

JOINT FOREST MANAGEMENT IN INDIA: A CASE OF HRYANA

Jagruti D. Bhatt

Assistant professor
Post Graduate Institute of Agri-Business Management
Junagadh Agricultural University, Junagadh - 362001
Gujarat, India
Mo. +91 9898517518
e-mail: thaker_jagruti@jau.in

Nisha M. Thaker

Assistant professor
Post Graduate Institute of Agri-Business Management
Junagadh Agricultural University, Junagadh - 362001
Gujarat, India
Mo. +91 9913094963
e-mail: thaker_nisha@jau.in

Miss Laveena Sharma (Rajasthan)

MBA (AB) Student (Batch 2011-13)
Post Graduate Institute of Agri-Business Management
Junagadh Agricultural University, Junagadh - 362001
Gujarat, India
Mo. +91 9887334828

Abstract :

In India, Joint Forest Management (JFM) has emerged as an important intervention in the management of forest resources. JFM is a three-way partnership between the people (who live in and around the forest), the forest department and Non-Government Organizations (NGOs) to protect and regenerate degraded forestland. In JFM, the user (local communities) and the owner (Government) manage the resources and share the cost equally. JFM focused on providing the subsistence needs of communities while regenerating and maintaining natural forests. JFM is a concept of developing partnerships between fringe forest user groups and the forest department (FD) on the basis of common trust and jointly defined roles and responsibilities with regard to forest protection and development. JFM is the avenue for rural development and strategy for sustainable forest management because the communities are involved in protecting and managing the forest. In this paper the status, performance and evolution of JFM in India is discussed with a case study of JFM in Haryana as the state the success of the JFM in Haryana is manifest in the improved status of its forests, socio-economic development of the people and the evolution of an institutional process

of cooperation between the HFD (Haryana forest department) and the HRMS (hill resource management societies).

Key words: Joint Forest management, forestland, communities, natural forest.

1. Introduction :

JFM in India is based on 'co-management' and a 'give - and-take' relationship between the two major stakeholders-village communities and the forest department, and mediated in most cases by an NGO. The forest department sets the objectives of forest management under the JFM programme while the management responsibilities and benefits from the forest are expected to be shared by the village communities and the forest department. In JFM, the user (local communities) and the owner (Government) manage the resources and share the cost equally. JFM focused on providing the subsistence needs of communities while regenerating and maintaining natural forests. Functional groups of village communities known by different names such as Joint Forest Management Committees, Hill Resource Management Societies and Village Resource Management Committees undertake JFM on state-owned secondary forest and degraded land. JFM is a departure from the earlier forest policies practised

in India, whereby the forest department managed forests primarily to generate the maximum possible revenue for the State, while excluding village communities from the management process (Pandey et al., 2011).

2. Objectives of JFM

1. To elicit active participation of villagers in (a) creation of shelter for wild animals, food, security etc. (b) management of natural resources like land, water, trees etc. and (c) protection of plantations.
2. To achieve ecological needs consonant with sustainable productivity of wood and other non-timber forest resources.
3. To wean away the land owning communities from shifting cultivation by adopting an alternative that is Tree Farming (Cultivation of trees for the production of timber).
4. To productively utilize the degraded jhumland thereby checking soil erosion. Soil erosion is checked by plantation of trees on wastelands.
5. To conserve biodiversity through people's action.
6. To create and generate forest-based economy for the villagers. Forest-based economy is generated by selling the Non Timber Forest Products in the market (MOEF, 2002).

3. Review of Literature

Appukkuttannair and Engel (2002) surveyed the movement for JFM in India. The study commences with a description of the policy context in which JFM got initiated in India. In June 1990, the Government of India issued a circular to give effect to the provisions of the National Forest Policy 1988; JFM was thus born in India. By the year 2002, JFM covered 140,953 sq kilo meters of forest area, which was distributed amongst 63,618 Forest Protection Committees (FPCs) in different States. This was a major achievement, considering the fact that forest management in India has, since 1878, been a bureaucratically driven process.

Jyotish (2008) studied the role of JFM in India in the context of deforestation. The results of the study revealed that JFM helped to reduce illicit felling of trees, reduce area under illegal Encroachments, forest fire prevention and control by community involvement and to enhance the forest cover through afforestation programme and non-timber forest products which have impacted on the livelihood of the villagers.

