Not only do forests supply vital building materials and fuel, they also provide many other products - from foodstuffs to medicine - satisfying the people's many diverse and changing livelihood needs. Forest biodiversity also safeguards ecosystem services by reducing erosion and flooding, storing carbon, and regulating the flow of streams.

The Role of the Department of Forestry

The mandate of the Department of Forestry is aimed at promoting a wide range of forestry development programs. Its mission is to plan, coordinate, facilitate and promote active participation of all stakeholders in the sustainable management, development and utilization of forest resources, goods and ecosystem services for socio-economic development. To achieve this, the Department of Forestry implements its activities based on the following programs[2]:

i. **Forest Conservation and Management**: this program is responsible for the development and conservation of natural woodlands and forest plantation, conservation of forest biodiversity, management of ecosystem services and sustainable utilization of forest products and services. Under this program, the department is managing key forest reserves through a co-management approach to address forest degradation and poverty by promoting greater community involvement in forest management. The co-management approach aims to enhance the governance and management of forest resources, improve service delivery of extension services to forest-adjacent communities, to encourage multi-stakeholder involvement at district and national levels, and to help develop viable and sustainable small and medium sized forest-based enterprises.

[1] www.ddp-ext.worldbank.org

[2] Only programs that directly use community based forest management approaches have been highlighted. Other programs include Forestry Research Services, Planning and Training Services, and Finance and Administration.

Village Forest Areas and Farmlands: The co-management approach also ensures that communities adjacent to the forest reserves work across landscapes rather than just concentrating in the forest reserves. This is important as it constitutes a step towards connectivity and will enable the maintenance of ecological processes to operate on a large scale. Communities with guidance from forestry staff produce management plans for village forest areas to ensure sustainable management of local forest resources. In addition, to ensure that local farmers achieve food and ecological security, they are encouraged to practice sustainable agricultural practices, particularly agroforestry, to enhance organic fertilizers for increased crop production for fruit, fuelwood and fodder production. Besides, agroforestry reduces soil erosion and also enhances below ground and above ground carbon stocks. Agroforestry has been gradually accepted by farmers. The Department also encourages farmers to establish orchards and woodlots for subsistence and income purposes.

Forest Plantation Management: the Department of Forestry is managing forest plantations on approximately 90000ha of land for timber, fuelwood, poles and other products. The establishment of plantations has been vital as they reduce pressure on natural forest landscapes supporting rapid economic growth.

ii. **Forestry Extension**: this program is responsible for forest communication and advising forest stakeholders, particularly local communities, on sustainable forest management practices and technologies through production of mass media materials, various campaigns and provision of day-to-day extension services to communities practicing community-based management forestry.

Exploring Co-management/ Activities on the ground

The Department of Forestry is implementing co-management activities in twelve districts of Malawi. With the Department's direction, the local authorities and communities have produced strategic forest area plans, which guide co-management activities. They have also demarcated the forest reserves into co-management blocks at group village headman level. Each group village headman has set up a block management committee through local elections. This led to rapid resource assessments and production of 15 block management plans and agreements. The block committee is responsible for overseeing that forest block management activities are being implemented according to the management plans with the assistance of the forestry staff. Communities harvest forest resources guided by this management plan based on a silvicultural management model of rotational harvesting called *coupes*.

Specific success stories have demonstrated ecological as well as socio-economic benefits (www.ifmslp.org). Co-management has increased equitable access and control of forest

resources for primary forest users. It has also facilitated rapid regeneration of the coppicing *miombo* species through community protection resulting in early benefits for fuelwood and poles. Local village institutions have been benefiting from subsistence use and sales of forest products such as mushrooms, timber and firewood, which they deposit into a block committee account.

In addition, co-management has been perceived as a radical departure from the conventional management system of a top-down approach, empowering communities to manage and utilize forest resources in a sustainable manner.

OTHER GOVERNMENT AFFILIATED ORGANISATIONS

Huascaran National Park, National Service of Protected Natural Areas (SERNAP) - Peru

Summary of Actions in the Huascaran National Park – Peru

At the level of Huascaran National Park and within a focus of the Biosphere Reserve, diverse activities are developed with a central objective to conserve the ecosystems and the biodiversity of the Natural Protected Area. The focus of the Biosphere Reserve establishes the necessity of achieving a positive interaction between the activities developed within Huascaran National Park, its Buffer Zone, and the ecosystems and biodiversity of the area, guaranteeing in this manner the conservation of the vital environmental services for the local sustainable development. This is the duty of the Headquarters of the Huascaran National Park, although we are faced with limitations and difficulties as the human group dealing with the challenges of conservation of binding technical, legal and social aspects.

The activities that we develop are described in our Master Plan 2012-2015 and are summarized in the following components:

- Environmental Education and insertion of the focus on the Biosphere Reserve into the curriculum of school studies. Actions aimed at awareness and diffusion of the themes of conservation and the Biosphere Reserve.
- Conservation and management of natural resources, that is, work to guarantee the functioning of the ecological processes of Huascaran National Park. It developed activities aimed at forestry production and reforestation with the users of pastures and local support groups. Management and control of grazing in Huascaran National Park, activities intimately linked to the Rural Communities (*Comunidades Campesinas*) and their traditions. Patrolling and monitoring of biodiversity. Evaluation and follow-up on projects within Huascaran National Park and its Buffer Zone. There are massive reforestation projects underway with native and exotic species in the Buffer Zone with the finality of hydric strengthening.
- Regulation of tourism activities and promotion of ecotourism, and the involvement of rural populations in the providing of services with the objective of improving living conditions. Projects have been initiated such as the “Route of Climate Change”, which looks to demonstrate and educate people in the field about the impacts and the reality of climate change in glacial ecosystems, contributing to improving tourism, with benefits to the local economy.
- Promotion and follow-up on research in Huascaran National Park, a key aspect of the management of the Natural Protected Area. Activities have been developed such as the valuation of water in Huascaran National Park, and this gives technical

and logistical support to the researchers developing projects in this area. There is a research agreement with the local university on the topic of climate change monitoring and global change. It has implemented a modern system of climate monitoring whose results will be fundamental in the management of the area.

There have also been numerous interventions focusing on illegal activities that impact the ecosystems of Huascaran National Park, principally those connected to illegal mining, a growing and high-impact activity.

All of these are permanent activities and they have been continuously underway practically since the creation of Huascaran National Park in 1975. The criteria to evaluate the fulfillment of the objectives and components, such as its impacts, are varied and are expressed in the level of fulfillment of the Annual Operating Plans that are evaluated each year.

In general, the management objective of Huascaran National Park is to integrate and articulate the conservation of natural resources and ecological processes of the Natural Protected Area in a manner that is in equilibrium with the wellbeing of the regional population.

Institute for Fundamental Researches on Tropical Agriculture (INIFAT) - Cuba

SEPLs in Cuban Man and the Biosphere Reserves (MaB)

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Agricultural biodiversity in Cuba remains only in small pockets of the country within and around six Man and the Biosphere Reserves (MAB). The unique biocultural heritage found in Cuban Biosphere Reserves is attributable in part to the complex, often age-old interactions between the productive and livelihood activities of local communities within the biosphere and its buffer zones, and the ecosystems and biological resources that comprise their livelihood assets. Diverse sets of wild, semi-wild and domesticated plant species found within and around the protected areas have not only tolerated human activities, but have relied on certain agricultural practices for their continued survival and ability to evolve to changing environmental and anthropogenic conditions.

As part of UNEP/GEF/Bioversity International Project "Agricultural Biodiversity Conservation and Man and Biosphere Reserves in Cuba: Bridging managed natural landscapes", some work meetings were held with specialists from the *Satoyama* Initiative Secretariat in order to introduce this initiative in Cuba and that the IPSI indicators developed by UNU-IAS and Bioversity International were reviewed and adjusted. Later, they were preliminarily tested in four rural communities linked with the Cuchillas del Toa Biosphere Reserve, located in eastern Cuba.

The main results indicated the wealth of local variability present in traditional systems, as well as diversification in its use and management and the resilience of these systems when dealing with adverse conditions. We observed the presence of domestic animals (poultry, pigs, horses, sheep) and groups of crops such as grains (especially *Phaseolus spp.* and *Zea mays*), tubers (*Dioscorea spp*., *Xanthosoma sp*. and *Manihot esculenta*), fruit (*Citrus spp*., *Pouteria spp.,* etc.), and vegetables (*Phaseolus vulgaris* and *Vigna sp*., *Cucurbita moschata*, *Sechium edule* and others), from which the communities manage over five traditional cultivars. More than 80 % of seed of the cultivars is produced on farms themselves, which are renewed every year. Furthermore, it emphasizes the use of some plants for magical-religious purposes (*Ocimum spp.*, *Capsicum spp*. and others), medicines (*Ruta chalepensis*, *Mentha spp.,* etc.) and ornamentals (*Hedychium coronarium, Hymenocallis arenicola*, *Northrop sp.*, *Crinum sp. and others*).

The farmers use all available resources; the products that are not consumed are used for other purposes, such as the production of organic fertilizers, animal food and crafts. They

also use the surrounding natural resources, such as different types of vegetation, especially forest formations, and know the importance of its protection to serve as a resource that promotes the quality of soil, air and water availability.

As human communities settle in protected areas, government organizations of the Ministry of Science Technology and Environment (CITMA) and Ministry of Agriculture (MINAG), in collaboration with the National Association of Small Farmers (ANAP), a NGO which brings together Cuban farmers, are also linked to the management of these resources (agricultural and natural).

However these results were observed in some communities issues related to aging of the population, social infrastructure and market access.

To promote and support socio-ecological production landscapes in the Cuban Man and Biosphere Reserve, some activities have been proposed, such as: 1) Collect information about agricultural biodiversity, management practices, traditional knowledge in biosphere reserves; 2) Develop capacity building plan to address agrobiodiversity maintenance and utilization including action plan to implement training for extension workers, technicians and local communities; 3) Develop and implement capacity building and exchange programs in the rural communities of the intervention sites on the use conservation and management (traditional and modern) of agricultural biodiversity; 4) Develop a list of stakeholders to be involved in the policy and strategy development process and conduct wide consultation with identified stakeholders; 5) Identify and promote practices that are most appropriate for the maintenance and/or restoration of landscapes in the reserves; and 6) Create an information sharing mechanism to disseminate results on value of agricultural SEPLs by means of a network between all stakeholders.

Finally, we expect that this Initiative will contribute to increased use of traditional varieties and wild species to enhance food sovereignty and local food security; promote the sustainable use of the resource; agricultural biodiversity management actions will be integrated and applied in the management plans of the Cuban MaB Reserves system; government institutions put in place capacity building programmes related with agrobiodiversity, its management and use; information on agricultural biodiversity conservation in the project MaB Reserves will be made available to the global MaB network coordinated by UNESCO; and identify and strengthen income generation and other benefits from agricultural biodiversity management to improve human wellbeing in the sites.

Kenya Wetlands Biodiversity Research Team (KENWEB)

Supporting Sustainable Use of Biological Diversity in Natural Wetlands and Fish Production Landscapes in Kenya

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The loss of biodiversity in developing or poor countries is the greatest cause of poverty because these countries are the most dependent on ecosystem services for their livelihoods. Whereas, the need to achieve food security by 2015 (Millennium Development Goal number 1) has been responsible for rapid expansion in agriculture including fish farming, the key role of maintaining agricultural biodiversity has been overlooked and the gap between research and policy has continued to grow.

This study is a new joint collaboration between KENWEB and LWF. It is intended to bridge the gap between biodiversity research and sustainable development. It has been recognized in various forums that the environment is the weakest pillar of development. However, without it, the social and economic pillars are compromised and the targets developing countries have made in regards to the millennium development goals remain unreachable. The key to strengthening the environment pillar is by involving a variety of stakeholders: scientists, policy makers, resource managers, marketing experts and the private sector to enable the transfer of knowledge and technology for sustainable and profitable resource utilization.

Two years after the Ministry of Fisheries and Aquaculture Development begun the Economic Stimulus Program (ESP) to support 28,000 fishponds in Kenya, biodiversity biologists have noticed trends of reduction of biodiversity in agricultural landscapes where these ponds occur. The most highly affected being fish due to escapees from ponds endangering endemic species in rivers and wetlands; otters and other aquatic mammals and piscivorous birds killed as pests to fish farms. Unfortunately these killings have involved banned chemicals particularly carbofuran, known to remain within the food chain for a long period. Water from ponds has also been responsible for eutrophication of

wetlands when fertilized water is released into them. In addition, competition of land for fishponds has compromised forest cover and in many areas, deforestation has led to siltation of rivers.

The aim of the project is to support the economic growth programs by strengthening the environment pillar of sustainable development through application of methods for biodiversity conservation pillar of environment more strongly by creating incentives for farmers to maintain agricultural biodiversity, which forms the nexus between the health of the ecosystem and that of a community.

In order to achieve this goal, various institutions have been chosen to bring in experience, expertise and partners allowing a number of stakeholders involved directly or indirectly in the fish-farming sector. Indicator research will be carried out by scientists from the National Museums of Kenya (NMK), including a sub-set of wetlands biodiversity experts (Kenya Wetlands Biodiversity Research Group – KENWEB), The US partner for the project Tulane University and University of Nairobi (UoNbi); the Agricultural Market Trust whose expertise is in provision of extension services to farmers for input and output efficiency and carries out research in agricultural innovations aimed at small-scale farmers; the Ministry of Fisheries will provide access to aquaculture ESP projects and will benefit by provision of training of fisheries officers in methods of enhancing agricultural biodiversity; and the Laikipia Wildlife Forum (LWF) who have expertise, staff and reach in Laikipia district wetlands, one of the study sites, and have an active water management program that regularly monitors water use including wetlands. All partners will be involved in capacity building, outreach and awareness, workshops and training.

The output of the project include manuals on best practice for agricultural biodiversity, provision of incentives for conservation including innovations such as pest proofing and effective feeding and fertilization mechanisms to prevent water pollution and revitalization of lost or degraded biodiversity in agricultural landscapes particularly those related to fish farming.

LOCAL GOVERNMENTAL ORGANISATIONS

Aichi Prefectural Government - Japan

Ecosystem Networking with the "Aichi Method": Proposing a Unique Method of Ecosystem Networking

The tenth meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 10) was held from 18 – 29 October 2010 in Nagoya, Aichi Prefecture, Japan.

The Strategic Plan 2011-2020 and the Aichi Biodiversity Targets were agreed upon at COP10 through consensus of all the parties, attesting to the unshakable determination of humanity to confront the biodiversity crisis.

The purpose of the Strategic Plan for Biodiversity 2011-2020 is to promote effective implementation of the Convention through a strategic approach, comprising a shared vision, a mission, and strategic goals and targets ("the Aichi Biodiversity Targets") that will inspire broad-based action by all parties and stakeholders.

As the host of COP10, Aichi Prefecture has a responsibility to proceed with leading efforts towards the realization of the Aichi Biodiversity Targets. At the same time, it is very important to establish a social system for conserving and restoring nature in Aichi Prefecture so as to achieve environmental and economic sustainability as an industrial prefecture. We build Ecosystem Networks which reconnects natural environments that have been fragmented and isolated by development, and conserve Aichi's wonderful nature to restore the local nature - as it used to be the place where people lived, worked and learned - and pass it on to the next generation.

The *SATOYAMA* Initiative, which is one of the action guidelines of the Paris Declaration, proposes the search for a "New Commons" or new forms of co-management respecting traditional local landowning and management. Aichi Prefecture is using Ecosystem Networking while various actors such as residents in Aichi, NPOs, companies and governments cooperate and provide their lands, efforts and financial resources. We aim to establish a society in which everyone recognizes that coexisting with nature is the local common property which should not be lost and is very important for us.

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 on the inhabitation of the indicator species. Ecosystem networks will be established using these maps.

Compensatory Mitigation is a system by which the persons/organizations 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 on public lands. This method with which 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 which are planned from 2010 to 2012. Over the next three years, Aichi will create ecosystem networking by using the “Aichi Method” and introduce compensatory mitigation 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 as guidelines and used as tools to develop ecosystem networking and compensatory mitigation all around the prefecture.

Reflecting the increased awareness of the environment through the successes of a World Exposition on the environment in 2005 and COP10 in 2010, we will hold the Education for Sustainable Development (ESD) meeting in 2014. Aichi aims to become a society that conserves the blessings from biodiversity and realizes the benefit of it through efforts to develop human resources and community development.

Hyogo Prefectural Government - Japan

Efforts for Conserving/Restoring the Biodiversity of Hyogo Prefecture

Resurrection of the Oriental white storks in the wild

The Oriental white storks, which are native to Japan, had completely disappeared from Japan; however, the habitat of these birds is being resurrected and conspecific continental individuals are being introduced in these habitats. Many more efforts, including the cessation of pesticide and chemical fertilizer use in agriculture, regeneration of nature in paddy fields and rivers, and reforestation of *Satoyama,* have been implemented to increase the number of Oriental white storks in the wild. Local residents have adopted an area-wide approach with activities such as environmental advancement agriculture and proactive implementation of environmental education with a focus on white storks.

Restoration of Satoyama Forests by the Hyogo Method

The Satoyama forests have been abandoned for a long time, and the forests have subsequently thinned due to the lack of underbush recruitment. Therefore, the Satoyama forests are being transformed into densely growing forests, resulting in poor biodiversity. The "Wise Use Project" is being implemented to facilitate the recovery of these forests. This project involves dissemination and promotion of art and culture with the motif of nature and living organisms. The forest development project involves the removal of evergreen shrubs and trees, with summer-green trees remaining intact. This project aims to realize easier forest management compared to the traditional ways and to improve the effectiveness for biodiversity conservation.

Hokusetsu Satoyama Museum Project (tentative translation)

Hokusetsu is a region which includes the southeast part of Hyogo Prefecture. It is rare space to appealing satoyama with rich history and culture, as well as well-preserved biodiversity. Some satoyama in this region are deeply connected with Japanese traditional culture, such as the production of special charcoal used in tea ceremonies, *kikusumi*, which was loved by Sen no Rikyu*. In other satoyama areas, under their own initiative, citizens developed and maintain enjoyable outdoor fields where people can walk freely. We will develop the whole satoyama area in Hokusetsu as the Hokusetsu Satoyama Museum: Entire Region as a Museum (tentative translation). With a basic philosophy and strategic concept of "Hokusetsu Satoyama: A Japanese way of living with nature", we will create a new model satoyama where human beings consciously live in harmony with satoyama, forming a mutually beneficial relationship, and spread this model both domestically and internationally. (http://hitosato.jp)

**Sen no Rikyu (1522-1591): A famous tea master. He perfected sado, or the Japanese traditional way of having tea.*

Ishikawa Prefectural Government - Japan

Conservation of Biodiversity in Ishikawa Prefecture through the Use and Conservation of Satoyama-Satoumi

Ishikawa Prefecture, located almost in the central part of the Japanese islands, is a narrow elongated province stretching south to north. It has an area of approximately 4,200 square kilometers and a population of 1.17 million. In the south of the prefecture is the Alpine Region where Mt. Hakusan is located (2,702 meters). In the north is Noto Peninsula with a long and varied coastline and an abundant natural environment considered to be one of the best in Japan.

Sixty percent of the prefecture's land area is on satoyama and surrounded by the sea on three sides. This means that satoumi have ubiquitous, deep ties to people's lives and livelihood. The diverse values of satoyama and satoumi include providing people with livelihood from agriculture, forestry and fisheries, habitat and breeding places for a wide variety of flora and fauna, and an area for the development of unique traditions, crafts, culinary arts, festivals, etc. Because of this, great emphasis is given to the use and conservation of satoyama-satoumi and efforts are made towards the conservation of biodiversity.

To tackle this critical task, Ishikawa Prefecture jointly cooperates on satoyama-satoumi initiatives with the United Nations University - Institute of Advanced Studies Operating Unit Ishikawa/Kanazawa (UNU-IAS OUIK was established in 2009) and Kanazawa University. In cooperation with UNU-IAS OUIK research and Kanazawa University's proactive work on human resource development and research, the prefecture works on the use and conservation of Satoyama-Satoumi as well as disseminating international information.

In COP9 and COP10, the prefecture participated in side events on satoyama. However, in 2010, in cooperation with the Japanese Ministry of the Environment, the prefecture's initiative on the use and conservation of satoyama-satoumi was introduced to the world with the Closing Event of the International Year of Biodiversity being held in Kanazawa.

In addition, in December 2011, Ishikawa hosted the Global Launching of the United Nations Decade on Biodiversity 2011-2020 in Kanazawa. In cooperation with the United Nations University, Secretariat of the Convention on Biological Diversity and the Japanese Ministry of the Environment, the prefecture appealed to the international community about the importance of local government initiatives to achieve the Aichi Targets. During

this event, the “Ishikawa Declaration on Rio+20 and Biodiversity” was introduced, which again recognizes the importance of biodiversity.

In March 2011, Ishikawa formulated the “Ishikawa Biodiversity Strategic Vision” as the “Regional Biodiversity Strategy”. In this vision, without being caught up in the traditional framework of nature preservation, Ishikawa aims to conserve biodiversity through sustainable use of satoyama-satoumi. Also, as a symbol of symbiosis with nature, the prefecture has adopted a common goal with the citizens that by 2050 they would have created Ishikawa satoyama-satoumi where ibis can fly again. Ibis used to live with humans in satoyama, but were extinct in Japan at one point.

In regards to specific initiatives, Ishikawa Prefecture now introduces the following ongoing measures:

- To protect the public interest on forests and to ensure diverse ecosystems, we have implemented the forest environmental tax (from 2007) to maintain desolate, abandoned, forests that have lost economic values.

- To promote the involvement of various organizations for satoyama-satoumi formation, we have founded the “Satoyama Creation Certification System”, and authorized more than 100 NPOs, companies, schools, etc, to support our initiatives (from February 2011).

- With help from local financial institutions, we founded the “Ishikawa Satoyama Creation Fund” with a total endowment of 5.3 billion yen. With the profit from the fund and gifts from companies, we have helped private projects that create new value from local resources of Satoyama-Satoumi (from May 2011).

- In June 2011, Noto’s Satoyama-Satoumi were designated as Globally Important Agricultural Heritage Systems (GIAHS) by the UN Food and Agriculture Organization (FAO), with sites across four cities and four towns in Noto Peninsula. After the designation as GIAHS, we organized the “Noto Regional GIAHS Executive Committee” with the cities and towns. To pass on the biodiversity of Noto’s satoyama-satoumi to present and future generations, We have promoted the implementation of initiatives to create effective satoyama, such as sharing the significance and value of the GIAHS, sustenance and revitalization of agricultural, forestry, and fishery industries utilizing GIAHS and promoting participation in satoyama conservation, further ensuring sustainable livelihood of residents.

Detailed information can be found on the portal site “Noto’s Satoyama and Satoumi”. http://www.pref.ishikawa.jp/satoyama/noto-giahs/f-lang/english/index.html

The “Satoyama Creation Office” was founded as the specialized department to promote these projects, and to provide leadership across departments in promoting various initiatives.

Nobeoka City / Asahi Kasei Corporation - Japan

Conserving Biodiversity by Utilizing Wood Thinned from Forests as Biomass Fuel for Power Generation

Nobeoka City and Asahi Kasei are planning to sustainably utilize the forest resources of the watershed area of the Gokase River in Miyazaki for biomass power generation, in order to conserve biodiversity and reduce the use of fossil fuels.

The Gokase River watershed area includes both flatlands and mountainous areas, with cedar and cypress trees planted in the mountainous areas for forestry purposes. The cedar and cypress are mature enough for use as timber. The forestry business, however, has declined markedly due to increased imports of cheap lumber since the 1970s. As a result, some forests are left untouched with no thinning work performed. Even where forests are actively managed for timber production, thinnings which are unsuitable for use as construction material are often left discarded on the ground. In both cases, this makes it difficult for natural groundcover to grow due to a lack of sunlight. This has not only altered the socio-ecological production landscape, but is believed to have caused a decrease in biodiversity.

To improve this situation, Asahi Kasei intends to utilize woodchips obtained from the Gokase River watershed area as biomass fuel at a new power plant which will start operation in July 2012. In mixed combustion with coal, the plant will use approximately 100,000 tons of wood biomass per year—in terms of energy content, over 60% of the fuel used.

By utilizing heretofore-discarded forest resources in a sustainable cycle, this project is expected to facilitate a revitalization of the ecosystem, restoring the natural biodiversity as well as the forest's groundwater recharge function. In addition, commerce in woodchips is expected to invigorate the forestry industry as well as the overall economy of the region with increased employment.

This program is the second major effort by Nobeoka City and Asahi Kasei for the conservation of biodiversity in Miyazaki. In 2007, in collaboration with Miyazaki Prefecture and landowners, we began cutting down man-made forests which no longer functioned economically and planting broad-leaf trees native to the area to restore the natural ecosystem.

The major challenge for Nobeoka City and Asahi Kasei is to lower the price of wood biomass fuel obtained from the Gokase River watershed area to the same level as that of

coal. In cooperation with forestry associations in neighborhood areas, Nobeoka City and Asahi Kasei began to purvey wood biomass fuel in small scale for one year, in order to identify the factors that are making the price of wood biomass fuel higher than that of coal, and study what needs to be done to establish an economically feasible system.

Sado City - Japan

Sado is a beautiful island located in the center of the Japan Sea, 60km from Niigata City, with an area of 855km^2 and surrounded by 280km of varied coastline. The island has very beautiful and varied landscapes, with a river running through the middle of the island, and a wide plain sandwiched between two mountain ranges in the north and south. Most of the island is designated as a national park, a habitat for the famous internationally-protected Crested ibis, which was recently released.

On this island, Sado City is the only local government, established in 2004 through a municipal merger of the whole island. The population is approximately 62,000 and the city is promoting biodiversity conservation for harmony between humans and the crested ibis, and low carbon emissions in line with the slogan: “Ecosystem Island Sado”

There are currently many prime Satoyama on Sado Island, just like in the typical countryside of Japan. Sado Island now has deep problems with its agricultural environment caused by depopulation and aging especially in the mountain areas, as is the case with other typical Japanese locales. In recent years, Satoyama have rapidly disappeared on the island. This threatens the life and livelihood of residents due to the decline in agricultural production activities. As a result, the crisis has triggered a loss of rich Satoyama.

To solve this problem, Sado City provides various types of support to increase agricultural production and related activities. These include, for example, the establishment of a local community of mutual support to address problems they face, providing effective staffing from outside the island for agricultural and regional vitalization, brand marketing to make use of local characteristics, etc. Through these kinds of activities, Sado City is providing strong support for Satoyama activities aimed at realizing harmony between humans and nature.

NON-GOVERNMENTAL OR CIVIL SOCIETY ORGANISATIONS

A Rocha Ghana

Bridging the Gaps in Conservation and Livelihoods in SEPL in Ghana

Seth Appiah-Kubi

A Rocha Ghana (ARG) emerged in the late 1990s in response to Ghana's fast diminishing natural resource estates both within protected and off-reserve areas. In ARG, we recognize the inextricable link between modern man and the survival of the earth's flora and fauna.

ARG's main organizational goals more than align with both the three fold approach and five clustered activity areas to which the IPSI aspire and operate. ARG works at utilizing and adapting proven technologies and approaches for biodiversity conservation. In doing this we facilitate the development of institutional capacities both internally and of allied agencies for the conservation of biodiversity estates. We also seek to provide direct services and networking opportunities to secure the ecological integrity of biodiversity estates. Finally, our work also focuses on securing long-term financing streams for biodiversity conservation, human resource capacity and infrastructural development to advance the cause of biodiversity conservation and sustainable utilization of these resources.

Our work spans the north and south of Ghana, which is mainly characterized by semi-arid guinea savannah production landscapes and tropical rainforest ecosystems respectively. Some significant remnants of upland mountain forest ecosystems and evergreen rainforest landscapes can still be found in the east and west of Ghana.

Research in flagship mammals

Our research work on African Elephants and Chimpanzees in the tropical rainforests of Bia and Kakum conservation areas has significantly contributed to enriching the knowledge base of the conservation status of these charismatic species. The research work identified current population status, habitat ranges, threats, and movements across international boundaries. These provided insights into future survival strategies required to sustain the wild and viable populations of the African Elephant and West African Chimpanzee in the rainforests of Ghana. In the north, our research has contributed to determining the conservation status of the threatened populations of lions in Ghana's guinea savanna ecosystems. To consolidate knowledge and conservation of these species, we are forging joint international agreements with SODEFOR in Ivory Coast to foster the trans-boundary management of African Elephant and West African Chimpanzees. Additionally, our Atewa critical conservation action program, which is planned to be rolled out and implemented within 5 years, will contribute to save one of only two upland forest ecosystems remaining in Ghana.

