

# **Commercial Production from Subsistence Forests: An Oxymoron?<sup>1</sup>**

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<sup>1</sup> This paper is based on the findings of the study on "Potential of commercial production from forests under Joint Forest Management" by Arora et al (2001) and the book on " New Foresters: Role of private enterprise in the Indian Forestry Sector" (2002), by Sushil Saigal.

# Commercial Production from Subsistence Forests: An Oxymoron?<sup>2</sup>

## 1. Background

Nearly a quarter of India is classified as forestland, which is owned and managed by the government. In fact, forestry is the second major land use after agriculture. A vast majority of India's population is heavily dependent on forests for meeting their basic needs. Forests and trees play an important role in maintaining a stable environment conducive to sustainable development. With less than 2 per cent of the forest area in the world, the country supports more than 15% of the world's population. India's forests are under great pressure to supply wood and non-wood products and services from a depleting resource base. The per capita availability of forest area has declined from 0.20 ha in 1951 to 0.08 ha in the nineties.

In India, forests meet nearly 40% of the energy needs of the country and more than 80% of the need of the rural sector. Fodder needs of our vast cattle population to the extent of about 30% are also met from the forests. NTFP provide sustenance to the rural people, who collect a large part of their daily necessities including food and medicines from the forest. Forest provides direct subsidy to the rural and tribal community and plays a very significant role in sustaining and in stabilising the socio-economic stability of the rural society in India. Moreover forests are also an important source for rural housing and urban industrial use, besides maintaining environmental stability and conserving biodiversity wealth of our country.

Unfortunately, over the years, more than half of India's forests have degraded (see Table 1), bringing about, on the one hand, an ecological crisis and on the other, immense suffering for the forest-dependent people.

Table 1: Status of forests in India

Category	Area(million hectare)	Percentage of total geographical area	Percentage of forest area
Total geographical area	328.73	100.00	-
Legally classified forest	76.53	23.28	100.00
Actual forest cover <sup>a</sup>	63.73	19.39	83.27
Open forest <sup>b</sup>	25.51	7.76	33.33
Dense forest <sup>c</sup>	37.73	11.48	49.30
Mangroves	0.49	0.15	0.64

<sup>a</sup> Forest having at least 10% crown cover

<sup>b</sup> Forest with crown cover between 10% and 40%

<sup>c</sup> Forest with over 40% crown cover

Source: State of Forest Report 1999

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Various forest management strategies were adopted by the government to tackle the increasing rate of deforestation and depletion. Initially, forest management strategies were designed with a view to meet the commercial needs. Initially the government tried to combat forest degradation by promoting tree planting on non-forest land. An ambitious Social Forestry Programme was launched with the objective of easing pressure on forests by making available fuelwood, fodder and small-timber for meeting rural communities' needs from village commons and private farmlands. However, soon it was realised that all attempts at forest management would prove futile if the major stakeholders- the forest dependent communities- are not involved in the planning and management process. Accordingly a new pioneering strategy was introduced, commonly what is known as 'Joint Forest Management'.

India is one of the pioneering countries in the world where forest management regimes stressing on partnerships between the state forest departments and the local communities have been introduced. The driving force behind this path breaking initiative is the National Forest Policy of 1988, which is one of the most progressive forest policies in the world. Conservation and meeting local community needs have been made the main objectives of forest management, which have a much higher priority than revenue generation through commercial exploitation.

## **1.2 History of Joint Forest Management in India <sup>3</sup>**

JFM is a forest management strategy under which the government (represented by the Forest Department) and the village community enter into an agreement to *jointly* protect and manage forestland adjoining villages and to *share* responsibilities and benefits. The village community is represented through an institution specifically formed for the purpose. This institution is known by different names in different states but is most commonly referred to as the Forest Protection Committee (FPC).

Under JFM, a FPC takes the responsibility of protecting a forest patch from fire, grazing and illegal harvesting. In return, it gets greater access to forest produce and a share in income earned from that forest patch.

The early experiments with JFM were started in West Bengal and Haryana in the 1970s by the local officials who saw the futility of trying to keep people out of forests by using coercive measures such as fines and arrests.

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<sup>3</sup> see 'Joint Forest Management: A decade of Partnership' MoEF, 2002

### 1.3 Current Status

The early experiments in West Bengal and Haryana paved the way for the spread of the JFM programme in India, which received legitimacy from the 1988 forest policy. The programme was further strengthened by the Central Government's directive to all state governments on June 1, 1990, recommending the involvement of local communities in the management of degraded forests and inclusion of NGOs as facilitators in this process were.

