SOCIAL FORESTRY IN INDIA: ITS SOCIO-ECONOMIC DIMENSIONS AND IMPACTS

Dr. Bindu Dogra[*]

Abstract

The forests are a natural asset of great value, which, are renewable, can be productive and useful under proper management. Forests represent the largest, most complex and self-generating of all ecosystems. Forests have a direct and beneficial influence on various aspects like environment, flora, fauna and mankind. They act as buffer zones between natural and man-made ecosystems. Forests have provided considerable support to the mankind through ages. However, the increasing human and livestock population resulted in the mindless exploitation of the forests for commercial purposes. As a result forest resource in India started reducing swiftly over the past years. The exploitation of forests continued unrestrained till mid-1970s, as a consequence, ill-effects of the deforestation became prominent. These were soil erosion, flash floods, water, fodder and wood fuel scarcity, loss of precious flora and fauna and climate change. Thus, in 1976 the National Commission on Agriculture the Government of India started a social forestry project with the aim of taking the burden off from presently existing forests by planting trees on all vacant and fallow land. The present paper aims at understanding the meaning and components of Social forestry in Indian context. It also aims at identifying the types and benefits of Social forestry along with analyzing some case studies promoting Social Forestry in India.

Key words: Deforestation, Afforestation, Social forestry,Community forestry

---

[*] Assistant Professor, Department of Sociology, MCM DAV College for Women, Sector 36, Chandigarh, Email: *bindu.3614@gmail.com*

Introduction

The forests are a natural asset of great value, which, are renewable, can be productive and useful under proper management. Forests represent the largest, most complex and self-generating of all ecosystems. Forests have a direct and beneficial influence on various aspects like environment, flora, fauna and mankind. They act as buffer zones between natural and man-made ecosystems. Forests have provided considerable support to the mankind through ages. According to State of forest report (2017) the forest cover of our country is 21.54% of the total geographical area. The forests are the major supplier of employment to the people through collection of non-wood forest. For tribal communities in India forests formed a part of their ethos and a natural way of life. India is the world's largest consumer of fuel wood both in rural and urban areas. Forests are the foremost source of fodder, timber, fuel wood, gum, tannin, and a varied range of curative herbs. Till the mid of this century, all the demands were met from the forests. However, with the growing human and livestock population, supply of vital produces from forests were inadequate to meet the needs; this resulted in overexploitation and deforestation of the forests in India(1).The forests in India have depleted quickly over the past few decades *as a* consequence, ill-effects of the deforestation became prominent. These are soil erosion, flash floods, water, fodder and wood fuel scarcity, loss of precious flora and fauna and climate change. Deforestation has also turned most of the natural forests into wastelands reducing the area under tree cover. The community pastures are deteriorating due to over-grazing by cattles. Due to the non-accessibility of wood in village, rural women are constrained to devote 15-35 hours every week in covering long distances for gathering fuel wood from inland forests. As a result of deforestation, the destruction from floods affected million hectares of agricultural land and millions of people during the 1980s. The extent of damage had increased many folds during past few years.

According to the National Remote Sensing Agency (2015) various Indian forests are in highly degraded condition. Precisely in India we have only 2% of the world's forests, with a stark burden of serving 15% of the world's population. Thus, in 1976 the National Commission on Agriculture the Government of India started a 'Social Forestry' programme. The origin of this concept can be traced back to ancient Indian scriptures like Vedas, Ramayana, Mahabharata, Upanishadas, Puranas, Jatak stories and preaching of Lord Buddha. This programme was started in accordance with the Indian spiritual traditions and democratic

principles. It laid specific emphasis on seeking people's participation in formulating and implementing the afforestation schemes based on their needs, potential and availability of inputs. The present paper is a humble attempt to get an insight in this area. As its proper understanding will help in evaluating the pro and cons of this programme; it will also expose the barriers in its complete success. Keeping in mind the above discussed facts following objectives were framed.

Objectives

The main objectives of the present paper are:

➢ To understand the meaning, objectives and socio-economic dimensions of Social forestry in Indian context.

➢ To identify the types of Social forestry.

➢ To study some case studies promoting Social Forestry in India.

Methodology

The present paper is based on secondary data and information is collected from Government reports (India: State of Forest Report from 1987 to 2017), journals and books. To explore the actual applicability of the Social Forestry Programme, a few case studies following the principles of this programme were identified and examined. This analysis helped in understanding the ways of its implementation and the identification of those sections, who participated actively in it.

Meaning of Social Forestry Programme

In accordance with the first objective of the study the meaning of social forestry and its socio-economic dimensions were analyzed. The term **'Social Forestry,** for the first time was used by the Forest Scientist Westoby, at the 9th Common Wealth Forestry congress held in 1968 in New Delhi. He defined that, "Social Forestry, is a forestry which aims at producing flow of protection and recreational benefits for the Community".

