

## Presenting Interpretive Information

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“Interpretation is an educational activity which aims to reveal meanings and relationships through the use of original objects, by first hand experience and by illustrative media, rather than simply communicate factual information” (Tilden 1977, p 8).

With the increase in tourism in Bangladesh, including visits to natural sites, and expectation that Nishorgo would result in higher numbers of people traveling to Protected Areas (PA), it was important to create facilities which would inform visitors and help them enjoy their visits to PAs in responsible ways. Good interpretation helps visitors to explore and understand better the places they visit. It also adds depth to the tourist’s experience, making the visit more worthwhile than just a trip to see the sights. Interpretation by local residents ensures that they directly benefit from tourism activities.



To promote eco-tourism several initiatives were undertaken by Nishorgo Support Project in the five pilot PAs. Accurate information and a variety of interpretive techniques were used with the aim of helping visitors gain knowledge of the natural and cultural resources of the country.

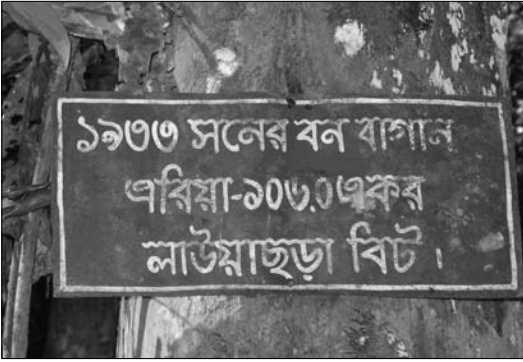
*Only very basic signs such as this had been used previously at pilot PAs. Traditionally, all plantations are marked with a concrete sign, or more recently painting on metal has been used. All are made locally and implemented by the Range Officer or Assistant Conservator of Forests. The need was apparent for a consistent look and image for all signs, whether directional or interpretive. [Naved Mahbub]*

## Starting Assumptions and Subsequent Adaptation

### Information signs

Historically, the PAs were not visited by tourists in any significant number. Accordingly, little attention was paid to the presentation of interpretive information within the PAs. Signs were presented basic management information about plantations or tree inventories within the forest. The design and execution of all signs and interpretive information was done directly by the relevant District Forest Officer (DFO).

As Nishorgo’s communication efforts raised awareness about the pilot PAs, the number of visitors began to increase almost immediately. The largest portion of visitors came in group



*It had been common to present information about the forest by nailing signs to trees, such as this one. As in this sign, indicating the area of Lawachara Beat, information was presented for internal management purposes rather than interpretive purposes. [Philip J. DeCosse]*

outings, most often either as large family gatherings or school outings. Behaviors such as littering, cooking food, and playing loud music were common. The Project recognized a pressing need not only to present information about the forest and what visitors would find, but also about norms of appropriate behavior in the forest.

The initial focus of sign development was on raising the standard of information presentation to meet visitor needs. Initially all signs, even small and directional indicators, were proposed for completion by the project. It soon became clear that the central preparation of all signs would

slow down the delivery of signs to the field. Accordingly, direction was given to local FD staff to prepare simple directional or informational signs, while leaving interpretive signboards and presentations to be prepared centrally. Preparation of interpretive signboards was done jointly by wildlife experts, the project staff and the Forest Department, with the project staff providing financing for graphical preparation, printing and signboard installation.

The optimal means for physical mounting of signboards was the subject of considerable planning discussions. Tradition within the Forest Department –and in most government departments –is to construct in steel-reinforced concrete, with lettering etched into the concrete. The other common means of presenting information, used more often by NGOs is on steel signs with painted messages. The Nishorgo team wanted to ensure a common high quality and standard across all sites, including a resolution that would allow presentation of more information than



*The most common means of presenting information in the PA has been on steel-reinforced concrete mount, as in above. [Philip J. DeCosse]*

possible on a painted signboard. The team also wanted to be able to update or replace existing interpretive information without needing to replace the entire signboard structure.

