

# Resource & Assessment in Historical Perspective : A pre-independence Indian case study

**Dr. Bablu kumar Geography (CBSE NET) B.R. Ambedkar Bihar university, muzaffarpur Bihar, (India),  
842001**

## Abstract

There has been interaction between man and environment right from the time when man advented on the mother Earth till now .The parts of environment brought to our use were treated as assets which are known as resources in modern terminology . Utilization of resource in various ways for the welfare and progress of human being has chequered the history and it had to be come through different stages . Each stage of resource has its own specialities and peculiarities . India is fortunate enough because its early literatures like the Vedas , the Upnishads , the Purans etc . have details of resources use . Indian economy had been playing a vital role in the world economy till the 11th century due to vast natural resources , but exploitation and mismanagement by the foreign invaders and by the Britishers hindered their optimal utilization .

### **Key resources included :-**

#### **1 . Agriculture :-**

India was an agrarian economy with fertile plains,suitable climate and extensive irregation system .

#### **2 . Minerals :-**

Rich deposits of coal,iron ore , maganese,chromite and precious stones like diamond and gold .

#### **3 . Forest :-**

Dense forest providing timber , fuel and wildlife resources .

#### **4 . Water :-**

Extensive river system including the Ganges , the Brahmputra and the Indus with south Indian rivers that is Godavari , Krishna , Kaveri etc . supporting irregation and transportation .

#### **5 . Human resources :-**

A large diverse population with skills in agriculture , craftmanship and trade .

### Introduction

The history of resource use would be helpful to have a clear understanding of the present problems and prospects of conservation of resources . It would revel how those problems and needs were first realised in the post when the knowledge of the Earth and their use were more or less imperfect and how those problems with limited knowledge available at that time were tackled . There are numerous references in the sanhita , the Upnishads and in various other ancient literatures of India regarding thrifting use of nature's endowment by the people then . This approach is certainly a clear indication that Indian people were true appraisers of resources.

### **Stages of Resource Uses**

Zobler (1962) has divided the history of resource use into four stages but each stage, though distinguished is interrelated. These are Initial scarcity, surpluses, changing abundance and lastly again that of scarcity. But these are both absolute and relative. All these stages described by Zobler may be considered an ideal and may not be attained in all the countries in the same form. Previously power of the people was not enough to withstand the oppressive challenges advanced by the environment. But India, had experienced a long period of commodity abundance when some vital resource fronts were opened (Duncan 1962). A great part of India was self-sufficient and enjoying a viable economy. Similar references are also found for the Mediterranean countries and China. The early history of trade between India and Mediterranean countries is a clear indication of resource appraisal. One, however, wonders why these countries degenerated to scarcity despite of the fact that man boasts of his triumph over nature. For this state several factors acted in unison.

Before, First stage-Pre-historical resource use the actual coming up of the stage of abundance, man had to face the pangs of scarcity, both in absolute and relative terms. It is said that men were even ignorant of their immediate environment. Like a frog in a well men used to remain satisfied with their belongings. Worshipping of each and everything surrounding them was nothing but a sort of surrendering before the dictates of Nature. Availabilities were not converted into surpluses. The economy was largely extractive in nature. Hunting, fishing and gatherings were main occupations. Hence at times there is an acute shortage of food grains and famine was a common feature.

For utilisation of bounties of Nature power and technical know-how are pre-requisites. But during this period all works were done by muscular power. Life was hard and the net output was severely limited and lack of transportation did not allow inter-regional transfer of required commodities. People used to live in caves to save themselves from external elements (climate. Conditions and wild beasts).