4. Spread of JFM in India

The JFM programme has been operationalised mainly through the collaborative efforts of the forest

department and communities for protection of the forests under state control. This began in the 1970s and 1980s, when FPCs were set up in the state of West Bengal, Gujarat, and Haryana.

5. Status of JFM in India

According to Forest Survey of India (FSI), JFM programmes are currently spanned in 29 states, represents 1 18 213 JFM committees protecting about 22.93 million hectare of forest land that is 30 percent of forests. 99 868 villages have been covered under JFM programme. Under JFM programme, around 14.5 million families and 62 million peoples are managing the forests. Over 14.4 million ha of degraded forest land in India has been brought under JFM (Singh et al., 2011).

5.1. Number of JFM Committees and Area Covered (March 2006)

In India, there are around 1 06 482 JFM committees across 28 states, managing about 22.01 million ha. of forests. These JFM committees are having 23 71 7712 members of which around 58% are men. Madhya Pradesh has largest area and Joint Forest Management Committees (JFMCs) and Goa has least number of JFMCs and lowest area under JFM programme in India is provided in Table:1

5.2. Number of Committee Members in Joint Forest Management Programme

The following persons shall constitute the Committee.

- ♦ 9(nine) elected representatives from the Joint Forest Management Committee of which 3(three) should be women.
- Members
- ♦ One member from NGO with proven tract record.
- Members
- ♦ One Local Teacher- if available
- Members
- ♦ Concerned Forester
- Member Secretary
- ♦ Concerned Forest Guards
- Member

5.3. High Potential Areas of JFM in India

The high potential areas of JFM in India includes Western Himalayas and Shivalik Hills, Eastern Himalayas, Central Indian Tribal Belt, Eastern Ghats, Western Ghats, and Southern Aravalis.

5.4. Performance of JFM in India

Performance of JFM in India includes the Evolution of JFM policies in INDIA, Organizational structure of Joint Forest Management in India, JFM

and NTFPs, Activities under JFM programme for sustainable management of JFM resources, Sustainable management of NTFPs through JFM, Status of major NTFPs collection in India, Required features of JFM to get commercial output (Appukuttannair and Engel, 2002).

5.5. Evolution of JFM Policies in India :

This section describes the history and silent features of India's forest policies, which promoted Joint Forest Management in India.

5.5.1. Forest policy 1894: It is also known as pre-independence forest policy. This is first, and major, forest policy in India was formulated in 1894. It was drawn after the forest department had demarcated, surveyed and mapped the forest areas of the country. The silent features of this policy are management of forest directed toward the well being of the country, maintenance of adequate forest to preserve the climatic conditions of the country and forest classified for better management.

5.5.2. National forest policy 1952: The forest policy of 1952 was initiated to allow exclusive state control over forest management. The policy aimed to increase government control over forest resources and develop forests to meet the timber needs of industry and defense. It declared that village communities should not be permitted to exercise their traditional right over the forests at the expense of national interest. The silent features of this policy are checking denudation of mountain regions, erosion of river bank and adjoining field, supply of small wood, firewood and fodder for grazing sought to be increased and sustainable supply of timber and other industrial supplies.

5.5.3. National forest policy 1988: This forest policy emphasized on the protecting forests, which are places of high faunal and floral diversity and national heritage sites. Further, the success of several experiments in west Bengal and Haryana on joint forest management encouraged the government to include local people in forest management. This policy also suggests the idea of social forestry programme. Social forestry is India's largest afforestation programme. The silent features of this policy are maintenance of environmental stability through preservation and restoration of ecological balance, conserving natural heritage of the country by preserving the natural forests with vast variety of flora and fauna and increasing forest cover through massive afforestation programme and creating massive people movement with involvement of women.

5.5.4. JFM Resolution 1990: The social forestry afforestation programme is dominated by monoculture of exotic species such as Eucalyptus, Casuarinas etc. with minimal participation of local community. On June 1, 1990 Government of India passed guidelines launching the JFM programme. Silent features of the resolution are forest should be protected by village communities, jointly with state forest department, no ownership or lease over forest land to be given to village community and community to prepare micro-plan for the forest along with forest department.

5.5.5. JFM guidelines 2000: After almost 10 years of experimenting with JFM in different states, on 21st February 2000, the Government of India circulated guidelines for various jfm activities, in response to many issues confronting the FPCs, NGOs, and the forest departments. The silent features of the guideline are increase participation of women in programme, giving 33% reservation to women in executive committee, provide legal status to JFM committees, suggestion for registering forest committees under societies or co-operative societies act, extension of JFM to less degraded forest areas and recognition of self initiated forest protection group.

