

CHANGES OF PLANNING STRATEGIES IN FORESTRY SECTOR IN TAMIL NADU

GAUTAM DEY* AND MANOJ KUMAR SARCAR**

Introduction

Forests are a renewable resource and they contribute substantially to social and economic development. Forests have a major role to play in enhancing the quality of environment and in economic upliftment of rural poor both at State and National levels as more than 70% of India's population are still dependent on agriculture based rural economy. Each household of rural India uses fuel for their hearth, timber for house building, furniture and Agricultural implements, fibre for making ropes, fruits as their food. Hence directly or indirectly they depend upon the forest and forestry products. Therefore the changes in planning strategies in forestry sector has bearing in changing the economic development of common people of the country.

In broad sense, the functions of Forest Department with regard to forest management, are basically of three kinds namely : Conservation, Development and Production.

(1) *Conservation forestry* aims to ensure a sustained flow of social benefits from forests to all generations present and future. Forest Department, while it strives to shape the forestry technology to reap optimum benefits under the prevailing conditions, is

very much concerned that benefits the present generation enjoys, should not in any way deprive the future generation, of their rightful and due share of the benefits.

Conservation forestry is applied in Tamil Nadu primarily to forests of type Tropical Wet Evergreen (2.7%), Tropical Semi Evergreen (1.2% Littoral and Swamps 10.65%), Sub-Tropical Broad leaved Hill Forests (5.9%) and Montane Wet Temperate Forests (1.6%). Conservation is the rule in these forests on account of their being river catchments, important plant formations, repository of animal communities and reservoir of genes etc.

(2) *Development forestry* is practiced in forests which are naturally less valuable and in forest lands where the tree cover is inadequate. The practice is often referred to as 'reforestation of degraded forests'. The forest type which is subject to development forestry, is predominantly Tropical Dry thorn forests and Dry deciduous forests. As the primary objective of development forestry is essentially a process of revitalising the otherwise lingering vegetation, commercial approach is given a second line priority. Monetary benefits accrued from this forestry are only secondary.

* Chief Conservator of Forests (Planning and Development), Chennai (Tamil Nadu).

** Deputy Conservator of Forests (FEMAS), O/o The Principal Chief Conservator of Forests, Chennai (Tamil Nadu).

(3) *Production Forestry* is directed towards production of material goods of forests for the consumption. The end users are, households and industries. Timber, Fuelwood, Pulpwood, Matchwood, Sandalwood, Wattlebark are some of the produces. These produces are harvested either from natural forests wherever they are silviculturally available or from plantations raised for the purpose. Production Forestry has resulted in extensive activities of raising large scale plantations, in suitable localities of Tropical Moist Deciduous, Tropical Dry Deciduous and Montane Wet Temperate forest tracts. The forest area in Tamil Nadu is about 22,699 km² which is about 17.45% of the total geographical area as against the minimum requirement of about 33%. However, in terms of variety of Forest types, Tamil Nadu has fairly broad spectrum and as many as 42 types of forests containing rich variety of Flora and Fauna are found in the State.

In Tamil Nadu there are about 3,000 villages abutting Reserved Forests. These villages are dependent on the forests in one way or other in meeting their daily needs. The forests and villagers are mutually dependent on each other for their very survival.

In pursuance of these three functions, Governments of Tamil Nadu have formulated and implemented many schemes with the finance, of their own or with the assistance extended by the Government of India and external funding agencies. However, while the State achieved both the physical and financial targets during all the Five Year Plans, the strategy adopted got gradually changed with the passage of time and necessity which are narrated in following paragraphs.

(a) **Pre-Independence Planning Strategies in Forestry Sector**

First Phase : (Phase of total exploitation of important forest wealth from India).

Sectors like Revenue and Industries received priority than Forestry as a result, all the valuable Timber available in the State was exploited for ship building industry in England. There was continuous over-exploitation of the forests to provide sleepers for railways and fuel for steam locomotives. Though the Jungle Conservancy rules were introduced, but these could not be implemented.

Second Phase (1882-1946) : During this period the Madras Forest Act 1882 was introduced for forest consolidation. The Forest Policy of 1894 introduced an element of environmental consideration. But, forest was managed mainly as a source of revenue. Agriculture received a priority over forest conservation and lands were diverted for promoting agriculture, tea, coffee and cinchona plantations. Commercial exploitation of forests for timber and fuel went unabated.

