



# POLICY Brief

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## Can Tourism be a Vehicle for Conservation? An Investigation from the Mangrove Forests of the Indian Sundarbans

**The Sundarban National Park is among five Natural World Heritage Sites in India and part of the world's largest mangrove eco-system. The remote island communities that surround the Park are dependent on it for fishing, honey and prawn fry collection, timber and fuelwood and have few alternate livelihood options. In recent years, eco-tourism has gained momentum. In 2006-07, the Park saw 75,000 visitors, an 18% increase over the previous year. Thus, it is important to understand whether tourism is augmenting local people's livelihood and reducing their forest dependence. A SANDEE study asks these questions and also assesses the potential of eco-tourism to contribute to conservation.**

While tourism employment is mainly available to only one village in the area, the study finds that villagers who are involved in the sector are significantly better off. Households with tourism participants consume more than other similar village households — they spend 19% more on food and 38% more on non-food items relative to their counterparts. Tourism also has a positive impact on conservation as such household seem to reduce their forest dependence. Tourism needs to be further scaled up in the Sundarbans to make a significant dent in reducing poverty. But more important is the type of tourism that is developed. The study makes recommendations for targeted activities and infrastructure that will also contribute to local employment.

### THE NEED FOR PRO-POOR TOURISM

The study, was undertaken by Indrila Guha from the Vidyasagar College for Women in Kolkata and and Santadas Ghosh from the Visva-Bharati, Santiniketan. The researchers hope their study will help with the development of nature-based tourism that is environmentally-sustainable and 'pro-poor'. This is an important

objective, given the current situation in the study area: the Sundarban National Park is home to the endangered Royal Bengal Tiger and comes under the Project Tiger conservation scheme. It restricts the movement of the local people into the forest who traditionally depended on it for their livelihood. It is clear that any effective conservation strategy for the forests will need to involve the local poor and provide them with earning opportunities linked to forest protection.

### WITH AND WITHOUT TOURISM - A TALE OF TWO VILLAGES

This study is based on a comparison of two villages. The first, Pakhiralay is, located on a river bank across the protected forest. It is the entry point for tourists since they are required

This policy brief is based on SANDEE working paper No. 26-07, 'Does tourism contribute to local livelihoods? A case study of tourism, poverty and conservation in the Indian Sundarbans', by Indrila Guha and Santadas Ghosh. The full report is available at [www.sandeeonline.org](http://www.sandeeonline.org)



## THE STUDY AREA

The Sundarbans, the world's largest single stretch of mangroves, is spread across India and Bangladesh with the international border running through. Human settlements in the Sundarbans are in remote fringe villages that are clustered along the edges of the reserve. The people who live here are dependent on the forest for multiple products and have relied on its water channels for fish. Unfortunately, forest quality has deteriorated over the years. The Sundarbans is, however, home to many endangered species of animals and plants, including the Royal Bengal Tiger. People-animal conflict is intense and tigers here are known to be man-eaters. Tourism is a regulated activity with tourists arriving to take 'Sundarban tours'. These are essentially cruises through water channels with stops at watch towers to look for the famous man-eaters and view the beauty of the eco-system.

to show their permits at the Forest Range Office that is located here. Tourism-related employment in Pakhiralay has grown and locals participate as vendors, boatmen, forest-guides and in other hospitality-related trades. The second village, Dulki, is similar to Pakhiralay in its geographic and socio-economic features, but isn't affected by tourism. There is little economic interaction between the two villages.

The study examines household consumption expenditure across the two villages to understand whether tourism contributes to household well-being. Data was collected from 48 randomly-selected households from Pakhiralay and 39 households from Dulki. Each household was visited once during the tourism peak season and once during off-peak season. Perceptions on tourism-related social issues were also assessed.

