CHAPTER X

MAIN OBSERVATIONS AND CONCLUSIONS
Forests are considered our most important renewable natural resources, and they confer considerable benefits on both the people and the nation as a whole, provided that this valuable natural resource is conserved, exploited and utilised properly. Of the natural resources, water, plants, animals and to a lesser extent, soil are renewable, whereas minerals and fossil fuels are non-renewable. The renewable nature of forest resources is of vital and increasing importance. The forest resources, if properly managed, exploited and utilised, can provide and support industries, meet urban and rural demands, preserve health and ensure prosperity of the people. All forest activities generate employment opportunities particularly in the much neglected rural sector.

India is richest in the world in its natural floral and faunal resources. But these are rapidly declining owing to over exploitation of these resources largely through pressure of exploiting and unforeseenness. Population, continuing poverty. There is an immediate need to extend the requisite priority for conservation, so that they may yield the greatest sustainable benefits to the present generation while maintaining their potential to meet the needs and aspirations of future generations also. The forests are so much depleted and the extensive wildlife has so much dwindled and exterminated by unrestricted removals that today neither these rich forests nor the wildlife exist anywhere in the parts of the country referred to in the chronicles. The history of deforestation due to population pressure and uncontrolled and excessive cattle grazing more or
less the same in every district and every state in India. It has imbalanced the ecological environment of the country.

The importance of forests lies in increasing their productivity, linking their development with various forest-based industries and to protect and develop them as a support to the rural economy.

Thus, unless drastic corrective measures are taken, the forests of the country will not be able to play their vital role in sustaining the life support system of the country's environment and improving the quality of life. Forests have protective as well as productive functions. They not only supply timber, fuel, fodder and a variety of other products but also have a moderating influence against floods and soil erosion and help in maintaining soil fertility. In view of India's tropical climate, periodic monsoons, low forest productivity and predominantly agricultural economy, it has been urged that at least one-third of the total land area in the country should be under forests.

With 20 per cent of earth's land area, 1 per cent of its productive forest area, 15 per cent of world's population and 10 per cent of world's live stock population, India stands classified on the world map of forest resources as belonging to deficit zone. India's forest area is 74.74 million hectares (22.7 per cent of the land area of the country as against 33 per cent prescribed by Forest Policy Resolution, 1952) yielding per capita forest of 0.109 hectare as against world average per
capita forest of 1.0 hectare. Of these 74.88 million hectares, 35 million hectares are well-wooded, 25 million hectares contain only sparse growth and the remaining 14.38 million hectares are unproductive, the average growing stock on our forests is only 26 m³ per hectare as against the world average of 110 m³ per hectare. The average annual growth is 0.5 m³ per hectare as against the world average of 2 m³ per hectare.

Total growing stock of the country's forest is estimated around 1966 million m³ of wood with an annual recorded production of 27.32 million m³ during 1977-78 against the projected demand of 60.8 million m³ in that year. The acute shortage of fuelwood, fodder and timber is a matter of great concern to the nation. The total bamboo bearing area in the country is about 9.57 million hectares with total growing stock of 45 million tonnes of bamboos. The present annual production of bamboo is around 3.0 million tonnes of which 2.14 million tonnes is being utilised by the pulp and paper mills. Minor Forest Produce (MFP) which includes all forest produces other than wood has the potential to bring about an economic revolution among the forest dwellers. As per the National Commission on Agriculture, the projected demand for industrial wood in the year 2000 AD is of the order of 47.18 million m³. As against present requirement of 26 million m³ of industrial wood, the production is just about 13.5 million m³. Increased area of afforestation about 1.5 million hectares annually and concentrated natural regeneration of indigenous forests may satisfy the projected industrial demand. The existing local needs of rural population has been projected at
about 12 million $m^3$ of small timber and 133 million tonnes of fuelwood. Very often, the local people meet their requirements by illicit removal from the forests. Shortage of timber and fuelwood and consequent rise in their prices have resulted in increased incidence of illicit felling and smuggling of valuable forest produce.

The number of cattles in the country is much more than what could be supported (10 per cent of the world's live stock population) on the basis of carrying capacity of the grazing areas. The villagers, in and around, forests maintain a large number of scrub cattle which are let loose in the forests inspite of the existing regulations for grazing in the forests. This excessive and uncontrolled grazing has resulted in the compacting of soil and damage to young seeding resulting in lack of regeneration of plant species. The problem of grazing may be tackled by (a) introduction of stall feeding, (b) reduction in number of cattle specially by promoting export of meat, (c) introduction of mandatory rational grazing schemes, (d) discouraging migrational grazing and (e) formulation and implementation of "National Grazing Policy". Large areas of forests are under encroachment throughout the country. The area under encroachment is over 3.5 lakh hectares. Large number of poverty stricken people have encroached such land and unless alternative economic means are provided to these people, they have no other source of sustenance.