CREMAs

Another important flagship program of ARG is the establishment and development of Community Resource Management Areas (CREMAs), in off-reserve areas in Ghana. Ghana has designated several protected areas across the length and breadth of the country. However, until the year 2000, there was no policy in place to integrate fringe community interest and concerns. This despite clear evidence that the communities depended to a large extent on the resources within these protected reserves. Additionally, several community based natural resource management regimes in existence did not have the necessary policy and legal frameworks to sustain their existence.

As in many parts of the world, protected areas in Ghana do not exist in isolation. Protected areas and as such the areas beyond the boundaries have constituted important SEPLs for fringe communities for many generations. The Collaborative Resource Management Policy, of the Wildlife Division of Forestry Commission therefore brought a definition to the level of community participation in decision, planning and management of both protected and off-reserve areas, as well as addressed right of access and equitable sharing of benefits. A Rocha Ghana has within the period of five years facilitated the establishment of two CREMA of about 70,000 hectares in off-reserve areas around Mole National Park, Ghana's largest protected area. The CREMAs constitute important socio-ecological production areas for four communities of a population of about 3000, who depend on natural resources within communal lands for shelter, clothing, cosmetic, medicinal, nutrition, social, cultural and religious needs.

CREMAs have proved successful as an integrated ecosystem management approach in Ghana, especially for off-reserve SEPLs. As such, ARG is continuing its work of up-scaling and enhancing the functional framework of CREMAs around Mole National Park in Ghana. In the next four years, we are looking to upscale and equip the CREMAs for improved local monitoring of landscape changes and the implementation of management actions, working closely with the traditional authorities, local government agencies and Wildlife Division of Ghana. The projects will consolidate national efforts at enhancing the potential of CREMAs for rolling out REDD+ initiatives in the country. CREMAs have structural and functional in-built mechanisms which accentuate traditional natural resource knowledge and management systems as well as leadership structures necessary for sustainable management of SEPLs. The elaborate collaboration and considerations for traditional knowledge and leadership systems have identified the CREMAs as having great potential for REDD+ in Ghana's Readiness Preparation Proposal.

Through implementation of CREMAs, ARG is contributing to bridging the gaps between the conservation and livelihoods needs of people living in SEPLs across the country.

Bioversity International

Indicators for resilience in socio-ecological production landscapes – A collaborative IPSI research activity (Bioversity International and UNU-IAS)

Nadia Bergamini, Dunja Mijatovic, Pablo Eyzaguirre

Bioversity International and the United Nations University-Institute of Advanced Studies (UNU-IAS) have developed a set of indicators to measure resilience in socio-ecological production landscapes (SEPLs) as part of the International Partnership for the *Satoyama* Initiative (IPSI)'s Collaborative Activities. Research for indicators is one of the five cluster activities under the *Satoyama* Initiative.

The SEPL landscapes – and the sustainable practices and knowledge they represent- are increasingly threatened in many parts of the world, due for example, to urbanisation, industrialisation, and rapid population increase in urban and suburban areas and outmigration from rural areas. In order to maintain and revitalize SEPLs in times of global change, a resilience perspective on landscapes is essential. In SEPLs, communities create resilience with practices that further their wellbeing by supporting key ecosystem functions and maintaining biodiversity. These indicators are meant to serve as a guide for communities to understand and strengthen resilience in socio-ecological production landscapes through measuring interrelated practices and institutions in four different areas: 1) ecosystems protection and the maintenance of biodiversity 2) agricultural biodiversity 3) knowledge, learning and innovation 4) social equity and infrastructure.

What do indicators measure: The indicators are not defined as an absolute, fixed set of measurements in the way that we might measure differences in temperature or soil chemistry or demographic pressure across landscapes. The indicators identify processes and measure the presence, the extent, and impact of key components in social and ecological relationships. For example, the indicators assess the presence of heterogeneity of resource use and ecosystem niches within a landscape, or the presence of crop land races and traditional animal breeds, or a distinctive body of ecological knowledge and systems for its transmission, and the degree to which resident communities can access and manage the ecosystem resources and control the territories upon which their livelihoods and culture depend. Thus used, the indicators serve as a guide for understanding and strengthening the key relationships that underpin landscape resilience. They also serve to measure trends and impacts that affect the resilience of SEPLs.

How were the indicators developed: The indicators are based on an earlier review over 200 case studies that describe communities' strategies to cope with and adapt to climate change through local innovation and the sustainable use of ecosystems. They build upon

earlier reviews of benefit sharing perspectives at the community level, indigenous peoples territory and biodiversity indicators, ecoagriculture landscape indicators and key factors for community stewardship of protected areas[3]. Further development of the indicators is planned through discussion among IPSI members, other interested parties and local communities, and through their practical application in community development projects in SEPLs. While adapted for agricultural settings the indicators can be made specific to landscapes in which agriculture is not the main livelihood activity. Bioversity will be testing the indicators in the communities living in the buffer and transition zones of two UNESCO's Man and the Biosphere reserves in Cuba, in the Kitui District of east-central Kenya and in the Kandyan Home Garden system, in the Village Tank System and the the Owita system of Sri Lanka. IPSI and UNDP are also testing the indicators in a biodiversity and community development small grants projects around the world.

Examples where SEPL Indicators may be applied:

The Man and Biosphere (MAB) programme of UNESCO works to conserve natural resources and learn from the anthropogenic or "bio-cultural" landscapes that surround and buffer protected areas. In such areas, agricultural biodiversity is often the basis of local cultures and livelihoods and maintains key ecosystem functions. Indeed, balanced interactions between human communities and the wild and cultivated components of protected landscapes can provide important ecosystem services such as pollination, organic matter cycling, control soil erosion. Diverse wild, managed and domesticated plant species found in the reserves have tolerated human activities and in many cases relied on traditional agricultural practices for their continued survival and ability to evolve to changing environmental conditions, both natural and anthropogenic. Cuban MaB Reserves are incorporating SEPL in the protected area management plans with the aim to improve the sustainability of protected areas and increase their contribution to food sovereignty and rural development.

In a dryland area of western Kenya facing growing water scarcity and extreme weather events associated with climate change, the SEPL indicators are being tested in Kitui-Kamba communities. They manage a mosaic landscape of gardens, crop fields, forest groves, pastures, forests flood plains and water harvesting sites as part of a single agricultural system that incorporates biodiversity from the wild and cropped areas, as well as

[3] Buck, L. Shames, S. Scherr,S. (2007) Understanding Ecoagriculture: A Framework for Measuring Landscape Performance. Ecoagriculture Partners. Suneetha, M.S. and Balkrishna Pisupati (2009) Learning from Practictioners: Benefit sharing perspectives from enterprising communities. UNU-IAS & UNEP. Tebtebba (2008) Indicators relevant for Indigenous Peoples : A resource book. Indigenous Peoples International Centre for Policy Research and Education. Van Oudenhoven, F. Mijatovic, D. and Eyzaguirre, P. (2010) Social Ecological Indicators of resilience in agrarian and natural landscapes. Management of Environmental Quality: An International Journal 22 (2) pp. 154-173.

domestic and wild animals. This mixed biodiversity has maintained production and allowed people to cope with increasing risks to field crops such as maize. On-going domestication and cultivation of indigenous food plants such as gourds, pigeon-peas, and trees are yielding new products with growing market potential. The role of local institutions in acquiring and maintaining local knowledge as well as tapping into new technologies and knowledge has proved to be essential in the coping strategies and maintenance of Kitui's mosaic landscapes. The Kitui case demonstrates the need to support knowledge-intensive agriculture in biodiverse landscapes as a way to cope with environmental change and uncertainty.

Sri Lanka

Kandyan home gardens, located in the mid-country region of Sri Lanka (see map), represent a centuries-old system of production based on a versified portfolio of crops and animals. Kandyan home gardens have evolved over thousands of years to include a rich array of cultivated plants including grains, vegetables, root, tubers, fruits, spices, sugar crops, medicinal plants, multi-purpose trees and livestock. This traditional complex and resilient multi-storey production system has provided a diverse diet of foods and spices with high nutritional and cultural value including many medicinal species. The latter generate substantial additional household income. While similar to tropical home garden systems in other parts of the world, Kandyan home gardens are among those with the highest levels of functional plant diversity[4]. More than 200 useful plant species are conserved in Kandyan home gardens. The home gardens provide locations for safeguarding, cultivating, and occasional domestication of edible wild plants, trees and animals. Kandyan home gardens are not isolated management units; they always complement other agricultural activities, such as permanent rice farming, and thus contribute to a landscape mosaic that links to agricultural land uses and wild areas. Kandyan home gardens thus provide an expanded habitat for a wide range of species, from soil microbiota to beneficial insects including pollinators and from crops and trees to mammals, birds and other wildlife.

Farm households in the Kandyan home garden system tend to have a more secure livelihood from a broader range of market and subsistence products, even when compared to other non-traditional home garden systems. Alongside the socio-economic benefits, the Kandyan home garden system also provides key ecosystem services and habitats for a range of additional flora and fauna biodiversity. Kandyan home gardens have allowed households to better adapt to their environments and to cope with shocks and stresses.

Substantial threats exist to the biodiversity, both wild and cultivated, in Kandyan home gardens. Urbanization, unplanned land use, and population increase coupled with

[4] Eyzaguirre and Linares, Home Gardens and Agrobiodiversity, Smithsonian Books 2004

development strategies that ignore the social and economic value of biodiversity have had a significant impact. A growing number of medicinal plants are becoming rarer and under threat of extinction. Strengthening the Kandyan home garden system will be important for the future adaptation of this globally important landscape (Source: Pushpakumara et al., 2010).

Intended outputs: The indicators fill a gap in knowledge and tools at the local level that needs to be addressed to enable communities and farmers to detect and monitor trends with respect to the socio-ecological resilience of their communities and farming systems. Further practical testing of the indicators in community development projects will help refine these indicators to make them scalable and comparable across a wide range of SEPLs. Some of the points to bear in mind while revising and refining these indicators are the difficulties in predicting the overall sustainability of a given agroecosystem and measuring the direct effects of management practices on ecosystem services. In this regard, modern knowledge can be applied in synergy with traditional knowledge systems. The goal is to learn from and strengthen the innovation present in traditional approaches to managing productive landscapes and is clearly not intended to support the marginalisation or fossilising of traditional lifestyles. Once these indicators have been fine tuned they will provide a tool that can be applied at a global scale also thanks to the support of various networks like for example the UNESCO MAB, IPSI and the UNDP Small Grants Program.

BirdLife International

BirdLife International and the *Satoyama* Initiative

BirdLife International is a global Partnership of conservation organisations that strives to conserve birds, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources. BirdLife Partners operate in over one hundred countries and territories worldwide. By focusing on birds, and the sites and habitats on which they depend, the BirdLife Partnership is working to improve the quality of life for birds, for other wildlife (biodiversity), and for people. BirdLife's aims include: To help, through birds, to conserve biodiversity and to improve the quality of people's lives, and; to integrate bird conservation into sustaining people's livelihoods. Therefore the objectives of the *Satoyama* Initiative align well with these aspects of BirdLife's strategic vision. http://www.birdlife.org/worldwide/vision/index.html

Examples of BirdLife activities relevant to Satoyama activity clusters

(1) Knowledge Facilitation

The IBA Programme of BirdLife International aims to identify, monitor and protect a global network of IBAs for the conservation of the world's birds and other biodiversity. A site is recognised as an IBA only if it meets certain criteria, based on the occurrence of key bird species that are vulnerable to global extinction or whose populations are otherwise irreplaceable. Many IBAs are managed to produce food and other products, and occur within landscapes which have social, cultural and economic values linked to their biodiversity and history of management and use. This priority setting process is an important tool for targeting conservation action. BirdLife shares its data widely – information on the over 10,000 Important Bird Areas worldwide is available through the BirdLife Data Zone: http://www.birdlife.org/datazone/home

BirdLife's *State of the world's birds* website provides a comprehensive overview of current and emerging conservation issues. Presented in a clear and exciting way, it is a synthesis of the work and knowledge of the BirdLife Partnership, as well as leading researchers and conservationists from around the globe (http://www.birdlife.org/datazone/sowb). State of the World's birds now has a new section containing case studies on the theme of 'Preserving traditionally-farmed landscapes for people and wildlife' which will be focused on case studies of direct relevance to the *Satoyama* Initiative (http://www.birdlife.org/datazone/sowb/response/RESPO5).

(2) Policy Research

In coalition with other organisations BirdLife International works on policy research and

advocacy that addresses agriculture and the environment in the European Union, The focus for attention has been the Common Agricultural Policy (CAP) and the proposals put forward are for policies which would support sustainable farming and reward farmers for the delivery of public goods. The proposal takes the form of a contract between farmers and society and embraces the following objectives of relevance to Satoyama:

- To maintain and enhance (wild) farmland biodiversity by halting and reversing declines;
- To maintain (domesticated) agricultural biodiversity ;
- To support the maintenance of landscapes and a rural heritage rich in aesthetic, cultural or historical value;
- To contribute to the rural vitality of areas highly dependent on agriculture and where this is important to support the viability of those farming systems which underpin the delivery of public goods
  (http://www.birdlife.org/eu/EU_policy/Agriculture/index.html).

(3) Research for Indicators

BirdLife data on species, sites and habitats are being used to set benchmarks and base-lines, so as to monitor the state of the world's birds and other biodiversity, and to indicate our progress towards a more sustainable world. A suite of relevant bird indicators is now taking shape. The three indicators listed below provide a set of global biodiversity indicators which can sit beside other robust indicators of economic and social progress to help ensure sustainable development.

- The **Red List Index** measuring global and regional trends in the extinction risk of all species.
- **Important Bird Area Indices** measuring trends in the condition of sites, pressures on them, and responses in place.
- **Wild Bird Indicators** measuring population trends of representative wild species to indicate trends in the condition of habitats.
  http://www.birdlife.org/action/science/indicators/index.html

(4) Capacity Building

BirdLife believes that growing and sustaining a world-wide network of supporters, volunteers, and staff for BirdLife, is vital, and this work is the main focus of the Partnership, capacity and Communities Department. The Department's work on Network Strengthening and Institutional Capacity Development focuses on the strengthening and empowering the more than 100 NGOs in the BirdLife partnership. The Department's work on Individual Capacity Development is developing and implementing mechanisms for training and professional development for partner and secretariat staff, network members and national conservationists in key regions and sectors where BirdLife works. The Conservation Leadership Programme forms part of this work (http://www.birdlife.org/action/business/cons_leadership/index.html)

(5) On the Ground Activities

BirdLife initiatives around the world are working to support biodiversity conservation in socio-ecological production landscapes. Examples include:

- Traditional management of the great biome of the 'Pampas' or grasslands of the Southern Cone of South America
- Conservation of the Atlantic tropical forests of Brazil, which cover the coastal massif of southern Bahia.
- Supporting the revival of *hima* in the Middle East
- Conservation of traditional and highly sustainable farming and forestry systems such as cork-oak open forests (*Montados*)
- Maintenance of the grass prairie of what is now Guji Zone, southern Ethiopia
- Traditional management of the Kinangop Grasslands in Kenya's Central Province
- Support to Integrated Farming and Biodiversity Areas (IFBAs) in Cambodia

CEPA Japan / Tohoku University / Earthwatch Institute Japan

The Tohoku Green Renaissance Project in Japan

1. 2011 Tohoku earthquake and tsunami in Japan

The earthquake and tsunami of 11 March 2011 inflicted extensive damage in Japan's Tohoku region. Buildings, harbors, and entire cities were destroyed, leaving over 300,000 refugees. The survivors have also suffered and continue to suffer from shortages of food, water, shelter, medicine and fuel.

Town destroyed by over 11-meter high tsunami (Photos) NPO Tambo

In April 2011, CEPA JAPAN, NPO Tambo, Tohoku University and some other NGOs visited the disaster areas. Because of the serious damage to the infrastructure, it was very hard for us to contribute in the short term. At that time, restoration design was one of the most important issues.

Destroyed harbor and destroyed rice paddies field (Photos) CEPA JAPAN

Over the longer term, we believe that the concept of Satoyama-Satoumi can be helpful, because the devastated areas are typical agricultural areas. When designing local industrial plans (agriculture, fishery, forestry, tourism, and education), local culture and ecological resilience will be integrated into activities and shared with residents to form consensus.

Declaration at UNU
(Photo: Tohoku University)

We then launched "The Tohoku Green Renaissance Projects" with more than 10 organizations, and appealed the importance of ecosystem services for the sustainable rebuilding of livelihoods in Tohoku, on 22 May 2011 (World Biodiversity Day) at the UN University.

Our key message is the following: "Ecosystem services through the connectivity between ocean, forest, rice paddies and human well-beings are essential for rebuilding."

As emergency activities, the following approaches for restoration were included; "Land use that mitigates disaster risk through ecosystem services", "Careful disaster prevention that does not reduce ecosystem services", "Sustainable activities with ecosystem services and their resilience".

In this paper, a small challenge of this project is introduced as a case study.

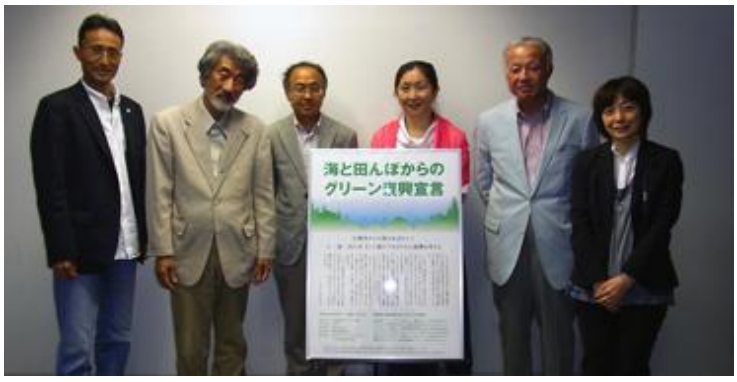


Photo session with Prof. Takeuchi Director of UNU-ISP
(Photo: Tohoku University)

Tohoku Green Renaissance

Logo (English Version)

2. A case study of Sabusawa-jima Island

One of the trial sites for this project is Sabusawa-jima Island.

Sabusawa-jima Island belongs to the Urato Islands, which are components of Matsushima, one of the "Three Views of Japan." The island has an area of 1.45km^2 (the largest of the Urato Islands), and 230 people had been living there. Tohoku University has been monitoring this island for ecological studies since the early 2000s.

Sandbags were piled as a temporary levee

Destroyed rice paddies

(Photos) Earthwatch Institute Japan

The tsunamis destroyed banks, houses, and rice paddies on Sabusawa-jima Island. But rebuilding has been delayed, because of the island not being connected to the mainland (Shiogama city). We have decided to support rebuilding by civil volunteers. The island is compact, so it is rather easy to try the Satoyama approach using people's own hands and wisdom without relying on high technology. This approach would give rise to less uncertainty and damage to the natural capital, and will certainly help restoration of nature.

First Step: Monitoring

The first step is monitoring of the ecosystem. It is important to understand the magnitude of damage and the status of the remaining ecosystems, including coastal areas, rivers, rice paddies, forests, and islands. The data will be helpful in undertaking "green rebuilding". Many civilian volunteers play an important role in the Sabusawa monitoring program.

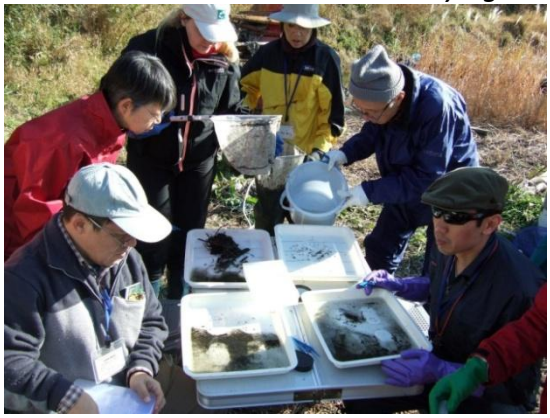
Tools for this survey can be prepared at low cost. (Photo: Earthwatch Institute)

For example, our partner Earthwatch Institute Japan coordinates 20-30 volunteers for each monitoring event. Linking these amateur volunteers with several experts, our monitoring method is able to ensure survey quality comparable to professional research. These types of surveys have already been conducted in many tidal flats and rice paddies.
Based on this survey, it was found that the change in rice paddy fields was greater than for land fields, because of salt brought by the tsunami, as marine organisms were living in the rice paddy fields.

We have planned a ten-year monitoring effort by involving volunteer citizens in addition to the surveys by experts to track long-term effects on ecosystems, and stationary cameras will be positioned to record changes in rice paddies and the surrounding environments.

Guiding volunteer citizens using the on-the-ground participatory process.

Trying to catch organisms.



Experts identified the species

Marine crab in a rice paddy.

(Photos) Earthwatch Institute Japan

We have planned a ten-year monitoring effort by involving volunteer citizens in addition to the surveys by experts to track long-term effects on ecosystems, and stationary cameras will be positioned to record changes in rice paddies and the surrounding environments.

Second Step: Restoration of Rice Paddies

The second step is restoration of coastal rice paddies. Soil capacity will be rejuvenated by the functions of the wetland ecosystem. Other usages would be considered for rice paddies that are difficult to be restored (e.g. rice paddies subsided below sea level), including use as tidal flats or coastal wetlands. The rice paddies on this island have been dependent on rainwater as a water source. We have been working on removing rubble and rebuilding the ridges of the rice fields to facilitate the management of water. Because coastal levees were destroyed, the seawater now comes up to the rice paddies. If there is a ridge, it is possible to separate rainwater and seawater and to fill rice paddies with pure water for desalination.

Mowing grass

Carrying by hand

Kneading soil cement

Ridge made by human power

(Photos) Earthwatch Institute Japan

The advantage of using human power is the ability to work carefully. For example, NPO Tambo has removed artificial materials in a number of rice paddies by hand with the help of volunteers. Although field maintenance would be needed afterwards if artificial materials were removed by heavy machinery, removal by hand does not harm the layer structure of the soil.

"Renaissance Rice"

What volunteers can do is to help devastated communities with full respect for their independence. It is important to reach consensus among stakeholders on the rebuilding design, including mitigation of disaster risk with floodplain, retarding basin, or coastal belt zone for wetland. But if landowners do not wish to change their lands, it is difficult to achieve improved land usage.

Third Step: Recovery of ecosystem and economy

Over both the long and the short term, economic support is important. We are aiming to promote Sabusawa-jima Island as a green tourism spot with biodiversity-friendly sites. Ecosystem recovery using local vegetation is strongly desired for the Green Renaissance Project.Reconstruction of rice fields is also an important form of external support for the community. We sold eco-friendly rice as "Renaissance Rice", all of which has been sold out for this year. A portion of the sales will be donated for reconstruction of rice fields.

In the future, the project will include long-term pre-ordering of "Renaissance Rice" and direct investment to support both rebuilding and biodiversity of Tohoku via rich food cultures and local resources. Ultimately, it is desirable to develop a financial mechanism to support rebuilding through the Green Renaissance Project. For example, a financial support mechanism for land use that mitigates disaster, including offset, tax benefit (e.g. conservation easement), and insurance, may be considered.

Conservation International

Conservation International in Socio-ecological Production Landscapes: A case study of Philippine Peñablanca Sustainable Reforestation Project

Yoji Natori
Ecosystem Policy Manager, Japan Program

Conservation International (CI) is active in many of the world's Biodiversity Hotspots and Wilderness Areas with a mission of empowering societies to responsibly and sustainably care for nature for the well-being of humanity, building upon a strong foundation of science, partnership and field demonstration.

Among many CI projects that are relevant to Socio-ecological Production Landscapes around the world, this paper features the Philippine Peñablanca Sustainable Reforestation Project (PPSRP), as it is a nice example of leveraging private funds using the achievements of initial funding and materializing multiple benefits through a self-supporting social system. The PPSRP is unique in that it uses a third-party validation under an international standard (CCB Standards: http://www.climate-standards.org) for improving the project design and transparency.

Background

Limited livelihood opportunities have forced the marginalized community to resort to unsustainable use of forest lands and its resources. This has resulted in the fragmentation of the forest that threatens the flora, fauna and the integrity of the watersheds that may be further compounded by the impacts of climate change. Even in protected areas, threats to the unique biodiversity and the natural forest remain unabated.

To reverse the negative trends, Conservation International (CI) initiated conservation projects within the Peñablanca Protected Landscape and Seascape (PPLS), a protected area located at the heart of Sierra Madre Mountains, in partnership with local NGOs, the Department of Environment and Natural Resources (national government agency) and the local Municipality of Peñablanca.

Projects funded by CEPF and USAID established the protected area and its management plan. In this process, local partnership was cultivated, paving a way for future development. When funding from Toyota Motor Corporation provided an opportunity, the project design made full use of existing information, as well as the partnership network.

The Project

The project is situated where intact forest of Peñablanca Protected Landscape and Seascape meets agricultural activities and settlements. The goal of this project is to promote and achieve sustainability in forest conservation in the Peñablanca Protected Landscape and Seascape, and to demonstrate the compatibility among multiple uses of forests – for biodiversity protection, watershed management, carbon sequestration and other ecosystem services for the benefit of the local communities. This will be achieved through a promotion of forest restoration and agroforestry. Restoration of forest on currently degraded land using an appropriate mix of indigenous tree species is expected to improve habitat conditions for wildlife species and to rehabilitate watersheds to maintain ecosystem services. Introduction of agroforestry is intended to diversify and enhance livelihoods and to reduce environmental pressure from corn monoculture. All these are underpinned by strong capacity-building activities.

The project sees institutional development as a key to long-term sustainability. This includes such activities as facilitating awarding of land tenure instruments, enacting ordinances against illegal grazing, organizing forest patrols, and establishing agricultural cooperatives. The central issue in the near future is the operationalization of the Reforestation Fund, a funding mechanism that pools part of the revenues from project-supported agroforestry and reinvests it into forest restoration as well as micro-financing. External funding will eventually end and often is unpredictable, but the conservation activities on the ground need to continue. Thus, the generation of internal funding is essential for long-term success of the project.

Reforestation in this area is proving very difficult due to extreme heat and drought during dry months. In PPSRP, we are trying several innovations, which hopefully can inform projects under similar circumstances elsewhere. The project decisions are made with local entities, and social and environmental monitoring results will also be made public through the verification process under the CCB Standards.

Satoyama *Initiative* Relevance

Intact ecosystems are important for the livelihoods of local communities, particularly in the periphery of a protected area, not only because restrictions apply to land use but also because agriculture there is dependent on a stable supply of ecosystem services. The shift from corn monoculture to diverse agroforestry is a change to support biodiversity, which at the same time enhances local livelihoods. The self-revolving Reforestation Fund, operated by agricultural cooperatives, is one form of co-management, in which environmental management is incorporated into the pursuit of economic interests. There

is room for further improvement in agroforestry activities, which could come from innovations and wisdom drawn from traditional practices. Vitalized agroforestry will contribute to better management of the area, and establishing this feedback loop will be a measure of success of the project.

EcoAgriculture Partners

Ecoagriculture: A Comprehensive Solution for Sustainable Rural Landscapes
To meet multiple demands from rural landscapes requires an integrated approach that deliberately fosters synergies among agriculture, environment, and human wellbeing. We call this approach ecoagriculture. Worldwide, there is growing interest from farmers, conservationists, food industry, and governments to adopt ecoagriculture in landscapes that are important for both food production and ecosystem services. But effective adoption is hindered by an insufficient base of research and human capacity as well as unsupportive policies, market incentives, and investment targeting.

EcoAgriculture Partners: Bridging Farms, Communities and Ecosystems
EcoAgriculture Partners is a U.S. based non-profit organization that works with partners to bring about a world where critical rural landscapes are managed as ecoagriculture. We will do so by providing training, research, policy solutions, and advisory support to farmers, communities, non-profit organizations and governments at landscape, national and international levels. We help build bridges among partners from diverse sectors to develop evidence-based solutions in Africa, Latin America, Asia and the United States.

In addition, we facilitate the *Landscapes for People, Food and Nature Initiative*, a major cross-cutting collaborative program to engage ecoagriculture champions and influential stakeholders to develop and implement action agendas for advancing ecoagriculture at multiple scales. The Initiative includes three integrated components that will be implemented synergistically to support actors from multiple sectors to adopt ecoagriculture, while identifying and mobilizing high-leverage policy, investment, research, and incentive changes that will improve the enabling environment for effective integrated landscape management. The *Satoyama* Initiative is a Co-Organizer of the Landscape Initiative and will participate in the Initiative's first International Forum in March 2012 in Nairobi, Kenya. The Forum will kick off the multi-stakeholder Dialogue component of the Landscape Initiative.

