Assessing Human Well-being for Co-management Initiatives by

Nishorgo Support Project in Chunati Wildlife Sanctuary.

Submitted by

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1. *Introduction*

Since UNCED in 1992 sustainable forest management (SFM) has been gaining increasing momentum and achieving sustainability is now a millennium development goal (MDG). Broadly, SFM has three dimensions of which social/human dimension is least studied which directly and indirectly related with the others (i.e., ecological and economic). Forest usually provides numerous services which provide livelihoods for huge number of people especially those living in and around the forest areas. Their activities have impact on the forest ecosystem functioning. Considering this relationship, forest management has gained a paradigm shift from traditional (blue print or stand level) approach to Co-management (Collaborative Management or CM) (participatory) approach in 21st century. The Nishorgo Support Project (NSP) is one of the initiatives towards this direction (especially in Protected Areas or PAs) in Bangladesh. CM aims to help local people to improve their lives, no matter how modestly, through greater access to and control over local forest resources. This often—especially with regard to state land—entails addressing longstanding inequities in forest management. Thus increasingly, and especially where inequities are blatant, CM is seen as a tool for empowerment and for promoting social justice. This 'vital but troublesome notion' (Mayers *et al.,* 2005) may be defined as 'the equitable access to resources and the benefits Management activities usually carried out though collaborative approach which improves the human well-being. Hence, assessment of human well-being will give a good feedback of the activities by NSP and eventually sustainability of the project.

2. *Location Background*

Chunnati Wildlife Sanctuary (CWS) was declared PA in 1986 with an area of about 7763ha (NSP, 2006). CWS is under two Forest Ranges, *Jaldi* and *Chunati*, divided into 7 Forest Beats, west of the Chittagong – Cox's Bazar Highway. Main aim of NSP of FD is to protect and conserve the forests and biodiversity of the country's PAs by building gainful partnerships between FD and key stakeholders based on shared roles and responsibilities for biodiversity conservation and sustainable use (NSP, 2006).

A number of villages, paddy land, settlements and forestland fall within the zone of influence of CWS. It is intimately surrounded by a number of villages, towns, forest areas, and cultivated fields. The Sanctuary is bordered on the north by Reserve Forests (RFs) of Chunoti Range, and in the south east and south by RFs of *Chunoti* and *Barabakia* Ranges. The plantations raised under different projects including FSP exist in *Chunoti* Range, particularly near the Chittagong – Cox's Bazar Highway that crosses the eastern part of the Sanctuary. However, a number of paddy lands and settlements are found all around the Sanctuary, sometimes on encroached forestland. Most of the local population, who depend mainly on agriculture for their livelihood, use forests for meeting their consumption needs for forest produce. Keeping in view both the relevant human system and biophysical system a 5 km-wide landscape zone along the boundary of the Sanctuary is taken as interface landscape zone. However, the NSP will start first by focusing conservation efforts in and around an elephant movement corridor sub-zone that has been identified by NACOM (2004) within the core zone.

Degraded natural forest with secondary scrub vegetation with scattered trees, secondary brush and 25 % area of the Sanctuary under legal and illegal cultivation of paddy and betel nut (NSP, 2006 and www.nishorgo.org). According to the local people and FD staff, about 6000 or 30 % of the households living in and around the PAs are involved in betel leaf cultivation (Anon., undated).

Nearly one-third of the total local population remains unemployed as a result of which biotic pressure on the forests is indeed high. Heavy dependence on forests and forestland has resulted in an active opposition by local people to wildlife conservation efforts. Crop damages by elephants have exacerbated this animosity.

There are a total of 70 settlements or "*paras*" (the "*paras*' have about 7810 households) located in and around the Sanctuary. Nearly half (48%) of these are situated inside the forest and the rest are adjacent or close to the sanctuary. About 40% of the 7810 households are landless, 64% are extremely poor, and the rest belong to poor and middle class. On the average about 30% of people are unemployed. Nearly three-fourth of the total *paras* were found having major stakes in the CWS. This proposed work would reflect the direction for achievement of objective no. 4 as stated in NSP plan for CWS.

3. *Objectives*

3.1 To assess whether co-management maintains or enhance fair intergenerational access to resource and economic benefit.

3.2 To assess whether concerned stakeholders have acknowledged rights and means to manage forests cooperatively and equitably.

3.3 To assess the health of forest actors, cultures and the forest is acceptable to all stakeholders.

4. *Research Questions*

a. Do co-management initiatives maintain or enhance fair intergenerational access to resources and economic benefits?
   - Is local management effective in controlling maintenance of and access to the resource?
   - Do forest actors have a reasonable share in the economic benefits derived from forest use?
   - Are people linking their and their children's future with management of forest resources?

b. Does concerned stakeholders have acknowledges rights and means to manage forests cooperatively and equitably?

- Do effective mechanisms exist for two-way communication related to co-management among stakeholders?
- Do local stakeholders have detailed, reciprocal knowledge pertaining to forest resource use (including user groups and gender roles) as well as forest management plan implementation?
- Does agreement exist on the rights and responsibilities of relevant stakeholders?

c. Does the health of target stakeholders, cultures and the forest is acceptable to concerned stakeholders?

