



# TEXT AND PRETEXT: REPORT WRITING AND LAW MAKING ON 'NATURE' IN COLO- NIAL INDIA

**Dr. Sebastian Joseph**

(Associate Professor and Research Guide, PG Dept. & Research Centre in History, UC College, Alwaye, Er-anakulam, 683102, Kerala, [monichenjo@gmail.com](mailto:monichenjo@gmail.com), 9447355190)

## Abstract

Colonial interventions in the management of Indian environment had not been adverse to Indian interests on all occasions. Genuine concern on the part of scientifically knowledgeable colonial officers created a welter of documents on Indian nature including whether, deforestation, desertification and decline of fertility of the land. These documents apart from pointing to the profligate nature of the coloniser in natural resource exploitation had also connected such profligacy with the poor living condition it would exert on the vulnerable Indian population, especially, the farmers and adivasis. Environmentalism was enmeshed with humanism in such reports and surveys, but the colonial administrative authorities prevailed and enacted solely for the continued extraction of land and natural resources in India. The paper pin points the dichotomous relation between the scientific texts and the political context of colonial rule.

**Key Words-** forest, weather, environment, dessicationism

## Introduction

*The Influence exercised by Trees on the Climate and Productiveness of the Peninsula of India*, a report authored by Edward Balfour pursuant to a governmental direction to inquire in to the subject is a document which carries important evidences for the environmental historian of colonial India. Correspondence between the government and its officials are detailed in the report and Balfour's own previous studies on the subject are explained here. Interesting is the Dispatch, No.21, of 7<sup>th</sup> July of 1847 from the Court of Directors in which the Court requested the GOI to ascertain the effect of trees on the climate and productiveness of a country and the results of extensive clearance of timber. The subject, the dispatch continued was one of having a strong practical bearing on the welfare of mankind and the Court was anxious to obtain extensive and accurate information in regard to that. The court also observed in the dispatch that the decrease of moisture which had

taken place in various parts of America was usually attributed to deforestation and there due to reforestation the contrary effect had been observed. The dispatch implicate the interest shown by the Court of Directors in understanding environmental changes in India and the efforts they had taken in drawing references from the American experience. The welfare of mankind, which the Court indicates can be variously, interpreted taking in to consideration the political context of colonialism. The welfare of the mankind in the dispatch would have been the welfare of the colonizer and her men in the colony.

## Discussion

In a letter (which was subjoined to the Dispatch), dated 9<sup>th</sup> March 1846, Surgeon Gibson of the Bombay Medical Department mentioned that since the South Konkan had been, to a great extent, denuded of forest, all the inhabitants concur in asserting that the springs had left the uplands, that the climate had become greatly drier, the seasons more uncertain, and the land less fertile. Gibson was a forest official who lived for a prolonged period in the forest tracts which then came under the western Presidency and naturally gathered much information from the local people. The focus of his study was on the causes of the drying up of small streams in the area. The Madras government took immediate action following direction from the Government of India and appointed many commissions to study and report.

Most importantly the report of Balfour (1878) throws light on his own previous studies on the subject which were made in 1840 and 1848. Balfour who had seen much of the peninsula had found the whole of country destitute of trees with the exception of a few localities in southern India. His 1840, especially on the bareness of the Bellary district concluded with some serious causes for the increasing aridity of the district. They are,(1) the extensive clearing of a country diminishes the quantity of running water that flows over its surface,(2) rain oftener falls and more dew is deposited in well wooded countries than when a country is naked and drawing conclusions from the meteorological facts collected in equinoctial regions presumed that the extensive clearing of a country diminishes the actual quantity of rain that falls upon it, (3)the mountains particularly when covered with their native forests , by an electric action on the atmosphere, cause clouds to gather around them, condense and collect the vapours of air , and equalize the fall of rain,(4) Lands destitute of the shelter of trees allow of more rapid evaporation,(5) forests husband and regulate the flow of surface water,(6)land covered with trees are cooler and moister than those which are exposed. Taking cue from his studies, Balfour advocated for the introduction of arboriculture for the amelioration of climate and enrichment of the land. In the report Balfour also suggested active participation of the people in such efforts and commented,” the man who makes a few trees grow where none grow before will be a benefactor to this country.”