### **Resource Utilisation in The New Stone Age**

Pre-historic period was followed by the age known as the "New Stone Age". Necessity is the mother of invention. This is why people of the then period acquired more knowledge about his immediate environment and learnt to tap a few more resources. Stone implements and fire were their tools in exploitation. At this stage people learnt to exploit soils for producing crops and rearing animals. This was the opening of a new and vital front in the sphere of resources. Domestication of animals goes with the cultivation and this again opened a new avenue for food and power. Further wood was also used as resource. The clearing of the forests served the purpose in two ways opening of the land for tillage and supply of wood for dwellings and their fixtures. In short, people came to know utilisation of few resources such as soils, forests, animals, grasses and rocks. They met their all requirements. In India its remnants are still found in Shivalik, Narmada basin, Kaveri basin and near Madras (Chennai). Settlements were isolated features. However, the discovery of the metals, their extraction, smelting, moulding and invention of their varied uses opened altogether a new front in the sphere of natural resources. The evidences of this important landmark in human history have been traced in the Mediterranean countries, the New World and China. In Indian sub-continent its remnants have been found in Sindh and Punjab. Iron, Copper and Bronze were the pivotal mineral resources which revolutionised the appraisal of resources later on. Agriculture, trade and transport were major economic activities.

### **The Stage of Surplus**

From various inscriptions, rock-edicts, Samhitas, Upanishads and Sutras socio-economic conditions and a broad outline of resource use may be reconstructed. From these records it may be included that human settlements grew gradually towards the middle and lower valleys of the Ganga and the Brahmaputra and towards the Deccan Table land. All these areas were covered with dense forests which were destroyed for getting land for cultivation and wood and timber for smelting, boat making, domestic fuels and constructional works. Forests were the most important resources and carpentry was the most honored occupation. Hunting was a common economic activity; both as a supplementary source of food as well as for protection from wild life. Pastoral nature of economy and animal

husbandry remained an important aspect of agriculture. There are detailed descriptions of agriculture in various writings (Keith, 1951, 121). He writes that the extensive uses of forests and sous put heavy demand on land. This problem of increasing demand could be solved either by exploitation of the land resources in the adjoining regions or by migration to distant lands. As scope for the opening of new resource regions, scarcity of land resources was not felt at that early stage. Thus it was possible to keep a working balance between man and resources. The use of metal became common and techniques of processing and manufacturing were perfected (Apte, 1957, 324). (Vajasneyi Sanhita (XX) and Taittiriya Brahman (III 41).

From the account of the seconomic life of the early Indian period, the following conclusions may be derived: Firstly, life in this period was very simple, economy was most self-sufficient and was based on the local resources. Secondly, techniques of processing the raw material and handicraft were simple And only manual and annual power was used. Hence, mass production was impossible. Thirdly, means of transport were also dependent on the above mentioned sources of energy and trade and distribution of goods on global scale was not developed. Fourthly, there was limited population to enjoy a rich environment and whenever required, more virgin land could be exploited. Thus Indian sub-continent enjoyed a very long period of abundance of resource both absolutely and relatively. This trend of surplusness continued till 9<sup>th</sup> and 10<sup>th</sup> century A.D. Establishments of strong and prosperous kingdoms of the then period are testimony to the richness of resources. All puranas, Manusmrities, the Kautilya's Arthashastra, the Mahabharata, Kamadak, Jatakas, the accounts of travelers like Huen Tsang, Magasthenese, etc. give a clear idea of the economic conditions and availability of varieties of resources which were known as used by them. (Ghoshal 1957; 515-527).

Thinking in, terms of resource use a constant balance was mentioned between the three major factors of economic development (i) man's knowledge of natural environment, (ii) techniques of resource use and (iii) increasing demand.

### **The Stage of Stagnancy**

During the rule of the Muslim and Mughals the economic history and resource utilisation did not show any positive or negative trend. Thus this period may be called "Thaw" in economic exploitation. In Batutah (1313-46), Barbose, Ghosal (1960) and Basu (1935) opined that India remained an important manufacturer of a variety of textile and also a quality producer. But few marked changes in the economic structure could not be overlooked (1) villages remained more or less a self-contained unit and the backbone of Indian economy, but self-governed village assemblies decayed and control and feudal governments became more important, (iii) India did not experience between 1600 and 1900 AD an agricultural revolution as done by many countries (More land. 1952), (iii) defective land tenure system leading to a great deal of hardship to the farmers is evident in the writings in the Mughal period; (v) Deforestation started to grow in subsequent period for meeting the varied demands of forest products, (v) coastal and sea-trade became significant and many flourishing sea-port towns emerged along Gujarat and Malabar coast (Ghoshal, 1960, 658). The considering the overall knowledge which man had regarding resources and their uses, India during the Mughal rule was in no way behind other countries of the world. But drive for further advancement was missing. This characteristic had a far reaching impact on the resource use. One can not notice intensive use of resources. It is rather surprising to note that this period of stagnation in India emerged inspite of the knowledge of basic resources like soils, minerals and use of water for power. During this entire period there was no notable discovery of vital natural resources such as coal, oil or gas while as in other parts of the world such dis-convenience took place.