In addition, Nishorgo sites, generally in remote areas, raised the risk of theft of signboard materials (this explains why the FD has generally made its plantation signboards only in concrete). The solution used at Nishorgo sites (shown in photo on the next page) included painted metal poles, each set into concrete underground, with four painted heavy metal plates soldered into the poles (not screwed in, which would allow theft of the plates). Onto each of the plates the interpretive signs printed on vinyl with adhesive backing were stuck to the plates.

Generally, the technical means of presentation worked effectively, although two additional improvements were added later. First, although the outside of the poles were painted, it later appeared that rust in the humid forest environment appeared on the inside of the poles. Furthermore, in the initial model tourists could begin to peel back the vinyl from the plates since the corners were exposed. Later modifications placed a frame around the presentation board to reduce access to the corners of the vinyl.

The approach used at Nishorgo sites presumed a centralized capacity to create, update, reprint and replace the signboards. This was made more difficult for the FD as a result of its standard operating procedures and tradition, which is for all decisions about interpretive information, and the contracting and budgets required to install it, to be made at the Divisional level, under the budget managed by the Divisional Forest Officer. Although centralized preparation was piloted under Nishorgo, the budgeting and contracting for interpretive information remained at DFO level, making it difficult to ensure centralized quality control.

Through mid-2008, 78 interpretive and directional signs had been placed within the PAs and at trail heads, explaining the resources on site and the efforts undertaken by Nishorgo. Visitors could stand on all four sides to read them. The installed signs were similar in all the five pilot PAs with the same color scheme so that it would also act as a common identity to the activity. However, this has resulted in some signs covering species that are rare in a given PA, while a greater focus on notable and more easily observed species found in the respective PA would have been more relevant to visitors.

Administrative signs such as the “Do’s and Don’ts” for a visit to the PA and a map of the a given trail have also been placed at the entry to trails.

As the project neared its end it became clear on the one hand that rigorous quality control standards needed to be maintained from the central level of the Forest Department (FD) to provide content for future signs, while on the other hand FD staff at the divisional and local levels must have the requisite training and orientation to develop and execute appropriate signs.



*The Project installed signboards having on site information with a uniform color scheme. The signs acted as its trademark in all the five Protected Areas [Naved Mahbub]*

## Nature Trails

Assuming that visitors will have different amounts of time for their visits to PAs, and that most would not want all day hikes, three different types of trails of standard durations have been prepared in the five PAs. None of these trails were newly cut in the forest. Rather they were traced upon the already existing walking trails. They are divided into short (half hour), medium (one hour), and long (three hour) trails. The primary objective behind these trails was to offer “fun through adventure to visitors” instead of them just picnicking in the PAs. The



Marked 1/2 hour, 1 hour and 3 hour nature trails were tested as attractions for nature tourists. [Philip J. DeCosse]

idea of including trails of these three lengths was to test the relative interest of visitors in the different lengths of hiking excursions. It has become clear that very few visitors walk the three hour trails. Those that do tend to travel in small groups (of less than eight). It has also become apparent that the half hour trails tend to become highly congested during peak visitor hours on weekends or holidays.

To support visitors in these trails, tour guides and trail specific brochures have been prepared as well. Visitors who prefer visiting PAs themselves can use trail brochures (available in

both Bangla and English) which include illustrations of species likely to be encountered and detailed maps. Moreover, numbered waypoints were also installed along trails in the northern PAs where visitor numbers are higher, for the convenience of brochure users. However, these markers have suffered from damage by visitors.

## Eco Guides

Eco-guides mainly assist tourists in interpreting biodiversity along the trails. They have been trained to provide these services to visitors, including participation in a standardized five day training course covering such issues as key specie identification (especially birds), biodiversity context, the management plan, participatory management structures (including the CMO structure and purpose) and guidance for eco-guide behavior (see, for example, the suggestions for guides in the box below). Three categories (green, blue, and red) of guides are available according to their communication skills and talent. Mostly local youths who have at least secondary level education were selected as eco-guides.

