



## International Partnership for the Satoyama Initiative Secretariat UNU/IAS

IPSI Partner: Bioversity International

Collaboration among IPSI partners to develop indicators of improved livelihoods and well-being for communities in social-ecological production landscapes (Satoyama)

Communities and Agricultural Landscapes in Cuban Man and Biosphere Reserves

(Draft work plan and budget for discussion)

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Contact: Dr. Pablo B. Eyzaguirre  
Senior Scientist  
Bioversity International  
Via dei Tre Denari 472  
00057 Maccarese, Rome, Italy.  
Tel +39 06 611 8267

[p.eyzaguirre@cgiar.org](mailto:p.eyzaguirre@cgiar.org)

1. The Setting: **Agricultural Biodiversity Conservation and UNESCO Biosphere Reserves: Bridging managed and natural landscapes in Cuba.**

The landscapes, ecosystems and agricultural biodiversity that underpin rural food security are rapidly eroding. Increasingly, communities are driven into poverty and forced to relinquish traditional lifeways and environmentally sustainable agricultural practices. Some of the most biologically rich, beautiful, and culturally significant agricultural landscapes can be found in UNESCO Man and Biosphere Reserves around the world. Yet, while biodiversity conservation has always been a fundamental tenet in the management of these reserves, the protection of agricultural landscapes has largely been neglected. The result is a continuing tension between conservationists and agricultural communities living in protected areas. Needed is an innovative and flexible approach to nature conservation that bridges the objectives of ecosystem and agrobiodiversity conservation and the enhanced wellbeing of agricultural communities. The communities that act as custodians of social and ecologically significant agrarian landscapes are also potential innovators in the use of biodiversity for adaptation of agriculture to meet changing environmental conditions and human needs.

By focusing on distinct UNESCO Man and Biosphere Reserves, the project aims to reinvigorate and improve traditional production systems that are compatible with biodiversity conservation, assessing their multiple values and ensuring that these values are recognized by policy makers and in markets. Lessons on how communities can positively influence the integrity and resilience of managed and natural landscapes will be relevant for a protected area system with over 550 reserve areas in 107 countries and can have major impacts for sustainable agriculture and biodiversity conservation worldwide.

Intended outcomes of the Cuban MAB agrobiodiversity project are:

- i. Improvement in the livelihoods of communities living within and around the Biosphere Reserves through benefit sharing mechanisms that support the sustainable use of agricultural biodiversity.
- ii. Strengthened conservation of agricultural landscapes and crop and wild biodiversity in Biosphere Reserves.
- iii. Sound management of Man and Biosphere (MAB) Reserve system through enhanced leadership and decision-making capacity of all stakeholders, including farmers.
- iv. A set of globally tested social-ecological indicators that measure the impact of agricultural and other land management practices on ecosystem integrity and community wellbeing.

2. Rationale:

The collaboration with UNU-IAS under the International Partnership for the Satoyama Initiative will allow Cuban farming communities, biodiversity scientists, and protected

area managers to benefit from the latest experiences integrating traditional ecological knowledge and modern science to promote innovative conservation and management of social ecological landscapes. Collaboration with IPSI would also provide a benefit to Cuban reserves and landscapes by exploring new forms of co-management systems or frameworks of community managed landscapes on public or private lands for public benefit.

IPSI would benefit from this collaboration with diverse and complementary partners, e.g. United Nations University-IAS, UNESCO division of ecological sciences, INIFAT-Cuba's fundamental agricultural research organization, Cuban farmers organizations, and cultural agencies can work with Bioversity International to develop the indicators and models that will make the Satoyama concept more globally relevant. It would also provide a practical model experience and a set of widely applicable indicators of how Satoyama landscapes can create synergies between agricultural livelihoods, natural ecosystems and conservation, and the maintenance of ecosystem services, cultural practices and knowledge that imbue each landscape with a potential to promote more harmonious relationships.

