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Report Part Author(s): Akihiro Nakahata

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# Sustainable Ecotourism in the Tonle Sap Lake in Cambodia

Mr. Akihiro Nakahata<sup>1</sup>

Cambodia, a small country in the ASEAN region is a new ecotourism destination, after the long civil war and excesses of the Khmer Rogue. The country emphasizes on the development of resources for raising people's lifestyle and livelihood, together with tourism industry, particularly heritage tourism at Angkor Wat in Siem Reap Province. Since ecotourism is fairly a new thing in Cambodia, a lot of things need to be done, particularly improvements on the existing physical facilities, renovating sites, initiating tourism business for the environment, and overcoming obstacles. Its amazing natural resources and its unique environment must be managed so as to attract tourists. For this purpose, raising awareness of stakeholders and local communities about nature conservation as well as that of potential visitors are indispensable and urgently needed. Taking these points into consideration, the paper intends to give a brief overview, prospects and potentials of the Tonle Sap Lake for eco-tourism.

## The setting

In order to protect the rich biodiversity of the lake, the Royal Government of Cambodia established the Tonle Sap Biosphere Reserve through the promulgation

<sup>&</sup>lt;sup>1</sup> Research Associate, Environmental Education Project, IGES

of royal decree in 1997. The Decree has divided the lake management into three zones; core areas, buffer zone and transition zone. The criteria such as the land use patterns, vegetation and biological hotspots were used for this purpose. Prek Toal, one of the three core areas, is a floating village situated at the Southwest shore of the Tonle Sap Lake in Ek Phnom district, Battambang Province. Most of the Prek Toal area consists of seasonally flooded forests and treasures a high biodiversity. Dense and tall trees are the most remarkable characteristics of the area and provide important nesting place for colonial waterfowls. Primary school and temples are the only buildings which are built on the land; the rest are on the water. Some floating restaurants and shops are run by local peoples. The vendors pedal from house to house on boats to sell their goods.

It is believed that most of the floating villages in the Tonle Sap Lake area were established hundred years ago. The rich natural resources especially fish were the principal attraction for the people to settle in this inundated area. Since then, the traditional way of life and the people's lifestyles have not changed much. Fishing and fishery-related activities are the major source of income for the local people even these days.

Access to Prek Toal is possible only by boat at any time of the year, either from Siem Reap or from Battambang towns. It takes one and a half hours from Chong Kneas, a boat park at lakeside in Siem Reap province. A narrow access lane between the two fishing lots, No. 2 and 3 provides the navigational route to Prek Toal. Prek Toal is at diagonally opposite side to this small floating town. Ferrying from Battambang provincial town takes about 4 hours by a speedboat and during the dry season it takes about seven hours to reach there through a shallow and narrow winding channel.

The core area covers the fishing Lot No.2 of Battambang province and is the largest and the most productive fishing lot in the lake. Three main streams, namely Prek Da, Prek Spot and Prek Daem Chheu flow across Prek Toal and join the lake.

## Status of ecotourism in Prek Toal

The Tonle Sap Lake with its flooded forests, magnificent flocks of waterfowls and unique floating villages offers a unique attraction for ecotourism and a significant source of foreign currency for the local economy.

According to Nadeco and Midas (1998) there is a high potentials for developing ecotourism. The local communities would gain benefits of between US \$ 100,000-200,000 annually if the 10% of visitors to Siem Reap were to visit Prek Toal and each visitor is to pay US \$ 60. This initial investment of US \$160,000 is done for ecotourism in the Tonle Sap Biosphere Reserve. This would result in a gross annual income of around US \$ 1-2 million.

Though the distribution of benefits would be a complicated problem in a local community, there are opportunities for local people to benefit directly and indirectly from eco-tourism-related activities and selling of local products. The possible income opportunities indicated by Nadeco and Midas (1998) are; (1) boat and canoe operators, (2) local guides, (3) sale of handicrafts, drinks and snacks (4) guards, (5) traditional performances and shows, (6) low-cost accommodations, (7) entry and administration fees, and (8) concession fees from private eco-lodge shareholders outsides the community

Nadeco and Midas (1998) estimate that 50 people would get full or partial employment, if 76 tourists are to visit the area in a day. In addition, the income from visitors would also bring multiplier effects in the community and widen its local market networks. For this to happen, more things need to be in place such as minimum infrastructures, local participation and eco-tourism business.