However notable feature of this period was that the importance was given to wildlife conservation and the Mudumalai Wildlife Sanctuary in Nilgiris was created in 1940. This was the first major contribution to the protected area network in the State.

(b) **Post-Independence Planning Strategies**

1947-1955

(Planning in retrospect of period just after Independence and First Five Year Plan - 1951-56).

The country could not recuperate immediately just after independence as most of the wealth was siphoned outside and a large section of people was famine stricken and also affected by flood and drought. Therefore during the First Five Year Plan, the planners had to give more attention to the food sector and agriculture was given topmost priority, when Forestry received low priority. The total outlay for the Plan Schemes for the entire Plan period was only Rs. 30.43 lakhs.

Though, during 1952 the National Forest Policy was framed, but forest resource management remained as a back-bencher. Generation of electricity to keep pace with industrialisation prevailed over forest conservation and forest lands were conceded for hydel and irrigation projects. However during this period afforestation, improvement of forest communications, preparation of working plans, demarcation of newly acquired areas, improving the growing stock and strengthening of forest administration were given special thrust. Resumption and rehabilitation of ex-zamin and Panchayat forests, formation of fuelwood and matchwood plantations were the chief items of works undertaken during First Plan.

Second Five Year Plan (1956-61)

During the Second Plan, the heavy industries and the power sector got the highest priority, however for Forestry Development Scheme the outlay was considerably stepped up. The various Schemes under Second Five Year Plan aimed at rehabilitation of the denuded areas and degraded forests, creation of industrial plantations as well as plantations of other commercial species and conservation of Wildlife. Various soil conservation works

were initiated. The total expenditure was Rs. 147.00 lakhs. An extent of about 78,070 ha of plantations were raised. Much importance was given for raising Cashew plantations in the degraded ex-zamin forests and afforesting thorn forests. A total extent of 18,972 ha under cashew and 24,349 ha under fuel species in degraded areas were the achievements. Raising industrial plantations such as Wattle, Bluegum was also commenced during this plan period.

In the last year of the Second Five Year Plan (viz. 1960-61), Social Forestry Project had taken birth in the name of 'Farm Forestry Plantations' in a modest scale of 934 hectares.

Third Five Year Plan (1961-66)

The Third Five Year Plan has carved a landmark in Forestry Development.

The main objectives of the Third Five Year Plan were to :

- (i) Raise plantation of quick growing species to meet the demands of wood based industries;
- (ii) Increase the production of timber and fuelwood, and
- (iii) Undertake effective soil conservation measures in all the vulnerable areas of catchments of river valley projects.

Farm Forestry and Extension Forestry were taken up on a large scale in the wastelands outside reserved forests limits, with a view to meet the demands of the villagers for fuel, small timber fodder etc. Wildlife preservation and improvements to Wildlife Sanctuaries were given due attention. The total expenditure on all

Forestry Development Scheme was Rs. 372.14 lakhs. An extent of 75,574 ha plantations were raised.

It was during the Third Five Year Plan that the prestigious scheme of raising Rubber Plantations in Kanyakumari District was started over an area of 1,190 ha. These rubber plantations have now been extended over an area of 4,500 ha and are now yielding a good return.

Post Third Five Year Plan (1966-69)

During these three years the development activities undertaken during the Third Plan period were continued to the extent of availability of funds. Specific emphasis was laid on raising plantations of quick growing pulpwood species, as well as plantations of other industrially valuable species at a cost of Rs. 279.99 lakhs. An extent of 38,700 hectares of plantations were raised.

Fourth Five Year Plan (1969-74)

Emphasis was continued to be laid on raising plantations of quick growing pulpwood species, and other commercially valuable species. A total sum of Rs. 574.71 lakhs was spent on various development schemes, including Centrally Sponsored Schemes. An extent of 68,226 ha of plantations both under State and Centrally Sponsored Schemes were established. Conversion of natural forests into Rubber and Tea plantation gathered momentum with a view to generate more employment and also to generate more revenue later on. Wildlife management continued to receive adequate priority. The concept of biosphere reserves was introduced into the management system. Indian Wildlife Act, 1972 promulgated during this period

making its great impact on conservation of wildlife.