The term Social Forestry is made up of two words social and forestry. 'Social' means living together in communities, while the term 'Forestry' is related with the theory and

practice of raising tree crops, their conservation, scientific management and the utilisation of the resulting resources(2).

In 1976 the National Commission on Agriculture the Government of India, initiated a social forestry project with the aim of reducing the burden off from presently existing forests by planting trees on all fallow land. It is a programme which was designed for the assistance of the villagers in general and the poor or disadvantaged in particular. Social forestry is 'a programme' of the people by the people and for the people. Social forestry is one such programme which seeks people's participation in formulating and implementing the afforestation schemes based on local needs, potential and availability of inputs. Hence, it refers to a collective utilization of unutilized common land to meet the necessities of the local people particularly underprivileged section of the society (1).As social forestry is more concentrated on rural development and is profoundly dependent on the active participation of people, it is also recognized as "forestry for local community development" or "participatory forestry".

Thus underlying principle of social forestry is that the programs should expand the quality of life and economic situations of those who are dependent on local trees for various biomass products.

Major Objectives of Social Forestry

The main objectives of the social forestry programme as conceived by the Indian government are:

- Ensuring availability of adequate timber wood, fire wood and fodder for domestic use.
- Encouraging farmers, panchayats and other organisations for using peripheral and degraded land.
- Planting tree crops for ecological and environmental balance and purity.
- Generation of productive employment and infrastructure.
- Establishment of agro-based industries particularly for the benefit of rural areas. For comprehensive understanding of the above mentioned objectives, it is imperative to examine the socio-economic dimensions of Social forestry because this programme not only aims at forest and environmental regeneration, it also involves human

Guru Gobind Singh College for Women, Sector 26, Chandigarh

intervention, participation and their welfare. Therefore, next section focuses on various dimensions of social forestry.

Dimensions of Social Forestry Programme:

The chief dimensions of the Social Forestry can be classified into two aspects; environmental regeneration and human welfare. It aims at providing ecological, economic and social security to the people particularly to the rural masses.

   A) **Environmental Regeneration Aspects are:**

l. Fortification and afforestation of degraded forests in the surrounding area of habitations

2. Formation of village woodlands on community lands and government wastelands.

3. Mass plantations in tank beds and foreshore lands.

4. Agro-forestry on peripheral and sub-marginal farm lands

5. Tree planting along field boundaries or dispersed planting within the fields particularly in arid and semi-arid zone.

6. Pasture and silvi-pasture development.

7. Encouraging tree plantation in urban and industrial areas for artistic purposes, purification of polluted air and for reducing noise pollution.

8. Control of water and wind erosion by tree and shrub-planting, planting of shelter belts, green belts etc.

9. Strip plantations along road sides' canal banks and rail lines.

10. Establishment of in built mechanism for recycling of organic matter and waste of the area.

B) **Human Welfare Aspects are:**

1 To fulfil the basic requirements of the people such as fuel, fodder, timber, and supplementary food.

2 Collaboration by the government, panchayat and voluntary agencies in the supply of inputs (funds, seedlings, materials and labour)

3 To generate income from surplus forest products for poverty alleviation and to provide employment opportunities.

4 To identify the concealed energies and skills of the villagers for their own growth by enabling them to manage their own natural resources. It aims at participation of the beneficiary from the planning to ingesting stage

5 To popularise economic tree farming along with crop farming.

6 To develop integrated system for the distribution of economic gains and other benefits among socially and economically poor people.

7 To deliver amiable environment to the tribes and to assist them to preserve their cultural uniqueness, as their existence and culture is closely related to forest.

8 To inculcate the significance of village level self-reliance and self-management in the production as well as dissemination of forest products with social justice. It also aims atnurturing the spirit of co-operation and to encourage cooperative initiatives. In other words it focuses on minimal government control in production, management and distribution of forest benefits.

Thus, for the success of social forestry, it is essential to have a joint and collaborative effort of the Government and people. In the absence of assured support from the political, bureaucratic, panchayat and the local people social forestry cannot achieve its objective. However, direct economic benefit is the key to people's participation in social forestry programmes. There is no substitute for people's participation to make social forestry programme a success.

Types of Social Forestry

The second objective of the present paper focuses on the types of Social forestry which were made popular by the Government keeping in mind the geographical, ecological conditions and needs of the people. Here, it is imperative to mention that these types vary from one region to another due to huge geographical diversity our country is blessed with. The popular types of social forestry are; farm-forestry, community forestry, extension forestry and agro-forestry.

- ***Farm forestry***

Under farm forestry individual farmers are encouraged to plant trees on their own farmland to meet their needs. Farm forestry can be classified into commercial and non-commercial types.