Strategic Programs
EcoAgriculture Partners works in three integrated program areas, all of which are complementary to the *Satoyama* Initiative and its own program of work.

The *Landscapes and Leaders Program* works to strengthen field-based ecoagriculture initiatives and support the women and men leading those efforts. We train professionals and community-based leaders in technical and organizational skills needed for ecoagriculture, and develop curricula and resource materials for other capacity-building

programs. We also advise and support landscape initiatives in participatory landscape assessment, planning, and tracking of innovations and impacts.

The *Research Program* develops and communicates the evidence base about ecoagriculture to support adoption of effective practices and approaches. Research priorities include: documenting innovations in ecoagriculture; advancing and evaluating market-based strategies to support ecoagriculture; and conducting action research on our field-based projects to foster wider learning.

The *Policy Program* works to increase the adoption of ecoagriculture by influencing key policy, market, and institutional frameworks. At an international level, we promote ecoagriculture as a solution for sustainable agricultural production, climate change adaptation and mitigation, and land restoration. At a national level, the program conducts policy analysis, design, development, and training to support inter-sectoral ecoagriculture solutions.

Anticipated Impacts

By 2014, working together with our partners, including the *Satoyama* Initiative, EcoAgriculture Partners expect to achieve the following major impacts:

- Integration of ecoagriculture by key organizations into their programs, policies, and staff capacities;
- Strengthened capacity of community leaders, agricultural and natural resource professionals, policy-makers, and other key stakeholders in the understanding and application of ecoagriculture; and
- Incorporation of ecoagriculture policies into national and international policy and market frameworks through active collaboration with partners.

Contact EcoAgriculture Partners

For more information on EcoAgriculture Partners, please contact Sara J. Scherr, President, sscherr@ecoagriculture.org.

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For information on the Landscapes for People, Food and Nature Initiative please visit: www.landscapes.ecoagriculture.org.

Forest Peoples Programme (FPP)

FPP's Activities Contributing to IPSI

Dr Maurizio Farhan Ferrari

FPP has been carrying out on-the-ground work with indigenous and local community organisations on customary sustainable use, using Article 10(c) as a point of reference, since 2003.[5] Indigenous peoples and local resource users and support organisations from Bangladesh, Suriname, Guyana, Cameroon, Venezuela and Thailand have produced case studies and participatory land and resource use maps combining traditional knowledge with Global Positioning System (GPS) and Geographic Information Systems (GIS) technologies. The studies provide insight in the sophistication of local management systems and the remarkable complexity of customary law systems, which guide responsible use of resources. They also describe the threats that their customary management systems are facing and provide recommendations to local and national governments about actions that should be taken in order to improve support for these age-old sustainable management systems, as on-the-ground initiatives need a supportive policy and legal environment at the national level to thrive and flourish.

During the past year, this work has been aligned even more closely with the Satoyama Initiative as several of these partners have started to use the data collected through community resource mapping and the customary sustainable use studies to develop community-based territorial management plans. Using the whole territory as a base geographical area, the approach adopted to develop these plans is very similar to a landscape approach. Different but inter-related ecological systems are found in each territory and the relationship between natural resources and human communities is at the centre of the project. The objective is to combine traditional knowledge and modern scientific tools to develop community governance and management systems that contribute to the three objectives of the CBD and secure sustainable economic activities that can sustain the communities living in these land and seascapes. Securing long-term ecosystem functions and services for the welfare of human societies is a key principle of the project. At the same time, the project aims to raise awareness on the various values (physical, social, spiritual) of biodiversity.

The project, through the development of territorial management plans aims to respect and secure traditional communal land tenure systems, which have been severely eroded by modern legal and political systems. However, at the same time, as these territories are

[5] See http://www.forestpeoples.org/topics/environmental-governance/customary-sustainable-use and CBD Technical Series on the Satoyama Initiative in 2010 (Customary sustainable use of biodiversity by indigenous peoples. Case studies relevant to the *Satoyama* Initiative from Suriname, Guyana, Cameroon and Thailand. CBD TS 52, pp.22-35)

in several cases overlapped by other land-use systems, including protected areas, processes for innovative co-management systems have also been initiated. Our partners in Northern Thailand, for example, while trying to promote community collective land titling to protect indigenous territories, they have also engaged in a process of co-management of the Ob Luang National Park with the park authorities, local government, lowlander communities and NGOs. This has shifted the local situation from one of conflict to one of collaboration. A similar process to resolve a situation where local indigenous communities have been excluded from management and decision-making is being developed in Cameroon, where our partners are negotiating access rights to their traditional resources with the Boumba Bek and Nki national parks authorities.

The project that FPP has been running with its partners has also started to integrate work on indicators. Activities related to the three indicators on traditional knowledge adopted by the CBD (at COP7 and COP10) have been initiated as follows: on the status and trends of traditional occupations with the traditional resource users in the Sundarbans, Bangladesh and in Thailand; and on the status and trends in indigenous languages in Suriname and Thailand. What we plan to do in the future is to develop a more consistent approach to the testing and piloting of the three CBD indicators[6], which is in line with the collaborative activity that FPP has proposed with Tebtebba Foundation and ANDES, and explore how this work relates to the indicators work that is being carried out by UNU and Satoyama Initiative.

Through these various activities and processes, the project with our partners is contributing to all the three main components of the *Satoyama* Initiative's approach and to all – although in varying degrees - of the five clustered activities promoted under the IPSI.

[6]
- Trends of linguistic diversity and numbers of speakers of indigenous languages (decision VII/30 and VIII/15)
- Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (decision X/43)
- Trends in the practice of traditional occupations (decision X/43)

Friends of the Earth Japan (FoE Japan)

FoE Japan's Activity for SATOYAMA Conservation

Objective:
The aim of our activity is i) to create public awareness on forest conservation issues and ii) to re-build new relationships between people and SATOYAMA forests.

Activities:
We have two activity areas; these are the Utsugi Forest in Hachioji city, Tokyo which is located in West Tokyo and is near a residential area, and the forest in Ogawa town, Saitama prefecture which is next to Tokyo.

- Utsugi forest
The forest area is 5.2 ha and it is a conservation area designated by the Tokyo local government. It is mainly covered with broad-leaf trees such as Konara (*Quercus serrata*) and Kunugi (*Quercus acutissima*) as well as planted cedar and cypress, fruit trees and grass fields. It is an area with very rich bio-diversity.

We organize regular monthly (sometimes twice a month) activities to maintain forest areas, such as cutting grass, thinning trees and bamboo, sweeping up leaves, making charcoal, etc. We also organize a series of educational seminars on searching for insects, edible plants, cooking, and checking the health of trees, as well as promotional events such as realization of the "Utsugikko" forest nursery. These events broaden the utilization options of SATOYAMA and attract more participants, who are at the center of forest management and utilization.

While undertaking these activities, we encourage participants to realize / re-consider the importance of forests and to find new functions of the forest in their daily life at the same time.

- Activities in Ogawa town named "Guru-Guru" Smile Farm
The activities in Ogawa town are more focused on food or farming. Learning about "food" or "food security" may be the most attractive subject for knowing about environmental and social issues as well as reconsidering our daily lives. We therefore named the activities "Guru-Guru" taking the meaning of "Sustainable".

The main activity is organic farming on a medium sized farm located very close to a SATOYAMA forest. We cultivate various vegetables using traditional technologies, which use a lot of natural resources from in and around the SATOYAMA area, and with no chemical fertilizers. Sometimes we go into the SATOYAMA forest to conduct thinning of

trees and bamboo. These tree and bamboo thinnings will be used for mushroom growing and natural fertilizer, respectively.

While undertaking activities, participants can realize a lot of differences between city and rural life. It is very important to realize the differences that we already lost in standards between our current daily life and the early days. Knowing these differences will make participants find a lot to question in their daily lives and in their society. We expect and encourage participants to have a lot of questions. These questions will make them become really aware of environmental issues, of course including conservation of biodiversity.

German Association for Landcare (DVL)

The German Association for Landcare (DVL) is the umbrella organization of at the moment 155 Landcare Associations (LCA) in Germany. These regional non-governmental networks link nature conservation groups with local farmers and local communities. The often opposing interest groups work together in LCAs voluntarily to care for the cultural landscape and traditional farming systems which have created Germany´s landscape for centuries. The cultivation of land has led to diverse landscapes in the German countryside with mountain-meadows, poor soil pastures, hedgerows and orchards. By pooling interests and local forces LCAs implement integrated and sustainable land management practices in many rural areas in Germany to protect the adopted flora and fauna in these extensive farmlands and to support sustainable development. Local Landcare coordinators in LCAs develop projects for specific landscape types including scientific measures, financial calculations and the implementation of agri-environment schemes. They apply for available funds on the state level and supervise the implementation of activities, mostly done by local farmers, as well as monitor the project outcome. The basis for successful projects is the close cooperation with farmers, local communities, conservation groups and government authorities. All LCAs in Germany work together with 20 000 farmers, half of Germany´s communities and have a turnover of 20 Mio €/year for practical projects on the ground. Project coordinators also include the combination of traditional knowledge and new scientific results to foster farming practices which improve a sustainable income to farmers and conserve the diverse mosaic of landscapes including its services. As part of this engagement the LCAs initiate regional development by bringing together regional stakeholders in rural areas. This helps farmers to market their quality products like apple juice or lamb meat. Those products can also be called “nature-conservation-products” because they were produced in an environment friendly and sustainable system. Once started with regional marketing an increasing cash-flow within the local market can be observed. New topics for the next years will be to support farmers with direct and whole-farm conservation-management advice and to implement the EU water framework directive with local communities.

The core aims of Landcare-Germany are to:

1) Create a network of natural habitats in order to protect the native fauna and flora as well as the biological resources in all of Germany´s cultivated landscapes

2) Support environment friendly land use systems and regional economic development.

3) Help farmers earn additional income from conservation and landscape management and market their regional products

4) Raise awareness of the importance of appropriate land management through the Landcare approach, involving the formal education system to ensure that Landcare is mainstreamed in current and future education curriculum and programs

The umbrella organization DVL provides support in different ways to its member organization. This can be information for new LCAs or the experience exchange between members. The DVL carries out model projects to transfer best practice knowledge between all LCAs. The umbrella organization also works as consultant to the federal government and state departments on matters referring to natural resource management. German farmers, who have a great influence on the German landscape, depend on the European Common Agricultural Policy. Therefore the DVL also operates as a lobbying organization to promote the ideas of Landcare to the European Union as well as federal and state legislation.

During the last 25 years Landcare Germany has developed into a powerful force that catalyzes positive change in the way agricultural landscapes and conservation areas are currently managed and brought to market. DVL is one of the founding members of the Satoyama Initiative. The promotion of a sustainable land use as a socio-ecological production to other countries and the exchange of experience is very appreciated and supported by the DVL.

Institute of Environment Rehabilitation and Conservation (ERECON)

Promoting Sustainable Use of Natural Resources through Restoring and Conserving Socio-ecological Production Landscapes in Cambodia

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The Institute of Environment Rehabilitation and Conservation (ERECON) is a non-profit international organization, with headquarters located in Tokyo, Japan. ERECON aims to contribute to sustainable use of natural resources in Asian countries. Therefore, the organization pursues environment rehabilitation, conservation and education for harmony between agricultural and urban development and the natural environment. Since ERECON was established in April 2000, various activities have been conducted such as the "Encouragement Program on Rehabilitation of Soil Environment in Salt Affected Area of Northeast Thailand", "Reforestation Program for Environment Rehabilitation in Tsunami Affected Area of Southern Thailand", "Land Use and Natural Resource Utilization and Management in Kampong Cham, Cambodia", and "Guidance of Sustainable Organic Agriculture and Reforestation for Local Farmers and Elementary School Students and Teachers in Thailand, Cambodia and Philippine".

Related to the promotion of the IPSI, ERECON has been collaborating with the Ministry of Environment, Cambodia and the United Nations University - Institute of Advanced Studies for three years (2011-2013) through the collaborative project entitled "Promoting Sustainable Use of Natural Resources through Restoring and Conserving Socio-Ecological Production Landscapes in Cambodia" in the three provinces of Kampong Cham, Battambang and Mondulkiri. In the target areas, the main occupation of villagers is agriculture with slash and burn practices. Natural resources, especially forests, have been cleared for agricultural purposes and timber. The main source of income comes from non-timber forest products. For many years, the natural resources have been used by the local people without understanding or realizing the deforestation effects on humans and the environment.

This program deals with the restoration and conservation of socio-ecological production landscapes in Cambodia by promoting sustainable use and management of natural resources in collaboration with local communities, elementary schools and local government. To promote the sustainable use of natural resources through restoring and conserving socio-ecological production landscapes, various workshops and seminars are conducted at the local community-level and at elementary schools. Surveys of natural resources help to understand how local people use natural resources, the relationships between livelihoods and natural resources, and the degree of degradation of natural

resources. Plant nursery systems have been set up and reforestation activities are conducted with local people and elementary school students. After the first seminar for increasing understanding of local people and setting up the tree nursery system for reforestation, local people are very interested in growing various types of trees in the nursery. Then they are planning to plant those trees around their communities. According to feedback from the target villagers, this project contributes well to making them understand the meaning of natural resource restoration as well as the relationship with their own lives. The series of activities are important for increasing their motivation to enhance sustainable use of natural resources, to create harmony between people and nature and to increase local awareness of environmental conservation.

International Agency for the Protection of Biocultural Landscapes and for a New Rurality (AGER)

SHORT PRESENTATION

INTRODUCTION

In Italy and in many other countries in Europe, socio-ecological production landscapes are largely residual; they persist in still cultivated marginal areas and they represent the demonstration and the memory of a symbiotic and sustainable traditional way of inhabiting and exploiting the land. These landscapes are often little enhanced and are constantly under threat from the pressures of urbanization, industrial activities, rural abandonment and repeated attempts to transpose the dominant agricultural productive patterns. AGER believes that there's an urgent need to identify these residual bio-cultural landscapes to promote them, in order to prevent rural abandonment by the people who still maintain the tracks of these landscapes, by creating new spatial development models, inspired by the traditional ones that have produced the bio-cultural landscapes themselves, thus promoting active conservation of landscape elements and of the memory, and avoiding the "museum" protection model.

LEGEND

(#) Number 1, 2 or 3 written in regular brackets, means that the activity described contributes to the 3-fold approach, with the number referring to the specific approaches defined by IPSI.

{#) Number 1, 2, 3, 4 or 5 written in curly brackets means that the activity described should be in line with the five-clustered activities, with the number referring to the specific clustered activity as defined by IPSI

AGER PAST ACTIVITIES

Until now, AGER has primarily undertaken awareness raising activities at a national level, on the bio cultural landscape's concept, (meetings, conferences, seminars, lessons at universities, and writing scientific publications) (1) {2, 3}.

Other activities were:

- implementing a landscape research project, aimed at identifying and mapping the area of a bio-cultural landscape in a rural village in the Asti province (Passerano Marmorito) (1) {1, 2, 3, 4};
- collaborating with a landscape museum in central Piedmont (Magliano Alfieri) (1) {4};
- collaborating and giving advice to the Monferrato's Landscape Observatory {4};
- developing methodologies to identify and map bio-cultural landscapes (1) {3}.

AGER ONGOING ACTIVITIES

AGER's main current ongoing activity is trying to make contacts in order to find out and put together all the national stakeholders that work around bio-cultural diversity and **launch the issue of bio-cultural landscapes in Italy** (All clusters), promoting a permanent dialogue with the *Satoyama* Initiative.

AGER PLANNED ACTIVITIES (in the short/medium term)

1. The first activity would be making an **inventory of national bio-cultural landscapes**. (1) {1, 2}

2. A very important issue linked to the activity above would be **creating a unique methodology of identification of bio-cultural landscapes** (1) {3} using GIS representation; AGER has developed a first method that should be revised and adapted to different scales and contexts (in connection with the *Satoyama* Initiative's work on indicators).

3. By 2012 AGER will work for the eco-touristic development of some areas of bio-cultural landscapes again in the Province of Asti, **designing nature excursions for schools and tourists** (1) {4, 5}. People will learn how to "read" the bio-cultural landscape and find out the relationships between natural, anthropic and cultural elements. These excursions will also be an occasion for **promoting farmers maintaining bio-cultural landscapes** (1) (2) {5} e.g. by accompanying people to get to know farms and farmers, taste typical products and learn about traditional agricultural practices and to spread and reactualize peasant culture's principles and technologies.

4. Another activity planned by AGER for directly promoting bio-cultural landscape communities is the organizing of **"landscape prizes"** (1) (2) {4, 5}, in connection with public events (meetings, seminars, etc.) or dissemination through media, social networks, newspapers and any other advertising method.

5. Local farmers and citizens also need to be trained to become aware of the crucial role of landscapes in determining identity and value of their territory, e.g. **organizing courses on bio-cultural landscapes** (1) (2) {4}.

EXPECTED IMPACT OF THE ACTIVITIES

Launch of Italian bio-cultural landscape issue. This activity is expected to consolidate knowledge and research on indicators and protection policy for bio-cultural landscapes in Italy. Today, agricultural policy is mostly focused on the quality of the food product, and less on the quality of the landscape and on its integrity and balance.

- Impact measurement criteria: new proposals for regulatory initiatives and research strands.

Inventory of bio-cultural landscape. This is the first step for bio-cultural protection. For example AGER's first bio-cultural identification project, in Passerano Marmorito, has led to the proclamation of the status of "area of great scenic interest" for Passerano itself. This meant that a number of regulatory tools were established for stronger protection of this territory.

- Impact measurement criteria: realization indicators like: "number of protection measures realized"

Creating a unique methodology of identification of bio-cultural landscapes. This activity will help establish common and objective criteria for territory analysis, and will represent the union of indicator research in Italian case studies and the rest of the *Satoyama* Initiative's.

- Impact measurement criteria: indicator set's versatility and agreement between scientific stakeholders evaluation.

Designing nature excursions for schools and tourists promoting farmers in the bio-cultural landscapes. This activity is expected to create conditions to prevent community isolation and subsequently countryside abandonment.

- Impact measurement criteria: various indicators to be identified

Landscape prizes. The same as above.

Organizing courses on bio-cultural landscapes. This activity is expected to create knowledge of the value of bio-cultural landscapes among the same stakeholders that live there, enforcing links with the territory and ensuring long-term maintenance of bio-cultural landscapes.

- Impact measurement criteria: various indicators to be identified.

AGER FUTURE AIMS/OBJECTIVES (in a medium long/term)

Undertake and/or support rural and business development projects to restore and strengthen, as far as possible, degraded or threatened bio-cultural landscapes (1-3) {1-5};

Undertake and/or support rural and business development projects to suggest exportation of bio-cultural landscape's driving principles into non-bio-cultural ambits (1-3) {1-5}

International Council for Game and Wildlife Conservation (CIC)

The International Council for Game and Wildlife Conservation (CIC) is a politically independent advisory body, internationally active on a non-profit basis. The CIC's global community advocates sustainable hunting through its knowledge, networks and valued traditions to benefit people and conserve nature. With its renowned scientific capacity, the CIC assists governments and environmental organizations in maintaining natural resources by sustainable use.

The CIC endeavours to advocate at all national and international bodies concerned with management of wild-living resources especially the following by demanding:

- recognition of the global environment as a common concern to all of us,
- respect for all forms of life in their ecosystems,
- conservation of nature, mainly the fauna, in the interest of the present and future generations by preventive and precautionary measures,
- avoidance of the loss of biological diversity, especially through the protection of endangered species,
- sustainable use of natural resources as an important tool for social and economic benefits and therefore as an incentive for their conservation,
- improvement of wildlife management and land-use,
- promotion of scientific research, education as well as information to the public supporting our cause,
- provide advice to the public authorities, national and international organizations and answer their demands.

The organisation is unique in its diversity: it unites Member States, Universities, NGOs, as well as individuals such as private members and scientific experts from 84 countries. The activities of the CIC are structured into 3 Divisions: Policy and Law, Applied Science and Culture. With the participation of CIC experts from all parts of the world these Divisions address technical issues, undertake projects and develop recommendations within their areas of specialization: from certain species to environmental issues as well as cultural heritage.

During its 80 years of existence, CIC has gained global recognition as an independent advisor in the conservation of wildlife resources: in addition to its practical work in the field it promotes the principle of sustainable use in international policy development. Today, as the stress on the environment continues to grow, it is more important than ever

that CIC stands for its values and promotes the wise use of nature, including wildlife conservation through sustainable hunting.

What is the common denominator between hunting and agriculture?

In today's fragmented landscape, agricultural fields are important habitats for wildlife – game is part of the landscape. There are species which depend primarily on the structures and the food provided by agricultural activities. Although wildlife is sometimes accused of causing damage to agriculture, hunters and farmers need to think and work together for healthy wildlife populations and to reduce conflicts between humans and wildlife.

With this in mind, the CIC intends to continue to build together with selected international organizations and convention secretariats, which have a programme or keen interest in wildlife management to establish a Collaborative Partnership on Wildlife (CPW). CPW is aiming to be a global voluntary community of professionals and decision makers advocating sustainable wildlife management for the benefit of people and nature conservation.

There are quite a few international organizations in the field of nature conservation and sustainable use of natural resources, but their programs in the wildlife sector are often run with scant resources and they are isolated from each other, resulting in poor public visibility and underutilized knowledge and expertise in many fora.

There is a lack of awareness and common understanding among the general public regarding the wildlife management sector and especially the benefits of sustainable wildlife management for conservation. In addition, the wildlife sector's contribution to the global green economy remains unaccounted for, but needs to be assessed.

There is a need to strive towards a healthier and more balanced relationship between various land management categories such as forestry, agriculture, nature conservation and wildlife management, in order to maintain biodiversity and improve human livelihoods. Since wildlife knows no national borders, more regional and cross-boundary management efforts are needed. It is also obvious that there are issues within the wildlife management sector that need to be solved, such as illegal hunting and unsustainable use of wildlife resources that would benefit from concerted actions of the CPW.

International Lake and Environment Committee Foundation (ILEC)

Conservation of Biodiversity by Promoting Integrated Lake Basin Management (ILBM)

About us:

In spite of their global relevance, many lakes and other inland waters around the world are in a critical condition and will be most severely affected by global warming because of their lentic (static) nature as water systems. In coping with these situations, ILEC has been promoting the sustainable management of lakes and their basins in collaboration with our world-wide counterparts from the academic, administrative and private sectors engaged in the conservation of lakes and other inland waters. For this purpose, ILEC has been working on the following major activities ever since its foundation back in 1986:

** ILBM:*
Integrated Lake Basin Management (ILBM) is a conceptual framework to assist basin managers and stakeholders in achieving sustainable management of lakes and their basins, by taking into account unique features of lakes (i.e.; long retention time, complex response dynamics, and integrating nature of surrounding nature and human activities).

1. Organizational support for the World Lake Conference
   - Planning with local host organization, Dissemination of information

2. Implementation of international collaboration projects on lake basin management, including promotion of ILBM*
   - Organization of joint workshops, development of ILBM self-learning tool / knowledge-based data base

3. International Cooperation
   - Support and participation in international projects (GEF, World Bank Projects)
   - World Lakes Student Conference for conservation of world's lakes

4. Training / Education
   - ILBM Training, Hands–on Environmental Education, Environmental Education on Water Environment (commissioned by JICA).

Development of ILBM and the 14th World Lake Conference:

ILEC co-hosted the 14th World Lake Conference with the River Systems Institute of Texas State University from October 31st to November 4th, 2011 in Austin, Texas, USA, under the theme of "Lakes, Rivers, Groundwater and Coastal Areas: Understanding Linkages". It was also during this conference that promotion of the concept of Integrated Lentic-Lotic Basin

Management (ILLBM) was introduced, with launching of a new guideline book entitled "Development of ILBM Platform Process: Evolving Guidelines through Participatory Improvement" (now available at ILEC's official website: http://www.ilec.or.jp/eg/index.html). This booklet is mainly based on the following identified merits of the ILBM Platform Process:

1. Non-prescriptive design: The non-prescriptive and flexible narratives of the lake brief allow the basin community's values, in terms of socio-cultural and historic backgrounds, to be properly reflected in the ILBM Platform process.

2. Updating of information: The periodic revision of lake briefs also helps update the issues and prepares the stakeholders to meet new challenges.

3. Joint preparation: The joint preparation of a lake brief helps clarify specific needs, challenges and approaches for productively addressing important lake basin governance issues.

4. Wide range of issues without prejudice: The lake brief design and ILBM Platform concepts accommodate a wide range of views from stakeholder groups and individuals without undue prejudice or prerogatives.

5. Fostering of common vision: The ILBM Platform provides a basis for sharing a common vision and for resolving differences in ideals.

Conservation of biodiversity in lentic and lotic inland water basins:
ILEC is now focusing on further promotion of ILBM for conservation of biodiversity, particularly with regard to inland water basins where complex combinations of lentic and lotic water systems exist. For example, in Nepal, degradation of biodiversity in Himalayan Lakes is one of the immediate concerns, affecting not only livelihood and agriculture, but also the entire ecosystem of fauna and flora in its catchment area, while in Mexico, degradation of the forest ecosystem in the Lake Chapala basin has caused a decline in agricultural production and increase in the poverty level. In many of these developing nations, application of ILBM is still in its early stages, yet it certainly has been gaining growing attention and participation in each local community. With the aforementioned merits of the ILBM Platform Process, and together with the associated knowledge base and knowledge mining system specifically developed for interdisciplinary brainstorming, called "Learning Acceleration and Knowledge Enhancement System", ILEC will continue collaborative work with its worldwide counterparts for further development and promotion of sustainable management of inland waters that are generally suffering from a rapid decline in ecosystem integrity, particularly with regard to biodiversity.

Iwokrama International Centre for Rainforest Conservation, Guyana

The Iwokrama International Centre for Rainforest Conservation & Development, Guyana: A Model for the World: Bringing Together People, Science and Business in Rainforest Management and Investment

[1]*Dr. Isabella Bovolo and the Iwokrama International Science Committee*
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Iwokrama is perfectly placed to improve the state of knowledge of tropical forest eco-system services and to demonstrate through its business and scientific programmes that tropical forests are worth more alive than dead by using potential mechanisms such as payments for the natural services of the forest to generate significant revenues for standing forests.

The Iwokrama forest is located in the heart of Guyana.

Dedicated by Guyana to the Commonwealth in 1989, the Iwokrama International Centre (IIC) was established in 1996 to manage a unique reserve of 371,000 hectares of rainforest (about 1.6% of Guyana's landmass and 2% of Guyana's forests) located in the geographical heart of Guyana. The Iwokrama forest and its research centre are unique, providing a dedicated site in which to test the concept of a truly sustainable forest - where conservation, environmental balance and economic use can be mutually reinforcing. Drawing on its earlier work in sustainable forest management, the IIC is now, in close collaboration with the Government of Guyana, the Commonwealth Secretariat and other international partners, developing a new approach to enable countries with rainforests to earn significant income from eco-system services and creative conservation practice.

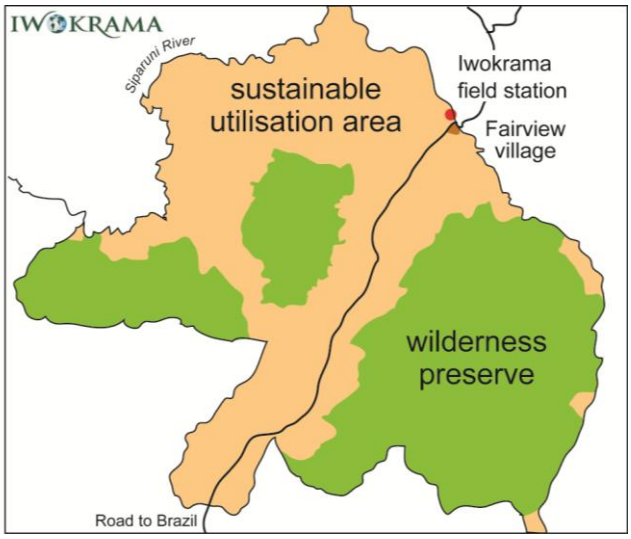
Iwokrama brings together in a unique alliance:

- Sixteen local communities (approximately 7,000 people), who are shareholders in the IIC's sustainable timber operations and participate in the IIC's tourism, research and training operations and who, as the forest's co-managers, share benefits through co-management and benefit sharing agreements;
- Scientists engaged in ground breaking research into the impacts of climate and human induced change on the forest and measuring the scope and value of its eco-system services; and

- A sustainably managed business operation, earning income from the forest and its natural assets, while keeping abreast of ever changing international thinking on funding environmental projects in the face of climate change and the scarcity of international finance.