Forests cover more than one fifth of land surface area and occupy an important position in the protection of
environment, production of energy, generation of employment to the rural masses particularly for the tribal people and supply of raw material to forest industries. The forestry sector is not being provided with adequate financial outlays. The programmes in the forestry sector got a low priority in the allotment of resources for development as compared to agriculture. Even though the total plan outlay had increased more than 50 times by the end of the Sixth Five Year Plan, the share of forestry sector continues to remain between 0.4 to 0.71 per cent of the total plan outlay whereas the share of agriculture (excluding forestry) has been varying from 5.6 to 16.88 per cent. An allocation of Rs. 97,500 crores was envisaged for the Sixth Plan in India, out of which an allocation of Rs. 692.6 crores i.e. 0.71 per cent was earmarked for the forestry sector, which was quite inadequate.

During the Sixth Plan period, the target for plantation was fixed at 2.15 million hectares at a cost of Rs. 452 crores. According to an estimate, nearly 100 million hectares land is crying for afforestation. Even if the annual target for afforestation is fixed at 4 million hectares, an outlay of Rs. 6,000 crores would be needed during the Seventh Five Year Plan as against a meagre provision of Rs. 452 crores during 1980-85. Foreign aid has up to now been of little magnitude in the forestry sector. Social forestry projects have been drawn up for 12 states with a total investment of about Rs. 500 crores. The forestry programmes which are so important from the point of view of the four 'E' i.e. Environment, Energy, Employment
and Economy can create economic impact in the rural areas, only if the sector receives adequate allocations.

Besides increasing the plan allocations, action is required to mobilise "people's Forestry Programme" & institutional investments by preparing suitable projects.

With over one third of its geographical area under forest cover, the forestry sector holds the key to the prosperity and future economic development of the State of Madhya Pradesh. The forest contributes 15-19 per cent of the total revenue of the state. The state is exporting large quantities of timber, charcoal, bamboo, lac, tenud leaves and rossa oil etc., but its forest resources have not received adequate attention so far. It is a well known fact that the forestry sector, vital to the state, has not achieved its true potentiality either in productivity or in employment generation on account of poor investment so far.

If the forests of the state are adequately exploited and utilised, they can play an effective role in developing the economy. The total growing stock of the state Forest is estimated at 410 million cu. metres wood. The average annual yield obtained from these forests is nearly 4.2 million cu. metres wood as against annual potential productivity of 108 million cu. metres wood. It has been estimated that the total bamboo area in the country is about 0.1 million sq. kms., and its annual potential yield is about 4.3 million tonnes. According to the latest estimate the under bamboo area in the state is nearly 18,300 sq. kms., having an
annual bamboo potential of 1.055 million tonnes. But since nationalisation against the estimated bamboo potential of 1.055 million tonnes, the forest department is extracting only 0.473 million tonnes. The possible reasons for not exploiting full potential are inaccessibility of areas, lack of infrastructure, non-availability of labour etc. and also demands of industries. It should be realised that if the forests of Madhya Pradesh are managed intensively to their full potential and adequate inputs are assured, the present revenue of Rs. 204 crores is likely to shoot up tremendously.

The major thrust in development planning in Madhya Pradesh is in the direction of irrigation and power generation as is testified by an allocation of nearly 70 per cent of the Seventh Plan funds for these sectors. A major sector like the forestry deserves a similar concentrated development effort, and more so because it would serve as a strong support for irrigation and power generation schemes. Considering the promise that the forestry sector holds, it would be clear that the plan allocations are extremely inadequate and that there ought to be a quantum jump in them. Madhya Pradesh could certainly afford to invest more funds in this sector. An investment target of 20 per cent of the gross annual revenue should be an acceptable figure.

Balaghat district which occupies the 22nd position in size but 19th in population in the State derives its importance from its vast resources in forests and minerals, besides its
being one of the best rice-producing areas in the state. The district has 4,055.32 Sq.Kms. of dense forest which is 43.87 per cent of the total geographical area of the district. The forest area of the district is considerably larger than several districts of the state. Forestry sector holds the key to the prosperity and future economic development of the district. The district is contributing more than 7 per cent towards the total forest revenue of the state. The district is exporting large quantities of timber, firewood, bamboo, tendu leaves, myrobalan (Harra), Sal seeds etc. In 1984-85, the revenue from the sale of timber, bamboo tendu leaves and firewood was Rs. 7.39, 3.87, 2.46 and 1.08 crores respectively.

