JNKVV Res J 47(3): 337-340 (2013)

SWOT analysis for lac cultivation in Madhya Pradesh

Arvind Dangi Thakur, S. C. Meena and **Ashutosh Shrivastava**
Agro-Economic Research Centre for MP & CG
Jawaharlal Nehru Krishi Vishwavidyalaya
Jabalpur 482 004 (MP)

Abstract

Madhya Pradesh (14.48%) is the third largest state of lac production, and Balaghat, Mandla, Chhindwara, Seoni, Narsinghpur, Dindori, Anuppur, Shahdol, Hoshangabad, Khargone and Dewas are the major lac producing districts in the state. It is assumed that 80 to 95 percent of the potential of lac host trees is not being utilized., Low cash and labour input activity with high returns which is generates rural employment and income are the strength of lac cultivation in M.P. Lac has significant climatic risks and up to 50 percent of the potential crop is commonly lost in poor seasons. A favorable export market scope exists for greater value added activity within the State. Shortage of supply and high lac export prices over years have reduced market uptake in some markets and encouraged substitutes. The effective cultivation of lac production, Technical training, monitoring, assistance to unify producers for brood lac distribution and marketing, a market information system and a strong state level planning and monitoring organization are required for lac cultivation and development.

Keywords : SWOT, cultivation, lac, Madhya Pradesh

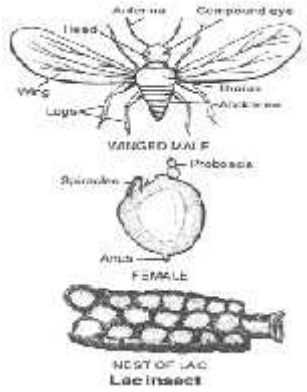
In Madhya Pradesh, forestry is the second major land use after agriculture. About 83 percent of the 33 million people engaged in agriculture practice rain-fed farming. Rain-fed farming is always associated with risk and low productivity. Erratic and uneven distribution of rain affects the crop growth and its productivity. The climate in rain fed areas is semi arid and soils are usually deficient in nutrients as well as moisture. Such conditions are not conducive to improving crop performance. Under such rain-fed agriculture, where Kharif (wet season -July to October) is the main cultivation season for agricultural crops, followed by a fallow or less productive season under crops in Rabi (winter season-November to June), the cropping system leads to a prolonged lean period from November to June. This lean period is characterized by migration, illicit felling and related desperate measures to obtain cash to overcome household food insecurity and other contingencies (repairing roofs, marriage, preparation for Kharif cropping etc,). The main Lac crop during the months of May/ June months assist households to overcome these difficulties and can also be a significant contributor to reducing migration.

There are 56,069 villages in the state; these villages are the primary production centers of food, fodder, fiber and fuel. Although these villages are also the owners of natural resources in the state, about 37 percent of the people in the rural sector continue to live below poverty level. Most of the poor in the state live either in the fringes of forest or near the forest. Farmers in these rain-fed areas over recent years have faced a decline in their farm income. Their main option has been to divert effort towards off-farm income. Off farm income has become a necessity among the resource poor section in the rural sector to meet their household food security.

Lac production is a complimentary or supplementary form of income to the existing livelihood activities of households. The harvesting periods of lac (October and May/ June for rangeeni Lac, and June and December for kusumi lac) coincides with the stress period of the majority in the rain-fed parts of Madhya Pradesh. Lac is relatively low cash and labour input crop with high returns. It is generally compatible with existing rural livelihood activities in terms of its labour requirement. Lac cultivation also encourages conservation of host trees and leads to a re-greening of the land.

Lac are scale insects (Laccifer Lacca) which live on trees called lac host trees where they secrete the lac resin which is scraped off and manufactured into shellac. To produce just 1 kilogram of lac resin around 300,000 insects lose their tiny lives. A scale insect is a

common name for any of about 2000 insect species found all over the worlds that attach themselves in great numbers to plants and trees. Scale insects range from an almost microscopic size to more than 2.5 cm. They can be very destructive to trees - stunting or killing twigs and branches by draining the sap.



