# ABSTRACTS OF PRESENTATIONS FOR

# ACTIVITY CLUSTER 3: INDICATOR RESEARCH

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1. Bioversity International
2. National Service of Natural Protected Areas (SERNANP)
3. Indigenous People's International Centre for Policy Research and Education (TEBTEBBA)
4. Kanuri Development Association (KDA)
5. Kenya Wetlands Biodiversity Research Team (KENWEB)

1. **Title: Social-ecological indicators of resilience in agrarian and natural landscapes**
*Member organisation*: Bioversity International, Italy
*Presenter*: Pablo B. Eyzaguirre, Senior Scretariat, Anthropology and Scioeconomics, p.eyzaguirre@cgiar.org

Purpose; The purpose of this paper is to present an approach aimed at facilitating nature conservation that builds on the ecological and social synergies that exist in traditionally managed landscapes in and around protected areas and integrates conservation and social goals to achieve a reduction in the levels of marginalization of indigenous and local communities while preventing ecosystem degradation and biodiversity loss.

Design/methodology/approach; Drawing on literature research and insights from political and historical ecology and systems theory, a framework was developed to aid the understanding of human-environment interactions taking place in traditionally managed ecosystems and landscapes and to monitor the role that these interactions play in the maintenance of such systems.

Findings; Virtually all ecosystems and landscapes must be seen as coupled social-ecological systems whose ability to respond to stresses and change derives from ecological and social characteristics, as well as from the link between these natural and human components. A variety of mechanisms by which indigenous and rural communities help anchor biodiversity and contribute to social-ecological resilience were identified.

Originality/value – This paper challenges the rationale behind exclusionary approaches to nature conservation. Indicators are developed to facilitate a shift towards the widespread adoption of “human-centred” conservation practices, in which nature conservation benefits from the inclusion and empowerment of human communities instead of their exclusion and marginalization.

*Keywords Conservation areas, Agriculture, Ecology*

2. **Title: Huascaran National Park : Environmental services and source of life**
*Member organisation*: National Service of Natural Protected Areas (SERNANP)
*Presenter*: Ricardo Ray Villanueva Ramírez, Environmental Engineer, Specialist - Climate Change, Huascaran National Park, National Service of Natural Protected Areas (SERNANP), Ministry of Environment – Perú, rvillanueva@sernanp.gob.pe

The Huascaran National Park (PNH), which has been recognised as the core area of the Huascaran Biosphere Reserve (UNESCO-1977) and World Heritage of Humanity (UNESCO-1985), was established on 1 July 1975. . The goal when creating the park was to "… establish a National Park in the Cordillera Blanca, considering it is the largest tropical mountain range in the world with a wealth of flora and fauna, geological formations, mountains and beautiful scenery. The varied ecosystems of the Cordillera Blanca must be kept by the State as they are part of our natural, scientific and cultural heritage."

The high mountain ecosystems of the PNH and its strategic location make it a key factor in the livelihoods of territories and populations of the Huascaran Biosphere Reserve. Huascaran Biosphere Reserve has three areas: the core zone is the Huascaran National Park which has large glaciers, lakes, wetlands, forests and rich biodiversity; the buffer zone which is home to rural communities and where agriculture and livestock raising are practised; and the transition zone where the main cities and the largest population (over 300000 people) are located. The many economic activities in the buffer and transition zones depend on the environmental services offered by the Huascaran National Park.

The ecosystems of the Huascarán National Park play an important role in regulating the quality and quantity of water in the region. Also impressive are the natural landscapes which support tourism.

Currently there are various pressures and threats to the ecosystems of the Huascarán National Park, such as illegal mining, overgrazing, forest fires and climate change that is causing a retreat of the glaciers. The team of Huascaran National Park is responsible for addressing these problems and we need all those fighting for conservation in our country and the world to join forces with the aim of achieving a balance between economic and social development, and the environment.

3. **Title: Traditional knowledge indicators**
   *Member organisation*: Indigenous People's International Centre for Policy Research and Education (TEBTEBBA)
   *Presenter*: Joji Carino, Policy Advisor and Team Leader, jojicarino@mac.com

The UN Statistics Division has noted that the issue of indigenous peoples and data collection is ground-breaking work and that indigenous issues are an important emerging theme in social statistics. Within the Convention on Biological Diversity, the need for indicators on the protection of traditional knowledge was identified in the 2001-2010 Strategic Plan and Biodiversity Targets. At COP10, the Parties adopted two additional indicators on traditional knowledge, in addition to the first indicator adopted on status and trends in linguistic diversity. These CBD indicators are:

- Status and trends of linguistic diversity and numbers of speakers of indigenous languages – UNESCO as lead agency
- Status and trends in the practice of traditional occupations
- Status and trends in land-use change and land tenure in the traditional territories of indigenous and local communities

In addition, with new emphasis being placed by Parties on the implementation of Article 10, COP10 also called for the development of appropriate indicators for customary sustainable use and to report on this matter to the Working Group on Article 8(j) and Related Provisions at its seventh meeting, so that this matter can be advanced within the framework of the Aichi Biodiversity Targets and the Strategic Plan for Biodiversity 2011-2020.