5.5.6. Guidelines for strengthening JFM, 2000, 2002: The silent features of this guideline are measures such as promotion of women's participation, and conflict resolution etc. and present latest JFM policy directives and broad framework for implementation of JFM.

5.5.7. Operational guidelines for tenth five year plan, 2002-2007: The tenth five year plan also provides some guidelines these are formulation of National Afforestation Programme to encourage participatory approach to Tenth Five Year Plan, 2002-2007 and transfer of funds to JFM committees through Forest Development Agencies, March 2009 (MOEF, 2002).

6. JFM and Non Timber Forest Products (NTFPs) :

NTFPs include all the products derived from forest other than timber. NTFPs play an important role in survival of forest dependent communities, because of the importance of the forest in their social, cultural, and economic survival. Collection of NTFPs such as Anola, Chironjee seeds, Mahua flowers, Tamarind, Tendu leaves, Sal leaves and seeds provides an additional source of both food and income. NTFPs are significant to JFM efforts for a number of reasons. First, they are fundamental to the existence of forest dependent communities. They

fulfill basic requirements, provide gainful employment during lean period and supplement income from agriculture and wages. Second, NTFPs have a definite advantage over timber in terms of the time needed to achieve significant volumes of commercially valuable production. Third, at the national level over 50 percent of forest revenue comes from NTFPs, mostly from unprocessed and raw forms.

6.1. Activities under JFM Programme for Sustainable Management of JFM Resources :

These are the main activities which are adopted for sustainable management of JFM programme.

Plantation of indigenous, multipurpose NTFPs species: Indigenous species are successfully grow under particular environment conditions and plantation of multipurpose tree species like *Acacia nilotica*, *Acacia catechu*, *Azadirachta indica*, *Syzygium cumini* etc. serves more than one functions so this is require for sustainable management of JFM resources.

Primary processing and value addition techniques: Processing includes operations performed in the making or treatment of a product and value addition estimates value that is added to a product or material at each stage of its manufacture and distribution.

Developing market infrastructure and marketing channels: Market infrastructure provides the market facility for selling of NTFPs and proper marketing channels are also required for sustainable management of NTFPs resources.

6.2. Sustainable Management of NTFPs Through JFM

JFM committees may take lead role in sustainable management of NTFP resources by concentrating on following areas:

Collection and sustainable harvesting of NTFPs: In most cases, collection, harvesting and sale of NTFPs are highly unorganized resulting into non-remunerative return to the NTFPs gatherers. The communities engaged in the collection of NTFPs are mostly illiterate and poor. The middleman/traders apportioned the major share of profit. The bargaining power of NTFPs collectors is very low which force them to sell the products at very nominal rate. Traditional harvesting practices are non scientific and destructive in nature. So state government may initiate non destructive harvesting and equity in participation. Panchayats and state forest departments should assist the JFM committees for developing skills for handling the NTFP collection/harvesting and storage.

Processing and value addition of NTFPs: NTFP collectors do not have storage, processing, and grading facilities. Moreover, there is no standard method to grade the raw NTFPs. Generally primary processing and little value addition are done at trader level and trader sell graded product at better price. The simplest form of value addition i.e. storage, drying, cleaning, sorting, and grading are simple activities usually carried out by traders. Establishment of NTFP based microenterprises with primary processing and value addition facilities at village level, involving JFM committees will greatly influence the livelihood of the people.

Marketing of NTFPs: NTFP marketing is varies across states in terms of market structure, marketing channels, price and scope for value added processing depending on the nature of the products, their legal status and many other factors. Generally, the marketing of NTFPs is either through the markets controlled by middlemen/intermediaries or by state agencies. At the state level there are corporations such as forest development corporations, forest industrial development corporations etc.

6.3. Status of Major NTFPS Collection in India :

Status of major NTFPs collection in India includes the collection period, period of collection in days, duration of collection in hours per day as given in Table: 2.

7. Financial Assistance Received From External Donor Agencies for JFM :

JFM received large external funding from various bilateral and multi-lateral funding agencies. Maharashtra received the highest funding- Rs. 4,310 million from World Bank as shown in Table: 3.