### **The stage of Relative Shortage**

Our country experienced a long period of stagnation and retarded growth during the British period of stagnation and a condition of relative scarcity emerged. The country had enough natural resources but its exploitation was done keeping in view the commercial interests of the British Government. Lop-sided planning of economic structure, misuse of non-use of resources, population explosion etc. were some factors behind this state of shortage. Many writers (Ghosal 1952), (Datta 1964) have written (that the conditions of scarcity were relative and could in no way be termed

as absolute. Independent India has been trying to build up a broad economic base and heading towards economic development. The stage of relative scarcity may be perceived in the light of the following factors :

- (a) Economic policies during the British rule which found expression, to say it precisely, in planned development : (b) a lop-sided economic structure built up mainly with commercial interests rather than the interests of the community which, in turn, led to : (c) the misuse and/or non-use of resources; and (d) population explosion prior to the inception of the planned economic development which further accelerated the creation of scarcity conditions .

The following analysis of these factors will testify that the conditions of scarcity were relative and could in no way be termed as absolute, for the country had enough natural assets and the techniques of their utilization for the community were known and were being adopted and improved in other parts of the world in exactly the same period i.e., in the 18<sup>th</sup>-19<sup>th</sup> century while the conditions of scarcity were emerging in India. This statement is further supported by the fact that counting on those natural assets, Independent India is now trying to build up a broad economic base and is heading towards economic development.

### **Politico-economic policies**

The study of the politico-economic policies regarding resource use during the British rule testifies that they were motivated by commercial interests of the ruling country and not of the Indian community. It is true that during this period the country had been surveyed, and mapped, resources like minerals and fuels discovered, the forests brought under the management of the government but these were the basic requirements for the commercial exploitation of the resources rather than for building up a strong economic base.

The agricultural land: Before the British rule the farmer was the proprietor of the land and he could hold the land as long as he paid the revenue to the government, he however did not have the right to sell the land. Since, even at that time, the agricultural economy was subsistent, the farmer had hardly any commercial interests.

During British rule the ownership of the land was transferred to the Zamindars and Taluqedars so that the Government could be ensured of the regular collection of revenue. This policy had far-reaching implications on the use of the most valuable resource of the country and its management, contributing to the creation of under- developed conditions. Through this policy, the actual tiller of the soil was reduced to a mere tenant left to the mercy of the absentee landlord who neither had any attachment to the land nor was he interested in the proper management of the agricultural land or in the introduction of improved agricultural techniques. In no way was he interested in the investment of capital in the land. The system created a powerful non-working community , living with a high standard and drawing on agricultural land . The tenant of the land i.e. the farmer was left only to his own resources both financial and otherwise , for the land management (Dutt , 1966: 34) . Looking back , practically no change seems to have occurred in the sphere of agriculture during this period which in the West was a period of agricultural revolution. In fact , the frequent failure of crops or exhaustion of soil leading to low yields called for loans and the farmer in due course became increasingly indebted to the money-lender . Under these circumstances there was little possibility of accumulation of the capital amongst the cultivators , thus the possibilities of revolution and improvement in agriculture became next to impossible . In fact, the whole process of growth was reversed leading to low yields– limited capital–lesser investment still lower yields (Dutt 1960, 50).

This policy leading to the scarcity in the sphere of agricultural production was further aggravated by other emerging factors which were altogether new to the Indian agriculturist. The British merchants opened the avenues of the world market after the Suez Canal in 1869 for the Indian agricultural commodities which included both the food products as well as the industrial raw materials. Wheat , rice , oil seeds , cotton, indigo and jute were amongst the export items . The last two were extensively grown mainly due to commercial interests . The plantation crops were also introduced with the same end in view .