Tebtebba has been serving as the Secretariat of the IIFB Working Group on Indicators, and has played 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 researchers and NGOs. It has published a Resource Book on Indicators Relevant for Indigenous Peoples, and has organised a series of technical workshops to discuss traditional knowledge indicators proposed under the CBD.

Tebtebba's indicators work will continue, especially at this stage of promoting the adoption of indicators at the national level, and supporting indigenous communities to define relevant indicators at the community level, and to carry out monitoring work on salient aspects of ecosystem resilience and community well-being.

Together with indigenous communities in the Philippines, and relevant government agencies, there are also some advanced experiences and good practices in piloting the use of the CBD indicators, as well as with the national housing and population census undertaken in 2010.

These initiatives will be shared during the IPSI Public Forum.

4. **Title: The Impacts of Human activities on Apiculture in the sub-Saharan region of Africa: Case study of Borno state -Nigeria**

*Member organisation*: Kanuri Development Association (KDA)
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Borno sate in Nigeria, is one of the leading areas of honey production in West Africa. It is located in the north eastern part of Nigeria and shares borders with the Republics of Cameroon, Chad and Niger. Basic or local techniques are typically used in producing honey which has a distinctive taste due to the semi-arid (Sahel) vegetation in this area. Honey here is used in medicine. However, poor development in this part of sub-Saharan African characterized by a high level of illiteracy as well as poverty has made almost all the communities in this state to be dependent on fire wood for energy. The most common plant used for fuel wood used to be the *Kasese* plant (*Acacia semia*), but since the late 1980's this plant has begun to disappear in this area as a result of climate change and the rapidly increasing population dependent on this type of firewood. Plants other than *kasese*, which provided shelter to bees and provided livelihood opportunities for inhabitants of the area through apiculture, are now being harvested for fire wood .

There is now a significant decline in honey production in this part of the world since the late 1990's withmassive migration of bees from this area to the neighboring Mubi part of Adamawa state of Nigeria and even the Adamawa/Bamenda areas of the northwestern region of Cameroon.

In view of theabove situation, challenges that apiculture in the area faces may be listed as:
1. Disappearance or shrinking of apiculture in the Sub-Saharan African countries
2. Loss of traditional knowledge associated with bee farming
3. Loss of knowledge of traditional medicine
4. Increasing poverty levels or drop in per capita income among the communities of the Sub-Saharan African countries
5. Destruction of the natural biodiversity/food chain of this region

5. **Title: Application of rapid biodiversity assessments for the protection of biodiversity values, ecosystem services and water management of East African wetlands.**
*Member organisation*: Kenya Wetlands Biodiversity Research Team (KENWEB)
*Presenters*: Wanja Dorothy Nyingi, Mordecai Ogada, Stephanie Duvail, Olivier Hammerlynck, Judith Nyunja, Quentin Luke, Nathan Gichuki, Daniel Olago, Jean-Luc Paul, kenweb@museums.or.ke

The Kenya Wetlands Biodiversity Research Team is a multidisciplinary biodiversity research team established to carry out wetlands assessments through field expeditions and laboratory analyses of several wetland health indicators including flora and fauna, and setting up of community participatory methods for regular assessment and monitoring. The team has developed a wetlands assessment and monitoring methodology based on various experiences from the past 10 years of working under various collaborations in order to provide real time valuation of wetlands resources, ecosystem values and user strategies. These methods are being applied to satisfy the high demand of information on wetlands from civil society and decision makers to enable adequate justification for wetland conservation and management in East Africa.

In its first year, KENWEB has been involved in four Rift Valley lakes of Kenya namely Lakes Naivasha, Elementaita, Nakuru and Ol Bolossat; and two lotic systems, one coastal (Tana River Delta) and another inland (Loboi Swamp). The outputs of these projects include wetland maps which are being developed through links with the department of resource surveys and remote sensing; biodiversity inventories and comprehensive biological reference collections maintained at the National Museums of Kenya; hydrological models of wetlands; Ramsar designation of the Tana River Delta; training of graduate students and early career scientists in wetlands research and conservation; and training of local communities in wetland assessments and monitoring to facilitate co-management of resources.