In the ensuing years, a number of state governments passed their own enabling resolutions and started JFM programmes. Currently, 27 states have adopted JFM and over 63,000 FPCs are managing around 14 million-hectare of forestlands (see Table 2).

Table 2: Status of JFM (as on March 1, 2002)

Sl No	States	Area under JFM(sq km)	No of FPCs
1	Andhra Pradesh	17,675.70	6,816
2	Arunachal Pradesh	58.10	13
3	Assam	69.70	245
4	Bihar	741.40	296
5	Chhattisgarh	28,382.55	6,412
6	Goa	130.00	26
7	Gujarat	1,380.15	1,237
8	Haryana	658.52	471
9	Himachal Pradesh	1,112.47	914
10	Jammu & Kashmir	795.46	1,895
11	Jharkhand	4,304.63	1,379
12	Karnataka	1,850.00	2,620
13	Kerala	49.95	32
14	Madhya Pradesh	43,000.00	10,443
15	Maharashtra	6,866.88	2,153
16	Manipur	5,072.92	82
17	Mizoram	127.40	129
18	Nagaland	1,500.00	55
19	Orissa	7,834.67	12,317
20	Punjab	735.60	184
21	Rajasthan	3,093.36	3,042
22	Sikkim	6.00	158
23	Tamil Nadu	3,733.89	999
24	Tripura	319.89	180
25	Uttar Pradesh	507.03	540
26	Uttaranchal	6,066.08	7,435
27	West Bengal	4,880.95	3,545
	TOTAL	140,953.60	63,618

## **2. Introduction**

JFM was initiated as a strategy to not only arrest the increasing deforestation through involving the local community in the protection and management of forest resources, but also simultaneously to meet the subsistence demand of the rural poor dependent on the forest resources.

A decade of managing the forest through this strategy has yielded manifold results and many lessons have been learnt. It has been realised that even for this program to succeed; livelihood demands should be successfully addressed through the programme. In Haryana, for e.g., the income earned from the sale of bhabbar grass and other ntfps led to success of the programme in the state. Similarly in the case of West Bengal, income from the sale of ntfps acted as an incentive and encouraged the community to protect and save the highly degraded forestland in the states.

Though it is an undeniable fact that forests should continue to yield the subsistence need of the forest dependent community, however at the same time one cannot ignore the other needs from forests, particularly the raw material need of the forest based industries. The country is experiencing huge demand supply gap in this sector and is importing millions of worth raw material from abroad.

There is an ongoing debate on whether to reorient JFM to meet some of the country's commercial needs through JFM forests. It is being argued that about 14 million hectare of country's forest is under Joint Forest Management, not all the forest area is required to meet only the subsistence needs of the forest dependent community. Also given the importance of livelihood and income in the success of this programme, initiating commercial ventures into the programme can further strengthen it. Since a forest can yield much more than just timber, it is very much possible that bringing a commercial orientation does not necessarily mean a sacrifice of subsistence produce. NTFP harvests for commercial sale can easily be integrated with management of the forests for meeting subsistence needs. In this paper we examine the feasibility of introducing commercial ventures into Joint Forest Management. We also analyse and discuss the impact (through SWOT analysis) thereby of commercial production on subsistence needs.

The above discussions will be based on the analysis of actual experience with the marketing of JFM produce in states such as West Bengal and Haryana, where one of the main reasons cited for the success of the JFM programme is the commercial gains associated with the programme. We also provide a brief analysis of the attempts at involvement of industry in JFM in Andhra Pradesh

In the section below we provide some of the salient features of JFM in the three states of West Bengal, Haryana and Andhra Pradesh.

## 2.1 JFM in West Bengal

During 1971-72, the Forest Department of Arabari in the Midnapore district was facing constant disruptions with their experiments in silviculture, due to the constant attempts by the Local villagers in extracting fuelwood or grazing cattle. Unable to stop them from doing so, the Forest Department held a meeting with the local community and offered them few incentives for staying away from the forests. The incentives included a share in the final crop and additional employment in forestry operations. The local community was organised into a FPC to protect the forest from illegal harvesting, overgrazing, fire and encroachment. The experiment proved to be a success. Gaining respite from incessant logging and grazing, the degraded sal (*Shorea robusta*) forest of the area rapidly regenerated.