This newly emerging pattern instead of benefiting agriculture, caused its gradual decline because the profit from the export of agricultural commodities could hardly percolate through the network of merchants and middle-men and was of little benefit to the farmer who in fact was the real claimant. Since the trade was first in the hands of East India company and later under the British Government, the ultimate profit was lost to the country. Thus the capital formation both for the investment in agriculture and for the development of other economic activities was very meager. In fact, agriculture should have been a major source of capital formation, as this was the most important economic activity on which the majority of the population of the country subsisted. The economic history of the Western countries testifies that agriculture was a major source of capital in the earlier stages of development.

The far-reaching implication of this development which led to the lop-sided development of the Indian economic structure was that a substantial percentage of agricultural land, sometimes even the best land, was devoted to the production of the industrial crops but the related industries were developed in Britain and not in India.

It was a misuse in the sense that even though the country was deriving most of its income from agriculture, hardly any effort had been made for the renewal of fertility, or protection of the land against natural destruction and so on.

### **Minerals and Power :-**

The faulty politico-economic policies adopted during the British rule were further evident in the use of the resources, particularly minerals and power. Though the Geological Survey of India was established in 1851 and extensive areas of the country were surveyed and mapped and the major mineral deposits were located, except for coal and, to some extent, iron ore, none of the mineral resources were utilized.

The mining activity was rarely a public enterprise and mining areas were leased to the private concerns whose interests were essentially commercial. Foresightedness in mining techniques was missing and conservation of resources was never aimed at. Sometimes the best ores were mined and the remainder were left in the abandoned mines in such a condition that future extraction was out of the question.

The negligence of this aspect may be realized by the fact that the first modern Iron and Steel Works started production as late as in 1911 (Tata Iron and Steel Works). The very slow growth of the Iron and steel industry even during this century is evident from the fact that the production of iron ore from 1900 - 3 was only 66,628 tons annually, which increased to 23,63,710 tons. This was meagre expansion in view of the fact that the world had seen two global wars, during which abnormal consumption and spectacular industrial growth occurred. These absolute figures give a rather deceptive picture of the supply and demand and must be weighed in relation to the total imports of iron and steel goods during this period. The imports were of a variety of items such as cutlery and mill works, railway plant and stock, iron bars and pig-iron, iron and steel beams, steel angles, bars and iron steel bolts, etc. The total value of these items between 1914-18 was Rs. 24,61,25,404, which increased to Rs. 35,30,27,621 in 1946. It cannot be overlooked that these imports were in spite of the fact that India had a long tradition of this industry, was a quality producer, had a large group of skilled workmen and had extensive deposits of iron ore and considerable reserves of other raw materials also.

It will also not be out of place to mention that practically all the inventions related to the modernization of the iron and steel industry were made sometime in the latter half of the eighteenth century which gave impetus to this industry in the Western world. The history of the Aluminum industry which is comparatively a new industry is not very much different. The world production of aluminium in 1918 was about 150,000 tons per annum. In contrast to this,

in India , the total recorded output between 1909 and 1950 was 415,26 tons which was mainly used for refining kerosene, manufacturing alum and making refractory products .

Coming to fuel and power , the only basis for modern industry was coal . This also remained the source of power for the Indian railways and fuel for domestic purposes . But all through these years coal was not only being unscrupulously mined but also wastefully used . The reserves of anthracite and good-quality bituminous were rather limited but they were being used without any discrimination even for those purposes where inferior coal could have been used . The petroleum resources were explored and tapped only in Assam and production started from 1884 - 1888 . The developments which have Occurred during the post-independence period in the exploration and mining of petroleum , harnessing Of hydroelectricity, establishment of thermal plants , speak themselves of the scope and potentials which the country had in this field during the British rule .