This alliance is committed to showing how a rainforest can be used for real sustainability, real climate change protection and real community benefit whilst maintaining this unique socio-ecological production landscape.

The IIC's activities contribute heavily to the three-fold approach of the *Satoyama* Initiative. 1) The IIC's scientific research program focuses on three main research themes: environmental resilience; human, social and cultural capital; and ecosystem service values, strategically underpinning the alliance between the environment, the communities, science and business, and "consolidating wisdom on securing diverse ecosystem services and values". 2) As traditional stewards of the forest, indigenous and forest-dependent people need to be fully and effectively engaged in on-the-ground activities – their knowledge and skills are vital to the success of conservation programs. In Iwokrama, the communities are firmly integrated into land-management decisions, timber and non-timber forest products initiatives and business operations through complex co-management agreements, shareholding and benefits sharing mechanisms and their members are supervisors, managers and directors in the IIC, thus "integrating traditional ecological knowledge and modern science to promote innovations" and new business models. 3) Management of the Iwokrama forest and the Amerindian Village, Fairview, whose titled lands reside within the Iwokrama forest, is therefore facilitated through the development of collaborative management plans and programmes that seek to build trust, improve social relations and collective decision making. Moreover, since natural resources in communities surrounding the Iwokrama Forests are collectively owned, social capital is necessary to foster a 'spirit of cooperation' through democratic processes, and avoid pitfalls related to personal aims and interests thereby paving the way to "explore new forms of co-management systems or evolve frameworks of 'commons' while respecting traditional communal land tenure".



The Iwokrama forest is divided between a Sustainable Utilisation Area (SUA) and Wilderness Preserve (WP).

Live & Learn Environmental Education (LLEE)

Community Considerations in the Management of Heritage (socio-ecological) Landscapes

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The combination of growing populations and increased technological innovation has seen our culture grow outside of sustainable socio-ecological limits. We need more examples of how people can live in balance with nature. We also need to question the concept of growth without limits by offering more sustainable alternatives. Live & Learn's objective is effectively utilize education and promote actions towards a sustainable future by reducing poverty & foster greater understanding of the need for more balance. Starting where the learner is we integrate relevant environmental, human and cultural concepts in our education programmes. Communities are empowered by assessing their assets to identify and take strategic actions to manage their resources. We work with communities from a range of sites across 9 countries in the Asia-Pacific. In the course of our work we have found that some sites, such as protected areas, have special natural or cultural heritage significance, which can serve to complicate rather than facilitate community engagement in management of heritage.

There are World Heritage Sites, which due to their size have been termed 'cultural landscapes' and many of these can be considered as socio-ecological production landscapes. These sites have often been overlooked for their value in biodiversity conservation but there are very complimentary links between the historical and cultural human and biodiversity interactions of these sites. As historical population centres that typically still have active populations there are significant historical and modern concepts for the sustainable use of the socio-ecological production landscapes that may be drawn. Live & Learn has key activities in protected areas, where we are working with communities to strengthen heritage management.

We have placed some focus on World Heritage sites as the greater good of protecting these sites can and often does have unintentional consequences for local communities. Within World Heritage Sites, such as Angkor, there are a range of regulations that visitors and communities living within the site must abide by. Those same regulations could be used to better manage the natural heritage of these sites. There is a growing appreciation for more holistic management of World Heritage sites and protected areas with local communities, and it is useful to consider the site as a socio-ecological production landscape.

As an ongoing activity, which was presented at IPSI-1, Live & Learn continues to work in a key socio-ecological production landscape, in Siem Reap, Cambodia. The Angkor World Heritage site covers 400 square kilometres, and is one of the most important archaeological sites in South-East Asia. This cultural landscape includes Angkor Archaeological Park, which contains the magnificent remains of the different capitals of the Khmer Empire, from the 9th to the 15th century. The Angkor site is also a socio-ecological production landscape of historical and current significance with a mosaic of rice paddies, ancient water management, and forested areas. Historically, some research has identified that the Khmer Empire is thought to have been built on natural resources and its fall may have been contributed to because of climatic changes impacting these natural resources.

The APSARA National Authority (responsible for management of the Angkor site) and New Zealand Ministry of Foreign Affairs and Trade, developed the Angkor Participatory Natural Resource Management & Livelihoods programme to support a community-based approach to promote management of cultural and natural heritage by enhancing livelihood opportunities for communities. The approach is to promote 'heritage livelihoods' as a way to revitalize local communities and strengthen heritage management. This provides incentives for communities to benefit from traditional knowledge and maintain traditional land-use practices. This is being developed at the cultural landscape of Angkor World Heritage Site but has replication potential for other cultural and natural protected areas. As per the Satoyama three fold approach, this can be seen as approach 3: exploring new forms of co-management, which respect and promote the role of traditional community practices as part of the heritage of the site. In regard to the five clustered activities our work can be seen to touch on all of the clustered activities but be focused toward (5) On the ground activities.

In Papua New Guinea there is a strong sense of pride in the cultural diversity and local heritage. This is reflected in a saying that "for each village there is a different culture". Papua New Guinea is also recognized as having some of the highest biodiversity richness on earth. With this rich cultural and natural heritage it is surprising that only one World Heritage Site has been listed. The Kuk Early Agricultural World Heritage Site is Papua New Guinea's first World Heritage Site but with the significant protected areas systems and recognition of cultural and biological diversity it is likely that there will be more sites recognized. In August 2011, Live & Learn Environmental Education (Live & Learn) was invited by the Australian Department of Sustainability, Environment, Water, Population and Environment and supported by the Papua New Guinea Department of Environment, to undertake a scoping study on stakeholder perceptions of the Kuk Agricultural World Heritage Site. This research and analysis will be used in developing the Kuk Management Plan and support future World Heritage Site management in PNG. Within this approach there is significant consideration on community co-management of a socio-ecological

production landscape of world significance.

As the first World Heritage site to have been listed in PNG there are added challenges around management, and increased pressure to establish a good process for future heritage sites. Starting with an understanding of and developing relationships with key stakeholders is a very important process for longer-term effectiveness. In terms of socio-ecological production landscapes this site is of significant interest as it has been identified as one of the cradles of agriculture. More specifically the Kuk site is a cradle of asexual agriculture. It is a socio-ecological production landscape based on asexual plants with evidence of bananas, sugar cane and taro dating back some 9,000 years. As per the Satoyama three fold approach, Live & Learn's research approach can be seen as the initial step toward approach 3: exploring new forms of co-management, which respect and promote the role of traditional community practices as part of the heritage of the site. In regard to the five clustered activities our work at this stage focuses (1) Knowledge Facilitation, (3) Research for Indicators and ultimately it can be seen as (5) On the ground activities.

In line with climate change concerns, Live & Learn, with support from the Australian Government through AusAID, have also been developing resource materials to promote traditional socio-ecological crop production processes of Melanesia to promote food security in the Pacific. As per the Satoyama three fold approach, this can be seen as approach 2: integrating traditional ecological knowledge and modern science to promote innovations. In regard to the five clustered activities it can be seen as meeting both (1) Knowledge Facilitation and (5) On the ground activities. The resources developed include a Farm Technology and Leadership Manual both for "*Protecting food security through adaptation to climate change in Melanesia*". While the focus of these resources is at a smaller scale it is hoped the take up of these approaches will support landscape level change that sees a return to more traditional socio-ecological landscapes in the Pacific.

Seen in isolation each of the aforementioned Live & Learn activities can be seen as having some contribution towards socio-ecological production landscapes, but seen together they provide a stronger more holistic contribution for effectively engaging communities in management of socio-ecological production landscapes. By building stronger understanding of the community and developing incentives such as heritage livelihoods and supportive resource materials, these approaches are all working toward the revitalization and better management of socio-ecological production landscapes. As an organisation we are continuing to live, learn and try to make a positive difference, and hope to take a fully holistic approach promoting community management of socio-ecological production landscapes including cultural landscapes, World Heritage sites. It would be great to discuss these approaches and areas for collaboration with other Satoyama partners.

M S Swaminathan Research Foundation (MSSRF), Community Agrobiodiversity Centre

Profile of Community Agrobiodiversity Centre of MSSRF

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In 2012, the Community Agro-biodiversity Centre (CAbC) of MSSRF enters its 15th year of service in Wayanad - a hot speck of the Western Ghats. The Centre has been most visible for its interventions in biodiversity conservation and enhancement that have been implemented through integration of *conservation, cultivation, consumption* and *commerce* – four key aspects of genetic resource management. The 4C activities include (i) enhancement and sustainable use of biodiversity comprising *in situ, on-farm* and *ex situ* conservation methods (ii) promotion of low external input sustainable agriculture (iii) activities related to food and nutrition security and (iv) creating an economic stake in conservation.

The most visible impact areas of CAbC are: slowing down unscientific land use changes; revival of homestead farming; revitalization of traditional health care practices; promoting LEISA farming; action research on wild foods, yams and taros and RET plant species; education on biodiversity and the related legislations. Due to these efforts, hundreds of men and women have learned how to manage natural resources like soil and water and improve their food security by managing their home-gardens and semi-wilderness habitats in a sustainable way in Wayanad.

CAbC possesses 16 ha of fertile land where coffee-based agro-forestry, NRM and biodiversity conservation are demonstrated. It has an *Orchidarium* with over 150 species of wild orchids, an arboretum with several RET trees, collections of wild food plants, medicinal plants and roots and tubers, and butterfly host plants. The building complex is comprised of the Training Centre, Administrative Office –cum –Scientist's facilities, Guest house, Farm house, Shade houses, plant growth chambers and plant nurseries.

Way Forward

The interventions are streamlined into: (i) Biodiversity Conservation and Enhancement; (ii) Biodiversity Education, Communication & Training and (iii) Biodiversity-based Sustainable Livelihoods and Food Security. The Conservation area is exclusively focused on threatened plant genetic resources; the ECT area on empowering tribal children and the sustainable livelihood area give emphasis to developing a 'bio village' programme. Some of the major interventions for the year 2012-2017 are:

Bio Villages

This new activity that embraces the concept and approach of the *Satoyama* Initiative is aimed at holistic village development through sustainable utilization of biological resources by combining traditional wisdom and frontier technologies. The top three priorities in this initiative are *Herbal Bio-valleys*, *Bio Enterprises* and *Eco Agriculture* and the associated activities include (i) Designing and Maintaining of Home Herbal Gardens; (ii) Designing and Maintaining of Nutrition Gardens and Promotion of Health Diets; (iii) Strengthening the Genetic Base of Crop Diversity; (iv) Designing and Maintaining Seed Villages for Fruits and Vegetables; (v) Cultivating Diversity of Traditional Rice; (vi) Designing and Maintaining Coffee Farm Agro Forestry and (vii) Production and Marketing of Bio Inputs and the most useful Home Remedies and Promotion of LEISA**.**

On Farm Conservation of 'Farmers' Varieties'

This new initiative aims to achieve integrated conservation of PGRs for Food and Agriculture found in Kerala. The target groups are Roots and Tubers; Fruits and Seeds/Nuts, and Legumes**.** The fruits will also include those of spices like pepper and cardamom and *Citrus* spp. The purpose is to address the issue of (i) conservation of maximum possible genetic variability in the non-grain edible plants and varieties of Kerala; (ii) sustained availability of genetic material of scientifically described farmers' varieties and (iii) to arrest the knowledge erosion from the traditional agricultural and wild food management system.

Agriculture Landscapes Management

The goal of this project is to promote sustainable management practices that keep integration of wild biodiversity in its full potential in agricultural landscapes where diverse ecosystems such as thickets, grazing lands, lakes, streams or water channels are consciously managed to sustain agricultural productivity. Such diversity of landscapes in traditional agriculture provides habitats for a range of populations needed by agriculture such as pollinators and beneficial predators. However, how to use such biodiversity in sustaining agricultural production and ensuring food security is still a challenging problem. This initiative is intended to address this gap.

Rescue of RET Trees

The central objective of this initiative is to rescue the Keystone 'trees of outside forests' of Kerala that were once wide spread in the moist hilly regions through integrated action research. The On farm trees are vanishing because of logging for wood, agricultural development, pioneer settlements, drought, and forest fires. More holistic information

will be gathered on specialty tree species in terms of their economic, ecologic, livelihood, and medicinal or cultural importance.

Legal and Genetic Literacy

The prime objectives of this initiative are to: (i) Educate, train and build the knowledge and capacity of Farmers on Sustainable Agriculture methods; (ii) Educate the local community on the Biodiversity Act 2002 and Forest Rights Act; (ii) Build the capacity of tribal leaders to integrate the principles and right provisions into their leadership actions; (iii) Empower local communities to access rewards and recognitions for their contribution in conservation of biodiversity and ecosystem services. This program is also aimed at inculcating among children values and knowledge for protecting biodiversity and ecosystem services.

Conclusion

We are proud to say that over the last 14 years CAbC has attained stronger expertise and resources needed for community biodiversity management that is relevant for sustainable agricultural and rural development. In the emerging scenario of climate change, we see much relevance for continuing our work as it is important for protecting and enhancing such diversity from further depletion.

Nature and Livelihoods - Uganda

Planned or Ongoing Activities for Nature and Livelihoods

Contact person: Dr. William Olupot, Director
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Nature and Livelihoods (NL) aims to strengthen the capacity of local communities to sustain biodiversity on farmlands and to support protected area management. Our main activities are research, education, support to improve efficiency of use of natural resources, support to improve farming practices, and better management of wildlife habitat on settled lands. SEPLs in Uganda lie primarily along a dry belt stretching between southwestern and northeastern Uganda (the cattle corridor) and associated waters and water courses, and woodlands of northern Uganda. This paper describes how activities newly initiated or planned by NL for Uganda's SEPLs are in line with the clusters of activity promoted under IPSI. Most of our activities are "On the Ground", and planned rather than ongoing as NL is a new organization.

Cluster 1: Knowledge Facilitation

Activities and purposes: Under this cluster, we plan four studies: i) document unsustainable agricultural practices, environmentally unfriendly infrastructure development, unsustainable energy production, etc. to highlight instances where government agencies not traditionally involved in nature conservation could support it through better practice, ii) study and analyze population trends of species of socioeconomically valuable species (e.g. wild food plants, pollinators, and livestock and crop pest control species) and relate them to underlying practices to influence policy, iii) review published information on the nutritional value of wild food plants with a view to promoting them to policy makers and local communities.

Cluster 2: Policy Research

Activities and purpose: Planned projects include: i) cultural practices that retain species of high socio-economic value on farmlands, bushlands, and grazing lands ii) the potential of increasing the production of wild foods such as fruits, termites, and mushrooms in bush or farmlands iii) nutritional values of major wild foods that have not been studied, iv) relationships between wild plants and honey production, v) use of indigenous plants in agroforestry, vi) catalogue of indigenous plants of high socio-economic value (of high potential or highly valued for food, medicinal, agroforestry, and wood) in SEPLs, vii) relationships between livestock grazing and pasture land biodiversity, viii) methods of efficiently harvesting wild foods, and ix) eco-friendly pest control techniques. These

projects will generate information to be used in advocacy, or for education, training, and demonstration at local levels.

Cluster 3: Research on Indicators

Activities: This research will focus on determining and monitoring socio-economically important species that are most vulnerable to human activities, particularly the following activities: i) conversion of land cover from natural to crop land, ii) livestock grazing and fire regimes, iii) pesticide and herbicide applications, iv) overharvesting for food, wood or other purposes.

Cluster 4: Capacity Building

Activities and purposes: Capacity building will take two forms: i) building the professional capacity to promote sustainable management of SEPLs through involvement in university teaching and employing students to conduct research projects, ii) enhancing the capacity of local communities to implement environmentally sound practices through environmental education and training. The training will cover such diverse aspects as propagation of indigenous plants, fire management in bushlands, crop husbandry, soil management, livestock husbandry and management of livestock diseases, bee-keeping and honey processing, and processing of wild fruits into various products for local consumption and commercial purposes.

Cluster 5: On the Ground Activities

Activities and purposes: Activities are intended to reduce degradation of agriculturally marginal lands, increase habitat heterogeneity within farmlands, and enhance socioeconomically important species. They include: i) facilitating local communities to acquire high yielding, weather-resistant, locally appropriate crop varieties, ii) demonstrating sound but locally affordable soil management practices such as manure use, cover cropping, and agroforestry, iii) facilitating communities to create field borders to achieve habitat heterogeneity and meet livelihood needs such as pasture and fibre, iv) supporting local communities in acquisition of locally adaptable breeds of chicken and other species of small animal to reduce unsustainable hunting and increase incomes, v) facilitate fishermen to fish-farm as a way to take away pressure from wild fish populations, vi) facilitate communities to acquire energy efficient technologies and technologies for processing and packaging wild foods, vi) support in design of ecotourism activities vii) facilitating restoration of degraded bushlands, wetlands, lake shores, and river banks, viii) supporting carbon trading as a means of sustaining wooded areas.

Network for Coexistence with Nature

Activities of our Organization

The Network for Coexistence with Nature (NCN) aims to contribute to building societies in harmony with nature and to develop a renewed sense of value based on the concept that clues to realizing a sustainable society lie in the accumulated wisdom and skill of people living traditional lives in rural mountain areas. In order to achieve these objectives, it conducts the following activities: (1) educational and research projects on the subject of nature and our way of life, (2) conserving and maintaining forests, (3) projects to develop rural areas and (4) creating networks with individuals, organizations and governmental institutions who support our objectives.

***Kikigaki Koshien* in Japan**

This project has been held jointly since 2002 by Japan's Ministry of Agriculture, Forestry and Fisheries, Ministry of Education, Culture, Sports, Science and Technology and NCN with funds provided by several sponsor companies. Each year, a new group of 100 high school students visit 100 elderly masters who live traditional lives in rural areas and are engaged in professions such as woodcutting, carpentry, woodcrafts and fishing. By asking many questions, the students record and transcribe the masters' descriptions of their lives, skills and wisdom in a one-on-one setting. Based on this transcript, each student completes their own account of the master's oral history. During the process of *kikigaki*, the students learn not only about the masters' lives and values, but also about their traditional and ecologically-friendly lifestyles and the surrounding natural environment. The process is highly acclaimed as an example of the United Nations "Education for Sustainable Development (ESD)" in Japan.

Outputs and impacts of this project

Archive: Recording and collecting the traditional wisdom and skills of Japanese who have coexisted with nature. The work of the students is compiled into a book each year and is also available online. (Nearly one thousand oral histories are to be collected by the end of this fiscal year)

Communication: Through dialogue with masters of their own grandparents' generation, the students learn about the masters' lives and values. They also learn to understand and respect others.

Networking: After taking part in *Kikigaki Koshien*, students formed several groups throughout Japan to work to preserve the natural environment and revitalize local communities.

Publication of *Kikigaki* Textbook in English

As one of the methods to promote the efforts of the *Satoyama* Initiative, the United Nations University (UNU) and Ministry of the Environment of Japan (MOEJ) plan to spread *kikigaki* to other nations across the world. The UNU, MOEJ and NCN are jointly working to publish a *kikigaki* textbook in English.

Video Project to Provide Record of the Disaster

On March 11, 2011, the Great East Japan Earthquake and subsequent tsunamis claimed numerous lives and caused unprecedented destruction. With the cooperation of the United Nations University, Institute of Advanced Studies, NCN has started a video project to record how people have dealt with the disaster and how these affected communities are being restored in several areas where NCN and the Tokyo Foundation conducted the *Hisaichino Kikigaki 101* (*Kikigaki* in Devastated Areas 101) project. Intended to keep a record of the rebuilding process of communities as well as to disseminate their experiences widely to the society, the fifteen-minute video, produced in both English and Japanese, is planned to be available online.

***Kikigaki* Project in Indonesia**

An outline of the project has been made to promote environmental education in Indonesia using the *kikigaki* method. The goal of the project is to disseminate the *kikigaki* method to Indonesia and to establish the method as an environmental education program in Indonesia. Using this method, it is expected to raise awareness about the importance of forest policy based more on the local residents and communities, conservation activities, and education for sustainable development in Indonesia.

With the English *kikigaki* textbooks produced beforehand, we will conduct the training program for twenty people such as teachers, staff members of national parks and local NGOs three times for a total of 15 days. After the training program for 40 students of Kornita Senior High School, Bogor Agriculture University, students will conduct *kikigaki* interviews in rural areas, record and transcribe interviews, and complete the *kikigaki* oral histories. During the process of *kikigaki*, the students will learn not only about the rural people's lives and values, but also about their traditional and ecologically-friendly lifestyles and the surrounding natural environment. Their *kikigaki* work will be compiled into a booklet.

Japanese high school students and teachers also take part in the *kikigaki* project undertaken by Indonesian students. A forum for students from both countries to report on their own work is also planned so that they can share their experiences and findings and learn from each other.

Products and output of the project:
Training of 20 Indonesian *kikigaki* instructors
Training of 40 students from Kornita Senior High School
Conducting of *kikigaki* interviews by students in rural areas of Indonesia
Producing booklets on *kikigaki* oral histories
Exchange between the students of the two countries
Presentation of the work of the students

NGO Circle for Conservation of Natural Resources (ONG Ce.Sa.Re.N)

Conservation and Sustainable Management of Mangrove Forests in Benin through Local Capacity Building

1. Overview of the project

The coastal zones of Benin have numerous mangroves containing a rich biodiversity of plants and animals. Recognized for their global importance, these mangroves have been classified as Ramsar sites 1017 and 1018. People are attracted to these mangrove areas and are settling in the area in increasing numbers, thereby threatening the mangroves' existence. The mangroves play a crucial role in the lives of the local population. Currently these mangrove ecosystems are highly degraded and their size has been reduced by more than 60% in recent times due to various anthropogenic actions, including preparation of salt, overharvesting of fuel wood, medicinal plant collection, etc; and the adverse effects of climate change. The degradation of mangrove ecosystems is a significant threat to the conservation of biological diversity and to the survival of the local communities. Benin's mangroves have no protection status, which gives anyone the right to exploit the resources as they want without permission and without any control. These particular ecosystems have always been neglected and have not benefitted from a plan for restoration and sustainable management. If urgent action is not taken, the mangroves may disappear in the short term under the combined effects of anthropogenic and climatic actions. At the request of local populations, the NGO Ce.Sa.Re.N identified and prepared a project on conservation and sustainable management of mangrove forests using a multidisciplinary team in collaboration with civil society and local authorities. This project aims to contribute to restoration and sustainable management of mangrove forests in Benin for the improvement of livelihoods and reduction of the vulnerability of ecosystems and the population to harmful effects of climate change.

***General objective*:** contribute to the sustainable management of forest resources of the landscapes of coastal wetlands for increased well-being and mitigation of vulnerability to climate change.

***Specific objectives*:**

- Initiate and support participatory management processes of mangroves forests in Benin;
- Promote the restoration and sustainable use of local natural resources to reduce pressures on mangroves and increase income and the standard of living of the local populations.

The strategy of the project

The project strategy consists of an integrated approach to coastal zone management based on a continuous and iterative process using knowledge and indigenous practices that

promote sustainable development of coastal regions. This approach will be implemented through the following steps:

- Participatory diagnosis of the state of the ecosystems of mangroves,
- Development of master plan for the commune and management plan of mangroves,
- Local capacity building for the implementation and follow-up evaluation of management plans.

Project area and target group

The project will be implemented in the main mangroves of Benin. The main beneficiaries of the project are women, youths and other social and community users of mangroves such as small farmers and fishers.

Expected outcomes

The main results expected at the end of this project are:
Outcome 1: Planning and sustainable management tools of the mangroves are available and functional,
Outcome 2: The potential resources of mangrove ecosystems are increased,
Outcome 3: Income and local population livelihoods are improved,

2. Budget and duration

The amount necessary for the implementation of this project is estimated at US$ 75920 and will be implemented over 8 months.

3. IPSI member organisations to be involved: ONG Ce.Sa.Re.N and others relevant organizations

4. Contact person:

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Nomi Satoyama Conservation Society

Since the 1950's, Nomi Satoyama Conservation Society (NSCS) has been continually thinning - three times a month - degraded forests that are no longer used as a fuel source and, for a number of months has started maintaining walking trails to encourage the general public to enter Satoyama.

Until last year, the NSCS conducted various programs geared towards children from elementary school age and higher. However, from this year, the program was broadened to include nursery school children from age four aiming to educate up to 480 children about the beauty of Japan's four seasons and to let them experience forest environment education.

The NSCS also began to accept the business sector's Corporate Social Responsibility (CSR) activities. The number of people involved in Satoyama maintenance activities was insufficient, but new members from the business sector have contributed to an increase. As other companies are considering joining Satoyama maintenance activities as a CSR contribution, it is hoped that there will be a dramatic advancement of Satoyama maintenance from April 2012.

While conservation activities are being promoted, corporate donations to nature conservation organizations are not common in Japan. For NSCS, securing funding is getting difficult. There are three people in the office, but it was decided to reduce this to only one person next year. In the past, conservation activities were continually advancing, but there is a concerned voice from the general public that these activities will stagnate or even regress.

NPO Cultivate a Cloud

Satoyama Initiative from Hamamatsu

Hiroshi Ohmura
(Chief Executive Director)

We have to suspend our Collaborative Activities

Activities to enrich biodiversity of forests near farm villages, small farms or small paddy fields in the northern district of Hamamatsu City, central Japan, as well as some trials for funding to continue these activities, which can lead to a modern style of traditional culture and ecological lifestyle

The status of our activity

Funding: Suspended
We will restart when circumstances improve.

Reforestation: 4,000 Konara seedlings were planted using the budget from Hamamatsu City, and 200 seedlings were planted based on a donation from employees of the Toyota Industries Corporation.

The background

We were going to secure funding from a cooperative donation in Hamamatsu to maintain our activity. But the depression from the strong yen, the effects of the disaster and nuclear emissions have caused our local economy to weaken. The businesses in which some of our NPO members engage have also been stopped, so we have to suspend our activities.

Platform for Agrobiodiversity Research

The Platform for Agrobiodiversity Research and the International Partnership for the *Satoyama* Initiative

Platform for Agrobiodiversity Research Secretariat, c/o Bioversity International, Rome, Italy and Nairobi, Kenya

Introduction

The Platform for Agrobiodiversity Research (PAR) is a multi-stakeholder partnership established in 2006 to bring together researchers and others to share knowledge and experiences that can improve the maintenance and use of all aspects of agrobiodiversity. Currently hosted by Bioversity International, PAR's goal is to enhance the sustainable management and use of agrobiodiversity for meeting human needs by improving knowledge of all its different aspects. Its objectives are:

1. To collate and synthesize agrobiodiversity data and information and disseminate knowledge, making available relevant tools and practices that support improved use of agrobiodiversity and identifying areas where research is needed.
2. To identify ways in which the use of agrobiodiversity can contribute to addressing major global challenges, to make relevant information easily available and to provide options on the contribution of agrobiodiversity in these areas.
3. To identify and facilitate relevant new and innovative research partnerships that strengthen cross-cutting, multidisciplinary and participatory research and to contribute to agrobiodiversity research capacity building in developing regions.

PAR seeks to complement and add value to existing agrobiodiversity activities in specific ways. These include:

- Linking groups who are working on different aspects of agrobiodiversity at different scales and in different disciplines so as to share information, experiences and ideas;
- Developing syntheses of existing knowledge and identifying gaps where new knowledge is needed;
- Strengthening links between farmers, rural communities and indigenous peoples and the research community, and between the custodians and managers of agrobiodiversity;
- Responding to international agendas such as those of the Convention on Biological Diversity (CBD) and FAO and providing evidence based inputs on agrobiodiversity maintenance and use;
- Building the social and intellectual capital of partners and collaborators; and,
- Developing products that support the maintenance and use of agrobiodiversity by farmers, rural communities and indigenous peoples.

Members of PAR are part of a community that shares a common interest in the maintenance and use of agrobiodiversity. They can link with groups and individuals with different and complementary knowledge and experience, and help build social and intellectual capital. More practically, they are better able to access information about agrobiodiversity and its sources, obtain news and information about events and new initiatives and get access to experts in different areas of agrobiodiversity management from around the world. They can also use PAR to help find possible partners for collaboration.

PAR and the *Satoyama* Initiative

PAR's work is directly concerned with improving the maintenance and use of agrobiodiversity. It supports and complements IPSI's own threefold approach and five clustered activities in a number of ways which strengthen the overall aim of IPSI. Areas of PAR's work of direct relevance to IPSI are described below.