- Are there recognizable balance exists between human activities and environmental conditions?
- What type of relationship between co-management and human health is recognized?
- Does the relationship between forest maintenance and human culture is acknowledged as important?

5. *Methodology*

5.1 *Reconnaissance Survey*

Before actual field survey, a through visit of the study site will be carried out at local Beat Office of the Forest Department with its officials, settlement heads, and local leaders of the forest villagers as well as the collaborative committee to know about the locations and prevailing situations inside and outside the forest. This will also help in planning for actual fieldwork.

5.2 *Identification of Stakeholders*

Prior to field visit the most important stakeholders **(~5)** will be identified from the existing stakeholders' classification of NSP. Then "who counts matrix" will be followed as of Colfer *et al.* (1999) from ranking among the identified stakeholders. From the ranking top listed three (**3**) stakeholders group will be taken for assessment of human well-being. In "who counts matrix" usually done for ranking of stakeholders on the basis of certain parameters (factors) e.g., proximity to forests, poverty, local knowledge, forest/culture integration, pre-

existing rights, dependency on forests, power dificits. The parameters will be measured on the basis of certain scale through personal observation and open discussion with the exiting stakeholders of NSP project site.

5.3 *Assessment of Security of Intergenerational Access to Resources (SIAR)*

For assessing this component (SIAR), three methods will be helpful: Histo Ecological Matrix, Participatory mapping (Momberg *et al.,* 1996) and Access to Resources by Generation (Pebble Distribution Method) (CIFOR, 1999). These methods will be used to assess changes in the availability of different local resources over time, with projections of trends into the future.

Histo-Ecological Matrix will be conducted with the representatives of the particular forest actors group. The respondents (each group consist of 5 – 10 people from each stakeholder group) will be asked list of four resources in the area that are important to them. Then prepare a matrix, with past dates (or relevant local events) at roughly 5-years interval across the top, and important resources down to the left margin. Include dates into the future (at least 5 years and 20 years). Give 100 pebbles to the group for allocating them through the years and ask them to explain why they made the allocations they did and record the information.

Participatory mapping method the participants will be reluctant to relevant questions pertaining to security of tenure, management issues (like division of access, labor, and control), and sharing of benefits in mind.

Access to resources by generation (pebble distribution method) is mainly used to assess people's feelings of security about intergenerational access to resources. Select 12 – 15 participants from each stakeholder groups in the area. Ask them to imagine all the forest resources over time (from the time of one's grandparents through present to the time of one's grandchildren). If the parental or grandparental generation came from a distant area, the implications for local conditions of their abundance/scarcity must be interpreted accordingly. Ask participants to divide up the 100 pebbles among the generations (grandparents, self, grandchildren). Then recording the allocation on the form.

5.4 *Assessment of Rights and Means to Manage Forests Cooperatively and Equitably*

For assessing the existence of shared rights and responsibilities for managing the forest, "*Rights/Means to Manage*" Pebble Distribution Method (Ostrom, 1994) will be followed. These methods will use to elicit people's perceptions of rights and responsibilities relating to local resources and to clarify how the local systems of resource management function (including rules, monitoring, sanctions, and conflict resolution, etc.).

Explain the respondents (12 – 15 people in group per stakeholder) in understanding *who they consider responsible for managing the forest in the area. Who is doing it now?* The answer of these question about which should be focused to elicit information is *Who do local people think should have the rights to manage?*

5.5 *Assessment of Remaining Issue*

This will be conducted through *open-ended* questionnaire of the target stakeholders for in depth assessment of questions as appear in "C" in research question section. Personal observation of the existing situation and visit of local health centers and other concerned organizations/institutions will be consulted.

5.6 *Analysis and Reporting*

The data thus to be found will be analyzed using simple statistical procedures. And based on the findings of the research, a report will then be written finally.

6. *References*

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7. *List of Acronyms*

Anon.	Anonymous
CIFOR	Center for International Forestry Research
CWS	Chunati Wildlife Sanctuary
FD	Forest Department
MDG	Millennium Development Goal
NSP	Nishorgo Support Project
PA	Protected Area
SFM	Sustainable Forest Management
SIAR	Security of Intergenerational Access to Resources
UNCED	United Nations Conference on Environment and Development

8. *List of Terms*

Health: This includes the basic health facilities (e.g., sanitations, nutritional supply from the forests, pure drinking water availability, protection against injurious forestry activities, etc.

Culture: Different daily activities as well as religious and social norms and festivals are designated as culture.

Stakeholders: This means the most important primary human component of the project site.

Intergenerational access: Transfer of rights from previous ancestors to present and future ancestors.

9. *Timeline*

Tentative timeframes of the proposed work are given below:

Activities[1]	February	March	April	May	June	July
5.1 & 5.2						
5.3; 5.4 & 5.5						
5.6						
5.7						

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[1] Followed by the sections (3.1 – 3.7) given in methodology.

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