### **Industries :-**

Apart from the mineral-based industries, the other major branches were those which process agricultural raw materials, amongst which the important ones were the textiles: cotton, woolen and jute . The early history of all these industries is not different from that of the basic industries . The raw material was exported and the Indian market was flooded with British goods (Dutta, 1960 : 186) . This system had far reaching implications on the Indian economy . As mentioned earlier, there was a constant drain of Indian resources to feed the British industries. Besides, the Indian labour was being thrown out of employment and this was , inspite of the traditional skill which existed in the country. Thus , on the one hand, there was increasing unemployment and the other . Deterioration of long-acquired skill (Dutt, 1960: 83) . The capital formation through these industries was not on Indian territory but abroad. And as is well-known, the Indian textile and jute industry captured a sound footing only during and after World War .

It may be summarised that during the British rule while the western countries were heading towards economic development, India was passing through a very critical period when the natural resources was being exploited and drained , the capital was being exploited and drained , the capital was being exported to the ruling country (Dutt, 1962: 284-300) and was being spent in huge imports- particularly of manufactured commodities , the labour was being thrown out of employment thereby becoming more and more dependent on the agriculture for employment and last but not the least there was loss of traditional skill . All the resource frontiers were not utilized for the benefit of the growing Indian population. This state of affairs in due course naturally gave rise to the stage of scarcity . The precarious economic condition became even more grim and serious on account of the population Explosion .

### **Population explosion**

In the study of the history of resource use, a glance at the population trends will be of significance since it is the population which eventually determines the man resource ratio . And as it happened in our country , it was the ill-balance in man resource ratio which , to a considerable extent . Was responsible for creating acute conditions of scarcity . And today , it is the population explosion which is the most serious stumbling block to our development .

In a predominantly agricultural country , the balance of man resource ratio may be judged by the availability of per capita agricultural land and its production . The per capita cultivated land decreased from 109 cents in 1891 to 94 cent in 1941 . These figures reveal that conditions of acute scarcity were not too ill-balanced . It was in some decades of this century that the population took a sharp upward trend and neither the increase in agricultural land nor the agricultural production could keep pace with it . This was the period of population explosion and of acute scarcity in

the country . Between 1900 and 1961 , the total increase was 84% and considering only the last decades of British regime 1921-51 , the total increase was 44% which is abnormal from any consideration .

Sinha has analysed the impact of population explosion in creating the condition of scarcity:

“The double-cropped area per capita increased from 12 cents in 1891 to 13 in 1921 , but declined to 10 cents in 1951 . Similarly the irrigated area per capita increased from 16 cents in 1891 to 18 in 1921 and declined to 14 cents in 1951 . It thus appears that the effects of decline in per capita acreage have not only been compensated but even aggravated by a less than proportional increase in facilities for intensive cultivation at least in two respects viz., double cropping and extent of irrigation (Sinha 1964: 115).

Industrialisation along with the growing population would have been a relief to India since the disguised under-employment and unemployment which was growing due to the non-adoption of labour intensive techniques in agriculture could have been diverted to this avenue of employment. As has been Analysed before , in India there was hardly any large-scale industries during this century any whichever industries did exist were not on sound footing.

In short , it may be summarised that during the British rule , all the resource frontiers were not opened up and those which were opened before or during this period were not at par with the other parts of the world in terms of efficiency and advancements by way of application of science and technology. Besides , the resource use and production was to meet the demand of the growing population of India as well as for the economic development of the ruling country. Thus , in 1947 when India became independent , she had reached a stage of acute scarcity . These conditions were created under abnormal conditions which were the ultimate outcome of a very complex politico - economic system of resource exploitation , drain of capital , ruin of industrial skill through centuries reaching its climax during the British rule . This complex system of cause and effect creating conditions of acute scarcity may be expressed as follows :-

1. Limited production in terms of Agriculture, industry , trade .
2. Drain of resources : agricultural & industrial .
3. Drain of capital through a defective system of trade and agriculture .
4. Ruin of industrial skill .
5. Population explosion .