Communication

An important part of PAR's work is that of providing opportunities for the agrobiodiversity community to exchange information, opinions and ideas. PAR's website – www.agrobiodiversityplatform.org – aims to provide this and carries reports on new developments in the agrobiodiversity field, news on relevant topics and information on new reports or publications. The website also provides links to other important websites working in related areas so that its users can know about the work of partners and collaborators. In this way PAR seeks to facilitate the exchange of and access to knowledge on the maintenance and use of agrobiodiversity.

In order to support access to information and facilitate knowledge exchange and availability, PAR recently established a Researcher Database. This provides direct online access to researchers around the world who are involved in different aspects of the maintenance and use of agrobiodiversity providing information on their location and areas of expertise.

Knowledge synthesis

Together with FAO, PAR convened an Expert Workshop to assess the contribution that biodiversity for food and agriculture could make to food security and sustainability. The subsequent publication from this workshop (*Biodiversity for Food and Agriculture: Contributing to food security and sustainability in a changing world*, FAO/PAR, Rome, 2010) can be downloaded from the PAR website or obtained from PAR or FAO. It points to the importance of biodiversity in improving productivity and production, enhancing agro-ecosystem function and improving the livelihoods of farmers and rural communities around the world.

Much of PAR's work over the last few years has been concerned with analyzing the use of agrobiodiversity by rural communities and indigenous peoples that are already having to cope with climate change. It analyzed more than 300 different case studies, where there was evidence that farmers were faced with the need to cope with climate change and had used agricultural biodiversity as part of their coping strategies. The studies came from around the world and can be accessed through the PAR website (http://agrobiodiversityplatform.org/climatechange/). The results showed that: (1) adapting to climate change has usually involved a range of different actions at three levels - ecosystem or landscape, farm or agricultural system, and involving both inter- and intra-specific diversity; (2) innovation based on both traditional knowledge and new information has been important, and social (e.g., community), cultural and political dimensions have played a key role; and (3) use of traditional crop and livestock species and varieties, with new materials where necessary, has been a common feature (PAR, 2010).

In line with its first two objectives (of synthesizing existing knowledge and of identifying the role of agrobiodiversity in helping to address issues of global importance), PAR will publish further synthesis papers as its resources permit. In all these areas of work PAR is particularly aware of the relevance of IPSI's threefold approach, particularly those of consolidating knowledge and wisdom and integrating traditional knowledge and modern science.

Improved management and use of agrobiodiversity

The analysis of the use of agrobiodiversity for helping to cope with climate change highlighted the importance of access both to traditional crops, varieties and livestock breeds and to new materials adapted to changing conditions. Often traditional varieties are threatened despite their role in strengthening resilience and adaptability in traditional landscape. Where significant changes in production conditions are occurring they may need to be complemented by new crops or varieties adapted to the changed conditions.

In a project supported by The Christensen Fund, PAR has worked with indigenous peoples in Bolivia and in Sarawak, Malaysia and with local genebanks on improving access to traditional crop varieties and possible sources of new varieties adapted to changing needs. A key feature of the work has been the development of free Prior Informed Consent Agreements discussed and signed with the communities as a basis for the work PAR has undertaken. While the projects have been small in scale, they directly respond to the needs of the partner indigenous communities who live in landscapes that fulfill the Satoyama criteria (see www.agrobiodiversityplatform.org/climatechange/ for further details).

The development of a relevant and useful set of socio-ecological indicators has been clearly identified as a need by the various activities that PAR has undertaken and we are collaborating with Bioversity International in their work to develop and test such indicators. Through these different initiatives PAR contributes to IPSI's activities (3) Research for Indicators and (5) On the Ground Activities, as well as working to build our own capacity together with that of our many collaborators and partners around the world (Activity 4).

Wildlife Watch Group (WWG)

Wildlife Watch Group, better known as WWG, was established by a group of journalists and wildlife experts in October 1993 as an informal group to study and monitor issues related to the illegal wildlife trade. In May 2002 it was registered as non-governmental organization under the NGO act, and in 2011 it was also registered as a not for profit organization under the company registration act. WWG is a member of The World Conservation Union (IUCN), Species Survival Network (SSN), International Tiger Coalition (ITC), Global Tiger Initiative (GTI), Asia Pacific Forum of Environmental Journalists (APFEJ) and is affiliated with the Snow Leopard Conservancy (SLC), International Primate Protection League (IPPL), and Conservation Consortium.

Wildlife Watch Group (WWG) aims to support the wise-use of natural resources free from exploitation. Our objectives are:

- Eliminating the illegal wildlife trade, involving local people residing in buffer zones of national parks
- Mainstreaming natural resource and related agenda in the mass media to promote awareness and action
- Monitoring impacts and interventions on biodiversity
- Pro-nature advocacy and activism
- Undertaking trans-boundary conservation initiatives

WWG started a campaign to 'stop the monkey business'. This campaign was started on the pretext of protesting against the breeding of rhesus monkeys for possible export to the USA for painful and horrifying lab tests. WWG, along with IPPL, reached Mt. Everest with the respective banners displaying the slogan 'Stop the Monkey Business: Don't export Nepalese Monkeys to USA labs' on 19 June 2009.

Wildlife Watch Group (WWG) has initiated a discussion in Nepal to create Vision 2016- a look at what we seek 5 years down the road. This aims to make us proactive, and not just reactive. WWG envisions days when local communities are keepers of the local wildlife and are at peace with nature. By 2016, we hope to have created a regional security net for our endangered wildlife with the international community’s constant support for new incentives for conservation.

WWG seeks to move ahead to attain the vision for wildlife management. The handover of Kanchanjunga Conservation Area (KCA) to the Kanchanjunga Conservation Area Management Council is an example of a conservation area managed by the people. WWG

is planning a case study on KCA in this region to assess the advantages and progress in the handover of this patch of natural resources to the local people.

Located in Taplejung district, Kanchenjunga Conservation Area (KCA) is the first protected area of Nepal managed by local communities. This was a bold decision taken by the Government of Nepal (GoN) in 2006 to hand over management of the entire protected area to the local people. The GoN, instead of inviting local people to the capital, flew the entire Ministry of Forest to the area to handover the management responsibility of KCA.

Witnessing the functioning of KCA over the last five years, GoN recently declared a similar conservation area in the West. This paper titled 'Observation of functioning of Kanchenjunga Conservation Area (KCA): the region's first community owned conservation area' deals with the revitalization of local communities through enhancing traditional knowledge and empowering young successors.

This project will empower local people to be able to monitor, evaluate responses and take corrective actions. In order to support the target communities, WWG plays a key role as an enabler by helping with resource mobilization, as a catalyst for action, a source of new ideas and by facilitating research and development. NGOs will have to support local wildlife entrepreneurs to manage and benefit from wildlife management efforts.

World Agroforestry Centre (ICRAF)

IPSI-2 Short Report on ICRAF Activities

The World Agroforestry Centre (ICRAF) is committed to generating science-based knowledge on agroforestry --- the diverse roles that trees play in rural transformation in the developing world where smallholder households strategically increase the use of trees in agricultural landscape. ICRAF's activities build on a decade of research on the biophysical and economic tradeoffs in natural resource and landscape management in developing countries in Asia, Africa and Latin America, in order to design innovative interventions toward providing efficient and fair incentive mechanisms for sustaining ecosystem services, including clean water, healthy soils, carbon storage and biodiversity. ICRAF's activities thus contribute to two of the three-fold approach of the *Satoyama* Initiative; "consolidating wisdom on securing diverse ecosystem services and values" and "integrating traditional ecological knowledge and modern science to promote innovations" They also fit well in to the clustered activities, especially knowledge facilitation and policy research. Below we highlight some of ICRAF's ongoing research programs/activities which intend to contribute to maintaining and revitalizing socio-ecological landscapes (SEPLs).

[Evergreen Agriculture]

The primary goal of Evergreen Agriculture is to promote a wide adoption of conservation agriculture and agroforestry to attain resilient evergreen agriculture leading to more sustainable production and agro-ecosystems, and hence contribute to poverty reduction and increased food security while enhancing the resilience of systems in the face of climate change. This initiative intends to reach millions of smallholder farmers including along with extension workers, researchers, NGOs, the private sector and policy makers. Presently there a number of evergreen Agriculture research projects taking place in Africa and India through ICRAF looking at the best tree species to use, ensuring high quality germplasm is available and determining how seed and seedlings can be best distributed, while interest is also developing in South Asia and Australia. The current focus is providing pilot best practice information and then working with Governments to develop country programmes.

[Landcare International]

ICRAF supports the activities of Landcare International, whose aims include building a supportive global network to facilitate multi-level and multi-sectoral relationships within national Landcare projects and activities. It supports the aims and outputs of Landcare projects globally, particularly the African Landcare Network. Landcare International includes a network of 17 Landcare Programs supported through national governments

multi-lateral organizations, NGOs and Universities. It provides support for research and capacity building for landcare practitioners around the world. Landcare Programs focused on integrated natural resources management with specific activities for farm care, river care, bush care, veld care, coast care, watershed management, forest management and junior landcare activities in schools. The core of the Landcare model is community engagement for empowerment and ownership of local decisions and activities, although landcare projects are being funded by a wide range of supporters including the private business sector.

INDIGENOUS OR LOCAL COMMUNITY ORGANISATIONS

Association for Nature and Sustainable Development (ANDES)

Short Paper for IPSI 2nd Public Forum

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Asociacion ANDES is a founding member of the IPSI, and its activities are contributing mainly into the capacity building cluster of the IPSI. ANDES manages the south-to-south exchange program for designing, planning and managing biocultural territories for the conservation and nurturing of socio-ecological production landscapes. Biocultural territories encompass a harmonious relationship between people and nature through indigenous principles that guide all actions, where local traditions and practices enable resilient and cyclical use of natural resources through multi-stakeholder collaboration ensuring sustainable livelihoods. The activities undertaken are ongoing within ANDES' work plan.

Through its flagship initiative, the Potato Park, and horizontal networking and collective learning methodologies, ANDES has been promoting a community of practice on Biocultural Territories across indigenous and local communities in the South. The objective is to strengthen the capacities of farmers to nurture socio-ecological production landscapes, promote holistic livelihoods (Buen Vivir) and reinforce their participation in policy-making, having an impact on the resilience of socio-ecological production landscapes, food security and nutrition. This year three such training workshops have taken place in the Potato Park, bringing together communities and academics from Africa, Central Asia and Latin America to share experiences, reinforce capacities, network and engage in effective dialogue with policy makers. Training modules were developed by ANDES and the Potato Park technicians to address all themes that relate to the Satoyama approach and the IPSI – 2, including the following:

- Traditional models of landscape management
- Mapping resilient biocultural territories
- Analyzing ecosystem services within biocultural territories
- Building creative solidarity economies based on bridging traditional knowledge of biodiversity
- Develop a global community of local leaders and practitioners to network and engage in dialogue with policy makers and actively engage in policy and decision making processes related to socio-ecological production landscapes, food security and nutrition

The activities undertaken through the south-to-south exchange program have contributed to two collaborative activities under the IPSI. First, the development of indicators for resilience of socio-ecological landscapes, a collaborative work to be undertaken with UNU-IAS and Bioversity International. The Potato Park, as a leader in the biocultural territories model develops training modules, which are then used to facilitate a cooperative learning experiences. Through discussing biocultural territories with workshop participants, indicators of different parts of a biocultural territory, seen as a complex system, lead to developing indicators for resilience of the territory. Through analysis and comparison between participants from different parts of the world, a global understanding of resilience emerges.

Second, ANDES' activities contribute to the collaborative activity to be undertaken in partnership with Tebtebba and the Forest Peoples' Program on securing customary sustainable use by indigenous peoples and local communities and monitoring progress through relevant indicators. The biocultural territories model, which is furthered through the south-to-south exchange program of ANDES, promotes traditional models of landscape management, developing tools for analysis and development of alternative models which contribute to resilience of socio-ecological production landscapes. Participants in the workshops from Ethiopia, for example, are now developing a biocultural territory which will secure their customary and sustainable use of the landscape based on their traditional and cultural use of Enset.

The activities undertaken by ANDES as an IPSI member, and to be presented at the IPSI – 2 may speak to the themes on capturing and sharing our experience based on consolidating the biocultural territories model, and sharing it and creating a community of practice through South-South Exchanges on resilient socio-ecological production landscapes.

Culture Identity and Resources Use Management (CIRUM)

Forest Rehabilitation and Sustainable Watershed Forest Management through Community Forestry Management in Hoa Son Commune, Huu Lung District, Lang Son Province, Vietnam (2010-2013)

Tran thi Hoa – Director of CIRUM

Implementing Organization: Culture Identity and Resources Use Management (CIRUM), Vietnam & Forest Investigation and Planning Institute (FIPI)
Cluster: 4 (Capacity Building), 5 (On the Ground Activities)
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Introduction

Hoa Son is a mountainous commune of Lang Son province. It is composed of 12 villages with 1130 households and around 5857 inhabitants from 4 different ethnic minority (EM) groups, 73% (Tay, Nung, Dzao, Hoa, Kinh).

The total land area is 5081.7 ha, of which 3162 ha are forest land (62.2% natural area) divided into forest protection 1016 ha and forest production 2145.47 ha. The forest protection area is the watershed of the Khuon Pinh reservoir (80 ha). From 2000 to 2011, the area lost nearly 500 ha of natural forest. Due to a long period of over harvesting and common use, boundaries are not clearly defined, forest tenure conflicts have arisen over forest land use rights and management (Private Company) leading to the quality of forest and diversity of valuable species becoming very poor. As a result, social, environmental and economic factors are insecure in the area. There are also challenges because State Forest Enterprises and private companies are acting as exploiters with the support of higher political officials. Local voices, however, remain poor, lack confidence and are not heard!

(This initiative has been implemented following a proposed presentation at the First IPSI Global Conference, Mar. 2011 in Japan)

To this end, the program aims to (1) raise awareness and strengthen local capacity for the forest/land rights of the ethnic minorities groups in the mountainous area through community forest management; and (2) restore the natural forest (forest gene pool and water source) and manage natural resources sustainably in order to improve the environment and conserve the genetic resources of the forest flora.

In 2011, in cooperation with the Forest Inventory and Planning Institute (FIPI), local/functional officials and villagers, we tried to focus on (1) building up local voices to be stronger and more confident for meaningfully supporting the rights of land/forest; and (2) confirming forest/land long-term ownership by local people and community rights for management and protection via Community-based Land/forest Allocation Program (LAP). This model aims to contribute to lobby/advocacy purposes at the local and national level to bring about change. The model needs the involvement of different LNGOs, local authorities, village elders and leaders, functional officials, farmer representatives (key farmers) and advisors (formal local decision makers). These actors/stakeholders are linked in order to gain knowledge/experiences for learning and action at the local level.

Capacity building

Collaborative research on land/forest conflicts (local people vs. State Forest Enterprise/private companies) has been conducted to find evidence for lobbying. The research involved different LNGOs (RDPR[7], CRD[8], CODE[9] and CIRUM) together with local/functional officials and farmers. The main objective is to set up alliances for common issues with various indicators representative of different parts of Vietnam; and furthermore for an initiative coalition for lobby/advocacy for land/forest use rights and management by local people (1 research report produced). We have also conducted field research on (1) customary law in natural resources management (NRM) by Thai ethnic minorities in Dien Bien province (Northwestern Vietnam). This research report was published by IWGIA Thailand; and (2) Thinh Loc Forestry Company, which occupies and destroys a lot of protection forests/land for their own economic profits without any attention towards local benefits. This research report was done in Vietnamese.

Along with research papers, networking forums/dialogues/workshops[10] were organized on community rights to protect and manage watershed forests with the involvement of different actors as alliances with a common philosophy and involvement by different ethnic minority communities coming from different parts of Vietnam and Laos (Hmong, Thai, Nung, Tay, Dzao, Ha Nhi, etc.). Activities added for this network include three

[7] Rural Development and Poverty Reduction Fund (RDPR)
[8] Centre for Rural Development in Central Vietnam (CRD)
[9] Consultancy on Development Institute (CODE)
[10] Three regional forums with alliances: SPERI, CODE, RDPR, CIRD, CIRUM

exchange trips for local authorities, key farmers, experts, NGOs and CBOs as partnerships to discuss the forest degradation situation and to determine local solutions for action. Two dialogues were initiated among local people and local decision makers for reclaiming land from the State Forest Enterprise and private companies. All these strategic activities are for lobbying/advocacy focusing on (1) national policies related to household and community land/forest titles; (2) customary law based community forest management and protection; and (3) community ownership for watershed forest management and protection.

Forest/land Title

One of the most important strategies for sustainable community forest management is confirming forest/land titles of local people and community rights for management and protection via Community based Land/forest Allocation Program (LAP). This requires different technical steps to get long-term use forest/land certificates (Red Book) and one of the greatest difficulties is facing unresolved conflicts over land use and land rights, which have been caused by governmental programs since 1994 due to the national and local state level still being stuck! Challenging this is a critical role of NGOs. For this reason, CIRUM, in cooperation with FIPI and local/functional authorities, has made major efforts to deal with these processes. The following are some of the main result indicators and ongoing activities:

1. Participatory status inventory of forest/land use and management in Hoa Son commune completed (one technical report approved by functional local authorities);

2. Participatory detailed land use planning at village level included practical training completed (one technical report approved by functional local authorities)

3. Identified types of conflicts over boundaries (local people and private company; among local people) completed (98% of different conflicts resolved by integrating customary law and state law - clearly defined boundaries with signature of villagers certified by local authorities)

4. Ongoing forest inventory (volume; classification and areas of regenerated forest)

5. One map of current forest status

6. Forest/land allocation to households and community (Red Books – Forest/Land Title): early 2012

7. Community regulations for forest governance (2012)

Follow-up strategies:

1. Continued collaborative research among NGOs (maybe some new partners to increase strength) with common issues related to community forest ownership and management – documentation for lobbying and sharing

2. Community-based watershed forest planning and management (2012-2013)

- Continued bio-diversity assessment
- Integrate suitable sivilculture techniques for re-enrichment
- Community-based forest co-management regulations between bordering communes
- Monitoring & Evaluation

Indigenous Knowledge and Peoples Foundation (IKAP)

Indigenous Knowledge and Peoples (IKAP) is a regional network of indigenous community-based organizations (CBOs), GOs (government organizations with indigenous staff working on indigenous knowledge and cultural issues) and NGOs, who partner with indigenous communities in Mainland Montane South East Asia (MMSEA). IKAP was established in 2002 with the objective of enhancing the capacity of indigenous communities in the MMSEA through human resource development (especially training), creating space for exchange and sharing of knowledge and networking, self-definition of indigenous identity and self-representation of indigenous peoples (IPs), and promotion and revitalization of indigenous knowledge[11].

IKAP has national networks in six countries: Burma, Cambodia, Lao PDR, Southwest China, Thailand and Vietnam. Each has a country coordinator nominated by the country networks in order to represent it in the Regional Steering Committee and assist local efforts.

Currently there are four main programs areas of IKAP: (1) Promotion and revitalization of IK; (2) Capacity enhancement and building; (3) Acceptance of Indigenous Peoples on resource management and mitigation of climate change; and (4) Advocacy and IP rights.
The ongoing and planned activities that are contributing to the *Satoyama* Initiative and the five cluster activities promoted under IPSI are mainly run under program 3. The objective of this program is to protect the rights of IP communities through the application of community action research findings on rotational farming and land use management in relation to locally appropriate mitigations of and adaptations to climate change. The following are two projects that are being implemented and planned for the next two years.

I) Land rights management project of Karen community in Mae Lan Kham village, Northern Thailand

Activities

1. Review and strengthen Mae Lan Kham and Aubkhan River Basin Network

[11] Indigenous knowledge (IK) includes the knowledge, skills, culture, practices, etc. traditionally used by people and communities in dealing with all aspects of life, especially food/income production and continuation of their ethnicity. It is a process of social negotiation involving multiple actors and complex power relations, and should be understood in terms of its affirmation of ethnic identity and dynamics in responding to a changing environment.

1. Meetings at the village level to review roles and regulations, committee members, goals, work plans, expectations, results, facing problems and discussing solutions.

2. Co-management between Mae Lan Kham and Pa Kha village, National Park, district governor and local administration on natural resource management, land marking surveys, GPS shooting. Representatives of all the stakeholders will participate in this process.

3. Produce "post" for land marking to post all zones of rotational farming, agro forestry, garden, wet rice paddy field, etc.

Expected outcomes:

1. The networks of people at the village and river basin level have clear roles and regulations for resources and members; there is strong management of resources.

2. Co-management committees do the monitoring and evaluate the management process.

3. Land mark zoning conducted in the two villages, and people have a clear understanding and confidence in their land rights and their rights to manage their own natural resources.

4. Develop plan together with the National Park on how to manage resources in the future through co-management processes by respecting people, organizations, knowledge and practice.

II) The implementation plan for learning about innovations in community forest-land management and carbon accounting in two Karen villages: Baan Khun Saab and Baan Mae Lan Kham, Samoeng District, Chiang Mai Province, Northern Thailand[12].

1. **Method development:** Select carbon assessment methods which can be applied at village level and adapted for local use, as well as reflected for locally appropriate adaptation and mitigation actions (LAAMAs)

2. **Carbon assessment:** Based on participatory approach and specific research methods

3. **New land-management plan:** Participatory preparation of optimized land use/carbon accounting, based on Indigenous Knowledge (IK) and LAAMA

[12] Thailand Concept Note IKAP-FP/CMU 2011

4. **Communal land rights:** Clarify boundaries of legal forest categories and community land uses within villages and adjacent areas, and specify communal land right issues in the target areas

5. **Sharing Indigenous Knowledge:** Share relevant IK related to LAAMAs

6. **Monitoring of community forest-land carbon management plan:** Develop a community-based monitoring scheme for forest-land carbon management, other related adaptation measures and their application

Expected outcomes

The most simple and scientific methodologies for carbon assessment for further community carbon assessments by the local and ethnic people themselves. The carbon assessments and their results will be a basis for land use planning incorporating the issues of communal land rights and forest-land demarcation. New challenges and new opportunities for community-based land use and forest-land management, including rotational farming. Through participatory research, the two case studies for learning innovation will explore community benefits from the new mechanisms and develop, at a micro level, forest and land-based carbon management in areas dominated by rotational farming under rapid change.

Indigenous Peoples' Biocultural Climate Change Assessment (IPCCA)

Short Paper for IPSI 2nd Public Forum

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The IPCCA is a founding member of the IPSI. As an innovative indigenous response to climate change, partners across the world, in a diversity of ecosystems, are undertaking local assessments of climate change in order to build resilience in socio-ecological production landscapes within their biocultural territories. Complementary to the local processes of climate change assessments, which support the on-the-ground activities cluster of the IPSI, the IPCCA is also creating local to global links to contribute into climate change policy nationally and internationally.

The core ongoing activities of the IPCCA initiative are, therefore, undertaken across scales. Locally, communities are developing methodologies by bridging traditional knowledge and practice to undertake assessments of climate change in their territories and landscapes. The assessment results are used in the development of adaptation strategies, which aim to building resilience in their socio-ecological production landscapes. A methodological toolkit has been developed and published to help guide assessment processes based on the lessons learnt. During 2011, two workshops with partners have led to sharing experiences and lessons learnt between partners.

The IPCCA local assessment activities are building understanding of key processes that contribute to resilience in landscapes in a diversity of fragile ecosystems, such as the Sub-arctic tundra, Caribbean coast, Amazon and Asian rainforests, Southern Chinese and Andean mountains and African plains. Indicators for socio-ecological landscape resilience are being identified, each within the local context, which can help IPSI partners in the indicators research cluster.

The results of the local assessments are currently being synthesized to produce the 1st IPCCA Synthesis Report, which will provide guidance for policy development. The key themes covered in the report include the key role that traditional ecological knowledge plays in understanding socio-ecological resilience and lessons learnt in bridging traditional knowledge with science to provide innovative avenues for securing ecosystem services and building resilience.

All IPCCA activities are undertaken in a collaborative manner between local partner organizations and communities, in coordination with the Secretariat and Steering Committee members. Monitoring and evaluation of the activities and results they produce

is therefore also undertaken in a collaborative manner between all partners. Indicators used are developed based on traditional knowledge and local interpretations of resilience and Buen Vivir, an indigenous concept of well-being.

The activities to be presented can also speak to themes 1 and 2 of the IPSI-2 on capturing resilience and sharing experiences of restoring socio-ecological production landscapes. In order to fully appreciate the tools and data that the IPCCA activities are producing, it would be important to have presence of several local assessment partners at the IPSI-2.

Indigenous Peoples' International Centre for Policy Research and Education (TEBTEBBA)

Tebtebba believes that strengthening social-ecological governance at appropriate scales, including indigenous peoples' customary governance over their lands, territories and resources, is an important dimension in building resilience of ecosystems, their functions and values, as well as in advancing culturally defined sustainable development. Indigenous peoples have called this "development with culture and identity" or self-determined development. The combination of human rights, traditional knowledge and ecosystem-based approaches, is reflective of indigenous peoples' own values, practices and aspirations in working towards human well-being and healthy ecosystems.

Policy Advocacy Work

Indigenous peoples have called for their inclusion and their full and effective participation in all policy and decision-making processes affecting their lands and their well-being. Tebtebba is active in the promotion of customary sustainable use (Article 10(c) of the CBD) including through attendance at key international meetings relevant to the theme. Last year, Tebtebba participated in the following meetings:

31 May - 3 June	Montreal, Canada	Ad-Hoc Technical Expert Group Meeting on Article 10 (c)
June 17-19	Jokkmokk, Sweden	Indigenous Terra Madre (Slow Food Movement)
22-24 August	Manaus, Brazil	Global preparatory meeting of Indigenous Peoples on Rio + 20 and Karioca 2
1 November		Submission by Indigenous Peoples to Rio +20
12 November	Montreal	Meeting of the Steering Committee of IPSI
21 November	Baguio City, Philippines	Study Workshop on Sustainable Cities and Applying the Ecosystem Approach

Indicators Relevant for Indigenous Peoples

Parties to the CBD have adopted 3 indicators on Traditional Knowledge for inclusion in the monitoring framework and indicators for the Strategic Plan for Biodiversity, and another indicator was developed by AHTEG on Indicators. These are:

Trends in land-use change and land tenure in the traditional territories of indigenous and local communities (B) (Decision X/43)
Trends in the practice of traditional occupations (B) (Decision X/43)
Trends in degree to which traditional knowledge and practices are respected through: full integration, participation and safeguards in national implementation of the Strategic Plan (B) – proposed by AHTEG
Trends of linguistic diversity and numbers of speakers of indigenous languages (B) (Decision VII/30 and VIII/15)

Tebtebba serves as the Secretariat of the IIFB Working Group on Indicators, and plays an active role in building partnerships to carry out this work, together with the UN Inter-Agency Group on Indigenous Issues, the Biodiversity Indicators Partnership (BIP), as well as with researchers and NGOs. At present, Tebtebba is involved in promoting the adoption of indicators at the national level, supporting indigenous communities to define relevant indicators at the community level, and supporting them in carrying out monitoring work on salient aspects of ecosystem resilience and community well-being.

Last year, Tebtebba held a global workshop on developing community-level monitoring tools for use under the CBD and the UNFCCC – REDD+ programme using indicators relevant for indigenous peoples. Presentations on this theme were also made during the Saami Parliament's Conference on Traditional Knowledge (March 22-24), and at the SCBD-UNESCO Side Event during SBSTTA15 on ***Indicators on the interface between biological and cultural diversity***.

Capacity-Building Activities

Since 2004, in partnership with Swedbio, Tebtebba has conducted a systematic capacity-building program with Indigenous Peoples for CBD Implementation, focusing on policy advocacy, global and regional education workshops and publications in partnership with the International Indigenous Forum on Biodiversity (IIFB) and the Indigenous Women's Biodiversity Network (IWBN). We focus on strengthening institutional capacities of indigenous peoples organizations to respond to specific work programmes of the CBD such as Traditional Knowledge Indicators, Access and Benefit-sharing, and Biodiversity and Climate Change.

In the Philippines, Tebtebba is conducting activities on CBD national implementation - coordinating the Philippine Traditional Knowledge Network (PTKN) and a pilot project on applying the ecosystem-based approach by building on customary resource management and sustainable use of the Kalanguya people in the municipality of Tinoc, in Ifugao Province.

