

## Fambonglho Wildlife Sanctuary (Sikkim, India) and Promotion of Ecotourism: Perspectives from Ground Zero

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### Abstract

*Fambonglho wildlife sanctuary (FWLS) as an ascent ecotourism project in the Himalayan state of Sikkim, India, was studied. FWLS is much known for its biotic richness and the main crowd-puller is its over 280 avian species. Steady rise in tourist influx is being observed between 2011-2014 with a growth rate of 46.41 per cent, 0.47 per cent and 16.99 per cent in the year 2012, 2013 and 2014, respectively. Maximum tourist visits were recorded in the year 2014 with a total visit of 253 visitors. Within the last two decades, October received highest number of visitors and July received the least. The sustainable use of Nature and benefits accrued to the stakeholders, especially at the grassroots level, has to be balanced with a visible tilt sustainability of natural resources. Emphasis is laid on bringing in quality homestay arrangement in Fambonglho which has to play a pivotal role in making ecotourism a successful venture in the FWLS.*

**Keywords:** biodiversity, capacity building, ecotourism, Fambonglho WLS

### 1. Introduction

Ecotourism is a form of tourism that involves travelling to natural areas with the specific objectives of learning, admiring and enjoying nature and its wild plants and animals as well as local people's cultural aspects including religious monuments, while conserving the natural and social environment, and improving the welfare of the local people (Anon., 2011). The IUCN definition of ecotourism is "Environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature that promotes conservation, has low visitor impact, and provides for beneficially active socio-economic involvement of local population".

In developing countries ecotourism is used as one of the strategy especially in and around protected areas (PAs) to support conservation as well as to provide/generate source of income for local people in village areas (Abigail, 1999). Income in the form of entrance or user fees by the tourists helps parks and reserves/protected areas towards management expenses. Ecotourism in terms of culture is not merely experiencing diverse culture, but also encourages local knowledge as well as offers support for local communities (West & Carrier, 2004). Tourism as well as ecotourism activity in Sikkim Himalaya plays an important role regarding the environmental conservation, providing livelihoods to the local people and preservation of Sikkim's culture and heritage. The state is growing fast

towards the field of tourism and ecotourism activities, at present there are numbers of ecotourism-oriented tourist destinations spread all over the four districts of Sikkim which receives good number of tourists. Tourism/Ecotourism brings in substantial revenue to support environmental conservation, development of local community and supporting economy of the state. The community participation is one of the important initiatives to make successful ecotourism, whereas involving them is altogether a different proposition (José Jiménez García-Herrera, 2005).

Sikkim, a small Himalayan state in the north-eastern part of India, is coming up as tourism as well as ecotourism destination in the country. The state has immense potential to boost up ecotourism activities owing to its diverse cultural face, beautiful rural settings and a great biotic wealth. The PAs in Sikkim namely, Khangchendzonga Biosphere Reserve, Barsey Rhododendron Sanctuary, Kitam Bird Sanctuary, Maenam Wildlife Sanctuary, Fambonglho Wildlife Sanctuary, Pangolakha Wildlife Sanctuary, Kyangnosla Alpine Sanctuary and Shingba Rhododendron Sanctuary are presently at a various state of ecotourism development. Apart from conservation of the floral and faunal diversity, these PAs act as ecotourism destination for the tourists and also supporting state economy through regular revenue returns without going against the environment of the PAs.

The Fambonglho Wildlife Sanctuary is rather a late entrant in the state's ecotourism sector; nevertheless, it

has enough latent quality to turn into a successful ecotourism destination. Factors that support Fambonglho WLS to become a major tourist site is its proximity to Gangtok (for amenities, emergencies and connectivity), magnificent views all around from Tinjurey view point, peaceful surroundings and amicable people and undisturbed natural settings. At this particular point this paper tries to highlight the background of Fambonglho WLS, its strength and weakness as well as present and future opportunities that lies in its move to become an ideal ecotourism destination on the world tourism map.

