Gibbon Wild Life Sanctuary: a prospect for Eco-Tourism

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ABSTRACT

Perhaps the most over used and misused word in the travel industry have been Eco- Tourism. Practically, it indicates a responsible travel to natural areas which conserves the environment and improves the welfare of the local people. In the nutshell, the main ethic of Eco- Tourism is "Conserve and Improve". Assam which is the abode of natural infrastructure has a profound scope for the promotion of tourism. Among the varied of attraction the focal point of tourism in Assam continues to be prominently the Wildlife concerning internationally famous Kaziranga and Manas National Park, alike these Wildlife Sanctuaries, Gibbon Wildlife Sanctuary situated in Mariani of Jorhat District has scope for developing into an eco- tourism destination which can be explored but within the carrying capacity of the Sanctuary. So an attempt has been made to evaluate the importance of the Sanctuary and accordingly to enumerate feasible measures for its development.

Keywords: Assessment, Economic Development, Eco-Tourism, Enhancement, Importance, Sanctuary.

1. INTRODUCTION

With a host of diverse biodiversity concentrating within just 20.98 sq.km of area, the sanctuary portrays an acute picture of ecological imbalance which needs immediate restoration, perfectly exhibiting to be developed as an Eco- Tourist spot. Besides, the sanctuary is a tropical moist deciduous dipterocarp forest and accordingly they form three storey of canopy bearing the characteristics of Rain Forest. Moreover, it is a man raised Sanctuary which consist of settlements in fragmentation, dividing it into five compartments. Bearing a unique character, it urges for extension owing to shortage of food and space, and proper maintenance including its development, so that it could serve as Eco-Tourist spot. So, an attempt has been made to assess the importance of the sanctuary and accordingly suggest some initiatives for the development of the sanctuary which would ultimately flourish its eco- tourism prospect.

1.1 The study area

Gibbon Wild Life Sanctuary is the only sanctuary in India to be named after a non-human primate- the Hoolock Gibbon (Hylobates Hoolock). It is located at the close proximity of the Naga Hills, in the Jorhat district, in the Toposheet No. 83 J/6 extending from 26° 40′ N to 26° 45′ N latitude and

94° 20′E to 94° 25′ E longitude, covering an area of 20.98 sq. km and is topographically characterized by an almost level land with an average contour height of 90 meters from MSL, with the average annual rainfall of 249 cm. During the British period in 1881, Gibbon Wild life Sanctuary was known as Hollongapar Forest, which was declared a wildlife sanctuary by the group of Assam notification no. FRS/37/97/13 dated 30/7/1997, which was further renamed as Hollongapar Gibbon Wild life Sanctuary on 25th May 2004. It has also been recently declared as Important Bird Area where along with endemic varieties, migratory birds rush into in large number particularly during the late summer and winter period. Topographically the surface of the sanctuary is gently sloping down from southeast to northwest, which essentially exhibit a very smooth and continuous interaction of down slope and high slope ecosystem within the sanctuary. This sanctuary is approximately 17km and 5km far away from Jorhat and Mariani town respectively. Bearing a host of biodiversity within limited space it has the scope for developing as an Eco- tourist destination.