A Training of Trainers (TOT) education workshop was conducted for indigenous educators in Asia entitled: ***"Indigenous Peoples in the 21st century - Holistic and Strategic Approaches towards Indigenous Peoples' Self-determined Development",*** which integrates human rights–based, ecosystems–based, knowledge-based, and gender-sensitive and inter-cultural approaches in the education modules.

Kanuri Development Association (KDA)

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The Kanuri Development Association (KDA) is an indigenous people's organization committed to aiding, especially through education, the plight of the Kanuri indigenous peoples of Africa. It is active in finding solutions to oppression, desertification and environmental degradation. Recently, it has also been involved in issues of climate traditional knowledge and intangible cultural heritage.

As a result of the impacts of the ongoing climate change on the Kanuri indigenous community in Africa and the rapidly changing landscapes of their environment, in recent years the KDA has focused on protecting and restoring these changing landscapes, the community and biodiversity as a whole through engaging skills drawn from traditional knowledge, sciences and local farming practices.

Over the last three decades, there has been an increasing change in the landscape pattern of the environments within the Kanuri territories both topographically and in terms of the nature of biodiversity in the environment caused by the ongoing climate change, directly, and through catalyzing the desertification of the Kanuri lands and territories. The Sahara desert continues to expand southward at the rate of 0.8 kilometers per annum (B. Abdullah, 2009).

Due to the conditions described above, the Kanuri indigenous community keeps losing its farmlands to the encroaching Sahara desert while also facing the extinction of certain plants of great economic and medicinal value in their environment/territories. Examples of such plants include the Kasese, Ngwanjaram as well as Kuyuk.

Due to this situation, the KDA is now focusing and working towards protecting and preserving /restoring the environment and biodiversity, while also helping to adopt new mitigating measures against this ongoing climate change as well as desertification through skills and knowledge transfer.

Considering the above situation of the Kanuri indigenous community, the IPSI -2 public forum theme 3 will be a good venue for acquiring the necessary skills that will be helpful for the KDA and the Kanuri community to restore landscapes and biodiversity while also mitigating the ongoing negative environmental changes within its territories.

ACADEMIC, EDUCATIONAL AND / OR RESEARCH INSTITUTES

Centre for Forestry and Natural Resource Policy Study (CFNRPS) Renmin University of China

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The mandates of the Centre for Forestry and Nature Resource Policy Study, Renmin University of China are to: 1) promote community based resource management focusing on integration of issues of collective action, tenure arrangement, benefit sharing, and community organization; 2) strengthen the role of traditional knowledge and culture towards sustainable development in the scope of human-nature integration; 3) provide policy recommendations towards sustainable management of natural resources, including biodiversity. The centre explores a multidisciplinary and holistic approach towards sustainable management of forests, biodiversity, wetland, pasture and land resources in the context of globalization, commercialization, and rapid social change and intends to be a facilitating institution for sharing learning nationally and globally on sustainable forestry and natural resource management. Up to now, the centre has developed 5 research and advocacy programmes, which are:

1. Resource tenure. A) Understanding the dynamic of resource tenure arrangement on the ground, in particular, customary arrangement; B) studying the impacts of on-going reform of natural resources to local people and sustainable management. C) Providing holistic and integrated policy recommendations to the Chinese government on the reform of the tenure arrangement of forest, pasture and wetland.

2. Forestry governance and trade. A) Conducting comparative study on forest governance among China, Vietnam, and Indonesia; B) analyzing the impact on the livelihoods of small scale farmers and enterprises of EC Timber Regulation at China; C) assisting to facilitate cooperation between China and EC on the implementation of EC Timber Regulation.

3. Forestry tradition and culture. A) Documenting China's forest traditions and culture including folk culture, psychology, religions, local regulation, forest management practices of various nationalities, including Han, Yi, Miao, Tong, Zang, Mongolia; B) Understanding interrelationship between forestry traditions and culture of various minorities and challenges to conserve and protect FRK and culture; C) conducting interface research between FRK and scientific knowledge;

D) providing policy and legislative framework to support forest tradition and culture.

4. Forestry transition. A) historic review of forestry changes in 8 selected countries, including forest quality and quantity, legislative framework, institutional arrangement; B) analyzing the drivers of forest changes, C) facilitating policy research and sharing learning network in Asia-Pacific Region.

5. Community based resource management. A) Establishing 4-5 social laboratories (a community as one lab) in Northwest, Northeast, Southwest and South China respectively to conduct long-term study on nature-human system on the ground; B) promoting community based resource management at this selected social lab; C) De-contextualizing the transformation of social-nature system with the intervention of globalization, freedom economy, technical and policy intervention.

Although no activity has been listed as an IPSI activity, in the year 2011, we have conducted many activities which are in line with the 5 clustered activities in IPSI as follows:

1) To document traditional ecological knowledge and culture of ethnic minorities of Yi, Miao, Lishu and Mongolian, and analyze its implication to policy and norms.

2) To support community based biodiversity conservation, community based resource management in Northeast, Southwest, and Southeast China at village level, which then act as a social laboratory for multidisciplinary study on transformation with the paradigm of the process and interface of knowledge, power, agency of actors on the local production, livelihoods, culture and social context. In this way, we have strengthened the relationship between human and resources, so it does meet the local people's demands for development with combining biodiversity conservation at the community level.

3) To study impacts on international trade, local livelihoods, customary norms and traditional culture from global issues, including climate change, free trade, international regime on environment including biodiversity, and furthermore their policy implications.

4) To study integration of traditional knowledge and scientific knowledge and its policy implications at Lishu and Inner Mongolia Nationalities.

5) To assess the impact of China's Collective Forestry Tenure Reform and its related policies on local communities. In this way, we tried to enable forest stakeholders and local people to take part in the Collective Forestry Tenure Reform and decision-making process.

The following table shows the linkage of the research programmes with the IPSI activities.

Table 1 Coherence between the programme and IPSI clustered activities

Themes	Resource tenure	Forestry governance and trade	Forest tradition and culture	Forest transition	CBRM
Knowledge facilitation	√	√	√	√	√
Policy research	√	√	√	√	√
Research for indicator			√		
Capacity building				√	√
Activities on the ground	√				√

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Sustaining Ecosystem Services in Cultural Landscapes: A European Perspective on Analysis and Management Options

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Many European cultural landscapes have experienced rapid and fundamental changes over the past decades: Traditional practices characterized by small spatial scales; mixed cultures; low capital, nutrient, and energy inputs; and multiple ecosystem services have been abandoned and replaced by standardized and simplified land uses. These changes have had fundamental effects on ecosystem services and human well-being. Typical trade-offs involve increases in commodity provisioning services at the cost of regulating, cultural, and supporting services. Most importantly, loss of historically grown, regionalized land management practices involves a loss of indigenous knowledge systems, which are known to increase a society's capacity to deal with crises and to maintain resource flows in changing and uncertain conditions. Therefore, efforts are being made all over Europe to preserve the regional diversity and value of cultural landscapes and their underlying land-use practices while, at the same time, seeking to guide landscape changes into sustainable pathways. The growing interest in both outstanding and vernacular human-shaped landscapes finds expression in the UNESCO World Heritage Convention, the European Landscape Convention, and the IUCN Protected Landscape Approach. These policies have embraced the concept of cultural landscapes and promote their protection, management, planning, and governance. The ecosystem services approach is a powerful framework to guide such efforts, but has been rarely applied in landscape research and management.

Our interdisciplinary research group aims to enhance the theoretical, empirical and practical knowledge of how to safeguard the resilience of ecosystem services in cultural landscapes by:

- critically reviewing the usefulness of the ecosystem services approach to the analysis and management of cultural landscapes;
- assessing the broad and interrelated array of ecosystem services provided by cultural landscapes and relating these to human well-being;
- identifying the main drivers of change in cultural landscapes and their impact on ecosystem services provision; and
- exploring adaptive and effective ways of landscape management for ecosystem services provision.

As the European understanding of cultural landscapes comes very close to the concept of "social-ecological production landscapes", our group shares many features with the Satoyama approach. We stress the notion of multifunctionality of landscapes and point in our work to ways to enhance diverse "bundles" of ecosystem services such as agricultural commodity production, carbon sequestration, water filtration, and landscape aesthetics. One way to promote multifunctional land use is fostering agroforestry systems. For example, we study traditional European agroforestry systems such as the *dehesa* oak parklands of Spain or traditional *Streuobst* orchards in Southern Germany and the ecological knowledge of the people who manage these lands. We aim to link these "old-fashioned landscapes" with new ecosystem services (e.g. rural tourism or carbon sequestration) and to transfer the valuable properties of traditional land-uses to contemporary land-use systems (for example to novel, mechanized agroforestry systems for energetic biomass production).

As a research group, we are mainly active in the domains of indicators research, policy research, and knowledge facilitation. We borrow indicators from landscape ecology and other disciplines to assess the spatial and temporal dynamics of ecosystem services in cultural landscapes. Our particular emphasis is on the study of indicators for cultural services, which is one of the most relevant, but also most difficult and least accomplished tasks in ecosystem services research. In the field of policy research, our focus is on emerging initiatives that aim at securing services from ecosystems through incentive-based policy instruments. Here, we ask how payment schemes affect land-use practices and the provision of ecosystem services from the global to the local scale. To facilitate knowledge between academia and natural resources management, we are conducting dialogues with actors from the spheres of politics and practice by means of on-site talks, scenario workshops and discussion papers. Discussions are focused on eliciting suggestions regarding how effective policy tools for the promotion of ecosystem services can be designed.

Our research group runs from 2009 to 2013, but work on cultural landscapes will certainly be continued afterwards. Typical for a research project, our intended output comprises dissertation theses, scholarly publications, discussion papers, workshops, and conferences. Our underlying motivation is to promote conserving multifunctional landscapes and enhancing joint production of commodities and ecosystem services. In our view, the idea that "hands off" management alone will conserve native biodiversity is severely outdated.

Graduate School of Agriculture and Life Sciences
The University of Tokyo

Current/ongoing activities of *Japan-Asia SATOYAMA Education Initiative* in 2011 (Cluster 4)

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Since 2008, the Graduate School of Agricultural and Life Sciences (GSALS), at the University of Tokyo, has been carrying out the *Japan-Asia SATOYAMA Education Initiative* (JASEI), a master's course integrating lectures, field practice and practical training, funded through the 'Project to Develop Higher Education Environmental Leadership Training Program' of the Environmental Leadership Initiatives for Asian Sustainability (ELIAS), the Ministry of Environment of Japan. JASEI aims to train and cultivate international environmental leaders, who are capable of re-organising and restoring traditional regional resource management systems, as typified by Satoyama in the case of Japan, in contemporary society, and sharing it with the international community as a new sound-material cycle and nature-harmonious society model.

In order to achieve the above education objectives, we have established three education bases, namely, an academic base (The University of Tokyo/UT), an international base (United Nations University Institute of Advanced Studies/UNU-IAS), and a field base (Toyooka City, Hyogo Prefecture), and have developed curricula to enhance the education synergy effect through collaboration among these bases. Opportunity for international exchange is also provided by utilising the on- and off-campus teaching staff network, and at the same time, actively enrolling international students from Asia and UNU-IAS fellows.

Although financial support by ELIAS ended in FY 2010, we have still been continuing to develop and improve those education programs. In 2011, we strengthened the activities in the academic base which provides several lecture courses.

We opened a flagship course "SATOYAMA, the traditional rural landscape of Japan" as a 3-day intensive course from September 8th to 10th, 2011. The learning objective is to acquire basic skills for communicating the natural-social systems supporting the nature-harmonious society of the 21st century to the international community, and at the same time, to deepen the understanding of the changes and present condition of Satoyama from the aspect of natural sciences, humanities and social sciences. We have defined "The study of Satoyama" as a multidisciplinary science designed to formulate the natural-social systems that leads towards nature-harmonious society based on the understanding of the interaction between the natural environment and human activities. Therefore, in this

course, by capturing the natural-social systems of Satoyama from diverse academic fields such as ecology (animal, plant, agricultural, landscape and conservation), landscape architecture, rural planning, ethnology and human ecology with keywords such as 'ecosystem services', 'biodiversity', 'resources and energy', 'commons', 'community revitalization' and 'partnership', we aim to systematize these through an integrated approach of humanities and sciences. To enhance international skills such as a broad perspective on global environmental issues, information dissemination capacity to Asia and the world, and communication ability, we invited lecturers from UNU-IAS, UNU-ISP and Yunnan Normal University, China. Throughout the lecture, we worked together to examine the lecture contents and education methods, and to develop versatile education materials.

Another lecture course, "Nature-harmonious Society in Asia" will be also implemented by inviting Dr. Parikesit of Padjadjaran University, Indonesia as a guest lecturer in late January, 2012. The learning objective is to deepen the understanding of the common and local natural-social systems on an Asian scale through comparison with the Satoyama of Japan, and at the same time, to learn the establishment, changes and present condition of the sustainable and cyclical use of local resources and ecosystem management systems found throughout Monsoon Asia.

Now that UNU-IAS/ISP have started to offer master's/doctoral degree programs, we also started a detailed discussion with UNU to open joint lecture courses which can be officially registered both by students of UT and UNU-IAS/ISP so that we could maximize educational synergetic effects through coordination of the academic base and the international base of JASEI framework.

Kanazawa University

Kanazawa University's Challenge towards the Revitalization of Satoyama and Satoumi

Koji NAKAMURA and Setsuko NAKAYAMA

Kanazawa University is a regional academic institute in Ishikawa Prefecture which enrolls roughly 8,000 undergraduate and 2,400 graduate students under 2,600 academic and administrative staff. As a "research university dedicated to education while opening its doors to both local and global society," it seeks to promote Noto Peninsula with a focus on integrated area studies at the highest domestic level (Kanazawa University 2011), from which values of *satoyama* and *satoumi* are created, reappraised and transmitted to the world. Since the launch of our Satoyama Satoumi Project (Rep. Koji Nakamura) in 1999, our efforts towards maintaining, revitalizing/restoring socio-ecological production landscapes and seascapes in the region have developed to encompass all three colleges and various facilities within the university structure (Kanazawa University Satoyama Satoumi Project 2011). Between 2010 and 2011, we have implemented over fifty independent programs in the Noto Peninsula alone.

Ishikawa's *satoyama* accounts for about seventy percent of the prefectural land (Nakamura 2006), and as with most SEPLs of the developed world, faces degradation due to underuse. Its biodiversity-rich landscapes and seascapes have been shaped through longstanding human-nature interaction that had been central to the once vibrant rural economy. Noto Peninsula, in particular, is a Key Biodiversity Area (Conservation International) and has been selected as a Globally Important Agricultural Heritage System site by FAO in June 2011. Changes in our lifestyles and industrial structure, however, have induced the depopulation and aging of these rural societies and the decrease in human activity in the area (Nakamura 2006).

The state of our SEPLs calls for the consolidation of wisdom from various disciplines and a multistakeholder approach in policy formation and implementation as highlighted in the *Satoyama* Initiative. Our position as a regional institute of higher education and research has proven advantageous in the creation of a strong local focus while diversifying our approach. Our main activities can be summarized as below:

1. Knowledge Facilitation
   The university has researched SEPL areas in Ishikawa and other parts of the world. We are currently consolidating the knowledge produced through various disciplines including ecology, meteorology, health sciences, economy, sociology, anthropology, etc., to serve as a basis for our activities in the residual clusters.
   The most relevant synthesis to date comes from Japan Satoyama Satoumi Assessment as a sub-global assessment of the millennium ecosystem assessment, co-chaired by

Koji Nakamura for the Hokushinetsu Cluster (Kikuzawa *et al* 2010). The process has been unique compared to other JSSA clusters in its bottom-up approach involving not only scientists but local governments as well. The partnership framework formed during the assessment has proven useful to our ongoing activities mediating local, regional and global processes in the transmission of *satoyama* and *satoumi* values. The compiled knowledge serves as a basis for our ongoing research projects such as the Satoyama Satoumi Revitalization Study and the Satoumi Study. Our focuses include the creation of GIS databases for an ecological history approach, biodiversity assessment in rice paddy systems and material circulation in *satoyama/satoumi* systems.

2. Policy research
   Our experience with JSSA has been foundational to our current involvement in the planning of local biodiversity strategies in line with Japan's implementation of the CBD. Following Noto's selection as a GIAHS site, we are consulting with the relevant four municipalities and four townships in order to assist local policy formation. Moreover, we have invited local government staff of the Oku Noto area into our policy research group, including members of the Satoyama Satoumi Project, the Center for Regional Studies, etc.

3. Research for indicators
   Our search for indicators of SEPL resilience is made through various ecological and social monitoring activities, many of which follow a participatory approach.

4. Capacity building
   Our capacity building programs target residents/immigrants in the SEPL areas ("Noto Satoyama Meister" Training Program, Noto *Ikimono* Meister Training Program), main campus students and university students within Ishikawa and beyond (Noto Campus, Noto Peninsula Satoyama Satoumi Activity and various field programs) including trainees from developing countries (JICA Training Program). Through the construction and implementation of coursework designed for the promotion of *satoyama* and *satoumi*, we simultaneously train our university faculty, thereby mainstreaming the *satoyama*/*satoumi* approach in our educational programs. These programs have also had the effect of bringing young people from diverse backgrounds into rural areas, some of whom have chosen to stay.

5. On the ground activities
   We founded two novel university structures to coordinate our on the ground activities. One is the Kakuma Satoyama Headquarter to coordinate local participation in the restoration/maintenance of our main campus Satoyama Zone (74ha). Another is the Noto Operating Unit, located in Suzu City, 150km from the main campus to coordinate

and implement all activities in Noto. The resident academic staffs at Noto Operating Unit are seminal in providing local perspectives in our program design.

Our experience with *satoyama*/*satoumi* residents has revealed how the reappraisal of traditional ecological knowledge and social institutions to harness ecosystem services empowers local stakeholders. Our vision of a new "commons" culminates in the revival of traditional agricultural festivities whereby scientists, urbanites and foreigners – newcomers to SEPL areas – can sit together with custodians of the land to discuss the sustainability of rural livelihoods, towards our common future.

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Kathmandu Forestry College (KAFCOL)

Bio-diversity Conservation and Improved Livelihood through Medicinal Plants Cultivation in Mountain Ecological Landscapes of Nepal

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This study is part of the on-going and planned activities of the Kathmandu Forestry College (KAFCOL) oriented towards contributing to three-fold approach of the *Satoyama* Initiative, particularly on consolidating wisdom on securing diverse ecosystem services and values and integrating traditional ecological knowledge and modern science to promote innovations. The activities promoted basically fall under the following three clustered activities (I, IV and V) of the *Satoyama* Initiative. The cultivation of three Medicinal Plants (*Swertia chirayita, Veleriana jatamansii and Rheum austral)* was done by the Nepal Agroforestry Foundation (NAF), an NGO that promoted KAFCOL in four resource poor Village Development Committees (VDCs) of Rasuwa district of Nepal during 2008-2001. Main objective (Goal) of this project was to conserve Medicinal and Aromatic Plants (MAPs) and improve livelihood of the local people. The project purpose was to get food sufficiency and decreasing pressure on MAP resources in forests. During recently, KAFCOL in collaboration with the Ministry of Forest and Soil Conservation Nepal and Institute of Advanced Studies of United Nations University, Japan agreed to continue cultivation of the above three MAP species and integrate other two high value medicinal plant species (*Paris polyphyla* and *Asparagus recemosus*) into the existing farming system. We have redefined the objectives of the planned activities based on the three-fold approach of the *Satoyama* Initiative. A Memorandum of Understanding between KAFCOL and the Ministry of Forest and Soil Conservation was already signed on July 31, 2011. The major outputs of the planned activities include documentation of important biodiversity management and sustainable utilization techniques of MAP resources, prioritization of key actions for the conservation and sustainable use of bio-diversity and associated tradition knowledge and developing options for securing diverse ecosystem services and values. The impact of the first three-year project was assessed using household survey and key informant interviews. The result revealed that before project implementation, this area was almost barren, and there were hardly any crops grown in these areas during winter. The introduction of MAP species contributed to maintaining and revitalizing the socio-ecological production landscapes (SEPLs) in the study area. More than two-thirds (75%) of the barren land has been rehabilitated. Almost half of the households (260) directly benefited from this project. The analysis revealed that the project beneficiary households produced 1.3 million MAP seedlings in home nurseries and enough seeds from the cultivated MAPs in 2011 that contributed to conservation of MAP resources not only in-site but also in ex-situ

situation. The total annual average income of the direct beneficiary households increased from Rs 31,084 in 2008 to 34,450 (1 USD = 71 NPR) in 2011. Overall cash income of the direct project beneficiary households increased by 11 percent during this period as a result of the project intervention and maintaining MAP population in the wild. Income from MAPs was almost doubled from Rs 3,604 in 2008 to Rs 6,500 in 2011. Recommendations are made for securing diverse ecosystem services and value by integrating more MAP species in both private and community lands.

Laikipia Wildlife Forum (LWF)

The Laikipia Wildlife Forum (LWF) is committed to bettering the lives of people in the area through supporting and generating livelihoods, while securing dependable, sustained access to essential natural resources. As a dynamic, membership-led conservation organisation, LWF provides a platform for dialogue for a cross section of land owners and land users including local community groups, private ranchers, pastoralists, small scale farmers and tourism ventures.

The principal resource and strength of the LWF is its membership. In this day and age of climate change and escalating human population pressures, the natural world - and humanity's place in it - is becoming increasingly embattled. The Laikipia region is unique in that it does not have formal 'protected area' status, yet across the vast expanses of private and communal land, its biodiversity values are not only being sustained, but in many cases enhanced. Across the grasslands or rangelands, an increase in bare land and bush has been a clear trend all over Laikipia for many years, both on community owned lands and private ranches. Its effects are far-reaching; threatening the lives of people and livestock.

LWF is employing an approach called Holistic Management to address these issues. Based on proven techniques, this system aims to tackle the formidable task of bringing life back to bare ground, and increasing the health and productivity of the grasslands by focusing on 2 key tools;

1. Planned Grazing
Land owners and land users are trained how to maximise the amount of grass grown in wet seasons, and how to make it last through dry seasons through Planned Grazing. It is essentially about having the right animals in the right place at the right time for the right reasons.

2. Bunched Grazing
This technique is based on the principle that – contrary to popular belief – animals are integral to the generation and regeneration of plants and healthy rangelands; but this only occurs when they are tightly bunched together. When huddled close to one another, the animals act as a 'bulldozer' breaking the ground and allowing for water and nutrient flow, whilst at the same time they implant seeds and add fertilizer. Bunched Grazing is used together with Planned Grazing, which combine to regenerate plants on bare ground, and make existing grasslands healthier and more productive.

A major element of the HM approach is for practitioners to lay out in detail the future they want to see. Its main contribution is to help managers make consistently good decisions in complex, constantly changing situations. In this manner, we foster a socio-ecological landscape where communities maintain their culture and lifestyle, while conserving the integrity of the ecosystem.

The Laikipia Wildlife Forum also recognizes that most Kenyan schools lack resources to implement an environmental education curriculum, train teachers, or take children to existing field study centres to learn about wildlife first hand. LWF also recognises that schools can be effective agents of change for societies. As a result, in 2004, with support from Save the Rhino International and Chester Zoo, LWF set up the Environmental Education & Eco Literacy Programme, to engage the next generation to work towards the sustained conservation of the Laikipia ecosystem. The programme is currently being restructured in line with the LWF's strategic framework and the programme's review undertaken in 2009. The programme will draw strongly on all other LWF programmes to expand the breadth of educational resources available to schools (teachers and children), and to adult groups. In addition the programme will place greater emphasis on the training of people to deliver environmental education, conservation messages and raise levels of eco-literacy. New teaching materials are also being produced in collaboration with other LWF programmes, such as cascade training materials on ecosystem processes with the Rangeland Rehabilitation & Management Programme. We are also expanding it to involve Kenyan and Foreign Tertiary Education institutions. There is a vast knowledge gap in Kenya about conservation and its connections with human well-being. The Laikipia Wildlife Forum aims to formulate a 'living' education program with a 'feedback' mechanism by which we can find out about perceptions and degree of knowledge about the environment and wildlife conservation.

Programme Objectives

■To link schools with existing environmental education centres and wildlife conservancies across Laikipia, and to help address the challenges facing our environmental resources.

■To assist teachers to implement an environmental curriculum in schools and train them on conservation issues

■To develop educational materials focused specifically on conservation issues. Helping children to see what is actually happening around them with regards to conservation, and engaging them in these initiatives.

Conservation has no value without being relevant to the realities of the people who control and use the resources that need to be conserved. Achieving conservation goals is largely down to human choice. LWF works out what local stakeholders want in relation to wildlife conservation and assesses their willingness and capacity to undertake conservation activities as a guideline that fits the principles of the *Satoyama* Initiative.

Leuphana University Lueneburg

Sustainable Development in Central Romania

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Background on host institution and study area

Leuphana University Lueneburg is located in Northern Germany. Its Faculty of Sustainability houses 25 professors from a wide range of the social and natural sciences, each with their own research teams. One of these research teams – the 'Sustainable Landscapes' team – is led by Professor Joern Fischer. The team is funded through a Sofja Kovalevskaja Award by the Alexander von Humboldt Foundation, and its central focus is sustainable development in ancient agricultural landscapes of Southern Transylvania, Romania. Project partners are located in Romania (several local NGOs and local scientists), and collaborations already exist with scholars in Sweden (Stockholm Resilience Centre), the United Kingdom and the USA.

Southern Transylvania is located in Central Romania and harbours some of the most diverse cultural landscapes in Europe. Over one hundred small villages are scattered throughout the region. Their origin dates back to the 12th century, when they were settled by Saxons who had been asked to provide military support to the Hungarian empire. Despite several significant historical events since then, the overall character of the villages and their surrounding land has changed relatively little. In the Saxon villages of Transylvania, many ancient land use practices have persisted to this day; artificial fertilisers and modern agricultural machinery remain uncommon or absent; communal grazing meadows are still visited by village shepherds on a daily basis; roads are still unsealed; and houses remain traditional and are still not connected to running water (Fig. 1).

The continuation of ancient cultural practices has maintained exceptional levels of farmland biodiversity. However, the traditional social-ecological system that has shaped the region has come under severe pressure. Following the reunification of Germany in 1990, many ethnic Saxons migrated to Germany, and many villages are now dominated by different ethnic groups, such as Romanians and Roma. Moreover, in 2007, Romania joined the European Union (EU). The material poverty of local villagers is in stark contrast to the wealth of most other Europeans. Owing to changed economic circumstances and institutional restructuring, many traditional agricultural practices are no longer viable. For example, the number of cows has declined dramatically since 2007, partly because local

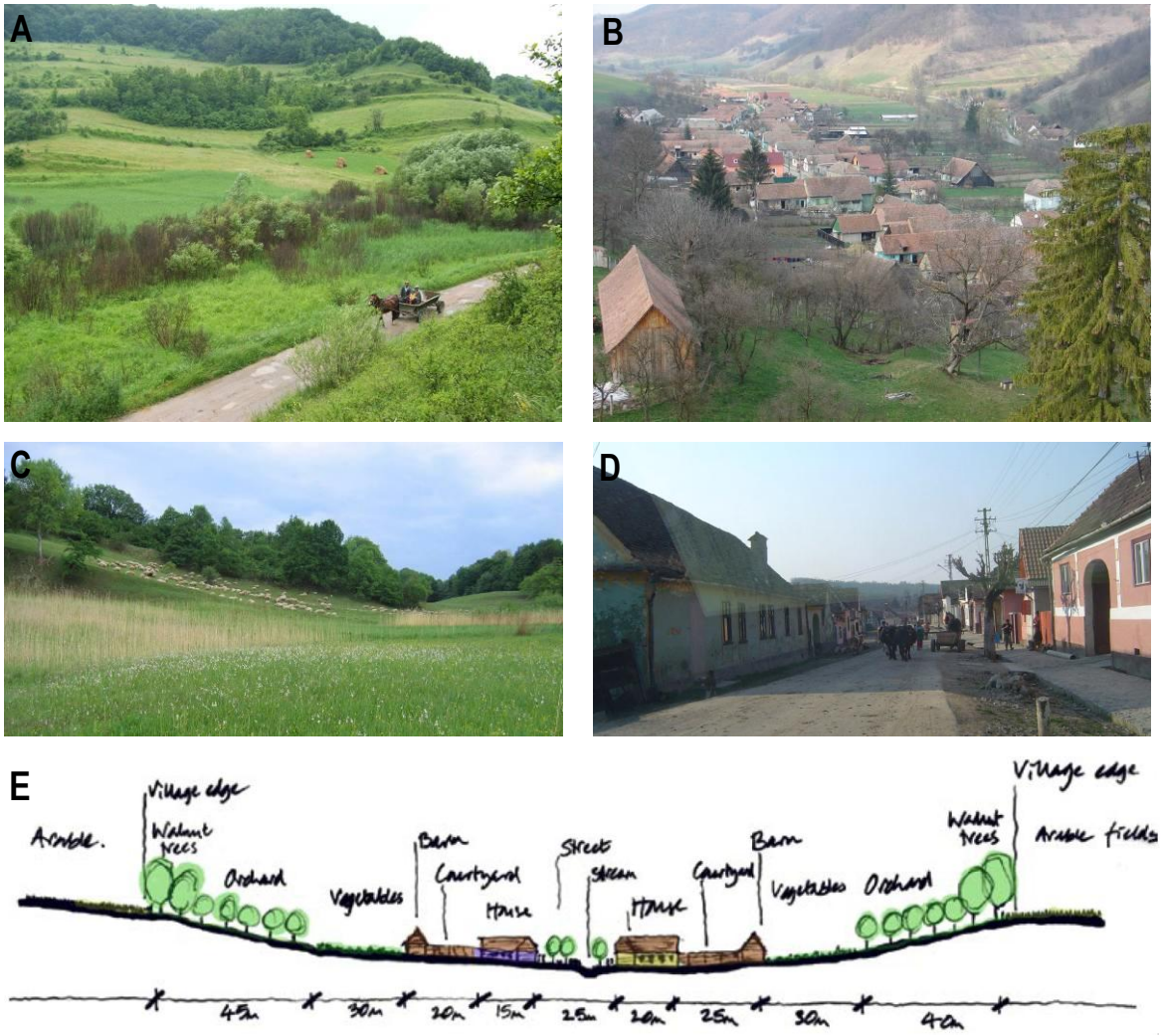
milk products did not meet EU quality standards; similarly, traditional hay-making is no longer profitable. As a result, agricultural land is increasingly being abandoned, or production practices are intensified to improve profitability (e.g. by use of machinery and artificial fertiliser).