## 2. Objectives

The main objective of this study was to find out the ground realities related to the coming up of Fambonglho WLS as a most recent ecotourism destination in Sikkim with regard to the infrastructural inputs, logistic support and flow of tourists. The inferences drawn out of from the results are put in the form of general recommendations in the conclusion part.

## 3. Materials and Methods

Primary information related with the study site was collected from the field visit. Furthermore secondary information such as tourist influx for 19 years since 1996 to 2014 was collected from the Wildlife Division, Forest Environment and Wildlife Management Department (FEWMD), Government of Sikkim and simple percentage method was used to study tourist inflow in the sanctuary.

## 4. Study Area

The Fambonglho wildlife sanctuary is located at 27°10'-27°23' N and 88°29'-88°35' E in eastern part of Sikkim covering an area of about 51.76 km<sup>2</sup> along 1524 to 2749 m altitudes. The wildlife sanctuary is close to Gangtok, the capital city of Sikkim, and is connected with metalled road. The word "Fambonglho" means the "orchard of *Machilus edulis*" a tree which is abundantly found in Sikkim Himalaya and whose fruits resemble the common avocado (the "Fam" in Lepcha language). In 1984 the Fambonglho Wildlife Sanctuary was declared as Protected Area under Wildlife Protection Act, 1972 and was assigned to the Divisional Forest Officer of North and East district of Wildlife Division for overall management and development.

Presently, the sanctuary is being managed by the DFO, Wildlife Division. The sanctuary is becoming one of the regular tourists visiting sites in the east district of the state and it has great potential in terms of attracting tourists due to its rich biodiversity and close proximity to Gangtok.



**Figure.1:** View of Khangchendzonga range from Fambonglho Wildlife Sanctuary

## 5. Biotic richness of Fambonglho WLS

The Fambonglho WLS represents a part of upper temperate biotic zone in Sikkim. As ecotourism is closely related to the Nature, Fambonglho WLS has been selected for promoting ecotourism in the temperate realm of Sikkim.

As reported by Anon., 2010, the Fambonglho WLS harbors 209 plant species under 130 genera within 69 families. The sanctuary is known to have 281 species of birds including four restricted range species (out of 21 reported in Sikkim), 5 Biome-9 species (out of 48 known in Sikkim), 49 Biome-7 species (out of 112), 38 Biome-8 species (out of 98) and 3 Biome-9 species (out of 19 reported) (Anon. 2002, Ganguli-Lachungpa *et al.* 2007). Apart from the floral and faunal wealth, the importance of the Sanctuary also lies in the fact that it forms the catchments of major tributaries of river Tista and is the only source of drinking water for the fringe towns and villages.

The 26 top families in terms of maximum representation by genera and species (2 or more species per family) are the Orchidaceae (33 genera and 77 species) followed by Balsaminaceae (1 genera and 7 species), Fagaceae and Ranunculaceae (3 genera and 7 species each), Malvaceae (3 genera and 5 species), and Ericaceae and Magnoliaceae (2 genera and 5 species each). For the total, 43 families were represented by only 1 genus and 1 species each. Amongst the sensitive, high value or marketed taxa, *Bergenia ciliata*, *Diplazium esculentum*, *Juglans regia*, *Heracleum wallichii*, *Hedychium spicatum*, *Rubia cordifolia*, *Urtica dioica*, *Spondias axillaris*, *Zanthoxylum* spp., etc., are prominent. The broad vegetation habits comprise of 61 % as herbs and 29 % species as tree, and 7 % species as shrubs (Anon., 2010).

The Fambonglho WLS is dominated by the broadleaved mixed temperate forests. Surveys revealed existence of high human habitation around periphery engaged with a diversified array of agricultural and minor forest produce based activities. Incidentally, the

Fambonglho wildlife sanctuary was previously known as Fambonglho Bird Sanctuary due to its rich assemblage of feathered species (Ganguli-Lachungpa *et al.* 2007). The faunal components of the Fambonglho WLS comprises of Red Panda (*Ailurus fulgens*), Himalayan Black Bear (*Selenarctos thibetanus*), Leopard Cat (*Panthera bengalensis*), Weasel (*Mustela kathiah*), Marten (*Martes*), Ghoral (*Naemorhedus goral*), Jungle Cat (*Felis chaus*), Marbled Cat (*Pardofelis marmorata*), Large Indian Civet (*Viverra zibetha*), Mountain Fox (*Vulpes montana*) and Himalayan Palm Civet (*Pamuga larvata*).