#### Collaborative Project Objectives:

- a. Development and testing of indicators in practice in agrarian communities in Cuba MAB Reserves.
  - b. Identify opportunities and potentialities for application of indicators and exchange of experience across Satoyama landscapes worldwide.
  - c. Identify needs and opportunities to build institutional capacity to support and create the link between community practices in Satoyama landscapes and conservation policy and guidelines and strategies to implement Millennium Development Goals for poverty reduction and improved community well being.
3. Partners: INIFAT Cuba, CNAP Cuba, UNESCO Ecological Sciences Division, UNU-IAS, Bioversity International, as coordinating partner.
  4. Time frame: March 2011-November 2011
  5. Activities:
    - a. Review of existing livelihood and well being indicators and methodologies. (see key background documents). Apply and adapt existing approaches and indicators. March 2011
    - b. Identify additional perspectives and entry points e.g. territorial (terroir) approaches, ecosystems services to other production sectors from conservation and sustainable agricultural practices in Satoyama landscapes.
    - c. April-May 2011: Field visit and stakeholder meetings in Cuba to present and discuss indicator approaches. Meet with key policymakers and institutions, visit key social ecological production landscapes within MAB reserves.

- d. June-September 2011: Scale out indicators, possible exchange visits to other IPSI partners sites, MAB reserves, and mosaic agrarian landscapes that encompass natural and protected ecosystems.
  - e. Produce indicators brochure for practitioners, joint UNU-IAS, Bioversity, UNESCO, Cuban publication. WEB pages for posting. November 2011.
6. Budget: US\$ 75,000 to support field components, scaling out and publication, including consultancy for agroecosystems and livelihood indicator specialists.
- a. In kind contributions by IPSI and Cuban partners in the implementation
  - b. Consultancies \$20,000
    - i. Review ecosystems indicators for synergies between cultivated ('sato') and natural ('yama') components of landscapes and traditional agroecosystems.
    - ii. Review livelihood streams and mechanisms to improve well-being of farming communities within MAB reserves in light of other studies, experiences, institutional and policy frameworks.
  - c. Travel, per diem, and meeting costs in Cuba: \$10,000.
  - d. International travel of experts: \$ 13,000.
  - e. Exchange visits to other Satoyama partner landscapes, Peru, or Spain, or Morocco (MAB): \$15,000
  - f. Bioversity management and publication costs: \$17,000.

#### Summary budget table

<b>ITEM</b>	<b>USD</b>
Consultancies	20,000
National meeting and travel	10,000
International travel	13,000
Exchange visits	15,000
Bioversity management and publications	17,000
<b>TOTAL</b>	<b>75,000</b>

#### Key Working Documents for Development of Social Ecological Indicators for Community Well-being in Satoyama landscapes.

1. *Learning from the Practitioners: Benefit Sharing Perspectives from Enterprising Communities*. UNU-IAS, UNEP 2009.
2. *COMPACT: Engaging local communities in stewardship of globally significant protected areas*. UNDP/SGP 2010.
3. "Bridging Managed and Natural Landscapes. The role of traditional agriculture in maintaining the diversity and resilience of social-ecological systems". *Sustainable Use of Biological Diversity in Socio-Ecological Production Landscapes: Background to the 'Satoyama' Initiative for the Benefit of Biodiversity and Human Well-Being*. (CBD Technical Series no. 52, 2010).

4. Van Oudenhoven, F., Mijatovic, D. and Eyzaguirre, P., Social-ecological indicators of resilience in agrarian and natural landscapes. *Management of Environmental Quality: An International Journal*, 22(2), pp.154-173. 2011.

Contact persons:

Bioversity International: Dr. P. Eyzaguirre, N. Bergamini, MSc, Jessica Rosen, MSc

INIFAT Cuba: Dr. Leonor Castiñeiras

CNAP Cuba: Dr. Maritza Garcia

UNESCO: Mr. Guillén Calvo, Dr. Salvatore Arico

UNU-IAS: IPSI Ms. Fumiko Nakao



## Indicators to measure the resilience of social-ecological systems