#### Stage of Scarcity

More land under industrial-cum-comm. Crops.	Limited per capita agricultural production	Negligence of scientific and technological training	Misuse
Export of food and ind. Raw material	Lesser capital formation and investment in economic activities	Limited industrialisation	Misuse
Limited improvements in the agri efficiency		Limited trained hands	Wastage

More mouths to feed	Lesaser capital mobilization of resources	Scarcity of skilled labour	Artificial scarcity of agricultural commodities and industrial raw material
Per capita scarcity of all resources	Scarcity of capital		

Now, after independence, the country is caught in a vicious circle of scarcity. The country faces the gigantic task of breaking through this and heading along a definite course of economic development. In this dynamic process, mobilization of natural resources on gigantic scale is as vital as that of the capital and labour. And during all these years of planned development, practically all the frontiers of natural resources are being opened up. A sign of caution regarding the resource-use policies is essential. The resource use policies should be so formulated as not to disturb the natural processes. A check on the overuse of resources is equally essential.

### **Conclusion**

From the above discussion it is crystal clear that the history of resource utilization has witnessed a chequered utilization. Till the end of British rule India was never a resource deficient country. All sorts of resources were available in India including skilled human resources. But it was the ulterior motive of the then government which caused unprecedented exploitation of our resources at the cost of our people but for the benefits of Britishers.

### **References**

1. Apte . V . M . 1957. Social and Economic Condition: The History and Culture of Indian People, Vol. 1, p . 397 and 524 . (Majumdar , R. C. ed .) London , George : Allen & Unwin.
2. Bandyopadhaya, M.C. 1927. Kautilya or An Exposition of His Social Ideal and Political Theory, p. 194. Calcutta, National Publishing House .
3. Basu, B. D. 1935. The Ruin of Indian Trade and Industries, pp. 202-208. Calcutta, R Chatterji .
4. Brown , J.C. and A. K. Dey , 1955. India's Mineral Wealth , p. 348 and 380. London , Oxford University, Press
5. Duncan, C. 1962. Resource Utilization and the Conservation Concept . Economic Geography, Vol. XXXVIII , p. 119
6. Dutt, R. 1960 . The Economic History of India, vol. 2. p. 34. Delhi, Publications Division, The Government of India .
7. Elliot, H.M. an J. Dowson , ed. 1964. The History of India, Vol. III, pp. 42-43 Allahabad, Kitab mahal
8. Ghoshal, U.N., 1954. Economic Conditions : The History and Culture of Indian People. Vol. III The Classical Age , p. 587. (Majumdar, R.C. ed.). London , George , Allen & Unwin .



9. Ghoshal , U.N . 1957. Economic Conditions : The History and Culture of Indian People , Vol. IV-The struggle for Empire , pp. 515-527. (Majumdar , R.C. ed.). London George Allen and Unwin .
10. Ghoshal , U.N. 1960 . Economic Conditions : The History and Culture of Indian People , Vol . VI-The Delhi Sultanate, pp . 640-643 . London , George Allen and Unwinb .
11. Keithb, A.B . 1955 : The Period of the Later Samhitas, Brahmanas, the Avanayasas, and the Unpanishads : The Cambridge History of India , Vol . I. p. 121 , (Rapson, H.J. ed.), Delhi Chand and Co .
12. Kulshrestha, S.S. 1964 . Development of Trade and Industry under Mughals (1526-1707 A.D.) , Allahabad, Kitab Mahal .
13. Mookerji , R.K. , 1953 . Economic Condition : The History and Culture of Indian People. Voll . II. P. 602 , (Majumdar , R.C. ed.)b. London , George Allen and Unwin 20 . Moreland , W.H. India at the Death of Akbar . Atma Ram & Sons , Delhi , 1962 , p. 101 .
14. Niogi . P. 1962 . The Economic History of Northern India from The Tenth to The twelfth Century, A.D., p. 139 22. Rostow, W.W. 1960 . The Stages of economic Growth, p. 1 . Cambridge, The University Press .
15. 23 . Sinha . J.M . 1964 . Demographic Trends : Economic History of India 1857-1956, p.115 (Singh, V.B. ed.) . Bombayb , Allied Publishers .
16. 24. Zobler , L. 1962 . An Economic Historical view of Natural Resources Use and Conservation. Economic Geography, Vol. XXXVIII, p. 191 25. Ibid. p. 192 .