## 6. Key activities recognized as important tools in support of ecotourism

### 6.1 Ecotourism festival

In Sikkim Ecotourism Policy 2011, one of the strategies for products development is to promote festivals which have direct relation to nature and biodiversity conservation such as, orchid flower festival, bird watching festival, and trekking festival. The initiative of promoting Ecotourism festival was observed in the sanctuary, which was the first festival organized under the Ecotourism component, virtually indicates the strategy has been achieving towards its goal. Tinjurey Ecotourism festival was supported by the Directorate of Ecotourism, Forest, Environment and Wildlife Management Department (FEWMD), Government of Sikkim promoted under Japan International Co-operation Agency (JICA) - Sikkim Biodiversity Conservation and Forest Management Project (SBFP). The festival included Bird watching, Rhododendron trail, Traditional healer, Environment educational activities, visit to cardamom field, milking cow, village walk, local games such as archery & dart, local handicrafts (leaf bowl & plates) making, traditional local food stalls (Lepcha, Bhutia & Nepali) and Traditional dance with a wider objective to make awareness about the ecotourism in nearby villages. About 502 visitors (excluding the officers, guests and students) were recorded in the two day long Tinjurey Ecotourism festival (Anon., 2015).



**Figure.2:** (A) Local people participating in ecotourism festival, (B) Ethnic drinks at Lepcha drink stall

The festival attracted satisfactory numbers of domestic and foreign tourists as well as played an important role in terms of making participation of local people, NGOs and other stakeholders at one platform. It is recognized as a

supporting activity for furthering ecotourism activities in the sanctuary.

### 6.2 Homestays in close vicinity

Availability of accommodation facility at tourist sites is considered as one of the most important aspect of tourism (Rai *et al.* 2015). Moreover, hotels and other alternative accommodation facility in the form of homestays are essential for development of tourism or ecotourism activity. About ninety per cent of the total area of the state comprises of villages and most of the tourism as well as ecotourism destinations are placed in the rural areas with well-connected roads. At present, there are numbers of villages in four districts of Sikkim operating homestay business. Homestays has been becoming important alternative source of income to the village people and it also offers an alternative form of accommodation facility to the visitors in rural areas especially during peak tourism season, where the visitors gets chance to experience different ethnic culture, tradition and the rural life in Sikkim, these homestays are managed by the local village tourism committee of respective villages. The committee is responsible for regulating tourists or guests on a rotation basis based on the preference of the visitors.

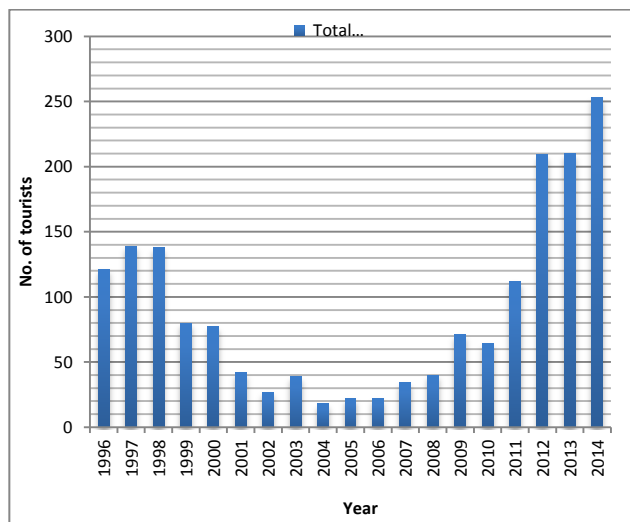
The Fambonglho Wildlife Sanctuary (FWLS) is surrounded by number of villages with diverse population settings. There are few villages in vicinity of the sanctuary namely, Rumtek village and lower Tumin village offers homestay accommodation facility in the village. This activity is one of the important steps in support of developing ecotourism in the sanctuary and its surrounding area. In order to provide benefits to the rural people, the Government of Sikkim has taken initiatives by introducing village tourism in the state mostly in the form of homestay.