8. Joint Forest Management Program - A Case Study From Haryana, India

The JFM programme was began in the mid-1970s in Haryana. First Joint Forest Management programme was introduced in Sukhomajri (Haryana). P.R. Mishra chose Sukhomajri, which is in the lake's catchment area, and constructed four check dams and planted trees.

8.1. Strategies :

The FD developed a number of strategies to enlist the participation of village communities in forest protection and management

Institution building for JFM: A village-level resource management institution, popularly known as Hill Resource Management Society (HRMS), has been formed in 55 villages in the two forest divisions of the Hill Forest Department (HFD). To bridge the

gap between the grassroots or forest fringe people and the HFD, three separate working groups at the range, division, and state levels have been set up, chaired by the Range Forest Officer, Divisional Forest Officer, and Principal Chief Conservator of Forest, respectively. While the range and division-level groups facilitate and monitor the programme the state level group is the apex body that primarily recommends and proposes policy guidelines for the JFM programme.

Water harvesting structures: A series of small check dams in the upper hilly catchment and earthen water-harvesting dams at suitable sites have been constructed for soil conservation and water harvesting. As a result, cultivation that was earlier restricted to wheat and maize has now diversified to include rice, jowar, bajra, groundnut, and vegetables. The productivity of wheat, the staple rabi crop, rose from 0.9 tonne/ha to 45-50 tonnes/ha in response to irrigation. Similarly, the productivity rose to 5.5 tonnes for maize and .2 tonnes for rice.

Soil moisture conservation measures: Soil and moisture conservation measures include the plantation of trees and various soil moisture conservation measures.

Training programmes: Training programmes/workshops involving village communities, forest department officials, and office bearers of the HRMS were organized to sensitize, motivate, and orient these target groups to JFMCs and to bring attitudinal changes in them

8.2. Catalyst in the Haryana JFM Program : Catalyst of in the Haryana JFM programme involves Water, Fodder Grass Lease, Commercial Grass Lease, Bamboo Permits, Timber, firewood and other forest produce and their effects as provided in Table: 4.

8.3. Impact of JFM in Haryana

- Major impacts are as followed
- Change in number of trees
- NTFP Harvesting
- Availability of NTFPs
- Employment and Out-Migration
- Change in Number of Species etc.

8.4. Community Perspectives :

Community perspective includes the positive impacts, Limited Impacts, and benefits of JFM in Haryana.

Positive impacts are:

- Empowerment of women
- Spread effect
- Improvement of relations with FD

- Employment and Income generation

Limited Impacts are:

- Leadership and
- Community development

Benefits are:

- Employment generation
- Increase in NTFP availability
- Increase in fuel wood availability

8.5. Achievements of Haryana :

Most of the forests in the Joint Forest Management Communities (JFMCs) areas, especially the degraded ones have been brought under the JFM programmes. SC/STs, OBCs and women have come forward and started participating in various activities. The socially disadvantaged groups are actively involved in decision-making process. Most of the JFMCs are engaged in the protection of natural forest as well as raising of plantations. The major species being planted are the economically important ones e.g. *Tectona grandis*, *Shorea robusta*, *Azadirachta indica* etc The number of trees, number of species and canopy cover has increased in quite a few of the JFMCs. A ban on grazing has been imposed in many of the JFMCs. The amount of NTFP collection is small and mostly limited to natural forests.

9. Conclusion :

Joint Forest Management in India is an attempt to reserve the process of forest degradation on one hand, and to meet people's need on the other. Initially, the growth of JFM was slow during first initial decade. The MOEF revised JFM guidelines in 2000 and 2002 and circulate these guidelines among all states and union territories with sharpen focus on extending JFM programme to good forest with very well defined institutional and legal framework. As on 2011 1,18,213 Joint Forest Management Committee's have been managing approximately 22.93 million ha. of forestland that is 30 percent of forests. Forest user communities across the country have been dependent on forests for fuel wood, fodder, small timber and NTFPS for their basic needs. Under the JFM programme these communities play a special role as they have been provided access to forest produce including NTFPs to meet their basic needs in lieu of protecting, regenerating, and maintain forest in collaboration with forest department. The success of JFM in India over the past two decades has been attributed to many factors like the leadership provided by the foresters and the communities, cultural and ethnic strength of the local population, quality and type of forests, socio-economic profile of the people and level of degradation witnessed. JFM movement has been successful with

varying degree of success largely due to felt need for conservation and the core items in implementation of various government schemes and programmes like entry point activities. The JFMCs have proved immensely beneficial in generating income and empowering the women and other weaker and marginalized sections of the society.