The aims were to improve quality of visitor experience, control inappropriate visitor behavior, and to help unemployed youths by creating an alternative source of income for them. Beside interpretation, visitors hire eco-guides for better tour management and

### Top Twelve Suggestions for Nature Tour Guides

1. Allow/Enable the Experience of Peace in Nature—Nishorgo
2. Don't Talk too Much
3. Emphasize the Human-Relevant over Dry-Scientific Facts
4. Show your Love of Nature—It is Magnetic
5. Give a Brief Cultural Context
6. Give a Brief Natural and Historical Context
7. Use Appropriate and Non-Offensive Language
8. Treat Women with Respect for Social Norms
9. Give Advance Warning about Scary Things
10. Be Presentable
11. Bring the Right Stuff
12. Be Prepared to Ask for a Fee

security inside the forests. Highly skilled eco-guides are even hired for field research and study tours.

## Interpretation Centers

Under the Nishorgo Support Project, Interpretation Centers have been set up in three PAs namely Satchari National Park, Teknaf Wildlife Sanctuary, and Chunati Wildlife Sanctuary. The Interpretation Centers were set up with the objective of creating awareness of biodiversity and PA issues amongst all visitors, whether from nearby areas or distant towns. These centers, which would ultimately be the hub of the PA interpretive program, were intended to prepare the visitors for an enhanced experience in the sites.

Information on the PAs was collected from different sources and converted into easily understandable text and illustrations to meet the interest level and reading ability of all types of visitors. Planning for each panel was carefully done in terms of selection of the text, pictures and its translation to Bangla. Each panel went through careful review both within Nishorgo Support Project as well as by the FD in order to avoid any factual and textual mistakes.

The first Center was established at the Mochoni Nature Center in Teknaf Wildlife Sanctuary just outside Teknaf town. It was inaugurated on July 9, 2008. This is a small Center that portrays the spirit of the place and presents information on the rich biodiversity of Teknaf Wildlife Sanctuary. It is also an effort to attract the very good number of tourists who pass the site on their way to visit St. Martin's Island. In order to make interpretation accessible to a diverse audience, the panels are bilingual (Bangla and English). There are interactive panels on bird calls that engage and attract visitors. The goal is to increase the practical understanding and experience of visitors by providing information gained through fun activities. The drawback of interpretive planning here was that an existing building at Teknaf had to be used, consequently this constrained the flow of visitors and the amount of information that could be displayed.

Satchari Interpretation Center invites visitors to experience the world of Hoolock Gibbons and the rich biodiversity of the Teak forest. It also depicts the life and culture of the Tripura community. The Chunati Interpretation Center focuses on Asian Elephants and the Garjan forest. It also gives the visitors a feel of the rich bird diversity found in and threats to Garjan forests in the country.

The construction of the Interpretation Center in Lawachara National Park has become complicated and delayed associated with the Government's hesitations to accept private donations to construct the Center under a public-private partnership. A lot of effort went into raising the funds for this center, including an elaborate competitive design process. Many countries are now banking on such initiatives both for conservation and development. In keeping with the high visitor numbers, the planned Lawachara Interpretation Center is larger and with a wider range of amenities than the other centers, which are a scaled down versions of this original design.



## Publications

Four types of promotional publications were prepared for PAs: Site Leaflets, Annotated Trail Brochures, Site Information Brochures, and a summary booklet entitled “Protected Areas of Bangladesh: a Visitor’s Guide”. The initial approach was to develop a range of simple publications for each PA. With purchase of an entry ticket, the visitor was to receive a free Site Leaflet. Other brochures and booklets would be obtained for a fee paid to the CMO. The Annotated Trail Brochures were designed to coordinate with small discrete numbered way markers along the forest trails. For each of the three trails within a given PA, 10 observational points were marked along the trail and discussed in the Brochure. The Trail Brochures contain details of the trail routes and illustrations of species found along the way. The aim was to enhance visitors’ experiences while they hike by making their visits educational through recreation. Site Information Brochures were prepared to provide in detail the history of the site, important species, culture and accommodation facilities, etc. They also portray different aspects of the culture and traditions of indigenous people who reside near the PA. This brochure was intended to attract visitors by showing them in detail on-site facilities. The Visitor Information Guide gives a basic idea about all the PAs of Bangladesh and contains brief information on the interesting features of each PA, so that people can learn about and can plan visits to the PAs of Bangladesh.