By 1989, when the JFM Resolution was issued, over 1,200 FPCs were managing 152,000 ha of forestland. (For details on forest areas in West Bengal, see Box 1. Presently, the state has about 3,545 FPCs protecting a forest area of 488,095 ha (for details, see Table 2).

### **Box1: Forests in West Bengal**

Geographical area	8,875,200 ha
Recorded forest area	1,187,900 ha
* Reserved forest	705,400 ha
* Protected forest	377,200 ha
* Unclassed forest	105,300 ha
Actual forest area	834,900 ha
Area under JFM	488,095 h

## 2.2 JFM in Haryana

The Sukhna Lake in Chandigarh was almost drying up because of massive soil erosion from loss of hill forests and overgrazing. In the 1970s, an effort was made to involve people in the management of forestlands and to control grazing. These people were provided alternatives in the form of small earthen dams that raised agricultural output and reduced their dependence on unsustainable grazing.

The control on grazing not only reduced erosion but also led to a dramatic increase in grass productivity. For instance, in Nada village, it went up from a dismal 40 kg per hectare in the 1970s to over 2,000 kg in 1986. The Forest Department allowed the people to harvest this grass, which was earlier being leased out to contractors.

Having begun in two villages of the state, viz., Sukhomajri and Nada, the JFM programme now extends to many villages in the Morni-Pinjore and Yamuna Nagar Forest Divisions in the Shivalik region of Haryana (see Box 2 for details on forest areas in Haryana). Started without any formal policy backing from the state government, the programme received formal recognition when the state government issued a memorandum in June 1990 (amended in 1998) laying down the policy for JFM in the state. Societies formed in the Shivalik hills are called

### **Box 2: Forests in Haryana**

Total geographical area	44.2 lakh ha
Recorded forest area	1.67 lakh ha
* Reserved forest	0.25 lakh ha
* Protected forest	1.10 lakh ha
* Unclassed forest	0.32 lakh ha
Actual forest area	0.60 lakh ha
Area under JFM	0.58 lakh ha
* Government forests	0.20 lakh ha
* Common lands	0.38 lakh ha

Hill Resource Management Societies (HRMS) and the operational area of these societies is government forest.

### 2.3 JFM in Andhra Pradesh

Subsequent to the Government Circular on JFM in 1990, Andhra Pradesh formally adopted JFM as a strategy for rehabilitation of degraded forests in 1993. Though initially there was some amount of skepticism on the effectiveness of the programme, with time, both the local community and the Forest Department realised the huge potential of this programme, and from what was started as a small programme then has today attained gigantic proportions. Today Andhra Pradesh is cited as one of the best practicing JFM states in India.

#### Box 3: Forests in Andhra Pradesh to change a

Total Geographical area	275 lakh ha
Recorded forest area	63.8 lakh ha
* Reserved forest	50.5 lakh ha
* Protected forest	12.4 lakh ha
* Unclassed forest	0.97 lakh ha
Actual forest area	44229 sq km
Area under JFM	17675 sq km

From a mere 200 VSS (Van Samrakshan Samitis) in 1995, today (2002) there are as many as 6816 VSS managing more than 17000 sq km of forests (see Table 2). Besides being able to regenerate large tracts of degraded forestland, the state has to its credit some very commendable and unique initiatives. For E.g., it is one of the pioneering states where 100% rights is given to the community members on the forest produce generated by the VSS. It is also one of the pioneering state where the private sectors has been gainfully utilized through the programme.

## 3. Analysis of Commercial Production from JFM Forests

In this section of the paper, we start with a brief look on the demand supply gap in the forest-based industry in India and the implications thereby. This will be followed by a detailed report on the status of current commercial production from JFM forests in the two pioneering states of West Bengal and Haryana<sup>4</sup>. A detailed analysis of the potential and the impact of initiating commercial production in JFM forests will follow this.

### 3.1 Demand and supply of forest products

There is a huge gap between the demand and sustainable supply of various forest products in the country. Many initiatives are being taken in government, as well as in the private sector, to augment supplies of forest products, yet the general consensus is that there is a huge demand-supply gap and that supplies need to be augmented if the demand is to be met sustainably. Every year the import bill of the forestry sector is taking a heavy toll on the government revenue. This drain of precious resources can be effectively constrained through effective commercial production through JFM forests. Moreover, after the economic liberalisation, Indian wood-based industries started facing stiff competition from overseas. Therefore if there is guaranteed supply from the

<sup>4</sup> Based on the study on "Potential of commercial production from forests under Joint Forest Management" by Arora et al (2001)

domestic sector, they could consider the risk of increasing the scale of their production to face this competition.