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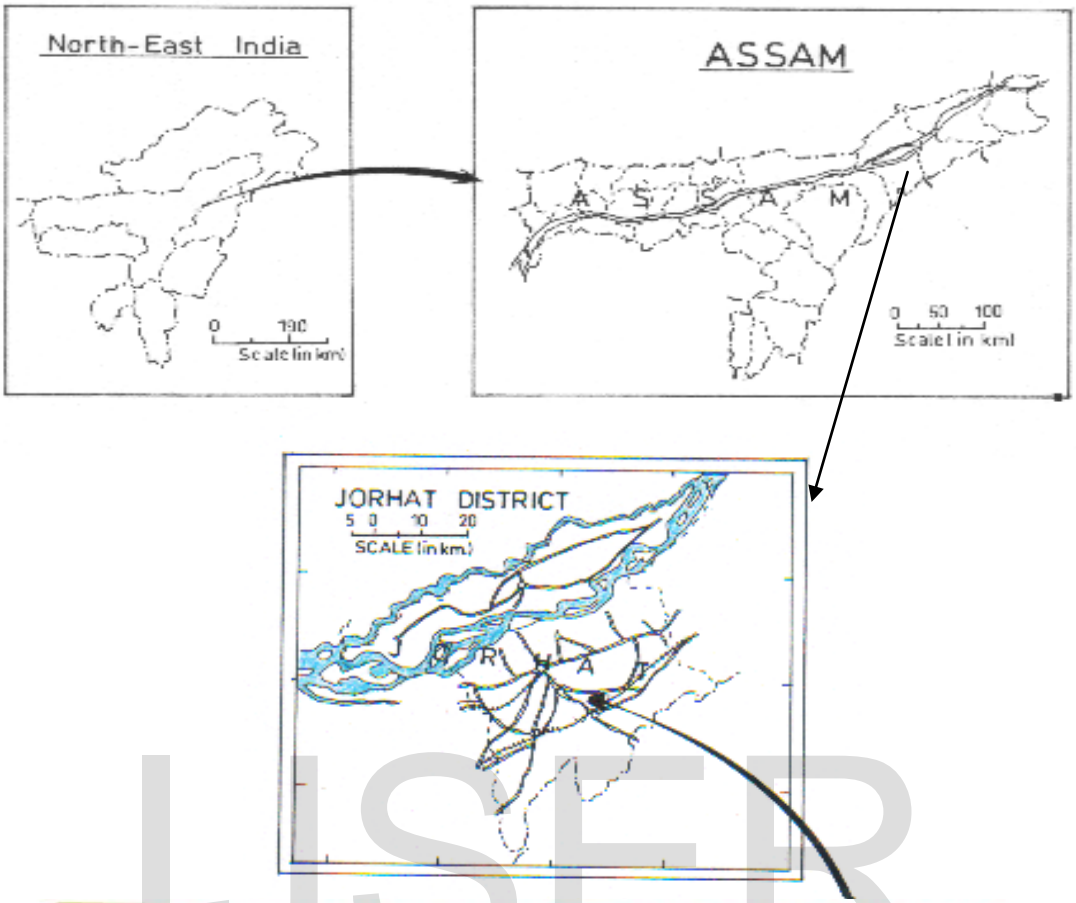

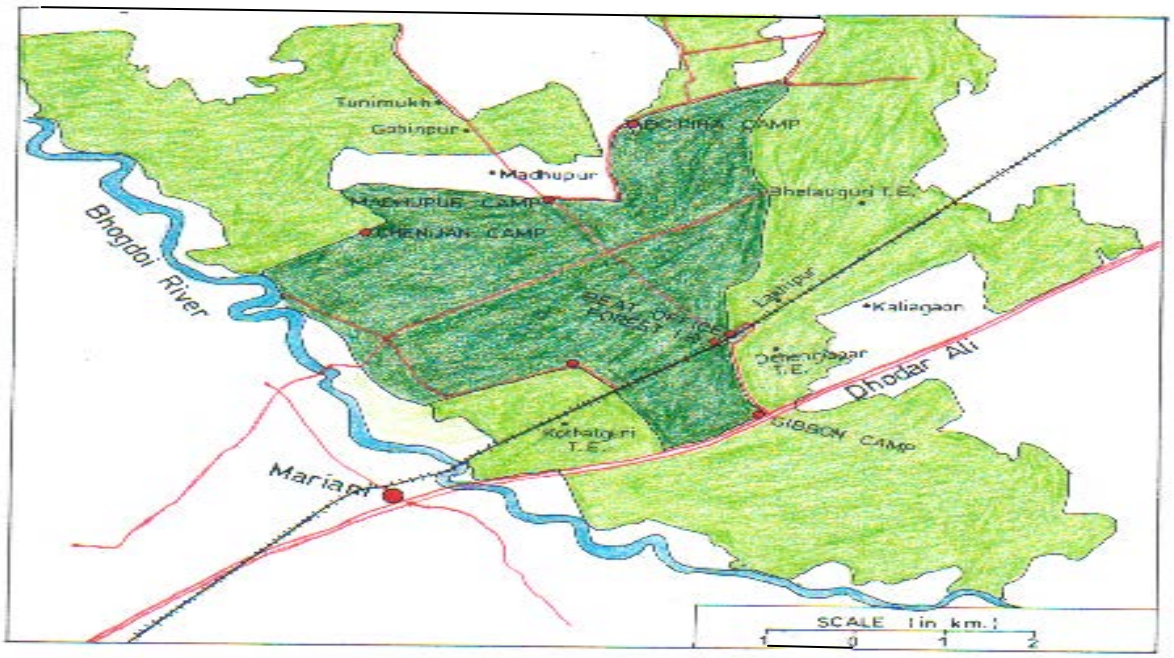

fig 1. Location Map of Gibbon Wild Life Sanctuary

2. OBJECTIVES

The principal objectives of this study are:

i. To evaluate the importance of the Sanctuary.
ii. To suggest initiatives to eliminate the constraint within the Sanctuary so as to develop it as an Eco-Tourist Spot considering the sustainability base.

3. DATABASE AND METHODOLOGY

The study is primarily based on data collected from primary observation conducted in the Sanctuary, Annual Report of Holongapar Nature's Society, Department of Forest and Journals and Brochures published from time to time. The present shape, size and area are delineated on the map developed from Toposheet no 83J/6 with a scale of 1:50,000. The thematic information are analyzed and explained to evaluate the present scenario of the Area. Field data are analyzed and synthesized.

4. WHY PARTICULARLY GIBBON WILDLIFE SANCTUARY?

4.1 Uniqueness:

It is the only Wildlife Sanctuary to be named after a non-human primate the Hoolock Gibbon (Hylobates Hoolock) and is divided in to five compartments which are situated in fragments. The Sanctuary is surrounded by tea gardens in all sides including villages. The tea gardens were established during the last part of 19th century, whereas, the villages were established during the 1960's to rehabilitate the flood affected landless people of Majuli and adjoining areas. Infact, the sanctuary is encompassing three distinct Phases of Isolation disturbing the faunal as well as the floral community which is stated below:

i) **F**irstly, the forest was disconnected from the immediate attachment of other reserve forest particularly of Dissoi Valley Reserve Forest., due to the construction of Dhodar Ali which was build during the Ahom reign.

ii) **S**econdly, many tea gardens were established in the forest lands since 1835 which led to deforestation of forest. Moreover, advancement of settlement to the margin of forest land in all direction compelled the faunal as well as floral community to cluster in a small fraction of forest land which ultimately posed a serious threat leading to man-animal conflict.

iii) **T**hirdly, in the year 1885, the railway track was constructed through the sanctuary which divided the forest into southern and northern parts, creating a barrier in their movement (spl. Gibbons – as they use tree branches for their movement) from one compartment to the other.

4.2 A biodiversitical Hotspot

4.2.1. Diverse Floral Species

It is an established fact that the diverse topography of Gibbon Wild life Sanctuary is a strong determiner of rich biodiversity. Gibbon Wildlife Sanctuary with its distinct dipterocarp dominant forest is a unique representation of the rich forest of upper Assam and is the sole refuge of majority of the wildlife. The rich diversity of the sanctuary is represented by 486 species of plants. Further to synthesize its rich biodiversity and to show the nature of a rainforest exhibiting, a study has been made.

4.2.1.1. Density of the forest:

The sanctuary depicts a variety of species which are generally found in rain forest and so the Sanctuary portrays a kind of rainforest. So to measure the density of the sanctuary a survey of two areas each being 9sq.m.area from where some samples have been collected.

1st study area,

In 9 sq.m. total plant species found was 29

◦°◦ In 1 sq.m. total plant species found would be 29/9

=3.2/ sq. m.

2nd study area,

In 9 sq.m. total plant species found was 36

◦°◦ In 1sq.m. total plant species found would be 36/9

=4/sq. m.

The average number of floral plant species in 1sq m area is -

= (3.2 +4.0)/sq. m

= (7.2/2) sq.m.

=3.6/sq.m

Therefore, a density of 4 (approx) sq.m. have been found in the Study area depicts presence of rich floral species in the Sanctuary, bearing characteristics of a rain forest. The sanctuary is a tropical moist deciduous dipterocarp forest and accordingly they form three storey of canopy shown below:

Table.1: The following table represents the plant species of the study area in accordance to their canopy form, medicinal value, scientific and local name and also of their family name.