The quality, pricing, marketing and sale of these interpretive materials did not evolve into a sustainable model as rapidly as expected. Although the team felt that high quality paper and printing were necessary to project an attractive look to visitors and readers, the cost of executing this attractive look made brochures prohibitively expensive to the average PA visitor. Few visitors were prepared to pay even 20 Taka (US\$ 0.29) to purchase brochures, and almost none other than foreigners and wealthier Bangladeshis purchased the 100 Taka (US\$1.47) Visitor Information Guide. The need for very low cost interpretive material became apparent. It also became evident that visitors did not plan to make significant expenditure on their nature outings. This entire sales process—which was to have provided additional income for the CMOs—was further constrained by the government’s unwillingness to explicitly allow the CMOs to generate revenue from PA related activities.

## Souvenirs

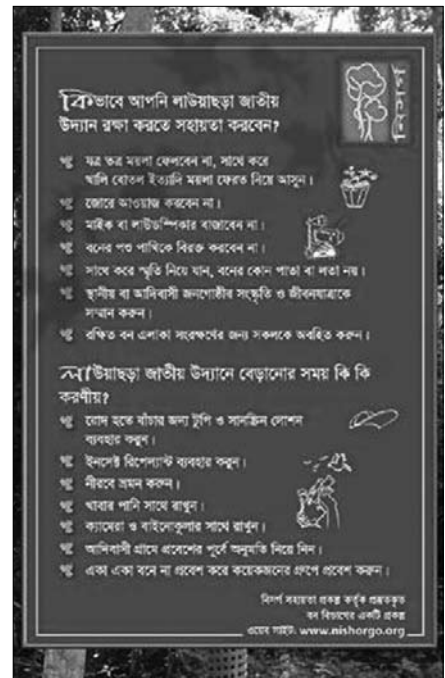
Visitors to the PAs usually like to take home a memory of the site they visited. Souvenirs, therefore, not only have a take home value but also are an important tool for marketing. Therefore, certain souvenirs have been designed which are sold through shops set up in the PAs. For example, T-shirts with images of elephants, Hoolock Gibbons and a map of the PAs of Bangladesh were specially designed and are sold at the PA Information Centers. These souvenirs, like the interpretive information brochures, were to have generated revenue for the CMOs, but sales of these specialized products were low, principally due to price. Attention in the future needs to be paid more carefully to the full PA souvenir value chain, from product conception and development to delivery and sale at PA level, either via tourist product concession arrangement or via sale and management of the CMO.

## Youth Outreach Materials

One element of Nishorgo's interpretation efforts included outreach to young people living around the Protected Areas and in Dhaka. To this end an interpretive package was developed including educational games (steps and ladders), animal masks, a set of animal stickers, bookmarks, and daily routine or schedule cards with key messages. These materials were used in Nishorgo Club activities as well as activities at schools.

## Lessons Learned

*Always prepare the interpretive plan with its themes before designing a building so that the center's requirement is known before construction.* The design of the Nishorgo-constructed visitors' centers is conceptually very good but presents a number of functional problems as an interpretation center. Three shortcomings of the interpretation center in particular stand out and should be learned from in any future centers. First, the centers' glass windows succeed in bringing light into the building, but significantly reduce the wall space on which interpretive information can be displayed. Second, there is not a clear flow plan for visitors to the centers. At a number of points in walking through the building, visitors can choose multiple directions, thus making it more difficult to present interpretive information in a logical flow. Third, the moisture and humidity levels inside the buildings suggest that they were constructed so as to require air conditioning. In light of the distant locations and cost of electricity, it would have been better to construct a building that did not require air conditioning, and used natural air flow instead.