To understand the nature and extent of demand supply gaps that exist in the forestry sector, we look into three important forest product, their demand supply gap and their share in the import bill of the country.

### **3.1.1 Industrial Wood**

Industrial wood includes all types of wood other than fuelwood. As with fuelwood, numerous studies have also been carried out to estimate the demand and supply of industrial wood in the country. The Forest Survey of India estimated the demand for industrial wood in 1987 to be around 27 million m<sup>3</sup>, of which 19.61 million m<sup>3</sup> is the demand from the industrial sector and 7.93 million m<sup>3</sup> from the household sector (such as agricultural implements and housing materials). The NFAP (National Forestry Action Plan) re-estimated the total demand for industrial wood by using another set of Forest Survey of India data on wood consumption by the household sector. Assuming a 2.1% increase in household demand for timber and a 5% increase in requirement of industry, the NFAP has projected the total demand for industrial wood as 64.4 million m<sup>3</sup> for 1996 (comprising 54.4 million m<sup>3</sup> household sector demand and 10 million m<sup>3</sup> residual industrial sector demand<sup>5</sup>), 73 million m<sup>3</sup> for 2001 and 81.8 million m<sup>3</sup> for 2006. Another report by Chem Projects prepared for the MoEF estimates the total wood requirement as 51.9 million m<sup>3</sup> for 1998, 57.7 million m<sup>3</sup> for 2000 and 73.9 million m<sup>3</sup> for 2005 (Ganguli *et al.* 1999, in Majumdar 2000).

Thus, the various estimates of industrial wood demand range between 50 to 65 million m<sup>3</sup> for the year 1996.

This demand for industrial wood is met through supplies from government forests and non-forest sources such as farmlands and homestead gardens. According to the Forest Survey of India, the sustainable annual cut of industrial wood from the forests is only about 12 million m<sup>3</sup>. Another 14-15 million m<sup>3</sup> can be sustainably harvested from private plantations. Thus a total of only 26-27 million m<sup>3</sup> of industrial wood is available in the country. Even assuming a demand of only 50 million m<sup>3</sup> there is a shortfall of 23-24 million m<sup>3</sup>. In case the demand is around 65 million m<sup>3</sup>, the shortfall is 37-38 million m<sup>3</sup>. This shortfall is largely being met from unrecorded removal from forests and plantations and some of it through imports. The import of forest products has increased sharply in recent years. For example, the total import of industrial roundwood in 1996

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<sup>5</sup> The total wood demand by the industrial sector has been estimated and projected by the Forest Survey of India as 29, 34 and 39 million m<sup>3</sup> for 1996, 2001, 2006 respectively. This estimate also includes all urban housing, all urban furniture and at least 30% of rural housing. Therefore, the balance of industrial need can be calculated as:

Balance of industrial need=estimate of requirement by industry-(requirement of urban housing+requirement of urban furniture+30% of requirement of rural housing). Accordingly, the balance of industrial need for 1996 would be 29-(7+3.7+8.4)= 10 million m<sup>3</sup>.



was 0.89 million m<sup>3</sup> or 7.2% of the country's roundwood demand. This had increased by nearly two and a half times to 2.1 million m<sup>3</sup> in 1999. This is a considerable drain on the country's foreign exchange reserves. In 1999, the total import bill for forest products was Rs. 37.1 billion<sup>6</sup>, of which industrial roundwood was Rs. 9.3 billion (FAO 2001).

### ***3.1.2 Pulpwood***

Pulpwood is an important raw material used by the pulp and paper, paperboards, newsprint, rayon and allied industries. Based on a number of assumptions, Ganguli (Ganguli 2000) has estimated that the demand for pulpwood will increase from 8.04 million cubic meter to 21.92 million cubic meter in 2010.

The Centre for Science and Environment (CSE) has calculated that between 1995-96 and 1997-98, on average, the country's pulp and paper industry obtained 41.7% of fibrous raw material from government owned natural forests, 25.2% from farm forestry, 20.6% from the open market and 12.5% from captive plantations (CSE 1999).