Canopy form/ storey	Sl. no	Local name	Scientific name,	Family	Uses Known/ Unknown
L O W E R C A N O P Y	1	Bah potiya bon	Na	Na	Un
	2	Kakoisia	Na	Na	Un
	3	Phutokola	Na	Na	Un
	4	Jutuli poka	Altingia excelsa	Altingiaceae	Un
	5	Kaliori	Polyalthia jenkinsii	Annonaceae	Un
	6	Kukura thengia	Na	Na	Un
	7	Bilongoni	Na	Na	Un
	8	Bet	Calamus	Na	Un
	9	Haldhara aalo	Na	Na	Un
	10	Mou aalo	Na	Na	Un
	11	Hunborial	Na	Na	Un
	12	Gunhualo	Na	Na	Un
	13	Yam lakhuti	Na	Na	Jaundice
	14	Germany bon	Clerodendron eupatorium	Na	Na
	15	Bagitora	Na	Na	Un
	16	Phakdema	Na	Na	Un
	17	hati dhenkiya	Pothos cathcartii	Araceae	Un
	18	Nephaphu	Na	Na	High blood pressure
	19	Aathu bhanga	Na	Na	Un
	20	Teteli potiya	Na	Na	Un
	21	Bagonia	Na	Na	Un

L O W E R C A N O P Y	22	Kasidoria	Na	Na	Blood sugar
	23	Naginimora	Na	Na	Un
	24	Bojal bah	Pseudostachyum polumorphum	Na	Un
	25	Sotomol	Na	Na	Un
	26	kunwa bhaturi	Na	Na	Un
	27	Hatikerepa	Ilex godjam	Aquifuliaceae	Un
	28	Bon kesheru	Na	Na	Un
	29	Bonbaberi	Phyllanthus simplex	Euphorbiaceae	Un
	30	Pareng	Na	Na	Un
	31	Bonphoroi	Na	Na	Uh
	32	Bonsoom	Na	Na	Un
	33	Sarpagandha	Na	Na	Pressure and internal uses
	34	Tejmoyi	Na	Na	Toothache
	35	Letaguti	Na	Na	Pneumonia, malaria
	36	Borjanali	Na	Na	Paralysis
	37	Majank kati	Na	Na	Encephalitis
	38	Pani poduna	Na	Na	Jaundice
	39	Gonkasu	Na	Na	Un
	40	Maankosu	Na	Na	Un
	41	Teli kosu	Na	Na	Un
	42	Adoliya kosu	Na	Na	Un
	43	Ull kosu	Na	Na	Un
	44	Kola kosu	Na	Na	Un
	45	Sengmarakosu	Na	Na	Jaundice
	46	Bandardima	Dysoxylum	Maeliaceae	Un

			binectariferum		
	47	Chalmugra	Hydnocarpus kurzii	Flacourtiaceae	Skin disease
	48	Morsal	Vatica lancefolia	Dipterocarpaceae	Un
M	49	Nahar	Mesua ferrea	Clusiaceae	Un
I	50	Outenga	Dillenia indica	Na	Un
D	51	Agaru	Aqualaria agallocha	Na	Un
D	52	Dimaru	Ficus fistulosa	Na	Un
L	53	Rudraksya	Elaeocarpus ganitrus	Elaeocaepaceae	Heart disease
E	54	Leteku	Baccaurea sapida	Euphorbiaceae	Fruit eaten
	55	Gameri	Gmelina arborea	Verbenaceae	Un
C	56	Sashi	Aqualaria agolacha	Na	Timber
A	57	Titachapa	Michelia baillonii	Magnoliaceae	Timber
N	58	Dhopat tita	Na	Na	Un
O	59	Segun	Na	Na	Timber
P	60	Simolu	Bombax ceiba	Bombacaceae	Un
Y	61	Jamuk	Na	Na	Dysentery, diabetics
	62	Bhelu	Tetramelos nudiflora	Na	Un
	63	Thekera	Garcinia kydia	Clusiaceae	Dysentery
	64	Amallokhi	Amblica officinalis	Euphorbiaceae	Cough,stomacheach
	65	Hilikha	Bridelia stipularis	Euphorbiaceae	Trifala good for stomach, eyes
	66	Pan sopas	Na	Na	Un
	67	Arjun	Na	Na	Heart disease, diabetic
	68	Borhamthuri	Talauma hodgsoni	Magnoliaceae	Un
T	69	Ban aam	Magnifera sylvatica	Anacardiaceae	Un
O	70	Hoolung	Dipterocarpus retusa	Dipterocarpaceae	Un
P	71	Dhuna	Canarium bengalensis	Burseraceae	Aromatic