These days the number of tourists who visit Angkor Wat ranges from 800-1,200 a day. Compared to this number the number of tourists who visit the natural heritage of Prek Toal is perhaps, on an average, 1-3 a day, which is nothing.

## **Facilities in Prek Toal**

Under the Tonle Sap Biosphere Reserve Program, the Ministry of Environment has been initiating several pilot projects to generate alternative incomes for local communities. Ecotourism development project is as one of these projects.

Although the numbers of visitors are still small the tourism in Prek Toal is getting attention these days. According to the statistics recorded in the Environmental Station, 372 tourists visited the Reserve in 2002. The numbers of visitors continue to increase steadily.

The Environmental Station began its ecotourism activities in collaboration with an NGO since 1999. According to the Ministry, current ecotourism activities in Prek Toal are as follows:

- walking in the wilderness (untouched beauty and wetland vegetation)
- · watching small and large water birds
- relaxed paddle boating inside the pristine flooded forest and
- learning about the culture and tradition of the floating village
  Some of the facilities in Prek Toal are as follows.

### **Bird watching**

The major ecotourism activity in Prek Toal is bird watching. Prek Toal is an outstanding site for birdwatchers and is often referred to as the "bird sanctuary". Just behind the Prek Toal there are flooded forests with bird sanctuary. Every year between December and March, thousands of birds come to fish and breed here. The breeding colonies of Prek Toal are one of the largest colonies in Southeast Asia. Every year from January to June flocks of Storks, Adjutants, Pelicans, Ibises, Cormorants and other birds come to nest in these flooded forests.

The population of endangered waterfowls in Prek Toal during the dry season is so high that it is unrivalled in Cambodia and even in Southeast Asia. Eleven globally threatened or near-threatened species have been recorded. Even on a regular day-trip, visitors can watch not only half of these waterfowls but also feeding or circling flocks all over the place. From January to May, large numbers of Cormorants, Storks and Pelicans are guaranteed to be seen at any time. Prek Toal makes a good place for bird watching and meets the needs and interests of bird watching. The number of common birds like herons, egrets, and terns are so many that they literally fill up the space.

#### Research Station

The Ministry of Environment is engaged in the overall management of Prek Toal. The first one was started in 1997 with the assistance of the European Commission. These program of activities aim at promoting environmental education and awareness at the grassroots level, conducting research and monitoring, promoting conservation of flooded forest and wildlife, identifying alternative livelihoods and incentive for local community, and exploring potentials for ecotourism and community participation. The Station provides accommodation and food for tourists and receives entrance fee from them.

To carry out conservation activities, the Ministry with support from UNESCO has set up an Environmental Research Station. The Station is administered by the senior staff of the Ministry with support from two full-time staff-members. It has also employed 12 field staff, who are the locals.

### Bird watching platform

Several bird watching platforms have been built on the top of the tree in the flooded forest. These platforms were built for conducting research on waterfowls (such as making observation of birds, especially their breeding behavior). But the visitors can go to the top of the platform if accompanied by the ranger.

## **Community involvement and benefits**

Bird collection used to be a way of life for the people of Prek Toal but not any more because it is prohibited now. Instead these people are provided with alternative jobs in the Station. They conduct regular patrolling, bird counting, and conducting conservation activities inside the Reserve. Their experience has been useful in conservation and management of the Reserve in the area.

Also, the Environmental Station employs boat paddlers. About 50 villagers are registered as boat paddlers. They take the tourists on boat to the flooded forest and receive a fee of US\$5. They work on rotation.

Visitors must pay the entrance fee to enter the core area of the Biosphere Reserve. At present, the entrance fee ranges between US \$ 10 and US \$ 30 per person according to group size, travel distance and type of transportation (such

as speedboat, paddle boat, personal boat). The transportation to the core area is included in the entrance fee. The revenue from the entrance fee is used for supporting the protection and conservation activities, research works, community development, and awareness programs. The Ministry has, with resources from the revenue, built floating houses for the poorest families, bird watching platforms and others in the community. This revenue is also used to expanding other facilities such as the purchase of new speedboat and others.