Using pulpwood figures for the years 1982 to 1993 compiled by ICFRE and the break-up of supply sources provided by the CSE, the supply of pulpwood and the gap between demand and supply has been projected to be in the tune of about 8.92 million cub meter in 2005.

Some of the gap in the demand and supply of pulpwood is being met through import of pulp. Figures available from FAO indicate that in 1999 about 13.8% of pulp were imported. While importing pulp is an option for bridging the demand-supply gap, many industrialists do not consider it a viable long-term option on account of the volatility of international pulp markets.

### ***3.1.3 Bamboo***

The extent of bamboo forests in the country is estimated to be 10.03 million-hectare (Tewari 1991). Using ICFRE figures as a base, the total bamboo production in the country in 1995-96 has been estimated to be around 3.8 million tonnes. The consumption pattern of bamboo shows that around 35% of the total bamboo removed are used for making pulp while housing and rural uses account for 20% each. Though the existing

Presently, the potential supply of bamboo seems to be higher than the demand. However, the projections for the future show that this is unlikely to continue. It is estimated that in the years 2000 and 2010, 2.38 and 4.02 million tonnes of bamboo respectively will be used to produce 4.5 million tonnes of

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<sup>6</sup> The net import bill was Rs. 34.5 billion.

paper and paperboard in 2000 and 7.6 million tonnes in 2010<sup>7</sup> (projection by Green Rating Project, CSE).

Considering that India's forests have a potential for bamboo production of about 4.5 million tonnes, the gap between demand and supply is enormous even if the total potential of the bamboo forests is tapped. The projected gap for the year 2001 and 2010 is 2.3 million tonnes and 6.9 million tonnes respectively.

Therefore, given the demand supply imbalance in the forest product sector and the increasing share in the import bill of the country, there is an ongoing argument that commercial production from JFM forest should be ventured at. However, one should also keep in mind the fact that the primary objective and therefore the major thrust of the programme should remain at catering to the subsistence need of the forest dependent community.

In the sections below we discuss the viability of commercial production in the states of Haryana and West Bengal.

### **3.2 Commercial production from JFM forests**

In this section, we explain the existing potential of commercial production in both states of Haryana and west Bengal based on the study <sup>8</sup> and then analyse the potential and the impact of initiating such commercial ventures through JFM programme in both the states.

#### **3.2.1 Haryana**

The main products extracted from the forest areas under JFM include bhabbar grass, fodder, and bamboo. Among these bhabbar is the only commercial raw material (used for the paper industry) from the JFM areas. It is an excellent raw material for paper pulp and is also used in rope making by the local villagers. A study done on the commercial aspect of bhabbar shows the following trends:

- Only in few cases, bhabbar has been taken on lease by HRMS. In most cases, it is still being sold in open auctions.
- Various studies have indicated a declining trend in yields, increasing costs of extractions and declining market prices, with no corresponding decline in lease price.
- Under the existing benefit sharing arrangements between the Forest Department and the HRMS, there is no short run incentive for the HRMS to continue protection efforts or in increasing the yield.
- Under the existing working plan, it is mentioned that there will be no clear felling except hygienic felling and only dead dying and deceased trees will be

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<sup>7</sup> Consumption of bamboo was 0.63 million tonnes in 1.19 million tonnes of total production of paper and paperboard in 1979 i.e. 53% (FAO/UNEP 1981, in Majumdar 2000). This same percentage is used to calculate the consumption of bamboo in the production of paper and paperboard in the future.

<sup>8</sup> "Potential of Commercial production from JFM forests" by Arora et al (2000)

removed. If these prescriptions are abided by then there can be no harvest of any other trees from these areas except bhabbar

- It has also been pointed out that the growing canopy in the area is one of the main reason for the decline in the yield of bhabbar. Therefore this leads to a clear question on whether there needs to be some change in the present management objective of continual grass production or should the area be nurtured for tree growth (given the potential of bhabbar for meeting subsistence needs as well as providing some cash income to the HRMS in the short run.
- There is enough safeguard provided through the JFM notification 1988 issued by the state to ensure that the commercial needs do not subsume the subsistence needs of the communities.
- The market demand for bhabbar has gone through several fluctuations due to the following developments:
  - Changes in the governments import and export policies adversely affected the market of bhabbar (domestic market)
  - Change in technology in the associated industry (switch to wood based pulp manufacturing) created a total slump in the market of bhabbar, as there are no alternative markets on one hand and on the other as it is a perennial grass, it regenerates on its own