CANOPY	72	Seleng	Sapium baccatum	Euphorbiaceae	Un
	73	Ajar	Lagestroemia reginae	Lythraceae	Un
	74	Hingoori	Castonopsis indica	Fagaceae	Un
	75	Kadam	Anthocephalus chinensis	Rubiaceae	Un
	76	Hoolock	Tesminalia myriocarpa	Magnociaceae	Un
CLIMBERS	77	Dighal loti	Litsea salicifolia	Lauraceae	Un
	78	Mahuli lota	Croton caudatus	Euphorbiaceae	Un
	79	Tubukilota	Cissmpelos pareira	Menispermaceae	Un
	80	Madhabilota	Hiptage acuminate	Malpighiaceae	Un
	81	Jori lota	Ficus benjamina	Moraceae	Un
	82	Hal lota	Na	Na	Un
	83	Pipoli	Piper longum	Piperaceae	Un
	84	Baghasura lota	Na	Na	Un
	85	Khal lota	Na	Na	Un
	86	Jaglo pat	Macaranga denticulata	Euphorbiaceae	Un
	87	Harjora lota	Cissus quadrangularis	Na	For joints
	88	Bhedai lota	Na	Na	For stomach
	89	Ghela lota	Na	Na	Gastric, stomachache
	90	Thebu lota	Na	Na	Un

*** Source: Hoolock: the ape of India by Gibbon Conservation Centre, **(Na – Not applicable)**

4.2.2 Diverse Faunal Species

Apart from this variety of plant species, the sanctuary is also known for its host of faunal species more particularly for the primate diversities. Out of 15 species of primates found in India, 9 species of primate are found in the North Eastern India while 7 species of primate i.e. Hoolock Gibbon, Capped Langur, Stump Tailed Macaque, Rhesus Macaque, Pig tailed Macaque, Assamese Macaque and Slow Loris, are found in Gibbon Wildlife Sanctuary. Infact, the Sanctuary boost of having glimpse of these primates. Out of these 7 primate species, 3 primate species viz. Capped Langur, Hoolock Gibbon and Slow Loris are in Schedule I as per the legal status of Wildlife Protection Act, 1972 and the remaining four primates species are in Schedule II. Brief check lists of major faunal species are given below

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Table 2: A brief check list of major species of fauna

Primates(endangered)	**Other mammal**	**Reptiles**
Assamese macaque	Asiatic elephant	The Indian python
Pig-tailed macaque	Barking deer	The common monitor lizard
Stump-tailed macaque	Sambar deer	The gecko lizard
Rhesus macaque	Wild boar	The common cobra
Capped langue	Albino boar	King cobra
Hoolock gibbon	Porcupine	Viper(pit)
Slow Loris	Tiger	Other various snakes (endemic)
	Leopard	Tortoise
	Jungle cat	
	Indian civet	
	Pangolin	
	Fox	
	Himalayan orange bellied squirrel	
	Horry bellied squirrel	
	Malayan giant squirrel	

*__Source:__ Article-Gibbon Wild Life Sanctuary: An Approach for Sustainable Development Goswami.B.N. ; Sharma. P.

Table-3: The following list presents major bird species found in the Sanctuary.

Sl. no	**Vernacular name**	**Scientific name**
1	Red jungle fowl	Gallus gallus
2	Kalij pheasant	Lophura leucomelanos
3	Ruddy shelduck	Tadorna furruginea
4	Common teal	Anas crecca
5	Rufous wood pecker	Celceus brachyumes
6	Lesser yellownape	Picus chlorolophus

