

## Forest Resource Management and Deforestation in 'Colonial' Sundarbans, 1878-1905

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***Abstract:** Sundarbans means 'the beautiful forest'. Sundarbans is the largest mangrove forest in the world. It has a unique human-nature relationship. It is located in Southern part of West Bengal in India and some parts of Bangladesh. In this paper I shall discuss about how colonial government played a vital role for preserving the Sundarbans forest and what is their planning for future use. Before the British came into Bengal, this forest known as 'bhati'. Afterwards the Colonial government came into power, they realised the reclamation of Sundarbans. In this connection they implemented several forest policy regarding the particular issue. In this paper I will try to analyse the fact behind the British mind. How the British benefitted and local people looted by colonial forest policy from (1878-1905) this also my hypothesis of this paper.*

***Key Words:** Bengal, Conservation, Colonial, Forest, Management, Sundarbans,*

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### I. Introduction

The mangrove forests of Sundarbans have an extended history of conservation and management, crucial for understanding present day conservation and challenges. Colonialism in India initiated fundamental changes in patterns of resources use, notably forests has been described by recent scholar as a 'watershed' in the history of the subcontinent .<sup>1</sup> The British

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colonial government had realised from the outset that the Sundarbans if reclaimed, could be transformed into a revenue yielding area. The Sundarbans today many believes, the reclamation of two forces- the reclamation of forest to cropland and the preservation of the forests for yield of wood products. Reclamation of Sundarbans commenced from 1770 onwards and was greatly emphasized by the colonial administrators. But during the second half of 19<sup>th</sup> century there was stagnation in reclamation. In-fact the government policy which was adopted ran opposite to the enthusiasm for reclamation among the land lords and revenue officers. Indeed there was a growing realization of Sundarbans. Thereafter forestry came to be emphasized which led to management and conservation of wood resources.<sup>2</sup> The Sundarbans was a very important source for timber (Wood) and firewood for people of Bengal. W.W. Hunter written in his book '*A Statistical Account of Bengal*' mentioned about the dense Sundarbans jungles which formed a very important article to export. Hunter wrote 'Firewood is the principle article of trade'. He even gives a list of 30 principle kinds of timber found in the Sundarbans with their average size and usage. This included *Amur, Bain, Balai, Bhaila, Bhara, Bonjam, Chalia, Chala Babur, Dal Karamcha, Dimal, Garen, Geoa, Hental, Jhau, Jin, Kankra, Korai, Kenkti, Keora, Khalsi, Kirpa, Lohakoira, Pancholi, Paras, Pasur, Singra, Sinj, Sondal, Uriyam* and most important *Sundri*.<sup>3</sup> Sundri is the most valuable and common timber tree in the Sundarbans forest area which derive their name from the extensive Sundri forests. The Sundri is a evergreen tree with buttressed stem and grey longitudinally cracked bark common to the Sundarbans tidal forest. The Sundri wood was elastic, strong and very durable. In the late 19<sup>th</sup> century, stocks of Sundri were plentiful. Hunter gives in details about the wood trade and the pieces of forest produce. He commented ' the demand for wood, and especially for firewood, is so great that offers ample inducement to cultivators, even when comparatively well off, to engage in the trade'. Water transport reduced the cost of transporting timber and fuel wood from the Sundarbans delta to the urban markets. In 1872-73, canals and railways carried 3,00000 tones of timber and fuel wood into Calcutta from the south east.<sup>4</sup> Present paper I propose to make study about some perception of colonial forest policy on Sundarbans from 1878 to 1905.

In 1798, a respected British geographer named Francis Buchanan stated that "the woods, however, are not considered as property, for every peasant may go into them and cut whatever timber he wants."<sup>5</sup> At this time the British government did not intervene in the Sundarbans and most of the part, allowed the inhabitants to use the land in any way they deemed fit. The British viewed the Sundarbans as a '*jungle*' (forest) infested with deadly