Non-commercial farm forestry involves growing of trees on the fields in place of agricultural crops. It involves tree planting by farmers on their own land for their own use and not for

sale. The land mainly used for this purpose includes boundaries of agricultural fields, wastelands and marginal lands which are not usually cultivated (2). Farmers grow trees without any economic motive, just to provide shade to crops, as wind shelters, soil conservation or to use wasteland. This type of practice is done in Gujarat, Haryana, and Kerala, Karnataka etc, for obtaining fuel, fodder and fruits.

Commercial farm forestry refers to the system under which farmers grow trees on commercial basis. This type of practice is usually taken up in areas where there is an established market for wood or other forest based products (3). This form of forestry is adopted by individuals or organisational entrepreneurs for economic incentives. In this type of forestry, the original land used for agricultural crops is altered, once the market for fuel wood and other forest products rises it ensures better return. There are various factors which affect the economic viability of this type of forestry like cost of labour, market prices, rate of growth of the species being raised and prevailing capability of the farmer to wait for the full rotation of crop and material.

- *Community forestry*

It is also called as Rural Forestry. Under this system, trees are planted on community land and not on individual land, as in the case of farm forestry. All these programmes aim to benefit the entire community and not for any individual. The government takes the charge of providing ideas in the form of seedlings, fertilizer etc., while the community and panchayats takes the responsibility of shielding the trees. Some communities have managed the plantations rationally and in a sustainable manner, while some others took advantage and sold the timber for short-term personal profits. Remarkable success has been achieved in community forestry in some states like Haryana, Punjab, Gujarat, Tamil Nadu, Rajasthan, Kerala, Karnataka, Himachal Pradeshetc. In the past, large-scale planting of Eucalyptus, as a fast growing tree, has occurred in India, making it a part of the drive to afforest the subcontinent, and create an adequate supply of timber for rural communities under 'social forestry' (4).

- *Extension forestry*

Planting of trees on the edges of roads, canals and railways, along with planting on wastelands is known as 'extension' forestry. It aims at increasing the greenery of the country. Under this project trees have been planted in the village common lands, government wastelands and Panchayat lands.

- *Agro- forestry*

Agro-forestry, involves assimilating agriculture with forestry, like leguminous crop, orchard farming and livestock ranching are done on the same piece of land. In other words, agro-forestry means growing of trees along with farming crops on the same piece of land. Agro-forestry is a supportable land use system that maintains or increases the total yield by merging different agricultural practices. This may range from active participation to total indifference. This has become fairly popular in India in recent times (5). But the success of this system depends on the co-operation rendered by the local people. The various forms of agro-forestry are:

a) Sylvo-pastoral system- the utilization of the forest for both the production of wood and rearing of domestic animals.

b) Agri-silviculture- the intentional use of land for the simultaneous production of agriculture crops and forest crops.

c) Agro-sylvo-pastoral system- the utilization of land for simultaneous production of agriculture crops, forest crops and rearing of domestic animals.

d) Multiple use system- different species of tree are raised and managed for wood, leaves, fruits, fibre and fodder

Social forestry therefore aims at increasing the supply of fuel wood and fodder; it focused on generation of rural employment and maintenance of ecological balance. It tries to maximize the appropriate use of wastelands and promote village and cottage industries. It also induces environmental and tree consciousness among the people. It tries to relieve pressures from natural forests and Stabilizes agricultural production in the area.

Case studies of social Forestry

To explore the actual applicability of above mentioned socio-economic dimensions of Social Forestry a few case studies following the principles of this programmes were identified and examined in the present study. These case studies provide some insights into the way social forestry was implemented, the sections of the society participated in it and its impact on the society. The first case under consideration is of an educational institute.

A. Bharatiya Agro-Industries Foundation, Urulikanchan, Maharastra: In 1950, the Mahatma Gandhi Vidyalaya started promoting afforestation. In 1981, around 2,750 students planted one lakh subabul trees for fodder and other uses. Eighty percent of these have

survived. Encouraged by this, they planted about 2 lakh saplings more in and around their farms and farmstead in 1982. The experiment demonstrates the potential, the education systems hold in strengthening social forestry programmes (3).

B. Experimental social forestry in Garadgaon, Maharastra: A few individuals of Garadgaon village prepared a social forestry scheme to make Garadgaon self-sufficient in its fuel and fodder requirements. For this, they utilized the funds available under the employment guarantee scheme of the state government (6). Through an informal survey they identified the total length of the boundary of the village land, village stream and road sides. They decided to plant trees in these under-cultivated areas. They also planned a nursery near the perennial stream. The total budget of the scheme was about4.25 lakh (7). They also established a fuel wood depot and a fodder bank in the village which is managed by the gram panchayat. The programme was implemented in 1979. By and large, the results were quite encouraging. This experiment successfully combined private initiative, proper use of the government wasteland and administrative resources for the community benefits.