## 7. Ecotourism in Fambonglho Wildlife Sanctuary

The sanctuary is known mainly for its biodiversity and wildlife-based adventure trekking and educational tourism in the east district. The sanctuary was declared as a one of the protected area of Sikkim during 1984 and has been attracting tourists or nature lovers from long back but the real compilation of tourists flow data was undertaken from the year 1995 (Fig.3).

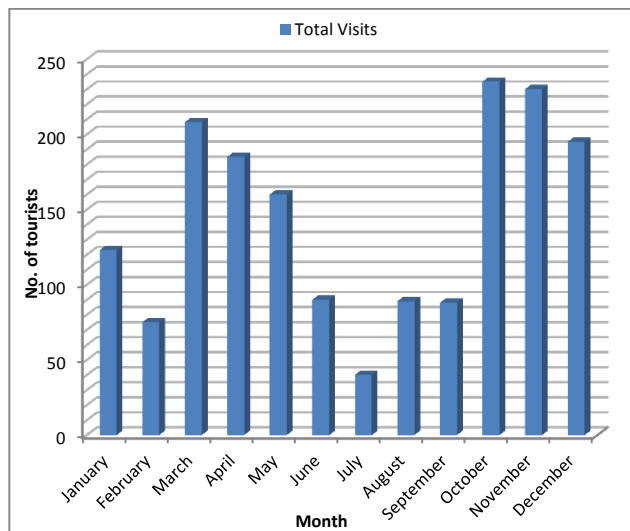
From the tourist inflow records spanning about two decades, it is noticed that the sanctuary was visited by a good number of tourists, both domestic and international, since 1996 but the figure took a steady dip starting from 1999 to 2014. It is also evident from the Fig.3 that sudden and steady rise in number started from the year 2011 to 2014 with a growth rate of 46.41 per cent, 0.47 per cent and 16.99 per cent in the year 2012, 2013 and 2014, respectively. The figure also shows that maximum tourist visits were recorded in the year 2014 with a total visit of 253 visitors. Continuous increase in

numbers from the year 2011 indicates that the sanctuary has potential to turn into a major ecotourism spot in east district of Sikkim.



**Figure.3:** Tourist arrivals in Fambonglho wildlife Sanctuary, 1996-2014. (Source: Wildlife Division, FEWMD, Government of Sikkim)

It is observed from the monthly tourist arrival (Fig.4) that the month of October received highest number of visitors as compared to the other months and only 40 visitors visited the sanctuary in the month of July within the last 19 years. Occurrence of landslides due to heavy rainfall during rainy season, which leads to road blocks causing transportation problem could be one of the main reason for low numbers of tourist visits during the slump between June-September. It is also witnessed from the figure that during the months of March, April, May, October, November and December substantial numbers of tourists arrived than other months.



**Figure.4:** Monthly tourist visits in the sanctuary, 1996-2014. (Source: Wildlife Division, FEWMD, Government of Sikkim)

Monthly tourist flow revealed that the sanctuary is receiving satisfactory numbers of tourists in peak tourism season, i.e., from March to May and October to December. To a large extent, the sanctuary has the potential in terms of regulating tourists both domestic and international during peak tourism season.