### ***3.2.2 West Bengal***

The main woody products from this state are poles, posts, clogging sleepers, fuelwood pulpwood and timber. While the major ntfps includes sal leaves, sal seeds, cashew nuts, tendu leaves etc. Based on the studies conducted in this region, the following observations can be pointed out:

- total area harvested (for woody produce) is less than one fifth of the full potential of annual harvesting.(Guhathakurta and Roy 2000)
- there lies immense potential of these forests in meeting both the subsistence and the cash needs of the communities dependent on forests (Malhotra et al 1991 in Guhathakurta and Roy 2000)
- NTFPs contribute about 22% and 16% of the income of the tribal and caste families respectively. It has been estimated that the potential earning from ntfps from one ha of regenerated sal forests comes to about Rs 16000 over a period of ten years.(Palit 1992 in ETS 2000)
- NTFPs from naturally regenerating forests usually yield more income to community members than monoculture plantations
- The benefits from NTFPs tend to flow disproportionately more to the low income families in general and children and women in particular
- Market related problems create obstacles in the efficient use of the resource
  - The demand for poles is greatly affected due to the lack of market and low prices. Besides, the provision of ban on the sale of Eucalyptus outside the state, further restricts the market

- State level organisations like LAMPS have not been able to market the nationalised NTFPs
- NTFPs are traded illegally through informal market channels leading to exploitation of the primary collectors

There are two very important points that emerge from the study of commercial ventures in these two states: firstly, the change that is reflected in the current commercial harvests is happening because of more effective protection of these forests and secondly, one of the major factor that influences the level of commercial protection as well as the involvement of the village communities in the management of forests is the marketing aspects.

As can be understood from the above sections, both the states are facing marketing problems. This is true not only of these two states but almost in all the states where JFM has been initiated. Moreover, during the last decade, certain externalities like ban on green felling, cessation of subsidised raw material supply to the industry, growth of private forestry and import liberalisation etc, have led to closure of many forest based industries, change in the raw material mix of forest based industries and shift to alternative sources of supply. All this makes it all the more important to re-examine the debate of initiating commercial ventures through JFM forests.

While it is possible to use part of the produce for commercial sale and to enhance the income of the local community, there are concerns about linking commercial interests and the JFM programme. Some of them can be summarised as below:

- ❑ As JFM was conceived to address the protection and regeneration of degraded forests, the concept of commercial production could be controversial
- ❑ Commercial interests imply long gestation crops and in some cases even monoculture, which would involve sacrifice of the subsistence needs of the forest dependent community
- ❑ As biotic pressure was one of the main reason for degradation, any diversions in meeting the subsistence needs would once again lead to the degradation process

### **3.3 Potential impacts of commercial production on the FPCs**

However, one cannot also ignore the incentive associated with commercial production. This is particularly so in areas where there is surplus produce after meeting the subsistence needs. For E.G. in Haryana, several HRMS show relatively less interest in managing their forest patches since the lease price policy of the FD has made the commercial sale of bhabbar difficult. On the other hand, it can also be argued, that generating income through commercial sale of

surplus forest produce could set in place processes and interests that are detrimental to the JFM programme and FPCs themselves. The table below provides a SWOT analysis to determine the strengths, weaknesses, opportunities and threats associated with commercial output from JFM programme.

Table 6 : SWOT analysis for commercial output from JFM areas.