Fifth Five Year Plan (1974-1979)

A sum of Rs. 1198.33 lakhs was spent under various Developmental schemes (including Centrally Sponsored Schemes) during Fifth Five Year Plan Period. An extent of 1,08,526 hectares was developed with plantations of species having industrial and commercial values. The fillip given to Social Forestry Plantations and Fuel Plantations was sustained.

Sixth Five Year Plan (1979-85) : The principal objectives of the Sixth Five Year Plan under Forestry Sector Schemes were :

(i) Extension of forestry activities through massive Social Forestry Programme in areas outside Reserved Forests with a view to increase the area under vegetative cover and to maintain ecological balance and reduce environmental pollution; and

(ii) to raise plantations of industrial and commercial uses, in order to meet the increasing demand from Wood based industries.

The approved outlay for State Forestry Sector Schemes for Sixth Five Year Plan was Rs. 5,700 lakhs. The Forest Development, mainly took the form of afforestation schemes, hence the major portion of this outlay had been set apart for raising plantations. Of the total outlay of Rs. 5,700 lakhs, a sum of Rs. 4,602.50 lakhs had been set apart for this. Every effort was taken to see that the targets (both financial and physical) were achieved.

The most important landmarks of this period were :

1. The 42nd Constitutional Amendment which placed forests on the Concurrent List, thereby paving the way for strengthening legislative control of the Central Government over forestry affairs.

2. Forestry came to be adopted as one of the priority sector under 20 Point Programme.

3. Promulgation of Forest (Conservation) Act, 1980 by the Government of India to seal the diversion of forest land for non-forestry purposes as it was regularly diverted earlier and achieved its purpose to a large extent.

4. Massive Tree Planting Programmes were launched from 1981 with the aid of Swedish International Development Authority (SIDA) in Tamil Nadu and it continued for 7 years (as first phase) i.e., upto 1987. Various components were taken during this period namely, Tank Foreshore Plantations, Plantations on poramboke lands in plains and hills, Strip plantation, Fodder plantations, Tree cultivation "incentive" programme and Tree cultivation "extension" programme.

However, people were not taken as the custodian of the resources they have created rather their services were utilised on the basis of daily wages and mandays were generated. And finally, benefits were distributed through the local panchayats as 50:50 share from the revenue realised from sale of the plantations raised under this programme.

Seventh Five Year Plan (1985-90)

During Seventh Five Year Plan (1985-90) the following areas were given thrust :

(i) Social Forestry programmes;

(ii) Eco-development of Western Ghats;

(iii) Conservation of wildlife;

(iv) Commercial management of cashew, sandal, tamarind, pulpwood and fuelwood;

(v) Establishment of a lasting symbiotic relationship between the rural people, particularly the tribals and the forest system.

An extent of 1.80 lakhs hectares of plantations were raised with and expenditure of Rs.11,189 lakhs. During 1990-92, 85,859 ha of plantations were raised under various schemes with an expenditure of Rs. 7,749 lakhs for plantation and other activities.

During this period it was realised that without accepting the local villagers as the joint custodian of forests, the natural forest wealth of the locality cannot be managed sustainably.

Eighth Five Year Plan (1992-97)

The objectives of Eighth Five Year Plan were :

(i) To biologically upgrade the areas and preserve biological diversity;

(ii) To maintain ecological processes such as protection and regeneration of soil and stabilisation of water regime;

(iii) To ensure food security to local population through forest conservation;

(iv) To ensure sustained supply of goods and services for communities, village

industries and to the extent possible for major industries;

- (v) To concentrate on human resource development in Department;
- (vi) To utilise and involve land and human resources outside traditional forest areas to meet local needs.

The approach during Eighth Five Year Plan were under six categories namely : Conservation Forestry, Restoration and Protection forestry, Production forestry, Community forestry, Private forestry, Frontier forestry, etc.

The strategy followed were : Conservation of biodiversity, Biological upgradation, Promoting Tree Planting, Comprehensive watershed development, Improvement of tribal people, Increase productivity, Development of bio-aesthetic woodlots, Awareness creation, Improvement of research infrastructure, drawing up "Sustainable District Forestry Programme" and Protection of forest resources from fire, smuggling, poaching, etc.