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diseases and man-eating animals. They also associated the area with the '*barbaric*' (uncivilized) customs and traditions of the local people. As early as 1860's British forest administrators had realised the revenue value of Sundarbans. According to forest department report of 1867, 'this woodland should be a permanent source of revenue of several lakhs to the state and unfailing supply of woods at a fair price to the public.'<sup>6</sup> Thus there was an urgent need to be placed to the forest protection. Meanwhile in 1865, Dietrich Brandis became the first inspector general of forest in India, he played a pioneering role for Indian forest. He was convinced that most Indian forest users were ignorant of how to manage, protect and utilise a forest efficiently. Since the early 19<sup>th</sup> century forest tracts had been completely cleared and rooted out in many districts. He also blamed the British government for the crisis facing Indian forest.<sup>7</sup> There had been no large forests in Britain for centuries and so the British did not understand the climatic, agricultural and economic necessity of the forests. He was succeeded by Wilhelm Schlich whose six volume manual for forestry went through many editions and shaped the mind of generations of foresters well into the middle of the 20<sup>th</sup> century.<sup>8</sup> He also like Brandis, concerned over the disappearance of the Sundarbans forest. He very much understood the importance of the Sundarbans supply of timber, thatching grasses and fuel wood. He recommended that, Sundarbans should be taken under forest management without delay, instead of extending cultivation towards the south without considering to what extent the permanent yield of forest produce may be curtailed by it. A deputy conservator of forest was sent to the Sundarbans in 1873, following which rudimentary structure of forest administration was setup in the area. Toll stations and offices for issuing licences were established. Meanwhile stagnation in land reclamation rules intensified in 1874, by a declaration of policy by Sir, Richard Temple, the Lieutenant Governor of Bengal.<sup>9</sup> This colonial forest policy eventually created today's Sundarbans forest.

## II. Classification of Indian Forests and its Impacts

The Indian Forest Act of 1878 is very significant to reconstruct India's forests history for several reasons. Under this act, forests were categorised into reserved, protected and village forests. The basic aim of the act was to remove the local rights in the reserve forests and

keep them exclusively as government officials. Protected forests were those forest areas where it was not possible to reduce local use, while the village forests were to be assigned to villagers to fulfil subsistence needs.<sup>10</sup> The newly formed forests policy implemented throughout the subcontinent by the British. The Sundarbans came under this new regime. In the Sundarbans the local people were periodically allowed to use the protected forest under licence issued by the colonial forest department.<sup>11</sup> Thus protected forest were lands that could only be opened for reclamation by consent of the forest department. The area protected forest stayed relatively constant from 1890 through the 1930's between 4400 and 4500 sq. km. Therefore approximately 60% of the Sundarbans area was administered by the forest department. The state preserved these mangrove forests for ensuring a continuous supply of timber and other forest products. The classification of reserved and protected forest was an intervention designed to protect the Sundarbans forest against the market forces and reclamation pressure.<sup>12</sup> Besides placing the forest under protection, the government gradual introduced user fees, licenses and tolls under the pretext of preserving the diminishing natural resources. Initially the main policy was to maintain an adequate fuel reserve under efficient management and thereby contribute state revenues.

### III. Forest Resource Managements at Sundarbans (1878-1905)

In this paragraph we will try to understand how Britisher's used and conserve Sundarbans mangrove forest by principle of scientific forestry and their application through working plans (1878-1905). The forest department prepared the first management plan in 1871 with the prime objective of regulating the use of *Hertiera fomes* (Species of mangrove trees) based on diameter classes. The following management plans during the British period were guided by forest policy first declared in 1894.<sup>13</sup> The Sundarbans was categorised as production forest. A total of six management plans operated under this policy. These management plans based on exploit the resources to generate state revenue. The forest was divided into working circles based on site, quality and a tree growth and selection cum improvement system was adopted as silviculture system. The forest act was revised in 1878 to strengthen the control. These management policy's are, Schlich plan (1876), Heinig plan (1903), Loyed's plan (1904), Trafford's working plan (1911), Curtis plan (1931-1951). With these effect, one can say that the forest department's management appear to have focused consistently on long

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term preservation of the Sundarbans forest. The basic goals of these plans are, to provide on sustained basis for fuel, timber, thatching and building needs in the regional economy, to protect the upland cultivated regions from severe storms, to contribute state revenues etc. The forests were reserved formally in 1876, but administration for at least the first half of 19<sup>th</sup> century was unsteady. Supervision initially was minimal and worked primarily through the price mechanism, so which later was added largely unsuccessful efforts to prescribe targets and to prohibit customary uses by local population. The customary users of the Sundarbans forest saw the designation of the forest as reserved and introduction of user fees, licenses and tolls, as detested instructions of the state. 14<sup>th</sup> January 1880, the breaking up or clearing for cultivation or any other purpose of any land in the protected forests of the Sundarbans by any persons except persons to whom a written lease of such land has been granted by or under the authority of the government is prohibited. No trees, timber, or any other forest produce shall be cut, sawn, gathered or removed from the Sundarbans protected forests without prepayment in full of the charges due thereon at the under mentioned rates and in accordance with the following classification-