Bangla "Do's & Don'ts" for visiting tourists were considered essential as part of the need to educate visitors about behavior appropriate for a Protected Area. [Philip J. DeCosse]

*Special architectural needs at interpretation centers in remote PAs.* The Interpretation Centers as built at Mochoni-Teknaf and Chunati presented a number of important lessons. As the buildings are for public use, in the interests of hygiene in remote locations, water and sanitation amenities should be located at a suitable distance from the building. Per the initial design, however, toilets were built near the entrance area. After this was pointed out for the Mochoni site, toilets were not used in the building and new toilets were constructed some 25 meters away. This still needs to be done in the other sites. In addition, the wooden slats on the outside of the glass windows created an attractive lighting inside the building, but were difficult to clean without special equipment, and with dirt accumulating on the windows affected the visitor experience negatively. Moreover, in a country where deforestation is a major concern, use of wood in the Centers could have been minimized, although it is debatable which construction materials would be the least environmentally damaging.

The durability of interior and exterior signboards is a problem and will require regular maintenance for which FD lacks expertise. The layout for the signboards included inside the Interpretation Centers is produced on paper print with lamination, while outdoor signboards are printed on vinyl. With constant exposure to the elements, especially humidity and dirt, the paper printed signs will get weathered. The durability of the outdoor signboards can be extended by making small roofs above the signboards. This would not only protect the boards from exposure but would also shelter visitors reading the signs.

Policies need to be in place regarding sustainability in management of interpretation centers before initiating any venture involving profit sharing. The Forest Department needs to change the way it thinks about community involvement in the management of interpretative facilities. The visitor center infrastructure has been built but the modalities for how it is going to operated are not clear. The premise of setting up facilities was that they would be managed by the CMOs, and that the revenue generated would be shared between the FD and the CMOs. And yet, the modalities of managing the interpretive facilities were not in place in a detailed manner prior to construction of the Mochoni Center. CMO members were thus at a loss to understand how they would benefit from interpretive infrastructure and materials. The need for clearer agreements on benefit and cost sharing between FD and the CMO is equally important for the business of supplying and selling interpretive information brochures and souvenirs.

**Significance of Chunut Wildlife Sanctuary:**

- The sanctuary represents several features of bio diversity of north eastern sub continent which is one of the mega diversity region
- The forests of the sanctuary are important for regulating water flow and checking soil erosion.
- It is a natural migration area of the Asian Elephant (*Elephas maximus*)
- The area has unbroken natural areas of hills and grasslands. They are subjected to heavy biotic interference including jhum (shifting cultivation)
- Chunut was once a rich Garjan forest which is now cleared by illegal felling. A small patch of Garjan still stands in the area.
- It is an example of restoration of degraded habitat