The concept of Joint Management of Reserved Forests in Tamil Nadu was introduced in 1986 on an experimental scale in Ayyalur Forest Division. Repeated dialogues were held with the local villagers, particularly the forest user communities and management plans prepared. After learning valuable lessons in the formative years and incorporating mid-course corrections, Interface Forestry Programme became a vital component in Phase-II of SIDA aided Social Forestry Project.

Under SIDA-aided Social Forestry Project in its second phase, Village Social

Forestry Committees were constituted as grass root level institutions to work as interacting agency between the Forest Department and the villagers. Their functions included, selection of areas to be planted, selection of species, organising and supervising planting work, distribution of produce among villagers, propaganda and education. Eight Interface Forestry Divisions, started functioning during the Phase-II of SIDA-aided Social Forestry Project (1988-1996). The Interface Forestry Programme (IFF) started working as a precursor of the Joint Forest Management in the State. Special Government Orders namely, G.O. Ms. No. 351, dt. 21.10.93 E & F Dept., TN, and G.O. Ms. No. 216, dt. 30.08.94 E & F Dept., TN, were issued for implementation of Interface Forestry Programme (IFF) and benefit sharing with the local people.

The forestry component under Tamil Nadu Agricultural Development Project (TNADP) assisted by the World Bank is also implemented from 1991 on a participatory basis with programme villagers.

From the implementation of Interface Forestry Programme various lessons were learnt from 1988 to 1997.

Interface Forestry Programmes implemented with the participation of people have brought about a sea change in tackling the problems associated with degradation and protection of forests. Adoption of democratic partnership attitude by the forest staff has instilled a positive response from villagers towards natural resource management. People have realised that protection and development of forests will bring about development and prosperity of the village and this realisation has increased their stake in management of

forests sustainably. The destructive causes that were responsible for degradation of forests like goat browsing, excessive cattle grazing, illicit felling and headload removal, setting of forest fire, etc. have been considerably reduced in those areas. Interface Forestry Programmes in the last 10 years have generated a new sense of awareness and enthusiasm among the villagers regarding protection and management of forests abutting the villages which would immensely help in sustainable development of forest and consequent perennial benefit flow.

The approach and strategy for Eighth Plan was evolved after great consideration and the situation prevailing then. The approach and strategy of Eighth Plan is very relevant even today and will be further continued with changes and modifications wherever necessary.

Ninth Five Year Plan (1997-2002)

Objectives for this plan period are identified to play a very crucial role in the ecological stability and rural development of the State. The important objectives set for this are as follows :

- Maintain the environmental stability and ecological balance.
- Conserve the flora and fauna which forms the rich biodiversity.
- Conserve the moisture and soil in the catchment areas of rivers, reservoirs and lakes.
- Increase the tree cover substantially in the private and community lands.
- Create massive peoples movement in

forestry through 'Joint Forest Management'.

- Meet the genuine requirement of fuelwood, fodder, non-wood forest produces of rural and tribal population in particular.
- Increase the forest or tree cover in the State to one third of total land area.
- Stabilise the fragile ecosystem in the coastal areas.

With the above objectives various categories of forest land are identified and strategies for management of forests are clearly defined as :

Open Forest Land*	- Participatory Management (JFM)
Dense Forest Land*	- Conventional Forest Management by State
Protected Areas	- Biodiversity Management by State
Forest in Tribal Areas	- Participatory Management (JFM)
Forest Land leased to Corporations	- Corporate Management
Plantations in Community lands	- Decentralised Management through Panchayats
Trees in Private Lands-	Forest Extension Management

* Open Forest Land have crown density between 10% to 39.9%. Dense Forest Land have crown density of 40% and more.

With the above style of management a proposal for an amount of Rs. 849.81 crores was submitted to the Government with various strategies namely Afforestation through Joint Forest Management,

Conservation of Biodiversity, Catchment Area Management, Special Area Management, Protection Forestry, Tribal Forestry, Production Forestry, Non-Wood Forest Produce and Medicinal Plants, Extension Forestry, Community Forestry, Research and Development in Science and Technology, Human Resource Development, etc.