10. References :

Anonymous (2002). Objective on Joint Forest Management. Available at <<http://moef.nic.in>> accessed on 22nd January 2012.

Anonymous (2002). Evolution on Joint Forest Management. Available at <<http://moef.nic.in>> accessed on 22nd January 2012.

Appukkuttannair, D. and Stefanie Engel (2002). JFM in India: Assessment of Performance and Evaluation

of Impacts. ZEF Discussion Papers on Development Policy, volume: 77

Jyotish, P. (2008). JFM, Deforestation and Local People Participation-A Case Study in West Bengal, India. Available at <<http://moef.nic.in>> accessed on 20th January 2012.

Pandey A., Bhargava P. and Negi M. (2011). Introduction of JFM. Indian forester, volume: 137(7).

Praveen Kumar Singh and S. M. Sulaiman Quli (2011). Economic Valuation of Non Timber Forest Products Contribution in Tribal Livelihood in West Singhbhum District of Jharkhand. The Indian Forester. volume: 137 (11).

Ravindranath, N.H., Murali, K.S., and Malhotra, K.C. (2000). Joint Forest Management and Community Forestry in India. Pub. by Oxford and IBH publishing, Calcutta.

Table: 1

Sr. no	State	JFM committees (No.)	Area under JFM (Ha)
1	Andhra Pradesh	8498	2566343
2	Arunachal Pradesh	362	21416
3	Assam	700	100000
4	Bihar	615	385080
5	Chhattisgarh	7820	3276000
6	Goa	26	10000
7	Gujarat	2124	272801
8	Haryana	1075	60000
9	Himachal Pradesh	1749	424649
10	Jammu & Kashmir	4861	40000
11	Jharkhand	10903	2190000
12	Karnataka	2254	303425
13	Kerala	561	173235
14	Madhya Pradesh	14428	5946800
15	Maharashtra	11799	2685000
16	Manipur	283	60307
17	Meghalaya	73	7400
18	Mizoram	505	97981
19	Nagaland	335	25528
20	Orissa	9905	880187
21	Punjab	1378	198466
22	Rajasthan	4691	769895
23	Sikkim	204	88518
24	Tamil Nadu	2642	58403
25	Tripura	399	112328
26	Uttar Pradesh	2096	93857
27	Uttarakhand	12089	544964
28	West Bengal	4107	625000
	Total	106,482	22017583

Source: Pandey et al. (2011)

Table 2

Major NTFPs	Collection period	Period of collection (days)	Duration of collection (hrs/day)
Mahua flowers	March-April	25-30	4-8
Mahua seeds	June-July	15-25	3-5
Chironji seeds	April-May	10-20	3-6
Tamarind	February-March	1-4	3-6
Sal leaf	May-February	270-300	2-4

Source: Singh and Sulaiman , (2011)

Table 3

Name of donor agency	Name of projects and period	Total financial assistance (In Rs. Millions)
World Bank	1)West Bengal Forestry Project (1992-97)	1,140
	2)Maharashtra Forestry Project (1992-98)	4,310
	3)Andhra Pradesh Forestry Projects (1994-2000)	3,540
	4)Madhya Pradesh Forestry Projects (1995-99)	2,460
OECD-Japan	1)Rajasthan Afforestation Project for Aravalli Hills (1995-2000)	1,670
DFID, UK	1)Karnataka Western Ghats Forestry Project (1993-99)	1,050
	2)Himachal Pradesh Kullu Mandi Forestry Project (1994-97)	130

Source: Anonymous (2002)

Table 4

Catalyst/Incentive	Effect
Water	Increased crop production from agricultural fields reduces dependence on forests; Effective social ban on open grazing of cattle in forest areas promotes natural regeneration
Commercial Grass Lease	Financial autonomy to the local institution resulting in planned and participatory development in the village ensuring active participation of each household.
Bamboo Permits	Increased quotas of bamboo resulting in improved socio economic status; Bamboo forests are protection against grazing and fire.
Timber, firewood and other forest produce	Giving Forest Development Agencies stakes in improved management and production, results in sustainable protection of these resources.

Source: Ravindranath et al. (2000)