Another letter, made public by the Madras Government was from Surgeon C.I Smith of the Mysore Commission dated 23<sup>rd</sup> June 1849, in which the surgeon records the belief of the people of Coorg that the presence of trees in the country tended to increase the quantity of rain. Very significant are some instances

quoted by him to prove the destruction of springs by denuding the ground of trees. One of these was in a range of hills in the south east of Bangalore in a coffee plantation called Glenmore in the Salem District. The proprietor, when preparing ground for a coffee garden which was watered by an excellent spring, was warned by the natives not to clear away the trees in the immediate neighborhood of the spring, but he disregarded their warning, cut down the trees and lost his stream of water. In another instance, a planter cleared up for planting the sides of a ravine in which the spring was and ceased to have anything like the quantity of water he had before the shade was cleared. The same planter close to the bungalow where there was a spring, had some years before cleared a ravine for planting and found the water decrease in like manner; but the coffee trees dying away and the place being too small for plantation, he did not renew them, and allowed the jungle to grow up again, since which the spring had nearly regained its former size.

The revenue officers of Canara, Rajahmundry, Coimbatore, Ootacamund, Tanjore, Nellore, Trichinopoly, Bellary, Arcot and Salem in the years 1847-48, unanimously referred to the rapidity with which forests have been swept away for catering to the needs of the Railways. The Military Board at Madras during many years watched the Sreeharicottah jungles which supply Madras town with fuel. The Conservator reported in 1859-60 that the requirements for the railways were the first and foremost reason for the denudation of forests.

Apart from the railways, the denudation of forests for the supply of fuel for mining was also reported by the Balfour in 1855. The question of the capabilities of the forests of Southern India for meeting the wants of the community was largely noticed in the Parliamentary Paper on the Porto Novo Iron Works. Balfour had reported, "it is the slow but general diminution of the forests or wood tracts from which the smelters procure the charcoal. It is to be supposed that with the increase of population the forests in their vicinity would be cut away, but this government and the honorable court are so fully alive to the necessity for foliage in a tropical country, that it is only necessary for me to draw attention to the diminution going on, to have measures taken to secure for the country, and for the people themselves, therefore the trees cut down for fuel should be as little wasted as possible." Balfour therefore proposed replanting of trees for the safety of the community dependant on fire wood from the forests. Surgeon Gibson reported in Bombay (1849-56) that the charcoal used in the extensive iron works at Beypore had risen in price upwards of 100 per cent, and again pointed to the fact that within the period 1857-60 owing to the needs of the railway, the rise in the price of the firewood, obtained from the side branches of trees, had been about 75 per cent, and the tendency was still upwards.

The British Association had appointed a committee consisting of Dr. Hugh Cleghorn of the Madras Medical Department and Professor John Forbes Royle of the Kings College, London and some other engineers to consider the probable effects in an economical and physical point of view of the destruction of tropical forests. Their Report appeared in the Proceedings for 1851 and it concluded by strongly urging the protection of Indian forests and the planting of trees. Between 1860 and 1863, Mr. Justice Innes of Madras issued three pamphlets, one of them a letter addressed to Sir Stafford Northcote, Secretary of State for India, urging

the importance of planting the hills with trees wherever a tree will grow. In 1863, Mr. N.A Dalzel, the COF in the Bombay Presidency furnished observations on the influence of forests in which he showed that the wanton destruction of forests had entailed bareness and aridity on countries renowned in former times for their fertility, that along with woods, springs and rivulets disappear ... and that the beds of rivers are at one time dry and at another filled by sudden and short lived floods. These observations were made earlier by many writers and Dalzel was actually reproducing them. Some of the surgeons and foresters pointed to the significance of the sacred groves and suggested revival of such practices. When Mr. Robertson, the Supt of the Government farm at Madras, visited Coimbatore in the autumn of 1875 found that a large area of land was cleared for providing wood for the railways and estimated that 7 Lakh acres of jungle had been destroyed for cultivation and railway requirements. The people in the area unanimously declared that the rainfall had gradually diminished in the area during the last 20-25 years. Therefore he advised the replanting of groves in such areas by the peasants and other people. Robertson's name became a household word in the area due to the efforts taken by him.