Aims in relation to goals of the *Satoyama* Initiative

Our overarching goal is to develop a holistic, social-ecological understanding of the Saxon area in Central Romania and identify pathways for its sustainable development. Specifically, we will:

1. Quantify relationships between alternative land uses and biodiversity. Key land uses include traditional agriculture, but also intensified agriculture and recently abandoned land.
2. Identify relationships between land uses and the supply of ecosystem services, including provisioning services, regulating/supporting services, and cultural services.
3. Identify formal and informal institutions that have shaped land use in the past, and that provide leverage points for enabling sustainable land use practices in the future (especially in the context of integration into the European Union).
4. Integrate the insights gained from the three aims above to develop plausible scenarios of future development trajectories, and assess their consequences for the future of biodiversity and ecosystem services in the region.

As these goals show, our contributions will be primarily in providing high-quality research; but we also hope to achieve on-ground outcomes by working with various local partners (e.g. mayors of villages and NGOs). Notably, key goals of the *Satoyama* Intiative are central themes of our work, for example in relation to (1) traditional land use practices and their effects on ecosystem services; (2) the integration of traditional local knowledge within current regulatory frameworks (e.g. via the EU policy); and (3) the management of commons (e.g. communally used pastures exist throughout the region). We believe our research will most closely fit into the areas of knowledge facilitation, policy research, and research for indicators; but will also help to build local capacity. Moreover, we believe our research can help to deepen the existing fundamental understanding of traditional social-ecological systems, for example through applying a resilience perspective, and improving the conceptual basis of research on ecosystem services.



Overview of typical traditional landscape features in Southern Transylvania. A: Traditionally mown hay meadows in a diverse landscape context. B: The village of Malancrav. C: A flock of sheep guarded by dogs and a shepherd in a communally managed pasture. D: The main street in the village of Malancrav. Infrastructure is basic, with unsealed roads and no running water. E: Cross section of a typical Saxon village, highlighting typical land uses around the valley. (Photos courtesy of the Mihai Eminescu Trust).

National Dong-Hwa University

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General introduction of the organization:
National Dong Hwa University, as a comprehensive university in eastern Taiwan, seeks to sustain and enhance its excellence as an institution of higher learning through outstanding teaching and research so as to produce well-rounded graduates with lifelong abilities to provide leadership in the societies they serve. National Dong Hwa University strives to offer its students a unique, well-rounded university experience that instils in them professional expertise, humanistic concerns, and scientific competence. By encouraging them to engage in both theoretical and applied research in various academic fields, the University wishes to provide its students with the academic foundation and creative spark they will need to advance human knowledge and lead successful careers.

Current/ongoing activities contributing to the *Satoyama* Initiative:
In recent years, the organization has especially been working on ways of enhancing **collaborative governance for multi-stakeholder participation in rural community revitalization and landscape conservation**. Many valuable natural and cultural resources are preserved in rural areas. Ideally, rural communities should play an important role in the conservation of SEPLs. However, like many of the world's countries, more and more rural communities in Taiwan have become isolated and in decline on limited economic bases. As a result, many communities have lost their vitality as young people leave to find jobs elsewhere. Therefore, empowerment of rural communities has become a vital task for restoring SEPLs.

The organization has been working on developing and evaluating local participatory forums for stakeholder involvement with the help of introducing relevant community development projects from local authorities. Active research has been carried out on several rural case studies. The findings generally show that 'school-community-university partnership platforms' can be new bridges activating partnership between local communities, schools and local authorities. Through the implementation processes of these projects, local stakeholders collectively carried out local natural/cultural resources assessment, environmental interpretation materials preparation, ecotourism planning, as well as some community-based tourism activities for revitalizing local villages and surrounding landscapes.

The community forums conducted in the applied case studies in Taiwan provide a participatory method to help stakeholders build up their institutional capacity. The forums

provide an opportunity for stakeholders to discuss a range of issues based on local knowledge that have previously not been addressed in traditional planning meetings. The forums also involve local people who have previously been excluded from the traditional planning processes. The forums often bring together local people and the management authorities in a face-to-face, mutual understanding process. These forums demonstrate how new political instruments designed to build social capacity amongst all relevant stakeholders can be used as a means of mobilizing collaborative actions.

Planned activities contributing to the *Satoyama* Initiative:
In 2005, both cultural and natural landscape conservation were introduced into the newly amended Cultural Heritage Preservation Law as new legal items of heritage conservation in Taiwan. Unlike traditional protected areas, both IUCN's protected landscape and the *Satoyama* Initiative's SEPLs are new concepts to Taiwan's protected area management, which emphasize interaction between local people and their land. Therefore, how to plan and implement cultural and natural landscape conservation in Taiwan is vital but there is a lack of the experience needed for implementation. In order to help governmental authorities and local communities apply this new item, the organization **plans to learn from and integrate the ideas and the operational guidelines of both the IUCN protected area category V and the *Satoyama* Initiative**. A pilot study area of a rural indigenous village in Hualien County in eastern Taiwan has been selected as a potential example of good practice of SEPLs.

Participatory action research will be employed in the case study area to explore the stewardship and development issues between the local authorities, community, school and their surrounding SEPLs. **A 'school-community-university partnership platform' will be established to integrate traditional knowledge and modern science as well as to explore new forms of co-management systems**. The three-fold approach of the *Satoyama* Initiative in line with the five clustered activities promoted under IPSI will be introduced into the case study as a framework for setting up goals, strategies and actions for maintaining and revitalizing/restoring local SEPLs.

National Research Centre for the Studies of the Ethnic Groups of China's South-Western Borderlands (SEGCSWB)
Yunnan University

The National Research Centre for the Studies of Ethnic Groups of China's South-Western Borderlands (SEGCSWB), Yunnan University, became a member of the International Partnership for the *Satoyama* Initiative in March 2011. Current activities of the SEGCSWB include producing a video on the Danuohei hamlet in Shilin Yi Autonomous County of Yunnan Province. It aims to document the interdependent relationship between the Sani people and their living environment by examining the following questions:

(1) Under what historical circumstances did the Sani people develop an awareness of protection of their living environment?

(2) What are the core elements of their ecological awareness?

(3) What is the mechanism at work that makes the Sani people utilize the natural resources within the carrying capacity of their living environment?

(4) How have such ecological awareness and mechanisms evolved or disappeared under changing socio-economic conditions?

Based on previous field research, a working script and a tentative schedule have been completed. The video will first introduce the surrounding environment of the Danuohei hamlet (e.g., the Karst landscape and forests), and how the Sani people have utilized and protected natural resources. It will then explore the spiritual meaning of natural resources and their role in the religious life of the Sani people. Finally, the video will discuss how the Sani people have developed ecological awareness and mechanisms in their adaptation to the environment. It is estimated that the onsite filming will be conducted between March and May 2012. The first draft will be submitted to the IPSI Secretariat for review in June, and the revised draft will be finalized in August and September so that it can be released during the 11th meeting of the Conference of the Parties (COP11) to the Convention on Biological Diversity. It is hoped that the message contained in the video can reach a wider audience in order to increase awareness of and foster collaborative research activities on socio-ecological production landscapes, thus contributing to the goals of the IPSI.

University of the Philippines Open University (OPOU)

Short Paper from the Faculty of Management and Development Studies

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The University of the Philippines Open University (UPOU) through its Faculty of Management and Development Studies (FMDS) has been undertaking activities contributing to the attainment of the three-fold approach of the *Satoyama* Initiative and in line with the 5 clustered activities promoted under IPSI. In fact, without knowing it, as we have just been approved as an IPSI member this November 2011, our work is also related to the 4 proposed public forum themes of the IPSI-2 in Kenya.

The UPOU is one of the autonomous units of the University of the Philippines System established on February 23, 1995. It is the cybercampus of the country's only national university. UPOU's mission is to provide access to quality education through innovative methods of teaching and learning (*Open and Distance e-Learning*) designed to be responsive to needs of the times. Through FMDS, UPOU strives to promote environmental advocacy and implement activities for a harmonious human-nature relationship.

Below are its main activities:

Instruction

FMDS offers the Master of Environment and Natural Resources Management (MENRM) that aims to equip students with a multidisciplinary perspective in dealing with environmental issues by providing them with solid grounding in both natural science and social sciences. This significantly helps in capacity building and through its Special Problem course, it explores new forms of co-management systems ushering harmony and sustainability in ecosystems and landscapes.

Environmental Mobilization and Advocacy

1. Scientific Forum. Since 2010, FMDS has conducted *Forum on RP-Japan Satoyama-Satoumi; Scientific Forum on Taxonomy – the Study of Biodiversity; Scientific Forum cum Festival on Food from Our Biodiversity; RP-Japan Forum on Environment and Human Health; Scientific Forum on Environment and Natural Resources Management; Celebrating Forests for People in the Digital Age*.

2. UPOU Earth Ambassadors. FMDS partnered with many institutions to organize the UPOU Earth Ambassadors: Dayap Elementary School-Calauan; Sto. Domingo Elementary School-Bay; The Learning Place-Los Banos; Philippine Koica Fellowship Assocation, Inc.; and *Yakap Kalikasan Tungo sa Kaunlaran ng Pilipinas, Inc.* The UPOU Earth Ambassadors is a project aiming to train a core group of elementary and high school students to promote awareness in schools and communities about sustainable development, biodiversity conservation and management of our forests and other socioecological landscapes.

3. Kids to Forest. FMDS with Yakap Kalikasan, conceptualized the KKB:Kids to Forest Project. KKB means *Kanya Kanyang Bayad* (individual payment). This project, however, gave a new meaning to KKB as *Kanya Kanyang Bigay kay Inang Kalikasan* (individual contribution to Mother Nature) and *Kamalayang Kalikasan ng mga Bata* (environmental awareness among children). This aims to expose children to meaningful experiences and interactions in the forest as well as to agencies and enterprises involved in sustainable forest management. The project was funded by the Food and Agriculture Organization (FAO) and supported by the Department of Environment and Natural Resources (DENR) and College of Forestry and Natural Resources of UP Los Banos. The project was capped by a symposium where kids had narratives of their experiences.

4. Teacher's Training. FMDS has an ongoing Teacher's Training to update teachers about the fragile environment and how to sustainably manage it.

5. Co-organizing major conferences. FMDS was co-organizer of the National Launching of International Year of Forests (IYF); 11th Annual Scientific Conference of Philippine Society for the Study of Nature (PSSN); and Water as a Resource and Hazard: a symposium on integrated water resource management as part of the festival, "Water for Life, *Tubig at Buhay"* organized by the Embassy of France and Alliance Francaise de Manille.

6. Let's Talk it Over. FMDS organizes the *Let's Talk it Over Lecture Series* which serve as venue for sharing innovative ideas. To date, FMDS has organized *Introduction to Land Valuation* and *Cooperative Robotics Watercraft* (A project by Carnegie Mellon University) using teams of small, inexpensive, autonomous boats to assist with water monitoring and flood relief

7. Binhi ng Buhay. In 2010, FMDS spearheaded *Binhi ng Buha*y (Seed of Life) *Tree Planting of Indigenous Seedlings* and Film showing with the theme *Biodiversity: Why should we care?*

8. FMDS Blogs. The FMDS maintains blogs to enhance environmental awareness: http://fmdsnewsbits.blogspot.com/

http://upouearthambassador.blogspot.com/

Upcoming Events

FMDS soon to launch the *FMDS Research Bulletin* to be the venue for sharing of scientific research findings.

FMDS soon to start the *Greening UPOU program* which aims to make UPOU more environment-friendly.

FMDS, together with Kanazawa University (Japan) and Ifugao State University (Ifugao, Philippines), will hold a conference on *Globally Important Agricultural Heritage Sites (GIAHS) and Ifugao Rice Terraces of the Philippines* on January 12-15, 2012.

FMDS is now accepting applicants for its non-degree programs on Organic Agriculture, Biodiversity Conservation and Rehabilitation of Marginal and Degraded Areas

University of VIGO (UVIGO)

The Group of Strategic Environmental Assessment (SEA) of the University of Vigo is made up of researchers who develop a number of research lines addressing environmental protection focused on its territorial projection and trying to find solutions through the sustainability of different land management instruments, urban planning and environmental management.

The main lines connected with the *Satoyama* Initiative, which are studied by the Group of SEA, are the following:

- Changes in patterns and functions in cultural landscapes of NW Spain,
- Dynamics of agricultural landscapes in NW Spain,
- Local ecological knowledge for the analysis of cultural landscapes,
- Analysis of driving forces threatening the persistence of cultural landscapes,
- Characterisation of cultural landscapes in Galicia, comparison with other cultural landscapes, and
- Cartography of cultural landscapes using historical records.

All of these lines carry out activities which are mainly related to the following three clusters of the *Satoyama* Initiative: Knowledge Facilitation, Policy Research and On the Ground Activities.

The members of the group have achieved high levels of specialization in the analysis of territorial and landscape evolution, and management of both marine and coastal environments, such as urban and agricultural areas.

Recently the group has been linked to the UNESCO Chair in sustainable coastal development, Campus do Mar, which is led by a member of the Group of SEA and in which special attention is paid to issues of coastal landscapes. In this framework of Campus do Mar, an International Congress of Integrated Coastal Zone Management will take place in 2013, with active participation from the Group of SEA. At this congress is planned to include a theme on coastal landscape. One of the goals of this topic is to establish good practices for the management of cultural landscapes on the coast, integrating international experiences provided by the attendees. Campus do Mar is a Campus of International Excellence; its central objectives include: to improve universal access to information and knowledge, to use scientific knowledge for environmental and natural resource management and to protect and enhance cultural heritage in a sustainable manner.

Furthermore, the Group of SEA will participate in organizing the Fourth Congress of Agroecology and Agriculture in Galicia, which will be held in June 2012 and cover topics such as “Agroecology, land and rural development” and “Agroecology and education”. Previous sessions of this congress have included communications and presentations concerning rural and cultural landscapes and it is expected that a compilation will be made in the next edition of some recommendations for management consultants and appropriate ways of preserving the rural landscape.

The Group of SEA of the University of Vigo is also involved in preparing and drafting basic management documents for land use management, allowing the introduction of aspects of sustainability and landscape protection into administration policies, especially in the Environmental Report for the Strategic Environmental Assessment (SEA) and in the Environmental Impact Studies for the Environmental Impact Assessment (EIA).

Unnayan Onneshan – The Innovators (Bangladesh)

Background:

The Unnayan Onneshan is a Bangladesh based progressive think-tank that undertakes research for advancing ideas and multidisciplinary dialogue and amplifies grassroots perspectives. The public-interest research institute works in collaboration with national partners, international organisations and leading universities. The Unnayan Onneshan is conducting action research amidst the interface and interrelationship of social and ecological systems that could eventually feed into policy, targeted towards sustainable development. In addition, specific actions accompany the research to mainstream explored best practices both at the community level and policy level that simultaneously augment conservation and development in human influenced ecological landscapes.

Unnayan Onneshan carries out research on various aspects of socio-ecological production landscapes ranging from forest to agriculture landscapes. Sundarbans, the world's largest mangrove forest, has always been one of the focus areas for Unnayan Onneshan research. The organization is conducting research on Sundarbans, mainly focusing on biodiversity, traditional resource management and livelihoods of forest peoples in collaboration with different national and international development partners.

The organization already published two books on Sundarbans along with a couple of research reports and policy papers; these have significantly contributed to pro-people policy formulation as well as advancing knowledge on functionality of socio-ecological production landscapes.

Some of the important research papers relating to the *Satoyama* Initiative:
http://www.unnayan.org/images/stories/reports/Resuscitating.the.Sundarbans.pdf
http://www.unnayan.org/reports/VCF1.pdf
http://www.unnayan.org/reports/Research_Report_on_Agriculture_Biodiversity.pdf

Activities relevant to *Satoyama* support mechanisms:

Unnayan Onneshan believes that environmental sustainability is possible through human-nature interactions and therefore conducts research at the social-ecological interface. Since 2006, the organisation has been conducting a research project titled 'Community Based Management of Sundarbans' and from research findings we have come to the proposition that without full and effective participation of concerned stakeholders at every level of natural resources management, achieving sustainability will be a far-off goal.

Community Based Management of Sundarbans (CBMS)

Background:

Community Based Management of Sundarbans (CBMS) is a flagship action research project of Unnayan Onneshan's Climate change, Biodiversity and DRR unit. The project has been running in the Sundarbans, the world's largest single tract of mangrove, since 2006 in collaboration with Forest Peoples Programme (FPP, UK), which primarily focuses on Article 8(j) of CBD and related provisions. Keeping customary sustainable use of biological resources as the central focus, the CBMS project has extended its working mandate to promote collaborative management of Sundarbans. The project has found that without full and effective participation of concerned stakeholders in natural resources management, achieving sustainability will be a difficult objective. Moreover, degradation of forest resources arising from unplanned resource collection is contributing to increased vulnerability of the forest dependent communities due to overwhelming poverty and lack of available livelihood options. It is therefore a grave concern to increase the capacity of the communities to improve the management of Sundarbans. Such demands have influenced the redesigning and redefinition of the project as Community Based Management of Sundarbans, even though promotion of customary sustainable use of biological resources remains unchanged.

Planned activities for 2012 and onward

Objectives:

1. To revive and strengthen transfer of traditional knowledge related to biodiversity use and conservation
2. To carry out community-based biodiversity monitoring, as a pilot example of the benefits of community involvement and traditional knowledge and experience for the management of the area
3. Setting up cooperatives for different local resource user groups, to enhance their collaboration and increase their joint capacity to address resource issues
4. Provide economic support and incentives to cooperatives
5. Set up (alternative) sustainable income generating activities to complement livelihood strategies and decrease communities' dependency on the Sundarbans forest.

Brief summary of activities to reach objectives :

Under objective 1, community trainings will be held, led by experienced traditional resource users, who will share traditional knowledge and customary practices and rules related to sustainable resource use with younger resource users, on e.g. honey collection, fishing, nypa palm collection.

Under objective 2, a community based biodiversity monitoring mechanism will be set up. A very experienced and knowledgeable group of resource users (such as fishers, forest resource users) will identify the status of biodiversity resources in the Sundarbans. Their traditional knowledge and long-standing customary use of the resources is crucial to be able to determine the status and changes of flora and fauna in certain areas. The group will work with images of specific flora or fauna, and document information pertaining to this species. Based on the result species will eventually be categorized as extinct, endangered, threatened, or good.

Under objective 3, 4 and 5, Unnayan Onneshan will support the establishment of community based co-operatives. This is important, because unless the Sundarbans resource users group together, they cannot manage the resources sustainably nor purse their rights effectively. Moreover, it will improve their access to the resources in the Sundarbans, because the co-operative can acquire a communal boat with boat licence certificate (BLC), which is a legal prerequisite to obtain a license to use resources in the Sundarbans. Through the co-operatives they will stock their own capital (monthly subscription fee of members) and after one or two years they can buy their own boat and net. Under the co-operatives, a fund will be formed to provide credit support to the members. To stimulate sustainable entrepreneurship, the members will have access to a soft loan through the co-operatives for alternative income generating activities which will equally support biodiversity conservation and income generation. The co-operative will supervise whether the loan is invested in sustainable development projects. Moreover, under the umbrella of co-operatives, local and national outlets will be established to sell the ecological products produced by traditional resources users of Sundarbans.

INDUSTRY OR PRIVATE SECTOR ORGANISATION

Brother Sales Ltd., Canon Inc., Dell, Hewlett-Packard Japan Ltd., Lexmark International K.K., Seiko Epson Corporation

Ink Cartridge Satogaeri Project

The “Ink Cartridge Satogaeri Project” has been jointly supported by six printer manufacturers (Brother, Canon, Dell, Epson, HP, Lexmark) in Japan through the collection and recycling of used ink cartridges.

'Satogaeri' means ‘return to the villages’, or ‘back to one’s hometown’. This is a reference to how the used ink cartridges are returned to each manufacturer’s recycling site, while also implying how this project recycles ink cartridges back into the environment in a sustainable manner. The project aims to offer an important step towards helping customers make more environmentally-friendly choices in their daily lives and ultimately contribute to a recycling-oriented society.

The “Ink Cartridge Satogaeri Project” collection boxes have been installed in more than 3,600 post offices and at 1,700 places within 125 affiliated local governments since April 2008. The collected cartridges will be sent, using the existing Japan Post Group network, to a sorting facility where they will be separated according to brand.
From there, the cartridges will be delivered to their respective manufacturers, who will take responsibility for carrying out the recycling process.

There have been a whole variety of positive benefits arising from this project and two specific examples are presented below.

The first example is the project’s contribution to providing employment opportunities for physically challenged people. A Mizube branch was established to sort the collected ink cartridges; it employs physically challenged individuals to undertake the sorting process. This supports the community, while also providing job opportunities and reinforcing the employees’ capacities.

A second example deals with the project’s environmental contribution.
Among other things, the project has made a contribution to UNEP’s core environmental activities in the fields of climate change, hazardous wastes, environmental emergency response, environmental information, assessment and research, fresh water, technology transfer and support to developing countries.

The launching ceremony of the International Partnership for the *Satoyama* Initiative (IPSI) was held in October 2010 during the 10th meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD-COP10) in Nagoya, Japan.

On the same occasion, an exhibition of the "Ink Cartridge Satogaeri Project" was also held during CBD-COP10.

The "Ink Cartridge Satogaeri Project" is a joint effort together with the printer industry that aims to reduce waste and contribute to a recycling-oriented society through the collection and recycling of used ink cartridges. This project represents a joint cooperation between the Ministry of the Environment of Japan, local governments and citizens.

We believe that the *Satoyama* Initiative's vision of realising "society in harmony with nature", in addition to its support for sustainable activities, are closely aligned with the objectives of the "Ink Cartridge Satogaeri Project". Thus we would like to provide our support to IPSI activities.

The scale of the financial support provided by the "Ink Cartridge Satogaeri Project" corresponds with the number of cartridges collected. Local governments and citizens can support IPSI activities by making contributions in this respect.

We believe that this support will also help in the dissemination of information about IPSI activities to a broader audience including local governments and citizens. This will also facilitate IPSI's further development.

Chuetsu Pulp & Paper Co. Ltd.

Since its establishment in 1947, Chuetsu Pulp & Paper Co, Ltd has been making excellent quality paper and constantly contributing to a growing economy, society, and culture. In recent years, the company has produced the unique papers “Takegami” and “*Satoyama* Paper” from domestic bamboo and thinning woods. These raw materials have never before been utilized usefully, so we believe the business is eco-friendly.

Chuetsu Pulp & Paper Co, Ltd has tried to make “Takegami” paper from domestic bamboo since 1998, although this was thought to be impossible. Now we utilize bamboo constantly to make bamboo paper; our business works to manage bamboo forests around our mills. This contributes not only to maintaining bamboo forest, but also satoyama and their biodiversity.

In addition, we have been making “*Satoyama* Paper” since 2009, made from domestic thinning woods. From the proceeds of selling paper, we also make a monetary contribution to the groups working to maintain satoyama. This paper contributes not only to maintaining hometown mountains but also domestic forests. Such ecologically-friendly products of our company are contributions to environmental sustainability.

UNITED NATIONS OR OTHER INTERGOVERNMENTAL ORGANISATION

Global Environment Facility Secretariat (GEF SEC)

As the financial mechanism of the Convention on Biological Diversity, the goal of the GEF biodiversity focal area is the conservation and sustainable use of biodiversity and the maintenance of ecosystem goods and services. To achieve this goal, the strategy during the GEF -5 Replenishment (2010-2013) encompasses five objectives, including objective two: mainstreaming biodiversity conservation and sustainable use into production landscapes/seascapes and sectors.

The GEF recognizes the persistence of biodiversity requires the sustainable management of landscape mosaics that include protected areas and a variety of other land and resource uses outside them. The GEF promotes sustainability measures to help reduce the negative impacts that productive sectors exert on biodiversity, while highlighting the contribution of biodiversity to economic development and human well-being.

On 17 December 2011, the GEF signed a Memorandum of Cooperation with the Japan Ministry of Environment to further collaborate and promote implementation of the *Satoyama* Initiative in relation to its existing funding strategy and criteria. Activities related to the *Satoyama* Initiative may be supported under this objective as the fit to the following strategy and criteria is recognized, and it is identified as a priority by the participating country/ies.

G*EF Biodiversity Focal Area Objective Two: Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes/Seascapes and Sectors*

To complement its investments to strengthen the sustainability of protected area systems, GEF will promote measures to help reduce the negative impacts that productive sectors exert on biodiversity, particularly outside of protected areas and those affecting landscape species, and highlight the contribution of all components of biodiversity to ecosystem functioning, economic development and human well-being – a set of actions often referred to as “mainstreaming”. Biodiversity-dependent production sectors and those with large ecological footprints that impact biodiversity-rich habitat will be targeted: agriculture, fisheries, forestry, tourism, and the major extractive industries of oil and gas, and mining. GEF’s strategy to support biodiversity mainstreaming focuses on the role and potential contributions of both the public and private sector.

Three main types of activities have been prioritized for GEF project support:

1. Strengthen Policy and Regulatory Frameworks: GEF will support the development and implementation of policy and regulatory frameworks that provide incentives for private actors to align their practices and behavior with the principles of sustainable use and management. To this end, GEF interventions will remove critical knowledge barriers and develop requisite institutional capacities. This will include support for sub-national and local-level applications – where implementation can be more effective –of spatial land-use planning that incorporates biodiversity and ecosystem service valuation.

2. Implement Invasive Alien Species Management Frameworks: GEF will support interventions that address the issue of invasive alien species systemically through developing the sectoral policy, regulations, and institutional arrangements for the prevention and management of invasions emphasizing a risk management approach by focusing on the highest risk invasion pathways. Priority will be given to establishing policy measures that reduce the impact of invasive species on the environment, including through prevention of new incursions, early detection and institutional frameworks to respond rapidly to new incursions.

3. Produce Biodiversity-friendly Goods and Services: To increase production of biodiversity-friendly goods, GEF will focus its support on: a) improving product certification standards to capture global biodiversity benefits; b) establishing training systems for farmers and resource managers on how to improve management practices to meet certification standards; and c) facilitating access to financing for producers, cooperatives, and companies working towards producing certified goods and services.

International Network for Bamboo and Rattan (INBAR)

Bamboo groves are frequently part of complex but balanced farming systems where they provide ecosystem services such as protection against soil erosion, water management and wildlife protection as well as materials for use on the farm and for harvesting, processing and/or direct selling to generate income.