**Conclusion**

The Fambonglho WLS ecotourism venture is the first of its kind in Sikkim where an entire sanctuary is set aside for the purpose of promotion and establishment of ecotourism activity. About a dozen villages at the fringes of FWLS will come into the scene that has to play a proactive role in connecting the visitors with nature. Missing this opportunity will simply mean failure of the project and in its wake will bring in players from mainstream tourism who will be more inclined towards reaping benefits than becoming involved with the local people’s livelihood and sustainability of natural resources. Considering the annual tourist arrival in Sikkim the tourism sector in the state is turning into a booming proposition every year. However, no effort has been made to figure out the tourism carrying capacity so far. Even from a casual observation the tourist footprint in Sikkim has definitely touched the upper limit if not already gone overboard and the time has definitely come to lessen pressure at many of the regular tourist destinations. Towards this end the Fambonglho WLS ecotourism will play a significant role in terms of regulating tourist flow, both domestic and international, during peak touring season by siphoning off the surplus to this point. The major stumbling block which is visible at this point is the relative closeness of the sanctuary to Gangtok Township. How this situation goes against FWLS ecotourism also finds its place in the Sikkim Ecotourism Policy and mentioned in the following lines.

“It was observed that a sudden and steady rise of visitors has been evident from the year 2011. These visitors mostly used to come straight from Gangtok and spending their day in the Wildlife Sanctuary headed back to Gangtok again before night fall. This mode of tourism movement had been the standard as no homestay arrangement were available for the visitors to be stationed close to the Sanctuary” (Anon., 2011).

The emphasis on bringing in quality homestay arrangement in Fambonglho WLS is thus reinforced once more in the above lines and stands out as prime requirement in making ecotourism a successful venture in the sanctuary. A combination of good hospitality features, suitable infrastructures, smooth running, range of homestay choice and proper tariffs will be the key features for attracting tourists to Fambonglho WLS ecotourism. These parameters should be observed collectively in the matrix of various stakeholders rather than treated as isolated cases for bringing in the holistic approach of ecotourism activity in the area.

## Recommendations

The study reveals that the sanctuary with its present infrastructural and logistic support has a strong possibility for ecotourism development in the near future. The relatively clean and virgin environment and rich biodiversity are its strong selling points and for continuance of ecotourism in the area these are to be preserved as close as to its pristine state. If these are lost in time the Fambonglho WLS ecotourism destination will lose its market niche. Some of the follow-up programs that will help in to build a much strong infrastructural and logistic support have been observed and the following suggestions/recommendations are advanced which will have to be incorporated for getting the extra mileage towards reaching the projected goals.

- 1) Construction of footpaths as nature walks within the Wildlife Sanctuary (in line with those found in Shingba Rhododendron Sanctuary) would enhance its eco-tourism value. Well-connected strings of footpath covering level areas (for senior citizens) as well as inclines (for trekking and adventure) would bring in the nature experience in eco-tourism closer to the visitors. Every villages operating homestay arrangement should be connected in this footpath network.
- 2) The main road connecting the FWLS entry point at Golitar from the road head has been constructed but due to the sharp gradient and bad drainage it is failing in many quarters and presently has become almost unusable (people take the more manageable route through the GB Pant campus). This approach road should be properly fixed up as it gives the first impression of the state of FWLS ecotourism to the visitors and improving existing main trek route, i.e., Golitar to Tinjurey and beyond to be usable for old and physically-challenged people also. This main trail should have resting sheds at regular intervals.
- 3) Capacity-building programs on homestay, birding, trekking guides, nature guides, porters, trek cooks, etc., are to be imparted taking in the local people from the FWLS surrounding villages. This measure has three-fold objectives to fulfill, viz., empowering the people, enhancing local economy and filling in the manpower quotient that is required for running ecotourism in the area.
- 4) Rumtek, Sang, Martam, Rakdong, Tintek, Pangthang, etc. (villages at the fringe areas of Fambonglho WLS) to be brought under a unified scheme of ecotourism operations as an organized sector. The FWLS is situated on a mountain ridge and therefore its two slopes face north and south aspects and the views are markedly different on each of these two slopes. Following this pattern the villages also exhibit two discrete pictures or options emerge before the tourists – the view towards Gangtok (south face, or urban Gangtok) or one towards the

Khangchendzonga mountain range (north face, or the peaceful settings). Management interventions are needed to balance tourist footprints equally at both these sites.