C. Government of Orissa: Orissa has a forest area of 38.44% of the total geographic area of the state. Although this is higher than the average forest area of the country, but the rate of deforestation is also higher. In 1983, Orissa Government in collaboration with Swedish International development authority adopted the social forestry programme for the state (4). The aims of the programme was to meet the fuel, fodder and other domestic needs of the rural population, to restore the ecological balance, to check soil erosion, to increase the soil fertility and to meet the needs of forest based industries. Initially, this programme was started in four districts in 1984-85, and extended to another five districts in 1985-86. The evaluation of the project shows that the achievements were much higher than the targets.

D. Gram Vikas, Kolar, Karnataka: Gram Vikas is a voluntary organization active in the Kolar district of Karnataka. This organization motivated the children to plant trees adjacent to the school or Balwadi. Gram Vikas extended help to the people in the form of initial capital, technical guidance, organizational support, and introduction to various government officials. Initially, the organization had to face several constraints such as lack of support and co-operation from the forest department, lengthy government procedures involved in the land distribution to people for afforestation, scarcity and poor quality seeds(7). But gradually it picked up and following its success, men and women were urged to join the afforestation programme and nursery rising in a big way.

Discussion

Depleting forest cover of India pushed the Indian Government to initiate 'Social Forestry' programme in 1976. It was initiated by the National Commission on Agriculture of India. According to the India: State of Forest Report (2017) the success of the social forestry is evident in the one percent jump (8,021 square km) in overall forest and tree cover between 2015 and 2017, despite population and livestock pressures. It resulted in the increase of area under tree cover, it amplified the production of industrial timbers, firewood and fodder; it augmented employment opportunities for the rural poor especially in small scale industries like bee keeping, soap and oil making etc. It has also enhanced the conservation of soil and enlarged the water table of our country. However, this programme has also met certain constraints in its overall success due to people' antipathy towards trees, due to lack of credit schemes, market support and stringent measures for its implementation. There was also lack of appropriate policies and technology to promote it in diverse ecological conditions of our country. Small size of holdings and land ownership was another hurdle which restricted its growth.This programme witnesses participation from diverse sections of our society like landless labourers, small farmers, large farmers, Panchayats, students, teachers, industrial houses, cantonments, railways, village organizations, forest departments NGOs, corporations, municipal councils and town Panchayats etc.

Conclusion

The present paper has elaborated the problem of forest depletion and the afforestation drive started by the government of India to improve this situation. It can be stated that afforestation and social forestry projects are meant to bring about environmental and social change in the society. A well implemented and managed social forestry programme can meet the requirements of people, besides generating additional income from the sale of the surplus products. A well-executed and accomplished Social Forestry programme can play important role in uplifting village life along with enhancing environmental sustainability.

References

1. Westphal, Lynne M. (2003), Social Aspects of Urban Forestry: Urban Greening and Social Benefits: a Study of Empowerment Outcomes. *Journal of Arboriculture* 29(3):137-147

2. HegdeN.G (1997) *Tree Based Farming For Sustainable Livelihood*, M.D. Publications Pvt. Ltd. New Delhi.

3. Shikalgar A. B. and Potdar M. B. (2015), Role of Social Forestry In Village Economy Development In South Plateau Region Of Maharashtra, *International Journal Of Advance And Applied Research*,vol. 3 No. 1, pg. 9-13, ISSN – 2347-7075

4. 4.Ravindranath N. H., Rajiv Kumar Chaturvedi and Indu K. Murthy (2008) Forest conservation, afforestation and reforestation in India: Implications for forest carbon stocks,*Current Science*, Vol. 95, No. 2, July, Retrieved from ww.inseda.orgSocial%20Forestry-002.doc

5. Hegde, N.G. (1993),*Social forestry programme and a strategy for enhancing people's participation in wastelands development*. YashwantraoChavanPratishthan, Mumbai.

6. Pant M. M. (1980) The Impact Of Social Forestry On The National Economy Of India,*International Tree Crops Journal*, 1:1, 69-92, Doi: 10.1080/01435698.1980.9752716

7. Bhattacharya, Ajoy Kumar (2001),*Community participation and sustainable forest development, global perspective*, Concept publishing company, New Delhi.

Reports referred

1. India: State of forest report (1987) http://fsi.nic.in/documents/sfr_1987_hindi.pdf

2. India: State of forest report (2017) available at http://fsi.nic.in/details.php?pgID=sb_64

3. National remote sensing agency (2015) available at https://nrsc.gov.in/ Van Sangyan. (2015) Social forestry in India: concept and schemes Technical Report (PDF) Report number: ISSN: 2395-468X, Affiliation: Tropical Forest Research Institute, Jabalpur DOI: 10.13140/RG.2.1.1652.4243,Retrievedfromhttps://www.researchgate.net/publication/283421439_Social_forestry_in_India_concept_and_schemes.