Introduction

Birbhum Forest Division started functioning from 15th of July 1954. It covers an entire Birbhum District with total geographical area of 4550 sq km, however, forest area covers only 15926 ha (3.5% of the total geographical area).

The district lies between 28° 32’ 30” and 24° 35’ 00” North latitude and 88° 01’ 40” and 87° 05’ 25” East longitude. The district’s immediate neighbours are Murshidabad in the east and north-east, Burdwan in the south and south-east and Pakur, Dumka of Jharkhand in the west and north-west.

The main floral species are *Shorea robusta* (sal), with associates like *Pterocarpus marsupium* (Piasal), *Terminalia tomentosa* (asan), *Anogeissus latifolia* (dhaw), *Terminalia bellerica* (bahera), *T.chebula*, *Buchnania lanzan*, *Dalbergia sissoo* etc. The degraded forest land is mostly planted with Akashmoni and Eucalyptus along with other misc. Species.

An area of 2.021 sq km is declared as Ballavpur Wildlife Sanctuary u/s 18 (1) of Wild Life Protection Act, 1972 that also includes erstwhile declared Reserved forest, vides notification no. 4655 dated 11.07.1977 published in Calcutta Gazette on 18.08.1977 of Govt. of West Bengal, revenue & Forest department in Bolpur Range. Ballavpur Wildlife Sanctuary started on 10th Feb 1967 as a Deer Park. Gradually it increased in size and species diversity with the passage of time. On 18.8.77 vide Notification No.4655-For dated 11.07.77, the Deer Park was notified as Ballavpur Wildlife Sanctuary, with an area of 200 ha. of this 35-40 hectare comprises of wetlands in three different patches. The Deer enclosure is of 40 hectare area and within it, Sal, Akashmoni, Minjiri, Mahul etc. are the principal species

The objective of management is participatory approach towards sustainable development of forests. Nearly 90% of the total forest area is managed by 198 nos. of Forest Protection Committees and 4 nos. of Eco Development Committees.

Degree of Pressure on Forest Resources:

Forest fringe area dwellers collect to varying degree of the local forest resources for meeting their daily need and in the process exert pressure on the forest. The pressure exerted on the forest depends on a host of factors, prominent among them are economic condition of villagers, number and breed of livestock, presence or absence of rural infrastructure etc.

Most of the FPC villages are lying surrounded the vicinity of forest area where limited infrastructure, low cash income and non-availability of modern commercial energy sources like Kerosene, LPG, Electricity pose restriction on replacing traditional fuel. Hence, about 50% of the total requirement is to collect from the nearby forest area.
Most of the infringe area people is very poor, the cattle become the main source of livelihood of some of the families in the villages and some keep the cattle to supplement their income. For the stated purpose they are to depend upon the forest resources and nearly 10% of the total requirements are collected as fodder from the forest area. Grazing is the most common biotic interference towards the forest resources. All the cattle belonging to these villages meet up their 30% of daily food by means of grazing inside the forest area. People of these villages are very much conscious about the social forestry concept. So they have utilized all of their waste land whatsoever by planting tree species like Akashmoni, Eucalyptus, Neem, and Sissoo. Their regular requirement like agricultural requirements, posts, rafter are met from these trees. Balance 5% of the total requirements is collected from forest area. The main NTFP collected from the forest area are thatching grasses, Mahua seeds, Sal seeds, Sal leaves, honey, medicinal herb, bamboos etc. This is nearly 3% of the total collection.

Amkhoi Fossil Park

Location:

<table>
<thead>
<tr>
<th>Forest Division</th>
<th>Birbhum</th>
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<tbody>
<tr>
<td>Forest Range</td>
<td>Bolpur</td>
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<tr>
<td>Forest Beat</td>
<td>Illambazar</td>
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<td>JFMC</td>
<td>Jamboni</td>
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<tr>
<td>Geo-coordinates</td>
<td>23°37'23.16&quot;N/ 87°35'20.92&quot;E</td>
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History of Fossil at Amkhoi

Wood fossil is defined as woods preserved by natural process in the earth’s crust millions of years back. Fossils are usually found in sedimentary rocks. The essential factors for fossilization are a rapid burial under sediment cover and protection from decay by oxygen and organisms in an anaerobic condition. Fossil fuel such as coal, natural gas and petroleum were formed from plant matter under favourable temperature and pressure. The ground water, rich in dissolved solids flows through the sediment replacing the original plant material with silica, calcite, pyrite or another inorganic material such as opal. The process is known as per mineralization and the transformed woods are known as Petrified Wood (from the Greek root petro meaning “rock” or “a stone”; literally wood turned into a stone). The result is a fossil of the original woody material that often exhibits preserved details of outer morphology of wood and cellular structures. By studying petrified woods the past depositional environment of sediments, geographical condition, relative age determination, climate and ecology can be determined.

The angiosperm wood fossils which are displayed here were collected during pond digging from Amkhoi village of Illambazar Forest, Birbhum District. These specimens are definite proof of the presence of a vast dry deciduous forest with a few evergreen elements in this area, which
prevailed 15 to 20 million years before present (Late Miocene). Wood fossils can also be found in different places of Birbhum, Bardhaman, Bankura and Medinipur Districts of West Bengal as well as in Mayurbhanj District in Orissa.

Few families and genera of the past forest of south West Bengal were identified by scientists. Dipterocarpacea, Anacardiaceae, Combretaceae and Leguminosae are some of these. At the present time these families occur in this area. However, some genera are extinct here, but occur in the present day forests of Western Ghats, Myanmar and Malaysia.

This past forest thrived in the uplands of Rajmahal Hills and Chotanagpur Plateau at the North West of Birbhum. It is presumed that the trees were carried by occasional floods of the river system flowing from North West of the river basin towards South East in Birbhum, Bardhaman, Bankura and Medinipur Districts and deposited under find sand and clay gradually to transform into wood fossils. The petrified woods are found in two different laterite beds. This is a pioneering effort of West Bengal Forest Department in preserving the priceless fossils woods and to educate people about the natural heritage of West Bengal.

Some Photographs:
Amkhoi Eco-tourism Project

A meeting on Amkhoi Eco-tourism Project was organised on 24th May 2017 at Amkhoi Fossil Park as per the instruction of Hon’ble Chief Minister of West Bengal during her Administrative Meeting at Bolpur on 22nd May 2017. The following activities are to be carried out by the Office of the Divisional Forest Officer, Birbhum Division as per the minutes of the meeting which was chaired by the District Magistrate, Birbhum District-

1. Construction of Deer Park
2. Re-excavation of Ponds.
5. Landscaping
Divisional Forest Officer
Birbhum Division