The districts faced very critical famines where scarcity became almost endemic. In consequent of the awful famine in the South India in 1877, Sir Richard Temple was sent to the aid of the Madras Government. Writing as to the future of the Peninsula he says, "The southern peninsula of India has been or is being denuded, not only of its forests but also of its jungles, its groves, its brushwood, its trees. The denudation has been as I understand, going on near the sources and in the upper courses of the many rivers which water the country. This perhaps is being in some degree checked. But with the progress of coffee planting and with the assertion of communal rights on behalf of the people, the utmost vigilance will be needed to keep it within bounds... Beyond the Ghat Mountains, in Bellary and Kurnool, the treeless, shrubless aspect of the country is as wonderful as it is melancholy. These are the very districts where famine has been occasionally epidemic and where scarcity has been almost endemic. Any thoughtful spectator must perceive that according to all meteorological experience... these fine districts were not destined by nature to be the prey and spot of famine and scarcity, but have been rendered subject to these calamities by the thoughtless action of man."

Information collected by Collectors about the annual rainfall in different parts of the country were analysed by the surgeons and forest conservators for understanding the impact of the tree coverage on it. Collector Connolly of Malabar furnished information on the rainfall in Malabar (Anjarakandy) for the period between 1810 and 1847, that is a 38 year time span. The average rainfall during the period from 1810-22 was 122.88 inches, the period from 1823-1835 was 130.10 inches and that of 1836-1847 was 141.33 inches. Denudation of forests was going on an ascending rate during the period but the rainfall was unaffected. Again information from Bombay too was almost on the same pattern and there the city rainfall was measured for 60 years from 1817-1876. In a fourfold classification we find the rainfall during 1817-1831 at 81.55 inches, from 1832-1846 at 70.14 inches, from 1847 to 1861 at 77.44 inches and from 1862-1876 at 79.37 inches. The Madras city rainfall for 64 years, in four periods each was analysed and found the average rainfall during

1813-1828 as 51.53 inches, from 1829-1844 as 44.88 inches ,1845-1860 as 50.61 inches and 1861-1876 as 46.61 inches.

The registered data show that the rainfall in later years has not been more precarious than before, that the uncertainty of the season has not increased, and that the amount of rain falling has not been diminished. Edward Balfour examined these statistics in detail and found that physical effects of drought had increased in all the years. Balfour indicate other statistics to prove that the loss of conservative factors of nature was the reason for the intensity of the droughts in the areas. For example if from a soil of an open space 100 parts of water evaporate, then from the soil of a forest free from under wood 38 parts would evaporate and from a soil covered with brushwood only 15 parts would evaporate. This simple fact explains, Balfour said why the cutting down of wood over tracts of country is always followed by the drying up of wells and springs. Balfour in concluding his report states that. In India within the present century, the rainfall has not been diminished, nor has the quantity annually falling now become more uncertain, but that man, partly ignorant and wholly reckless ha denuded the soil of its trees and shrubs and bared the surface to the sun's rays, thus depriving the country if its conservative agents, making the extremes of floods and droughts of more frequent occurrence and more severe. Balfour is correct in his analysis, but who is that '*man*' in the report? Is he the tribal of colonial India, the poor peasant dependent on the forests or the colonizer who framed rules for the reordering of nature in India. Here, the reports of the surgeons and the foresters give way to the revenue, engineering and military logic of the colonial state.