- 5) Liaisoning with tourism promoting agencies, travel agencies, hospitality (hotels, restaurants, lodge operators, etc.) for building a permanent link with the local ecotourism activities.
- 6) Linkage with existing organization like G.B. Pant institute for biodiversity-related information, awareness and activities for visitors instilling resource conservation in their minds.
- 7) Roping in the local PRI in management plan and actions, especially in regard to observing the state rules/regulations, conflict management and dispute/disagreement redress. The PRI can also draw guidelines and offer counsel on waste disposal management in their respective areas.
- 8) Promotion through electronic media appliances (websites, blogs, portals, etc.) for a wider reach of the FWLS ecotourism opportunity.
- 9) Encouraging plantation activity for every visitor during her/his visit. For this the logistics (demarcation of priority plantation sites, provision of plant materials, etc.) is to be sought for from the FEWMD, Govt. of Sikkim.
- 10) Tourist's feedback (general notes or questionnaire-based, verbal recordings) to be made mandatory in regard to the ecotourism homestays, travel, amenities, etc., at the end of every visit. The success of ecotourism activity in a developmental context rests heavily on these feedbacks which usually come in the form of suggestions, complaints, insights, etc., and offer the hidden/overlooked/wrong/overkill and many more aspects of ecotourism at a nascent stage.

Improving the livelihood prospect of the local people, which is one the main objective of ecotourism, should be considered foremost and efforts towards capacity building maneuvers should be immediately taken up so that people become prepared in coping with the various aspects in running ecotourism in the area. Knowledge through first-hand experience may be gained in regard to homestay, nature guide, trek cooks, porters, etc., if they would-be aspirants take courses from the KCC (Khangchendzonga Conservation Committee), a Yuksam-based NGO. The success of ecotourism in Yuksam speaks volumes on the good work of KCC who have years of experience in making ecotourism not just a viable product but also a highly paying enterprise. Successful ecotourism is guaranteed only if professionalism sets in all ecotourism-related activities, viz., smooth-running homestays, knowledgeable nature guides, good trek cooks and porters, etc.

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## References

- [1]. Abigail, R. (1999) *Ecotourism Impact Monitoring: A Review of Methodologies and Recommendations for Developing Monitoring Programs in Latin America*. Ecotourism Technical Report Series Number 1.
- [2]. Anonymous (2015) *A Journey towards Organizing an Ecotourism festival in Sikkim, Case study: Tinjurey Ecotourism Festival, Fambonglho Wildlife Sanctuary*. Directorate of Ecotourism, FEWMD, Financial & Technical Support: JICA Assisted, Sikkim Biodiversity Conservation and Forest Management Project (SBFP).
- [3]. Anonymous (2002) *An Introduction to the Fauna of Fambong Lho Wildlife Sanctuary East Sikkim*. Report of the Department of Forests, Environment and Wildlife, Government of Sikkim, Sikkim, India.
- [4]. Anonymous (2011) *Sikkim Ecotourism Policy*. Published by Sikkim Biodiversity Conservation and Forest Management Project (SBFP), Forest, Environment and Wildlife Management Department (FEWMD), Govt. of Sikkim, Gangtok, Sikkim.
- [5]. Anonymous (2010) *Biodiversity Conservation in Transboundary Landscapes Project in Sikkim*. Assessment of Biodiversity Values and Ecosystem Services in the Protected Areas of Sikkim Himalayas. Final Technical Report. GBPIHED, Sikkim unit.
- [6]. Ganguli-Lachungpa, Usha. Islam, M.Z. & Rahmani, A.R. (2007) *Important Bird Areas of Sikkim: Priority Sites for Conservation*. Department of Forest, Environment & Wildlife Management, Government of Sikkim.
- [7]. José Jiménez García-Herrera. (2005) *Handbook of Ecotourism in Protected Areas of Vietnam*.
- [8]. Paige West P & J.G. Carrier (2004) Ecotourism and Authenticity. *Current Anthropology*, Volume 45, Number 4, August–October.
- [9]. Rai, Y.K., Lepcha, J.&Rai, L.K.(2015) A case study of an emerging tourist destination at Namchi in south Sikkim. *International Journal of Current Research*, Vol. 7, Issue 4, pp. 14780-14785, ISSN: 0975-833X.