7	Raket tailed drongo	Dicrurus paradiseus
8	Indian pied hornbill	Buceros bicornis
9	Hill mayna	Gracula religiosa
10	Bank mayna	Acridotheres ginginianus
11	Bulbuls(black)	Hypsipetes leucocephalus
12	Parakeet(red breasted)	Psittacula alexandri
13	Doves(spotted)	Streptopelia chinensis
14	Himalyan flameblack	Dinopium shorii
15	Mountain scops owl	Otus spilocephalus
16	Creasted serprent eagle	Spilornis cheela
17	Black kite	Milvus migrans
18	Asian pied startling	Sturnus contra
19	Plain flower picker	Dicaeun cancolor
20	Little pied flycatcher	Ficedula westermanii
21	Indian roller	Coracias benghalensis
22	Tailed jacana pheasant	Hydrophasianus chirugus
23	Grey wag tail	Motacilla cinerea
24	Sperkled piculet	Picumnus innominatus
25	Rosy minivet	Pericrocotus roseus
26	Rufous treepie	Dendrocitta vagabunda
27	Common kingfisher	Alcedo atthis
28	Pied cuckoo	Clamator
29	Ashywood pigeon	Columba pulchricollis
30	Large billed crow	Corvus macrorhynchs
31	Rosy pipit	Anthus roseatus
32	White rumped munia	Lonchura striata
33	House sparrow	Passer domesticus
34	Purple sunbird	Nectarinia asiatica

35	Rufous winged bushlark	Mirafra assamila
36	Abbots bubbler	Malacocicla
37	Rofous necked laughingthrush	Garrulax ruficollis
38	Smoky warbler	Phylloscopus fuligiventer
39	Common tailor bird	Orthotomus sutorius
40	Slaty bellied tesia	Tesia olivea
41	Yellow bellied prinia	Prinia flaviventris
42	Barn swallow	Hirundo rustica
43	Great tit	Parus major
44	Oriental magpie robin	Copsyahus saulacis
45	Large niltava	Niltava
46	Brown shrike	Lanius cristatus
47	Golden fronted leaf bird	Chloropsis aurifrons
48	Little heron	Butorides stratus
49	Asian koel	Eudynamys scolopacea
50	Green bee eater	Merops orientatis

Recently on January/09/2009,white –winged wood duck, a rare and endangered bird was sighted in the sanctuary by a researcher from national institute of advance studies ,Bangalore**.**

*** Source: 2007 Ghosh- Birds of Holongapar Gibbon Wildlife Sanctuary, newsletter of birdwatchers.**

5. SUGGESTION AND CONCLUSION:

Eco- Tourism idealistic goal is to improve the world through responsible travel, effecting never matching ideas, travelers can offer very real benefits to local community. However, tourism's relationship with the environment is complex involving activities that can have adverse environmental effects. On the other hand, tourism has the potential to create beneficial effects on the environment by contributing to environmental protection and conservation. It is a way to raise awareness of environmental values and it can serve as a tool to finance protection of natural areas and increase their economic importance. Every year community base Eco- Tourism venture -Gibbon conservation center in collaboration with Aaranyak (a registered society working in the field of biodiversity conservation in North- East) organizes training programme to ensure that all member of local communities are able to aid in the management, decision making and activity of the Eco Tourism operation creating public awareness where both national and international, including local delegates are invited to carry out the program.

- First and foremost is to achieve interventions i.e. Proper implementation of Wildlife protection laws for securing and protecting the wild life, community participation, and community outreach programs cum training should be organized.
- Secondly, it is necessary to include fellow government land attached to the sanctuary under its jurisdiction, which will enlarge the space for free and fare movement of animal species, curbing the problem of shortage of space and food.
- Thirdly, there should be Standard Government tourist accommodation as well as way side

amenities to fulfill the demand of foreign and domestic tourists.

- Fourthly, Improved communication link should be provided for the tourist visiting the vary Sanctuary.
- Fifthly, Festivals should be organized to develop tourism in the area, alike the Elephant festival organized in Kaziranga in the month of February where most visitors from all around the world assimilate. Similar, initiatives should be adapted to enhance Eco- tourism in the area.
- Lastly, by well planned informative publicity, trained man power, improve service quality, and provision for research, could gear up the Sanctuary as a fine spot for eco- tourism.

In the nutshell, Consolidation of development activities along with inter-departmental understanding as well as co-ordination between Govt. and Private Agencies, NGO's will certainly open a new phase of Eco-tourism development in the region thereby benefitting the local communities.

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