<b>Strengths</b> <ol style="list-style-type: none"> <li>1. It will lead to increase in income of the communities. This will act as incentive for the community and will result in better protection and utilisation of forests</li> <li>2. There will be less dependence of the local communities on government funds for forest and village development</li> <li>3. The revenue of the government will increase</li> <li>4. There will be additional industrial raw material available thus decreasing the demand supply gap in forest products</li> </ol>	<b>Weaknesses</b> <ol style="list-style-type: none"> <li>1. The objective of income generation may subsume the primary objective of meeting subsistence needs from the forests. This could be detrimental for the forest dependent communities</li> <li>2. The sale of forest produce to meet the commercial needs might bring in vested interests and further marginalise the poor and disadvantaged section of the society</li> <li>3. The focus on commercially valuable species may lead to neglect of other species, adversely affecting the ecology of the area</li> </ol>
<b>Opportunities</b> <ol style="list-style-type: none"> <li>1. Supportive JFM resolutions that enable harvest of forest produce for meeting both subsistence and commercial needs</li> <li>2. Availability of funds through the externally assisted JFM projects to take up market feasibility studies and to implement strategies to overcome the present marketing problems</li> <li>3. The existence of NGOs in number of states that can be involved for awareness raising as well as protecting the rights and needs of the poor and other disadvantaged groups</li> <li>4. Interests in the private sector to source some of their raw materials from JFM areas</li> </ol>	<b>Threats</b> <ol style="list-style-type: none"> <li>5. Change in FD policy or failure to keep the promises made to the communities may lead to regressive effects not only on the forest areas but also on the future relationship between the people and the FD.</li> <li>6. The success of the endeavour is largely dependent on the interest and capability of the FPC to handle forest management issues. The present low level of management capacity at the FPC level is a serious threat to the system.</li> <li>7. Poor skills and infrastructure in government to handle marketing issues.</li> <li>8. Competition from private sources as well as imports.</li> </ol>

Source: The new Foresters, (Saigal et al, 2002)

From the above analysis it is obvious that increase in income for the FPC members is the most significant positive factor in initiating commercial ventures into the JFM programme. However, there is the inherent fear that commercial interests may actually subsume the subsistence needs. However, if appropriate safeguards are built into the process then this may not happen. In fact, on some states have gone a step ahead and involved the private sector, including the financial sectors into the JFM programme (see box 4). These initiatives mark the beginning of the commercialization of JFM programme. The experiences generated from these initiatives will help in understanding the issues connected with commercialisation of JFM.



#### **4. Conclusions and Recommendations**

There is a growing concern over the decreasing forest cover and the declining productivity from the forests in India. On the other hand, the annual demand supply gap in the forestry sector is also on the rise. Or e.g. the annual demand supply gap in the case of fuelwood is a staggering 121 million MT. A part of this gap is being met through unsustainable and illegal removals from government and other forests.

As per MoEF estimates, an annual budget of Rs 52.85 billion is needed to fulfil the objective of improving forest cover, against the present availability of only Rs 8.16 billion for the forestry and wild life sectors. This huge financial crunch can be quite detrimental for the overall growth of the economy and for the sector specifically.

Looking at the trend of government investments into the forestry sector, it is evident that the Forestry sector does not appear high on government funding priority list. The share of forestry in the Five-Year Plans has mostly been under 1% of the total plan outlay. Though there has been significant contributions by the external agencies towards the JFM programme per se, there is an ongoing debate as to the sustainability of the programme. As per the review of most of the donor-supported programme, it is noted that the entire institutional set up breaks down especially due to lack of fund, when the project ends. In this case, entering into the commercial venture will enable continuity and therefore ensure sustainability of the programme.

Moreover, such initiatives would most importantly be able to address the livelihood needs of the forest dependent community, as well as help in reducing the dependence on external funds for the continuance of the institution per se.

However, if this potential is to be meaningfully realised and sustained in the long run, it is essential that the local community, especially the poor and most forest-dependent groups be fully involved and supportive of this venture; Besides, there are some specific policy level strengthening required to ensure that this venture is not misutilised. The following recommendations are made to help in this direction.

- JFM programme needs to be further strengthened. Forest Protection Committees need to be given a legal backing. Should be registered as societies, co-operatives or trusts under the relevant legislation (as against FPCs being merely registered with the FD in several states). The agreement signed between the FD and the FPC should also be of formal nature.

- The benefit sharing mechanisms should have incentive for the community to participate
- Meeting the subsistence need of the forest dependent community should remain the primary objective of JFM forests. Only surplus production should be used for commercial needs.
- Detailed demand analysis should be carried out before venturing into production activity. Especial attention should be given on assessing the market credibility and effectiveness
- Market infrastructure (like LAMPS, GCC etc) needs to be further strengthened. Strong and sustainable marketing links need to be established.
- Policies constraining commercial production from JFM areas should be reviewed. For instance, the ban on export of eucalyptus poles from West Bengal to other states should be revoked.
- State support in terms of Acts and legal notifications should be enacted to not only support the commercial ventures but also to ensure that the commercial objective do not subsume the subsistence needs and that the poor and forest dependent communities are not further marginalised in this process.

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