

## Applied Research and Knowledge Management

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While the Nishorgo Support Project (NSP) design did not place a high emphasis on research, it was recognized that collaborative co-management of Protected Areas (PAs) needs to be informed by past research. In addition, gaps in knowledge should be addressed to understand the existing status and use of forest PAs as well as to improve practical conservation of forest habitats and wildlife, restoration of these ecosystems, and participation of local communities and stakeholders. In Bangladesh and elsewhere, there is often a tendency to support research without being fully informed of past studies, thereby replicating research and re-learning lessons. Limited resources and skilled researcher time could better be used building on existing knowledge. Therefore, rather than only commissioning new research, Nishorgo focused considerable effort at a higher level on compiling existing data and past studies and making these resources available to researchers and practitioners, and providing guidance on appropriate research methods and means of collaborating with the Forest Department (FD). At the same time, Nishorgo sought to bridge the gap between the FD and researchers, and to encourage and build the capacity of department staff and junior researchers to undertake good quality and relevant research on PA forests and their use.

### Starting Assumptions and Subsequent Adaptations

It was assumed that the Forest Department was rich in past and current information on the forests under its jurisdiction, including conservation and wildlife in PAs, but that this information was not accessible to most of those interested in doing research on PAs. After discussion of these issues, the Forest Department, with the assistance of NSP, was willing to make it easier for researchers to access information and to encourage them to focus their research on the PA network. Nishorgo facilitated access to the relevant wealth of information through digital compilation and formulation of a research guideline. In practice, it was found that much of the relevant local information was not held centrally or did not exist in written form, let alone digital form; hence, institutional history and information held in the memories of senior/older staff had to be recorded.

To begin the task of collecting and compiling existing information, NSP hired an intern on a three-month contract in September 2006. Several FD experts were contacted and asked to provide rare articles, photographs or their own personal experiences working with the Forest Department. Initially it was assumed most relevant information would be available in the FD and NSP libraries; however, with time the search for information extended to other organizations such as IUCN, and an effort was also made to collect the outputs of relevant studies and experience from other South Asian countries.

Rare articles were collected and scanned for documentation. Some key books were scanned and digitized with permission. To make the information widely available, permanent, and easily searchable, it was decided to compile all existing relevant information onto a CD. Over

time, adaptations were made in the look and content of the CD. The design did not include high resolution maps or photographs. Maps are a vital resource that are not otherwise easily accessible through FD, given the limited time its staff has to answer outside queries, and older archival maps run the risk of gradual decay and are difficult to find. The final CD incorporated improvements in the look and content of the CD to address some issues, but did not include maps, which will require a separate effort to capture digitally.

The compilations were subsequently expanded by a second intern in 2008 to cover in detail the Sundarban forests. Ultimately, a wide range of journal articles, think pieces, “grey literature” of project reports, as well as web-based reports were included in the digital compilations. Two CDs were produced: “Applied Research Support Tool for Nishorgo Pilot Sites” and “Sundarban Digital Research Reference.” The articles are sorted according to subjects, areas covered, national and international information, etc.

To promote use of this resource and publicize the scope for applied research in PAs, a day-long seminar on applied research and its feasibility in the five pilot PAs was held. Distinguished experts and university professors, along with interested researchers, discussed the new and improved research guidelines and where to go for help. To encourage use of these resources and research in PAs, 300 CDs were distributed along with the research guidelines, to interested individuals to encourage them to participate in PA research. Some 1,200 CDs of the Applied Research Tool Kit were circulated at the regional IUCN conference held in Nepal in 2007 for wider dissemination.

Linked with providing easily accessible reference materials, Nishorgo worked to improve the quality of research related to PAs and to coordinate this with Forest Department. A set of guidelines for research in forest PAs was developed and endorsed by FD as a necessary step in the systematic process of facilitating quality research both by outsiders and FD staff in PAs. This was then put into operation through a program of small grants and capacity building for research in PAs.