**করমন্ডল জৈববৈচিত্র্য অঞ্চলের গুরুত্ব**  
ইংরেজিতে ভাষান্তরিত করমন্ডল জৈববৈচিত্র্য অঞ্চলের গুরুত্ব:

- এলা জৈববৈচিত্র্য অঞ্চলগুলি পৃথিবীর জৈববৈচিত্র্য অঞ্চলগুলির একটি যা উত্তর-পূর্ব এশিয়ায় অবস্থিত। এটি মেগা-বৈচিত্র্য অঞ্চলগুলির একটি।
- সংরক্ষণের এলাকা জলস্রাব নিয়ন্ত্রণ এবং মৃত্তিকা ক্ষয় রোধের জন্য গুরুত্বপূর্ণ।
- এটি এশীয় হাতি (*Elephas maximus*)র প্রাকৃতিক অভিবাসন এলাকা।
- এলায় অক্ষত প্রাকৃতিক এলাকা রয়েছে যাতে হিলস এবং গ্ৰাসল্যান্ড রয়েছে। এগুলি জৈবিক ব্যাধির কারণে, বিশেষ করে জুম (শিফটিং কাল্টিভেশন) এর কারণে ব্যাধিগ্রস্ত।
- চনুতি ছিল একবার একটি সমৃদ্ধ গার্জান বনাঞ্চল যা এখন পরিষ্কৃত। এলায় এখনও একটি ছোট গার্জান বনাঞ্চল রয়েছে।
- এটি হল একটি উন্নত স্থান যাতে পরিষ্কৃত স্থানগুলির পুনরুদ্ধারের উদাহরণ রয়েছে।

Species	Before	After
Plants	3000	477
Mammals	113	27
Birds	428	137
Reptiles	126	8
Amphibians	30	4

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Interpretive materials were prepared in Bangla, and occasionally in English also. This panel was prepared for the Chunut Wildlife Sanctuary.

The Interpretation Center should be a first stop for all visitors. Efforts should be made to make the Interpretation Centers popular destinations not only amongst the local communities but also amongst outside visitors. The common way of doing this internationally is to make the Interpretation Center the first stop for visitors. In addition to paying entrance fees here, all the eco-guides should be stationed or available from the Center and should be allotted groups on a “first come first served” basis. The guides should first take visitors around the Interpretation Center to orient them and then take them on the trails. This would not only ensure better use of the Interpretation Center but also the visitors would understand the options for activities that they can choose from.

Complementary services should be provided at the Interpretation Centers. The Center should be open from sunrise to sunset so that all visitors can enjoy the facilities. A small food service provider can provide tea and snacks, owned and run by local providers under concession, or by the CMO directly, be sited near the Interpretation Center along with the souvenir shop selling local handicrafts, sales



items and publications. All the proceeds from the sale of products should go to the CMO. A certain percentage from the eco-guide's fees should also go to the CMO. No visitors should be allowed un-guided. Visitor numbers and their use of trails should be monitored.

*Interpretation should be a continual self-sustaining program and not a one-off activity.* All the components of interpretation are linked and need careful planning and dissemination. A large number of well designed publications, which are site specific, have been produced for visitors. But if the PAs lack Interpretation Centers or if these are not well known, then visitors will not be able to access or buy these publications. Publications have a shelf life, after which the information becomes obsolete and needs updating and a new edition should be printed. To sustain this and maximize use of information, low cost interpretive publications should be included in enhanced entry fees. The money thus generated should be managed by the CMO, which should be responsible for replenishing as needed the stock of publications.

The Nishorgo team together with the Forest Department invited the Arannayk Foundation to take over the updating and re-supply of interpretive information brochures to the pilot PAs. It was argued that the Foundation had the remit and expertise to undertake periodic updating and reprinting of such brochures and could supply them to the PA CMOs at cost as a public service, and in return the Arannayk Foundation name and logo would be added to the reproduced materials. While the Arannayk Foundation was not at the time interested, some suitable non-profit central organization needs to be involved to play this role otherwise renewal and reprinting of interpretive publications is unlikely to be sustained.

This need for centralized management of interpretation as a unified program has implications for signboards also. Developing interpretive content for signs should be the responsibility of qualified experts at the central level of the Forest Department, and should not be lightly delegated to DFOs or ACFs lacking explicit training in this specialized field. More generally, efforts need to be made to build the institutional capacity at the Forest Department to maintain and refine the interpretation process.

*Trail maintenance and security of visitors are concerns.* Stronger co-ordination and dialogue is needed among the CMOs, Community Patrol Groups and other local stakeholders to ensure that as part of their activities trails are maintained (without damage to the forest but ensuring safety of visitors) and that local people can benefit from this activity.

## References

Tilden, Freeman. 1977. *Interpreting our Heritage*, 3rd edition. Chapel Hill, North Carolina: University of North Carolina Press.