## **Analysis and discussion**

The Tonle Sap Lake is rich in natural and cultural resources; eco-tourism development started only recently. It can be a sustainable and reliable way to raise the income of local communities as well as promoting conservation of the environment. Although ecotourism is in the jurisdiction of the Ministry of Tourism, it has been initiated in Prek Toal by the Ministry of Environment in collaboration with local stakeholders and the foreign NGOs. As of now, three key players are active in the Tonle Sap Lake; the Ministry of Environment, the Ministry of Tourism, and the Fishery Department. For developing any management plan, or guidelines for ecotourism, these three actors needs to be involved and consulted, along with local stakeholders. The first and foremost thing in this regards would be the setting up of the task force and defining the roles to coordinate their activities in the area.

According to the Royal Decree, the Ministry of Environment is responsible for the overall management of the Tonle Sap Biosphere Reserve, hence conducting research, controlling access, monitoring and impact assessment, etc. The Ministry is also responsible for providing guides and interpreters to the tourists. The Ministry of Tourism is responsible for campaigning and social marketing, communicating with private sectors and developing transportation facilities, etc. Fishery Department should oversee all fishing activities in the Tonle Sap Lake. It should make arrangement for tourists to go through fishing lots and ensure fishermen's benefits from ecotourism activities without jeopardizing their livelihoods.

Although the Prek Toal area does not have any geographical advantage, it has a potential to be an ecotourism destination. The waterfowls, the flooded forests, unique wetland vegetation and the floating village could attract tourists,

scientists, naturalists, especially birdwatchers. Yet, it has to go a long way to be the final destination.

The lodging facilities provided by the research station could accommodate a few tourists but are not enough to meet needs and demands of tourists. There are not many accommodations in the community, which makes visiting to Prek Toal very difficult and only for a limited number of tourists. Local people have hospitality but do not have infrastructures and capacity to cater to the needs of foreign tourists.

The Research Station provides employment opportunities for local community as rangers, guides and boat paddlers but the scope of the employment is still limited to a few people and is not full time.

In stead of outstanding natural resources and the unique environment of the lake, there are a few organized activities for tourists and scientists particularly for bird watching. Organizing group tour, producing local products (postcards, photos, T-shirts, local handicrafts) and developing facilities and opportunities for tourists are still lacking. This is the area that warrants immediate attention. This should receive the topmost priority because eco-tourism provides a two-pronged benefits to local communities; one is local employment and the other is nature conservation for their livelihoods and survival. This may allow them to link themselves to the broader picture of the lake ecosystem and so on. Likewise, there is little information (such as brochures, boards, maps, pamphlets, etc.) for tourists. This kind of information is requisite for the development of ecotourism in the area.

## Conclusion

Ecotourism is different from just the nature-based tourism or mass tourism. The basic concept of ecotourism includes low-scale and low-impact tourism which benefits conservation of the area and the local community through activities such as entrance fee, food, accommodation, sale, guide, etc. Then ecotourism could show local community that a well-conserved environment is an asset for local development, local employment, local opportunities and local innovation.

Presently, the income from ecotourism is small compared to that from fisheries. Yet, ecotourism has a great potential in the future if administration and regulations are developed well at the outset. It is, therefore, necessary to build the capacities of the staff in the Environmental Station as well as running ecotourism activities in the area.

In the future, ecotourism is expected to play a significant role in Prek Toal. But the rampant destruction, people's short-sightedness for immediate and high profit, illegal activities, etc. needs to be controlled for the sake of the overall environment. Otherwise nature conservation and ecotourism will be in jeopardy.

Also equally important is the fact that every efforts should be taken to avoid the threat caused by the ecotourism activities, for which it is necessary to establish the institutions and rules in the area to reduce the impact of ecotourism on the natural resources and redistribute benefits equitably in the village, especially bird collectors and the poorest members of the villages, who are dependent upon the natural resources for their livelihoods. It should be made sure that direct beneficiary of the natural resources such as bird collectors do not resume the illegal bird collecting and hunting activities. Despite hurdles and constraints, limited ecotourism has shown some positive impact in the community. After all ecotourism is tourism for the environment.

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