It is a known fact that the forestry sector vital to the district has not achieved its true potentiality either in productivity or in employment generation on account of poor investment so far. If the forests of the district are adequately exploited and utilised they can play an effective role in developing the economy of the district.

It should be realised that if the forests of the district are managed intensively to their full potential and adequate inputs are assured the present revenue of Rs. 15 crores likely to shoot up tremendously. Because of the predominant forest character of the district Balaghat had the oldest forest School in the state which is now upgraded into Forest Rangers Training College and is functioning under the control of the Central Government.
Frequent fires and heavy grazing have disastrous effects on timber & bamboo growth of the district. The lack of adequate care of flowered areas has resulted in considerable shrinking of forest areas. It is suggested that the plantation of bamboo should be raised. The grazing should be checked and protective measures should be adopted to control the fires specially in the bamboo growing areas. In the exploitation of bamboo, it is important that clumps should not be clear felled; ten bamboos should be retained in one bhira. The bulk of fuelwood from the forest of Balaghat district is removed by head loads which remains unrecorded. No reliable estimates are available about the actual fuelwood production in the district. The disappearance of forests from rural areas has brought about a crisis of Fuelwood in rural economy. It is immediately necessary to undertake the community tree groves programme. It is also suggested that the head load fuelwood for bonafide use or for sale free or on payment of a nominal sum should be banned. The Fuel wood should be collected departmentally and the disposal should be done through depot auctions at open rates and to the nistaries at reasonable rates.

As far as possible, sanctions for the sale of lots be issued immediately on the spot on the day of auction and challans issued simultaneously. The dates of auctions should be got finalised for one complete year. It is advisable that maximum 5 to 6 auctions be conducted during the year specially in depots catering to outside markets. Dates between the 15th March to the end of May be avoided. Auctions in July and August are preferred by buyers.
Loading gangs should be kept available at the depots at reasonable job rates. Suitable arrangements for transportation should be made available to the traders on the dates of auctions. The forest department of Balaghat has been doing plantation in this district for long with no after care, so many of the trees have vanished. No amount for irrigation or watering has ever been provided for in plantation budget. All the plantation has been raised so far without proper supervision and watering. Instead of raising plantation on paper, it is essential that the planted plants establish good hold and survive. Only those species should be planted which can grow naturally in the area such as teak, sal, baza, tinsa, eculiptas, palas, mango, lendia, ahawara, khamer, haldu etc.

Forestry is not taught in schools or colleges and there is none among the people's representatives who own sizeable forests or have forestry education. There is none to plead the case of forestry from the public. Forestry subject should be included in the syllabus of the higher Secondary Course. A separate course can be started at the University level on the pattern of Agriculture and veterinary science. This will help the forest department in the appointment of trained personnel. It will also encourage in establishing private forests. In Gujarat people are being attracted towards private forest forming, and it is proving very profitable to them. Through private forest they are earning Rs. 20,000 per acre. More research facilities should be provided and different
branches of research work should be developed. at the circle level. Extensive survey of forest resources should be conducted in the forest areas of the district. Large areas of forest lands of Balaghat district are encroached annually and this tendency is multiplying in menacing proportion because extensive forest practices have not generated productive and gainfull employment to the local people. Thus encouraging private forestry is the only alternative.

Proper and strict measures should be taken to check thefts and pilferage from the forests of Balaghat district. Theft cases can be checked or reduced if additional well equipped staff is provided at the checking posts. New checking posts at suitable points should be established, cordial relations between the officials and the local population is another aspect that needs serious attention. Subordinate executives should be rewarded if they perform their duties sincerely and honestly. Presently, there, is only one flying squad in Balaghat district at circle level. They are hardly effective in providing the constant vigil required. It is also suggested that the forest rangers, foresters, forest guards and the flying, squads should be appointed with sufficient powers and arms to arrest the culprits and the mobile courts should be appointed to punish them, so that decisions may be taken on the spot.

Large number of new forest based industries can be established such as minipaper plant, paper and pulp, sports
goods, Match box, Ayurvedic medicine and wooden toys, Tannin extraction plant wooden boxes, packing cases, photo frames, radio cabins, wooden combs, wooden paint, brushes and existing industries can be further established and developed if some liberal concessions in respect of continuous supply of raw material at reasonable rates, proper determination of royalty, cheap means of transportation, availability of finance and other facilities are provided. If some more forest based industries are started, they can contribute an important share in the export trade of the nation.