In 2006 the East-West Center (in Honolulu, Hawaii), the Nishorgo Support Project, and the Forest Department provided eight research fellowships aimed at final year undergraduates, Master’s students, and junior-level faculty in various Bangladeshi universities, as well as to Assistant Conservators of Forests (ACFs) in the FD, to conduct six months of field research in the five pilot PAs. The grants were made through the FD and NSP; the East-West Center provided technical support to the researchers and ran workshops on proposal writing and academic article-writing for applicants and grantees. Through these small research grants the Nishorgo effort sought to explore the impacts and implications of protected areas on the livelihoods of people living in and around the chosen protected areas. This was essentially a research training exercise with a focus on the types of benefits that local people derive from the PAs. Writing workshops were held to help researchers analyze their findings and formulate research reports. Subsequently, a second round of 11 coordinated small research projects were supported in the same way, this time focusing on the workings and performance of co-management in the pilot PAs and with grants made to both ACFs and university researchers. Ultimately, two edited books (Fox et al., 2007; 2008), with chapters written by the researchers and ACFs assisted through this program, were published through Nishorgo Support Project.

A key aspect of this process was soliciting competitive proposals, which were reviewed and ranked by a selection committee. For the second round, limiting the competition to ACFs only, and even allowing some grants without competition, was considered; ultimately, the same open competitive process involving universities and FD was followed as in the first round to ensure transparency and a level playing field, and with the aim of ensuring that grants went to the best proposals and applicants. Some applicants dropped out in the early stages in both rounds. In each case, they were replaced by the writers of the next best preliminary proposal. Some of these researchers required relatively more help from the research support team, raising a question of how best to allocate capacity building resources between research grant recipients of varying experience and capability.

## Lessons Learned

*Forest Department needs to become more accessible to students and researchers.* Some important changes took place through this initiative—the FD has guidelines and easily accessible information, and is more ready to disseminate information and willing to help researchers. The guidelines also make clear that the onus is on researchers to share information generated with FD for the better management of PAs. Prior to the project there was no system for collecting information about the PAs. Individual researchers worked and left without adding value to the FD database. Now more students are interested in working in PAs and background information is easily available for interested researchers and students.

*Forest Department needs to conduct research and staff who have an interest in conducting applied useful research need nurturing.* Previously, the benefits of and need for applied research had not been well recognized in FD. This program has encouraged interest in research and has, in particular, enabled some well motivated and interested ACFs to conduct research on questions of concern to themselves and FD. This has been valuable for the research and also as a training and capacity developing exercise. All the involved ACFs were extremely motivated to do a good job, even while seeing to their other responsibilities in the FD, and the program helped to develop their research capacities.

*A coordinated small research grants and capacity building program can help build a new generation of active researchers.* About a quarter of the participants (six) in the small research grants program went on to obtain advanced degrees, and five of them got places at overseas universities. In addition, one person went on to a teaching job at Chittagong University. Although there may not be a direct link between their Nishorgo research projects and their subsequent studies, the skills, connections, and motivation gained through the Nishorgo research experience were certainly helpful.

*Archives and libraries need to be better maintained.* While digitization of documents is vital to ensure wider access, there is still a need for preserving historic documents and papers, the future value of which may presently be unrecognized. While working to make the compilations and CDs, the collection of rare and older articles continually reappeared as a key constraint. The articles were in such bad condition that very old and hardly visible papers had to be scanned for documentation. So far older maps have not all been digitized and there is scope to make spatial information on PAs available through CDs. Ultimately this approach needs to be incorporated within the FD – for example the FD library lacks a systematic filing

system and a trained librarian. Similarly, the FD website – and its Nishorgo pages – should become the focus for updated digital information access, supported either by FD staff or a service contract made by FD, rather than project websites.

*A more systematic approach to updating and expanding the compilations is needed.* Much was achieved using interns and students, but the relatively narrow scope of their work left gaps (for example, out of one workshop proceeding, volume papers relevant to the Sundarban might be scanned but not papers relevant to other forest PAs). Similarly many other relevant papers and reports exist that were not obtained digitally or scanned into the compilation, while improvements could be made in the indexing and search ability of the CDs. A long-term strategy and modest budget is necessary to create a comprehensive digital information system, which will not only benefit interested researchers but also allow people of all levels to access information on Bangladesh's heritage of biodiversity, uses and management issues, and experiences in Protected Areas. These pilot activities have contributed to the FD's compliance with the National Biodiversity Strategy Action Plan, which seeks to link up information and institutional archives online, but this needs to be mainstreamed within the FD and linked with other related departments and organizations.

## References

- Fox, Jefferson, Bryan R. Bushley, Sugato Dutt, and Shimona A. Quazi, eds. 2007. *Making Conservation Work: Linking Rural Livelihoods and Protected Area Management in Bangladesh*. Hawaii: East-West Center of Honolulu and Dhaka: Nishorgo Support Project of Bangladesh Forest Department.
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