The above reports and observations made by the surgeons and forest officials were scientifically proved and at the same time drew information from local knowledge and traditions. Most of these reports correlated their findings with other studies and therefore proved to be very valid. Acquisition of local knowledge and traditions on climatic and environmental changes was made possible due to the intimate relationship the surgeons established with the local community. Most of them stayed in the localities of their study for long periods. These reports apart from studies on Indian climate and ecological changes, also throw light on the material conditions of the people. It investigates in to the relationship between the environmental changes and health conditions of the poor people of the colony who had earlier survived due to the abundance of the natural eco systems. The reports unanimously pointed to ecological profligacy, especially the wanton destruction of forest resources for the establishment of the railways and for mining operations. Being part of the colonial government, the surgeons and some forest officials did not show any sympathy towards the policies of the colonial government. There were about 800 surgeons working in India during 1850-1880 and most of them belonged to the intellectual tradition influenced by the Physiocrats in England. Moreover, due to the social status they enjoyed in the colonial circles, their studies were looked upon by the authorities with some respect. These reports are essential reference material for any scientist who studies changes in the Indian climate even during these days. For the environmental historian, they form important source base for analyzing the ecologi-



cal impact of colonialism and thereby providing new perspectives in the study of Indian history. What they engaged in was a process of medicalisation of geography.

From a historical point of view, Indian land was an object of colonial fear and desire, utility and aesthetics. Colonial knowledge about India was articulated by explorers, physicians and officials through the modality of travel and observation. Many English men, upon their arrival in India was fascinated by the magnificent land, its attendant beauty and also dangers. The appropriation of Indian wealth (natural resources) was accomplished through the 'gaze' of the European and the 'gaze' of the explorer was the gaze of the wider colonizing process. So these 'individual gazes' were integrated in to the wider gaze of the imperial penetrator.

## Conclusion

The reports that we have seen were compiled at a time when the Empire was facing a natural resource crisis (exactly a timber crisis) in colonial India. Naturally these reports were made after directions from the colonial government and these studies provided the knowledge base for the government to officially declare the need for conserving the forests of India. The notion of conservation was taken as a agenda of the modern state(British Raj) and technically introduced in the form of forest acts and regulations. The first forest act of 1865, therefore contained the chief clause of reservation of forests for the state. In other acts that succeeded it the idea of reservation was strengthened and even extended in to the princely domains where in the course of time witnessed the transformation of princely forests in to the forests for the empire. This was the network of law ably assisted by the kind of knowledge produced by the experts. Accurate knowledge about India's nature became an instrument of power for the colonizer.

The reports of the surgeons and the like minded generalists are serious exercises made by some individuals who inquired in to the causes of famine and other natural calamities in India. The desiccationists belonged to the genre of generalists who were products of intellectual schools influenced by the perceptions of Physiocrats and Hippocrites. They were generalists who engaged with the scientific understanding of nature with humanitarian considerations. Their positioning for the welfare of the people of India is best exemplified in their reports.

While the so called desiccationists were moving ahead with their studies, on a parallel plane the colonial government was inquiring in to the reasons of timber scarcity in India. The reports of the generalists (surgeons) were also result of such governmental initiatives. The concern for timber was so pressing and exigent for the empire that these reports were overruled and definitive laws were enacted for facilitating uninterrupted supply of timber for the imperial requirements. This explains the reason why the annexationist school emerged victorious in the debate on forest laws. Even Brandis, the Inspector General of Indian Forests failed in his mission of granting certain rights for the forest dwellers in India. Here we find the logic of the timber trader becoming the logic of the colonial state. The forest department in due course was driven by the reductionist logic of the engineers and the generalist's voices were respectfully neglected by the colonial state. In

the furtherance of such a logic the forest officials became managers of timber trade and they missed the tree for the timber. The texts produced by the generalists became pretexts under which new laws were enacted and implemented. The tribals of India in its course found all their gods going to the towns and cities in the trains.

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