- A) Timber of the following kinds in pieces measuring eight feet and upwards in length or three feet and upwards in girth at the thick end, shall be classed as logs and charged for as follows – *Sundri*- One and a quarter annas per running foot, *pusser* and *amoor* - one annas per running foot. Any persons desiring to enter the Sundarbans protected forests for the purpose of cutting, sawing, converting, gathering, or removing trees, timber or other forest produce shall take out permit or licence for the produce which he propose to remove.
- B) These and such other charge as may from time to time be fixed under section 31 and 41 of the Indian forest act 7 of 1878, as amended by act 5 of 1890, shall also be levied on such timber and other forest produce as may be exported from lands leased under the rules for the lease of waste land in the Sundarbans.
- C) Permits or license for cutting, sawing, converting, gathering, or removal of any forest produce within the Sundarbans can be obtained from the officers in charge of revenue section, a list of which will be notified from time to time in the *Calcutta Gazette*.
- D) Any forest produce in transit within or passing out of the Sundarbans, and any such produce found in any water channel skirting or leading from the said forest, when

there is reason to believe that anything is payable to the government respect of such produce, may be stopped and examined by any forest or police officers.

In the 1880's a governmental policy interest appeared one that ran counter to enthusiasm for land reclamation among landlords and revenue officers. Scientific forestry emphasized careful management and conservation wood resources and stressed the importance of standing forests in watershed management. Which form production offered greater benefits to the colonial state and its subject? Was timber a more vital resources than additional rice cultivation? Just as the impetus to extend cultivation begun to crest, one branch of the government of India tried to show the crushing momentum of the Sundarbans delta. Increasing urban population of South Bengal particularly Sundarbans as the most accessible sources for their timber and fuelwood. The important timber tree in the Sundarbans was the sundri, 'gregarious evergreen tree with buttressed stem and grey longitudinally cracked bark' common to the Sundarbans tidal forests as well as the Burma delta.<sup>14</sup> *Sundri* wood was 'elastic, strong, and very durable' and much sought after by boat and carriage builders, the makers of agricultural implements and furniture. The timber was also extensively used in local construction.<sup>15</sup> In the late nineteenth century stocks of *sundri* were plentiful. Mature trees were frequently cut at nearly two metres in girth and up to 24 metres in height. Other species were also economically important: *genegwa* (*Excoecaria agallocha*) for box planking and mathes; *keora* (*Sonneratia apetala*), and *baen* (*Avicennia officinlis*) the preferred fuel with the Sundarbans. Minor forest produce collected included *golpatta* palm leaves (*Nipa fruticans*) and *ullu grass* (*Saccharum spontaneum*) for thaching, honey and wax collected under seasonal permits, as were shells of estuarine mollusks. Woodcutters moved ahead of the reclamation frontier, eluding as much as possible the tigers, crocodiles and other menaces of the tidal forests. Water transport reduced the cost of transporting timer and fuelwood from the delta forests to urban markets. Invariably prices rose and cutting intensified. By the 1890's pattern of the wood trade had long stabilized.

Regularly woodcutters stay for the most of the part just north-west Sundarbans and when the rains have ceased, their season begins. A body of them start in a native ship for the Sundarbans for south and near the sea levels. Now the important thing is that the Sundarbans actually a mangrove forest but its looks like sometimes is it is a rain forest. Early 1879, the forest department first proposed a plan to regulate and tax the flow of

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timber and other forest produce coming from the Sundarbans tracts every year.<sup>16</sup> George Campbell, ( Lieutenant Governor of Bengal ) squashed this initiative and subsequent revision on the ground that such a system would unduly harass private enterprise. He became Governor of Bengal in 1874. He visited the Sundarbans on tour. He was struck by the value of the forests products of wetlands: The Sundarbans include not only a mass of *sundri* trees of comparatively higher growth, conversion to rice, or it could transfer them to timber production and management as protected and reserve forests.<sup>17</sup> Reserved Forest tracts in eastern Bengal grew slowly but steadily in size. Department of Forest gradually transferred small areas of Protected Forest in Khulna district to this classification. By 1904, the reserve forest area in Khulna stood at 5,390 sq. km. 78% of the total area of 6,962 sq. km. classed as Sundarbans in the district. By 1938, the total reserve forest area had reached 6,000 sq. km.<sup>18</sup> essentially the same reserve forest area maintained by Bangladesh in 1971. 1978 survey based on satellite imagery estimated that Bangladesh Reserve forests contained 3,882 sq. km. of wetland forest and 2,111 sq. km. of water, for total area of 5,993 sq. km.