The Government of Tamil Nadu stands fully committed to involve local people in reforestation and protection of degraded forests and to share with them the sustainable benefit from these forests. The Government of Tamil Nadu have approved the guidelines to be followed in implementation of Joint Forest Management in G.O. Ms. No. 342, dated 8.8.97. The above orders explain about the modalities of Joint Forest Management and participation of local people in Joint Forest Management, Memorandum of Understanding including Benefit Sharing. A massive afforestation project at a cost of Rs. 499 crores programme called Tamil Nadu Afforestation Project funded by OECF (Japan) is being implemented in the State through Joint Forest Management (JFM) during this plan period (1997-2002).

There has been a gradual and appreciable progress in involvement of people in natural resource management. It has started from 'Passive Participation' under Interface Forestry Programme. The aim should be to nurture and develop the participation of people to the ultimate level of self-mobilisation wherein people participate by taking initiatives independent of external institutions to change systems.

Table 1

Plan expenditure on Forestry in each Five Year Plan

Five Year Plan and Period	Plan	Expenditure (Rs. in lakhs)
I Plan	1951-56	30.43
II Plan	1956-61	147.00
III Plan	1961-66	372.14
Post-III Plan	1966-69	279.99
IV Plan	1969-74	574.71
V Plan	1974-79	1198.33
Post-V Plan	1979-80	516.13
VI Plan	1980-85	5700.00
VII Plan	1985-90	11189.00
Post-VII Plan	1990-92	8504.00
VIII Plan	1992-97	28364.00
IX Plan	1997-2002	84981.00

The plan expenditure on forestry in the State during each five year plan is shown in Table 1.

Conclusion

The planning process in forestry sector in Tamil Nadu has undergone complete change. The planning strategies have shifted from mere raising plantations of important tree species to that of a holistic approach of biodiversity conservation involving Joint Forest Management (JFM). During the successive plan period new strategies have been evolved to face the evergrowing needs to challenge various issues of forest protection, conservation and development.

SUMMARY

Tamil Nadu has fairly broad spectrum and 42 types of forests containing rich variety of flora and fauna are found in the State. The Government of Tamil Nadu formulated and implemented many schemes for conservation, development and production in forestry sector. It has changed the planning process and planning strategies have shifted from mere raising of plantations to that of a holistic approach of biodiversity conservation involving Joint Forest Management. The objectives and approaches of different Five Year Plans have been highlighted.

तमिल नाडु में वानिकी क्षेत्र रणनीतियों की आयोजना में परिवर्तन

गौतम दे व मनोज कुमार सरकार

सारांश

तमिल नाडु में काफी विस्तृत और 42 प्रकार के वन हैं जिनमें राज्य के सम्मन्न विविधता भरे पड़े-पौधे और पशु-पक्षी पाए जाते हैं। तमिल नाडु सरकार ने वानिकी क्षेत्र के संरक्षण, विकास और उत्पादन के लिए बहुतसी योजनाएँ बनाई और क्रियान्वित की हैं। अब आयोजना प्रक्रिया बदल दी गई है और आयोजना रणनीतियाँ मात्र रोपवन लगाने से हटकर जैवविविधता संरक्षण करने की सम्पूर्ण दृष्टि पर आ गई हैं जिनमें संयुक्त वन प्रबन्ध प्रणाली अंतर्हित है। विभिन्न पंचवर्षीय योजनाओं के उद्देश्यों और दृष्टियों पर भी प्रकाश डाला गया है।

References

- Anon. (1951-2002). *Five Year Plans I - IX*, Tamil Nadu Forest Department, Chennai.
- Anon. (1993). *Joint Forest Management update*. Society for Promotion of Wastelands Development, New Delhi.
- Anon. (1993). *Interface Forestry Programme*, G.O.Ms. No 351, dt.21.10.93 Environment and Forest Deptt. Tamil Nadu.
- Anon. (1994). *Interface Forestry Programme* G.O.Ms. No.216 dt.30.8.94 Environment and Forest Dept., Tamil Nadu.
- Anon. (1995). *Forestry Sector Study*. Tata Economic Consultancy Service, Madras.
- Anon. (1997). *Joint Forest Management*, G.O.Ms No.342, dated 8.8.97. Environment and Forest Deptt., Tamil Nadu.
- Champion, H.G. and S.K. Seth (1968). *General Silviculture for India*. Manager of Publications, New Delhi.
- Sreedharan, C.K. and M. K. Sarcar (1998). Peoples Participation and Joint Forest Management in Tamil Nadu, *Indian Forester*, **124** (1): 7-13.