## TOURISM BOOSTS LIVELIHOODS

Agriculture is the single largest occupation in the area. However, 9% of the working adults in Pakhiralay directly engage in fishing, collection of honey and fuelwood. An additional 20% of working adults engage in prawn-fry collection in rivers, which cause much ecological damage. In Pakhiralay, approximately 8.2% of the adult population are employed in services and trades that cater exclusively to tourism. In addition, trades like grocery shops, telephone booths and jobs on the local ferry service gain significantly through tourist arrival. Another 6.9% of local working adults are engaged in these trades.

### Comparing tourism participant vs non-participant households in Pakhiralay

	Non-participating HHs	Participating HHs
No. of HHs in the sample	38	10
Avg. Per-capita landholding (Katha)	7.9	5.9
% of literate adults	79	68
% of HHs directly exploiting the forest (engaged in fishing and/or prawn-fry collection)	55%	30%
Per-capita monthly expenditure on Food (Rs.)	262	304
Per-capita monthly expenditure on Non-food (Rs.)	158	210
Per-child monthly expenditure on Education (Rs.)	58	108



Those households whose members are engaged in tourism-related jobs have a significantly higher living standard compared to non-participating households as reflected by their monthly per-capita expenditure. Income from tourism is saved and used by participating households to finance their expenditures throughout the year. The additional money tourism provides enables these households to consume more than the bare necessities. It is, however, clear that there is little, if any, 'trickle down' effect – in other words the extra money earned by households through tourism is not significantly benefiting the rest of the local economy.

### **IMPLICATIONS FOR CONSERVATION**

Tourism is currently a seasonal occupation. No household survives on tourism alone and all 'participating' households engage in other livelihood options, including forest exploitation. It is of particular interest that households that participate in tourism are much less dependent on the forest than 'non-participant' households. Only

30% of the tourism participant households also engage in direct forest-exploitation and/or prawn-fry collection, while some 55% of non-participating households engage in forest-exploitation. This despite the fact that tourism participants are less endowed in terms of skills and assets. Thus, tourism appears to reduce forest-exploitation by villagers.

### **A VIABLE LIVELIHOOD FOR THE POOR**

Package tours are used by approximately 70% of the



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The South Asian Network for Development and Environmental Economics (SANDEE) is a regional network that seeks to bring together analysts from the different countries in South Asia to address their development-environment problems. Its mission is to strengthen the capacity of individuals and institutions in South Asia to undertake research on the interlinkages among economic development, poverty, and environmental change, and, to disseminate practical information that can be applied to development policies. SANDEE's activities cover Bangladesh, Bhutan, Nepal, India, Pakistan and Sri Lanka.

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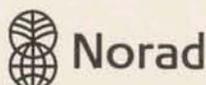
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visitors, who spend the nights on launches (large watercrafts) where food is cooked and served on board. There is little scope for local villagers to trade with such visitors. However, tourists in smaller groups also come and stay in Pakhiralay. They hire a boat locally for a day-long cruise. Recent increases in demand for this type of tourism have brought lodges and other business to Pakhiralay.

It is interesting that a number of tourism-related jobs (such as cook in tourist lodges/boats, drinking water supplier in boats and boatman, housekeeping in lodges) require little or no education and capital. In fact, 78% of the people working in tourism-related jobs are engaged in trades and services that need little investment. It is also clear that tourism participants do not have much land or other capital. This suggests that tourism could provide a viable livelihood option for a significant percentage of poor villagers.

## TOWARDS A SUSTAINABLE FUTURE

The study calls for a two-pronged approach to tourism that involves increasing the number of visitors as well as increasing the scope for local participation. This would require infrastructure, notably electricity, more tourism-promotion and possible initiatives such as forest-walks and tree-top houses. These could be developed by private entrepreneurs as part of a tourism development policy.

The involvement of local people in tourism is currently limited because the majority of visitors are on all-inclusive package-tours which originate and terminate in distant places. Thus, different modes of tourism and smaller scale operations need to be supported. Also, opening more entry points will help other island villages to avail of tourism opportunities.

Tourism development in the Sundarbans needs to be environmentally sustainable. Currently, there are no restrictions on the number of permits issued to tourists. However, any future plans for tourism must take into account the capacity of the forests in the region to cope with scaled-up tourism.

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