Though the Govt. is spending a good amount on forest, villages of Balaghat district in order to get regular labour force and improve social and economic conditions of the inhabitants, yet there is a general feeling amongst the bonafides that these villages are like slave camps. They are not being provided with the facilities and concessions which are availed of by bonafides of the revenue villages. The forest villages must be treated at par with the revenue villages and all facilities and concessions, particularly in respect of freedom to any job, medical and educational facilities etc. should be provided. The forest labour Co-operatives should be encouraged and at the time of allotting the forest work they must be given priority. The Tribal Welfare Department, in conjunction with the forest department, can constitute a better organised forest labour Co-operative Society. Balaghat district has a rich potential in its minor
forest products some of the more important revenue earners are bamboo, tendu leaves, harra, gums, lac, fodder, grasses etc. But, at present, the forest department is too much occupied in departmental working and several major forest produce, hence the required attention is not paid towards minor forest products. Thus it is suggested to create a Minor Forest Products Corporation to achieve the maximum utilisation of such forest products. This organisation can play procurement, transportation storage, marketing and processing of all minor forest products in scientific manner, beneficial to tribes and the forest department.

The forest department should publish annual administrative report regularly. Besides the statistical cell at the state level, statistical units should be established at circle levels so that correct and up-to-date statistics are made available which will help, in the preparation of development schemes and the future plans. The forest department should also publish forest statistics bulletin or compendium (Monthly or Quarterly) at state level.

The problems of forests finance can be solved if a separate board or corporation is formed for the state forests such as railway board, which has a separate railway budget and pays annually certain share from its budget to the general budget of the Central Government. The state Government through the Central Government should try to persuade the World Bank
or the financial organisations of the United Nations to sanction long term loans for forest development. Serious efforts should be made to get such loans at cheaper rates of interest, payable in instalments. The Central Government give requisite guarantee for such loans. In plantation of species for industrial and commercial uses, due attention should be paid to the planting of such species of trees viz mahua, harra, sal, which meet the basic requirements of the tribal communities. The tribes may be associated in raising plantation by giving the individual tribal usufruct right on the trees.

Bidi industry is one of the media to improve the economic conditions of the rural population in Balaghat district. Collection and processing of tendu leaves generate substantial off season employment to rural labour, particularly women children, who collect leaves, tie them in bundles, carry them generally as head loads to collection centres and also assist in the processing and packing of the leaves. The labour is not paid adequate wages either in the collection of tendu leaves or in manufacturing of bidies. It is suggested that the wages should be reviewed and the manufacturers of bidis are assured of supply of better quality leaves at reasonable prices.

Contractorship method should be abolished. Bidi industrialists are exploiting bidi making labour through this system. This method is defective because industrialists escape themselves from the labour Act to provide facilities to labour such as medical facilities, Social Security housing facilities and other facilities according to the labour Act.
All the saw mills should be nationalised to check illicit felling & theft of timber and to earn full profits. Gum finds use in a wide range of industries. Trees above 90 cms. or more in girth at breast height are tapped. But the method of tapping the Gum in the state, as well as in Balaghat district is usually very crude and harmful to the trees, which has resulted in large scale mortality of the trees. It is suggested that modern technique for tapping of gums, which is not very crude and also recommended by the Indian Forest Research Institute, Dehradun should be adopted.

There is no set-up to deal with public complaints, enquiries into the mis-deeds of staff and to provide alertness in all the departmental activities. A well constituted 'Vigilance Cell' headed by an I.A.S. Officer completely apart from forest department and senior honest and experienced Officers is necessary to ensure a healthy and honest atmosphere throughout the department. Many legislative measures adopted in the past discouraged the individuals in taking up tree farming. These may be re-examined with a view to remove the inconsistencies which come in the way of social forestry development. The existing Ceiling laws should be reviewed where necessary to promote rapid establishment of man made forests. In 1980-81, Balaghat Forest Circle earned a revenue of Rs. 10.38 crores from the sale forest produce which increased to Rs. 15.01 crores in 84-85. In 1980-81, the expenditure on forest development activities was Rs. 25 lakhs which reduced to Rs. 19 lakhs in 1984-85. It clearly indicates that the
income from forestry in the district has increased but the expenditure on forestry development schemes has decreased. It is suggested that the forest department of Balaghat district which deals with natural resources, should make a higher claim for developmental expenditure. The only way to preserve the forests and to augment revenue from them, is to invest consciously in developmental works.

It is also suggested that felling of trees should be minimised, otherwise sooner or later it will turn in to a deficit district. This problem should be seriously considered and a set of concrete efforts should be undertaken to solve the said problems. Needless to say that the State Government should adopt such policies and programmes which directly contribute in the development of forests, in order to gain more earnings and to create productive employment to the rural population. Conservation in proper sense and forest consciousness may add to the forestry and its development.