For the western Sundarbans in Twenty- Four Parganas district, the story was somewhat different. The area classed as protected forest stayed relatively constant from 1890 through the 1890 through the 1930's at between 4,400 sq. km. In other words, approximately sixty percent of the Sundarbans area in the district was administered by the forest department. The later formed the basis for the West Bengal Sundarbans Forest Reserve after partition. It is important to note that the state preserved these mangrove forests primarily as a means of ensuring a continuing supply of timber and other forest products. Designation as Reserve or Protected Forest was an intervention designed to protect the Sundarbans forests against the forces of the land market and reclamation pressures. The Sundarbans forests become and reclaimed a production unit run as state monopoly industry in lower Bengal. Throughout the last century of Forest Department management the state either produced directly or licensed the cutting and sale of large number of timber, bamboo, and other products from its reserved as well as its protected forests.<sup>19</sup> In more recent years the value of forests and forests products has increased relative to rice lands. Scarcity of timber, bamboo and grazing has reached alarming levels in Bangladesh. As a result, officials classification of new alluvial tracts in the delta has changed over time to time. In the year of 1980 the Government of Bangladesh had transferred 12,215 ha. of newly formed land to the forest department for protection under

the provisions of the 1927 Forest Act. In this situation Government Khas lands were addition to what was formerly Bakarganj district and constituted a new tract growing wetlands forests that heavily cultivated area.<sup>20</sup>

#### **IV. Forest, Tiger and the Raj**

Colonial forest policy, the implementation of Project Tiger in the post-colonial period, and the introduction of the biosphere reserve programme inflicted a new sort of misery on the inhabitants of the Sundarbans. Conservation of nature has often involved the relocation of residents; for example, during the during the early history of US and in the former colonial world in Africa. The world's first national park was established in Yellowstone in 1872. It encompassed some two million acres at the junction of Wyoming, Montana and Idaho. The creation of park involved in the dislocation of the Nez Press Indians from this unique landscape.<sup>21</sup> In case of Sundarbans, however was different from that of Yellowstone. The Sundarbans was declared a protected forest in the nineteenth century, not to make it tourist destination like Yellowstone, but as part of general policy that led to reserving of a fifth of the land area of British India as government forest between 1878 to 1900, to the purpose of increasing revenue and upgrading a growing stock of various kinds of timber.<sup>22</sup> Remarkable steps were taken to conserve the forest of Bengal in 1862 under the instruction of D. Brandis, than Conservator of Forests in Burma. A Deputy conservator of forest was sent to the Sundarbans in 1873, following which a rudimentary structure of forest administration was set up in this area. The British government was quick to grasp that the Sundarbans, if reclaimed, could be revenue yielding area. In the same time the government gradually introduced user fees, licences and tolls under the pretext of preserving the diminishing natural resources. The Customary user of the Sundarbans forest saw these as detested intrusions of the state. The launching of Project Tiger in 1973 and the implementing of the Biosphere Reserve Programme inflicted further inconveniences on the indigenous people of the area. The cultivable lands and villages in and around the protected forest were alluvial lands that had formed after 1793 and were outside the jurisdiction of the permanent settlement.<sup>23</sup> Recent research suggests that in the ninetieth century the Sundarbans and the more active part of the deltaic region had high economic potential and social mobility. Famine was a chronic plague of nineteenth century India, and Sundarbans become a source of food grains for distress



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areas.<sup>24</sup> Than this area could successfully accommodate displaced people in times of crisis, natural calamities or economic stress.

The political, social and economic development of eastern Bengal reminds us of the Turner's work, which highlighted the formative role of the wilderness in the shaping of American culture and politics. The Sundarbans active delta was constantly being expanded as land formation and reclamation went on. The area also proved capable of cushioning political commotion elsewhere in Bengal.<sup>25</sup> Earlier the *Magh* it was the custom of immigrants in the Bakarganj Sundarbans to seek out some little creek leading into the heart of the forest, where they would establish a settlement, clear the jungles and cultivate the land.<sup>26</sup>

## V. Conclusion

Sundarbans is perhaps the only mangrove deltaic eco-system in the world which witnessed for the first time the implementation of a scientific forestry management plan. No doubt the British initiated conservation of forest resources with the prime object of preserving timber resources for state use in future. But initial clearing of the jungle for cultivation had already led to wide scale deforestation. With the growing demand of timber for railways, construction, tea industry and paper pulp production, traditional woodcutters or bawalis become contract labourers who worked for moneylenders and zamindars and traders, who turn financed the expeditions and who acquired the produce from the bawalis at price much lower than the market. The British had at first failed to understand the value of Sundarbans bio-diversity. Thereafter Colonial administrators like Brandis, Schlich and Temple had started to realise the need to preserve this valuable resource of Sundarbans.

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