Many Asian, African and South American landscapes where bamboo is available are illustrative examples of "socio-ecological production landscapes" that provide environmental services while providing income/livelihood and economic returns. For example the Hmong people in Yunnan in China regard bamboo as a sacred plant because it serves the people in myriad ways and has been indispensable for their very existence and cultural survival. The Hmong have traditionally utilized bamboo for hunting, and as protection against aggressors, and nowadays they are using bamboo for making crafts for generating income while they consider bamboo forests surrounding their villages to be the protector of their environment.

INBAR's recent interventions and field projects include pilot and demonstration on environmental protection and livelihood development through workshops, training activities, and policy development initiatives aimed at increasing the capacities of national and local actors to implement economic and land planning policies in favor of biodiversity conservation and livelihood security for rural communities. In our work, we have been intensively working in many Satoyama-like landscapes in our project sites in Sichuan, Yunnan, Hunan, Zhejiang provinces in China since last year.

Since INBAR's involvement with the *Satoyama* Initiative since the last SC meeting in Nagoya, we have made some primary observations and surveys of the features and social elements of the Satoyama-like landscapes in our project sites. This study will represent our initial discoveries, findings and our thinking on Satoyama-like landscapes with bamboo groves as major natural and social components in China and present INBAR's strategy to promote the work globally through its world-wide network.

International Union for Conservation of Nature (IUCN)

IUCN and *Satoyama* Initiative

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

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 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 S*atoyama* 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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Japan International Cooperation Agency (JICA)

I: Concept

Background

At the Tenth Meeting of the Convention on Biological Diversity in October 2010, the Japanese government proposed the *Satoyama* Initiative[13] as an international model of natural resources management in human-influenced natural environments. These human-influenced natural areas called Satoyama[14] in Japan are located in all parts of the world. Recently, sustainable use of natural resources has tended to be lost in Satoyama, causing negative impacts on biodiversity. To prevent biodiversity loss, it is important to use natural resources in a sustainable way, not only to conserve primeval natural environments by establishing protected areas. Environmental degradation is progressing due to excessive use of natural resources by a population explosion in developing countries, where many people depend on natural resources for their livelihood. A vicious cycle of poverty and environmental degradation disrupts the ecosystem services necessary for their livelihoods.

In Japan, Satoyama is also threatened due to urbanization, industrialization and rural population decrease. So many approaches for nature conservation and rural development are conducted in various places. This course will be conducted to contribute to rural development from the viewpoint of reconciling nature conservation and livelihood promotion by sharing experience and knowledge gained from Japanese approaches and the present state of Satoyama in developing countries.

For what?

Participants will learn about cases of natural resource management of Satoyama in Japan and other parts of the world to make plans for rural development in their own countries from the viewpoint of reconciling nature conservation and livelihood promotion.

For whom?

1) Central or local governmental officers or management staff of public organizations who are in charge of planning and implementing rural development and nature conservation

[13] The *Satoyama* Initiative aims to develop and propose a model of sustainable management of natural resources by collecting and analyzing knowledge and cases in Japan and other parts of the world concerning natural resource management and sustainable human well-being development in rural communities.

[14] Satoyama is the area of village, farmland, and adjacent forests and grasslands that have been formed and maintained through long-term human influence.

2) Staff or researchers from NGOs or other institutions related to rural development and nature conservation

How?

1) Lectures on basic understanding of Satoyama, the *Satoyama* Initiative and related policies
2) Learning about cases of natural resource management through observation and practice
3) Preparation and presentation of action plan for rural development in their own countries from the viewpoint of reconciling nature conservation and livelihood promotion

II: Description

1. Title:

Promotion of the *Satoyama* Initiative: Biodiversity conservation and community promotion through the sustainable management of natural resources

2. Period of program

Duration of whole program:	September 2011 to February 2012
Preliminary Phase: (in participant's home country)	September 2011 to October 2010
Core Phase in Japan:	October 10, 2011 to November 12, 2011
Finalization Phase: (in participant's home country)	November 2011 to February 2012

3. Target Region or Country:

Indonesia, China, India, Nepal, Ethiopia, Malawi, Philippines, Iran, Mexico, Democratic Republic of the Congo

4. Overall Goal:

The concept and case examples for the reconciliation between biodiversity conservation and sustainable use of natural resources will be shared among the people concerned in each participant's country, and rural development plans harmonizing nature conservation and livelihood promotion will be implemented accordingly.

5. Objective:

Learning from case examples on biodiversity conservation and sustainable use of natural resources with broad participation of stakeholders in Satoyama in Japan, participants will make use of the course for rural development in their own countries from the viewpoint of the reconciliation between nature conservation and livelihood promotion.

6. Eligible / Target Organization:
National / local governmental agencies and other organizations (NGOs, research institutions, etc.) related to nature conservation and rural development

7. Total Number of Participants: 15 participants

8. Language to be used in this program: English

9. Contents: This program consists of the following components. Details on each component are given below:

(1) Preliminary Phase in participant's home country (September 2011 to October 2011) Participating organizations are required to prepare for the program in the respective countries.	
Modules	**Activities**
Country Report	Submission of the Country Report with Application form **(by August 31, 2011)** (See ANNEX 1) Preparation of the presentation on the Country Report before arrival in Japan

(2) Core Phase in Japan （October 10, 2011 to November 12, 2011） Participants dispatched by the organizations attend the Program in Japan.		
Expected Module Outputs	**Program**	**Method**
(1) Basic understanding of Satoyama, the *Satoyama* Initiative and related policy	✓ The *Satoyama* Initiative ✓ National Biodiversity Strategy ✓ Ishikawa Prefectural Biodiversity Strategy ✓ Policy of Satoyama and Satoumi (Land and Sea) conservation use in Ishikawa Pref.	Lecture

(2) Understanding of concept and information sharing related to conservation and use of biodiversity in Satoyama	✓ Sub-global Assessment of Satoyama and Satoumi[15] ✓ Local natural resources management ✓ Nature school ✓ Activities of the project of Kanazawa University ✓ Nanao Bay Satoumi Revitalization Project	Lecture/ Observation
(3) Understanding of rural development through the sustainable use of natural resources	✓ Natural resource management in Satoyama and Satoumi ✓ Rural development project in harmony with nature ✓ Training of leading figure for rural area ✓ Model landscape of Satoyama ✓ Town promotion by cycle of local resources	Lecture/ Observation
(4) Mastery of the method of use of natural resources in business	✓ Business development based on resources in Satoyama ✓ Agro-forestry/Ecotourism	Lecture/ Case study
(5) Understanding of conservation and sustainable use of natural resources rooted deeply in indigenous traditional culture	✓ Wise use of rural resources ✓ Conservation and use of traditional culture	Case study/ Observation
(6) Understanding concept of policy related to the tax burden for ecosystem services from satoyama in urban areas	✓ Development of forestry activities by use of forest environment tax ✓ Forestry activity of the upper area of Tedori river	Lecture/ Observation

[15] Satoumi is the area which includes marine and coastal ecosystems and has similar functions and interactive mechanisms to Satoyama.

(7) Presentation at the symposium, sharing of knowledge and experiences in Japan and other countries, presentation of action plan[16]	✓ Presentation of country report ✓ Attendance at the symposium ✓ Preparation and presentation of action plan	Practice

(3)Finalization Phase in participant's home country (November 2011 – February 2012) Participating organizations produce final outputs by making use of results brought back by participants. This phase marks the end of the program.	
Expected Module Outputs	**Program**
To report the action plan formulated in Japan at respective organizations, and the report will be accepted in the organizations.	(1) Report the results of the training in respective organizations (2) Share and discuss the action plan in respective organizations (3) Modify the action plan

[16] Action Plan: The plan which describes what participants do for rural development in their own countries from the viewpoint of reconciling nature conservation and livelihood promotion based on the knowledge and experience gained from the course.
The Action Plan should be worked out in the manner in which it should be actually implemented back home as your training results. It is recommended that participants bring some relevant information in electronic form, such as figures, data, pictures and maps to prepare the action plan.

The Secretariat of the Convention on Biological Diversity (SCBD)

1. Mandated by the decision X/32 on sustainable use, the Secretariat of the Convention on Biological Diversity (CBD) has been supporting the promotion of the sustainable use of biodiversity, including the *Satoyama* Initiative.

2. As a core activity under the Japan Biodiversity Fund which was established by the President of the COP 10 in the CBD Secretariat, we have been organizing a series of regional capacity building workshops to support Parties to revise their NBSAPs to implement the Strategic Plan and to integrate the Aichi Biodiversity Targets into national biodiversity targets.

3. At the workshops, we emphasize the appropriate integration of sustainable use elements in revised NBSAPs (including targets #4, 5, 7, 8, 11, 14, 15). In some workshops, we had participation from IPSI Secretariat to share information on the *Satoyama* Initiative and IPSI.

4. At other thematic capacity building workshops, too, we have been promoting sustainable use of biodiversity, including at workshops on Protected Areas where we have been highlighting the importance of socio-ecological production landscapes in achieving the Strategic Plan, and workshops on Economics highlighting environmental valuation.

5. According to the agreement on the Community Development and Knowledge Management for the Satoyama Initiative (COMDEKS) signed between the United Nations Development Programme (UNDP) and the Secretariat of the CBD, we have been cooperating with UNDP Small Grants Programme and the Government of Japan to support local community activities to maintain and rebuild socio-ecological production landscapes.

United Nations Development Programme (UNDP)

UNDP Contributions to the *Satoyama* Initiative and Landscape Approach

The landscape approach involves working within and outside PA boundaries, to manage a wide range of land uses—protection, restoration, production and subsistence use—so as to deliver ecological, economic and social benefits. UNDP believes that the landscape approach is an effective way to enable implementation of the ecosystem approach to biodiversity, enhance ecosystem resilience to climate change, and engage multi-stakeholders to address the interconnected issues of biodiversity, ecosystem resilience and human well-being.[17] The landscape approach recognises that almost all ecosystems are to some extent influenced by human activity, and that not all land-use types are compatible with biodiversity conservation. The local and national contexts—as characterized by the existing patterns of land use, land ownership and land-use rights, cultural values, economic development needs, laws and regulations and their enforcement—dictate the scope of a given approach. Partnerships among stakeholders at the local and national levels are therefore critical to the landscape approach.[18] With offices in more than 160 countries and territories, UNDP offers global perspective and local insight to help empower lives and build resilient nations. Progress of some selected initiatives that support socio-ecological production landscape management is listed below for the purpose of this IPSI exercises.

National and sub-national level initiatives:

With financing from the GEF and other donors & partners, UNDP supports many countries in the implementation of ongoing projects that take the landscape approach by conserving biodiversity on production lands. This cohort of projects impacts over 1.5 billion hectares of land or seascape: 97 million ha of which is directly impacted through demonstration work and 1.4 billion ha of which is indirectly impacted by policy and other changes. In Senegal, for example, UNDP supports the implementation of the GEF funded project "Groundnut Basin Soil Management and Regeneration" under the thematic focus of land degradation, working to strengthen local capacities for integrated land management following a landscape approach. To that end, the project has thus far supported the integration of the principles of the landscape approach into 11 local development plans for rural communities. A UNDP-supported and GEF-funded project in Nepal "Creating Biodiversity Conservation Landscapes in Nepal's Lowland Terai and Eastern Himal Areas" is working at the national level by supporting the Ministry of Forests and Soil Conservation in its adoption and application of the landscape approach; the

[17] Biodiversity for Development: South Africa's landscape approach to conserving biodiversity and promoting ecosystem resilience, 2010 p10

[18] Ibid.

project supported the development of the Integrated Landscape Planning Framework, which is expected to institutionalize landscape-level conservation in Nepal.

Community level initiatives:

Community Development and Knowledge Management for the Satoyama Initiative (COMDEKS) on behalf of the partnership of MOE-Japan, Secretariat of CBD, UNDP, and UNU-IAS

UNDP implements the COMDEKS programme on behalf of the partnership of MOE-Japan, Secretariat of CBD, UNDP, and UNU-IAS. The initial phase of the programme was signed between UNDP and UNEP/SCBD in June 2011, allowing this global programme to work in the regional/geographical spread and representative satoyama/satoumi land/seascapes. The selection process also considered predominant or unique eco-regions or biomes, diversity and vulnerability of ecosystems as well as potentials for upscaling and upstreaming community work by linking with national and sub-national processes. Programme aims to provide small grants for the demonstration of community-based SEPL approach and sustainable development, while collecting and codifying knowledge through such demonstration, which will feed into broader IPSI knowledge sharing activities. Initially 11 target countries (Brazil, Cambodia, Ethiopia, Ghana, Grenada, Fiji, India, Malawi, Nepal, Slovakia and Turkey) have been identified. UNDP and UNU-IAS/ Bioversity are coordinating the work on indicators which can then be applied and tested in the COMDEKS project sites.

Conservation of Plant Genetic Resources for Food and Agriculture (PGRFA)

UNDP and the International Treaty for Plant Genetic Resources for Food and Agriculture are developing a potential program for community-based *in situ* conservation of crop genetic diversity. This program will support farmers' organizations to conserve important germplasm by growing their crops in traditional, innovative agro-ecosystems. By supporting farmers' organizations to conserve their plant genetic and other resources, the socio-ecological production landscape can be shaped to optimize climate resiliency, biodiversity conservation, food security and socio-economic well-being. It is hoped that this program will initiate in a number of pilot countries in 2012-2013 and then scale up to larger numbers of countries with important PGRFA.

Community-based Adaptation (CBA)

UNDP views that ecosystem-based adaptation increases the resilience of ecosystem and contributes to sustainably maintaining and enhancing ecosystem services in production landscapes. Healthy ecosystem and biodiverse environment is a basis for maintaining and enhancing resilience in communities to extreme climate events (e.g. floods, storms, droughts, extreme temperatures), and allows communities to better manage climate related risks. UNDP has increased its support to Community-Based Adaptation (CBA) in a

number of regions and countries around the world. These include assistance to design programme concepts for sub-national and national initiatives to facilitate CBA and develop resilience across agricultural and other production landscapes. To attain the above mentioned goals, the GEF-SPA funded CBA has been implemented by UNDP in the 10 pilot countries. To build on this, the Government of Australia and UNDP have teamed up since 2009, as co-financing to the GEF SGP, to provide small grants for CBA in 20 countries in Mekong & Asia (Vietnam, Cambodia, Laos, Sri Lanka) and the Pacific, and this collaboration has recently been expanded to include 38 Small Islands Developing States (SIDS) globally. For further information on CBA, please refer to the following link:
http://www.beta.undp.org/undp/en/home/librarypage/environment-energy/climate_change/adaptation/undp_climate_changeadaptation-aquarterlyupdateofactivitiesissue7.html

GEF-Small Grants Programme

The GEF-SGP, a fast and friendly small grant making mechanism, is implemented by UNDP and works at the community level in more than 120 countries, producing global environment benefits (www.undp.org/sgp). The GEF-SGP is currently working on a number of publications, reviews, and presentations to share its experiences in SEPLs. These include: a Global Report on the consolidated experience of 12 years of GEF SGP targeted at landscape/seascape-level conservation to be launched at the IUCN World Conservation Congress in September 2012 (in partnership with IUCN HQ and the UNESCO World Heritage Centre with support from the United Nations Foundation); a second catalogue of SGP products from SEPLs in Africa and the Arab States for finalization by late 2011/early 2012 (the first catalogue was completed in 2010 for the Latin America and Caribbean region); an on-line platform of SGP products from SEPLs in conjunction with a range of internal and external partners (i.e. UNDP Green Commodities Facility, Progreso Network, Solidaridad, and Avance) to “go live” for all SGP participating countries in early 2012; and knowledge sharing of SGP country experiences in the Central Asian region in sustainable land management and combating land degradation at the UN Convention on Combating Desertification (UNCCD) in Korea in October 2011.

For further information, please contract Nik Sekran (nik.sekhran@undp.org) on the national and sub-national level initiatives, Fumiko Fukuoka (fumiko.fukuoka@undp.org) on the Communities level initiatives, and Tehmina Akhtar (tehmina.akhtar@undp.org) specifically on the GEF-SGP.

The United Nations University (UNU)
Secretariat of the International Partnership for the *Satoyama* Initiative (IPSI)

The UNU has actively contributed to the three-fold approach of the *Satoyama* Initiative and continues to undertake activities in line with the five clustered activities under IPSI. Among other things, the United Nations University Institute of Advanced Studies (UNU-IAS) also serves as the Secretariat of the International Partnership for the *Satoyama* Initiative. The following provides a brief overview of ongoing and planned activities roughly categorized according to main activity cluster

Activity Cluster 1: Knowledge Facilitation

1. Website Development to Further Facilitate IPSI Collaborative Activities

The UNU-IAS is playing a major role in supporting the operational processes of IPSI collaborative activities and facilitating communication among implementing members. It also is launching an IPSI collaborative activity webpage for the dissemination and further development of these activities.

2. Case Study Compilation

Collection and sharing of case studies, examples of successful implementation of SEPLs, knowledge and other relevant information, among IPSI members as well as policy makers and a wider audience helps to enhance understanding and raise awareness of their importance. Hence the UNU-IAS has been collecting case studies and showcasing them on the IPSI website. In addition, the UNU-IAS is compiling submitted case studies for release on the occasion of the Second IPSI Global Conference.

3. New Publications on Socio-Ecological Production Landscapes (SEPLs)

UNU-IAS contributed a book chapter to an upcoming book edited by the UNU and meant as a major contribution to the Rio+20 meeting in June 2012. In addition, it produced an article on SEPLs for the UNU webzine "Our World" available in English (http://ourworld.unu.edu/en/revitalising-socio-ecological-production-landscapes/) and Japanese. In addition a booklet on SEPLs in Asia has also been developed by the UNU-IAS and will be distributed on the occasion of the Second IPSI Global Conference in Nairobi.

4. Video Production

IPSI focuses on SEPLs to enhance understanding and raise awareness of their importance worldwide. Sharing visual case studies and videos helps to benefit from the strengths and

experience of people working on SEPLs around the world. Videos produced for this purpose by UNU-IAS with other IPSI members are all available on the website http://satoyama-initiative.org/en/video-2/. UNU-IAS and Yunnan University are currently preparing to produce a video on SEPL in China.

5. ***"Great East Japan Earthquake Rebuilding Symposium – Exploring Integrative Approaches from Land to Sea"*** **(5 August 2011 Tokyo Japan)**

Together with the Sustainable Ocean Initiative, the UNU-IAS organized this symposium to explore ways to support the efforts of disaster-affected local communities. Emphasis was on the importance and benefits from integrated approaches that take into account the linkages between land and sea, and the deep-rooted challenges these communities were already facing before the disaster.

6. **SBSTTA15 Side Event "Restoring Life - Challenges and Hopes in Ecosystem Restoration and Potential Role of the CBD" (8 November 2011 Montreal, Canada)**

The UNU-IAS co-organised this side together with the CBD Secretariat, the Ministry of the Environment of Japan, and the Society for Ecological Restoration (SER) International. Among other things, ecosystem restoration activities in Japan after the Great East Japan Earthquake and tsunami were presented. The UNU-IAS also produced a poster entitled "*Bouncing back from Disasters: Rebiuilding Satoyama and Satoumi Communities after the Great East Japan Earthquake and Tsunami*" for the SBSTTA-15 poster session.

Activity Cluster 2: Policy Research

7. **Joint Research Project with University of Tokyo**

In cooperation with the Integrated Research System for Sustainability Science (IR3S) at the University of Tokyo, the UNU-IAS will carry out joint collaborative research on the following issues: (1) Innovative models of natural resources use in Japan; (2) Co-management systems of natural resources; (3) Scientific proposal of resilient sustainable societies. The research will be conducted over a timeframe from December 2011 until March 2013.

8. **Collaboration with IGES on 'Exploring Options to Integrate the *Satoyama* Initiative within Policies and Decision-making Processes'**

The Institute for Global Environmental Strategies (IGES), and the UNU-IAS are jointly developing an IPSI Collaborative Activity entitled "Exploring options to integrate the *Satoyama* Initiative within policies and decision-making processes". The project aims to promote application, recovery or maintenance of sustainable practices observed within various SEPLs around the world, and to provide inputs to the development of future IPSI

Strategic Plans based on its research findings, especially on options to integrate the *Satoyama* Initiative within policies and decision-making processes.

Activity Cluster 3: Research for Indicators

9. Development of Indicators for Resilience in SEPLs

UNU-IAS in collaboration with Bioversity International developed a preliminary set of indicators for resilience in SEPLs as a tool for communities to understand their resilience and encourage the practices that strengthen it. These indicators were introduced at the inception workshop for the Community Development and Knowledge management for the *Satoyama* Initiative (COMDEKS) project held in Ghana as well as at meetings with the Cuban government both held in late September to solicit experts' inputs. The revised set of indicators was published at the CBD SBSTTA-15.

Activity Cluster 4: Capacity Building

10. Oral History Textbook

The UNU-IAS and the Network for Coexistence with Nature (NCN) have developed an Oral History Textbook to support the dual aims of making a record of the lives of skilled craftspeople and providing students with opportunities to connect with older generations. The oral history textbook also envisages three important impacts, namely: 1) promoting dialogue as a nexus of mutual understanding among diverse individuals; 2) building bridges across generations; 3) enhancing positive relationships between humans and nature through the transmission of knowledge.

Activity Cluster 5: On-the-ground Activities

11. Agreement with Satogaeri Project

The six major printer manufacturers (Brother, Canon, Dell, Epson, HP and Lexmark), which jointly promote an ink cartridge recycling system 'Ink Cartridge Satogaeri Project' have entered into an agreement with the UNU-IAS to support the *Satoyama* Initiative. According to the agreement, one yen is contributed to IPSI for each recycled cartridge. The first project funded from this contribution is above mentioned video production in Kirikiri in Japan's Tohoku region.

12. Restoration of Post-disaster Satoyama/Satoumi Communities in Tohoku

The UNU-IAS is currently cooperating with the Graduate School of Life Sciences at Tohoku University, Ministry of the Environment, Japan, CEPA Japan, Ink Cartridge Satogaeri Project (Brother, Canon, Dell, Epson, HP and Lexmark) and other partners to develop an optimal model for rebuilding, restoring and revitalizing satoyama/satoumi communities affected by the Great East Japan Earthquake and Tsunami of 11 March 2011 in a sustainable manner with consideration for ecosystem services, while exploring solutions to long-standing challenges that local communities had already been facing before the disaster such as depopulation, ageing populations and a lack of successors.

FULL LIST OF IPSI MEMBERS (AS OF JANUARY 2012)

Full List of IPSI members (as of January 2012)

Organisation	Location of head office
National governmental organisation	**(Number of organisations 15)**
Executive Secretariat of National Environmental Council for Sustainable Development (SE/CNEDD)	Niger
Ghana National Biodiversity Committee (NBC)	Ghana
Italian Ministry for Agriculture food and forestry policies	Italy
Ministry of Environment, Cambodia	Cambodia
Ministry of Environment, Gabonese Republic	Gabon
Ministry of the Environment, Japan (MOEJ)	Japan
Ministry of Environment, Peru	Peru
Ministry of Environment, Republic of Korea	Republic of Korea
Ministry of Environment and Forest Resources, TOGO	Togo
Ministry of Environment and Water Resources, Chad	Chad
Ministry of Forestry and environment, Gambia	Gambia
Ministry of Forests and Soil Conservation, Nepal	Nepal
Ministry of Natural and Resources and Environment, Thailand	Thailand
Ministry of Natural Resources, Energy and Environment, Malawi	Malawi
Secretariat of State for the environment, Ministry of Economy and development, Timor-Leste	Timor-Leste
Other government affiliated organisation	**(Number of organisations 4)**
Huascaran National Park, National Service of Protected Natural Areas (SERNANP), Peru	Peru
Institute for Fundamental Researches on Tropical Agriculture (INFAT), Cuba	Cuba
Kenya Wetlands Biodiversity Research team (KENWEB)	Kenya
National Herbarium and Botanical Gardens of Malawi	Malawi
Local governmental organisation	**(Number of organisations 7)**
Aichi Prefectural Government	Japan
City of Nagoya	Japan
Fukui Prefectural Government	Japan
Hyogo Prefectural Government	Japan
Ishikawa Prefectural Government	Japan
Nobeoka City	Japan
Sado City	Japan
Non-governmental or civil society organisation	**(Number of organisations 31)**
A Rocha Ghana	Ghana
Bioversity International	Italy
BirdLife International	UK
CEPA Japan	Japan
Conservation International (CI)	USA
Earthwatch Institute-Japan	Japan
EcoAgriculture Partners	USA
Forest Peoples Programme (FPP)	UK
Friends of the Earth Japan (FoE Japan)	Japan
German Association for Landcare (DVL)	Germany
Green Senegal	Senegal
Hydrology for the Environment, Life and Policy (HELP) Davao Network	Philippines
Institute of Environment Rehabilitation and Conservation (ERECON)	Japan
International Agency for the Protection of Biocultural Landscapes and for a New Rurality (AGER)	Italy
International Council for Game and Wildlife Conservation (CIC)	Hungary
International Lake Environment Committee Foundation (ILEC)	Japan
Iwokrama International Centre for Rainforest Conservation and Development	Guyana
Japan Habitat Association	Japan
Landcare International	Kenya
Live & Learn Environmental Education (LLEE)	Cambodia
M S Swaminathan Research Foundation (MSSRF), Community Agrobiodiversity Centre	India
Nature and Livelihoods	Uganda
Network for Coexistence with Nature	Japan
NGO Circle for Conservation of Natural Resources (ONG CeSaReN)	Benin
Nomi Satoyama Conservation Society	Japan

NPO Cultivate a Cloud	Japan
Platform for Agrobiodiversity Research	Italy
Social Policy Ecology Research Institute (SPERI)	Viet Nam
Society for Wildlife and Nature (SWAN) International	Chinese Taipei
Wildlife Watch Group	Nepal
World Agroforestry Centre (ICRAF)	Kenya
Indigenous or local community organisations	**Number of organisations 7)**
Association for Nature and Sustainable Development (ANDES)	Peru
Culture Identity and Resources Use Management (CIRUM)	Viet Nam
Indigenous Knowledge and Peoples Foundation (IKAP)	Thailand
Indigenous Peoples' Biocultural Climate Change Assessment (IPCCA)	Peru
Indigenous Peoples' International Centre for Policy Research and Education (TEBTEBBA)	Philippines
Inter Mountain People's Education and Culture in Thailand Association (IMPECT)	Thailand
Kanuri Development Association (KDA)	Nigeria
Academic, Educational and / or Research Institute	**(Number of organisations 21)**
Amrit Campus, Institute of Science & Technology, Tribhuvan University	Nepal
Centre for Resource and Forestry Policy Study (CFNRPS), Renmin University of China	China
College of Life and Environmental Science, Minzu University of China	China
Ecosystem Services Research Group, Berlin-Brandenburg Academy of Sciences and Humanities (BBAW)	Germany
Faculty of Science, University of Sarajevo	Bosnia and Herzegovina
Graduate School of Agricultural and Life Sciences, The University of Tokyo	Japan
Institute for Global Environmental Strategies (IGES)	Japan
Institution for Marine and Island Cultures (MIC), Mokpo National University, Republic of Korea	Republic of Korea
Islands Knowledge Institute (IKI)	Solomon Islands
Kanazawa University	Japan
Kathmandu Forestry College (KAFCOL)	Nepal
Laikipia Wildlife Forum	Kenya
Leuphana University Lueneburg	Germany
National Dong-Hwa University	Chinese Taipei
National Research Centre for the Studies of the Ethnic Groups of China's South-Western Borderlands (SEGCSWB), Yunnan University	China
Graduate School of Life Sciences, Tohoku University	Japan
University of the Philippines Open University (UPOU)	Philippines
University of VIGO (UVIGO)	Spain
Unnayan Onneshan - The innovators	Bangladesh
Vietnam National University, Hanoi (VNU)	Viet Nam
Zhejiang A & F University	China
Industry or private sector organisation	**(Number of organisations 8)**
Asahikasei Corporation	Japan
Brother Sales Ltd.	Japan
Canon Inc.	Japan
Chuetsu Pulp & Paper co., Ltd	Japan
Hewlett-Packard Japan, Ltd.	Japan
Lexmark International K.K.	Japan
Seiko Epson Corporation	Japan
Taisei Corporation	Japan
United Nations or other Intergovernmental organisation	**(Number of organisations 12)**
The Secretariat of the Convention on Biological Diversity (SCBD)	
Secretariat of the Pacific Regional Environment Programme (SPREP)	
United Nations Centre for Regional Development (UNCRD)	
United Nations Development Programme (UNDP)	
United Nations Environment Programme (UNEP)	
United Nations Environment Programme - World Conservation Mo	
The United Nations University (UNU)	

(Total number of organisations 105)