India is the foremost lac producing country of the world with an annual production of about 21,300 tones and it is worth noticing here that Madhya Pradesh stands third largest producer of lac in the country. It produced approximately 2,870 tones of scrapped lac coming about 13.5 percent of India's total lac production. Experts say that the state is poised to emerge as Agri-business hub and this would help poor lac farmers share handsome profits. The home of richest biodiversity of economically important lac insects. Lac of commerce is derived from a few species belonging to the genus Kerria. Lac yields three basic components of economical value, i.e., resin, wax and dye. In India, lac cultivation is widely practiced in the states of Jharkhand (50.6%), West Bengal (6.5%), Chhattisgarh (20%), Madhya Pradesh (13.5%), Orissa (1.9%), Maharashtra (4.1%) and parts of Uttar Pradesh (2.3%), Andhra Pradesh (0.2%) and Gujarat (0.4%).

The principal districts that are currently producing lac in MP are: Balaghat, Mandla, Chhindwara, Seoni, Narsinghpur, Dindori, Anuppur, Shahdol, Hoshangabad, Khargone, Dewas. These districts are in the south and east of the State.

Considering lac cultivation is an employment and

Pic. B: Host plant of Lac Pic. C: Different uses of lac

Fig. Lac Production Scenario in M.P. (2010-11)

Pic. D: Lac Cultivation

income generation activity, the SWOT analysis of this enterprise has been done to drawn conclusions.

SWOT Analysis

SWOT is for Strengths, Weaknesses, Opportunities, and Threats. Using the SWOT Analysis would be evaluating these areas. A project or enterprises needs to have an objective and they need to identify the areas of enterprises.

The usefulness of SWOT analysis is not limited to profit-seeking organizations. SWOT analysis may be used in any decision-making situation when a desired end-state (objective) has been defined. Examples include: non-profit organizations, governmental units, and individuals. SWOT analysis may also be used in pre-crisis planning and preventive crisis management. SWOT analysis may also be used in creating a recommendation during a viability study/survey.

Strengths

Lac production has a long tradition in MP and the activity avoids many of the risks associated with "new" income earning activities., it is assumed that 80 to 95 percent of the potential of lac host trees are not being utilized., Low cash and labour input activity with high returns and generates rural employment and income are the strength of lac cultivation in M.P., It encourages re-greening and forest conservation and the State of MP has a generally favorable climate for production. It is not rain dependent and provides income at critical times of the year in rain-fed dependent agricultural areas.

Export markets appear strong an unlikely to be seriously affected by an increase in production from MP of say 3000 to 5000 MT and It reduces migration outside the State during the lean income months of the year and over the past four years 13,000 households have already commenced lac production with a doubling of lac production from MP. In many cases surveyed, lac is providing around 50 percent of rural household cash expenditure needs.

It is compatible with existing land based activities - minor shading does not appear to affect paddy production or any other crop production. It provides an important livelihood activity for women who in many cases insist on their share of income for their input. Rural youth are more attracted to lac than other group.

Weaknesses

Lac has significant climatic risks from heat, rain, hail and prolonged fog and up to 50 percent of the potential crop is commonly lost in poor seasons., slow and requires technical training and follow-up technical assistance one year lead-time before significant income and brood lac has often been in short supply and needs careful co-ordination and organized transport as timing is critical and more than 80 percent of the lac produced in MP receives its primary processing through outside

Table 1. Production scenario of Lac in Madhya Pradesh (in tons)

Name of Districts	Total Production in 2009-10	% to State	Total Production in 2009-10	% to State
Anuppur & Shahdol	28	1.17	15	2.19
Balaghat	547	22.89	217	31.68
Chhindwara	65	2.72	15	2.19
Dindori	27	1.13	20	2.92
Hoshangabad	120	5.02	95	13.87
Mandla	105	4.39	50	7.30
Narsinghpur	18	0.75	13	1.90
Seoni	1375	57.53	225	32.85
Others	105	4.39	35	5.11
Madhya Pradesh	2390	100.00	685	100.00

the State. Prices fluctuate up to +/-40 percent in a year because of price manipulation by export traders.

The shelf life of scraped lac is short (maximum of two months without cold storage conditions) so producers cannot easily hold back selling during low price periods. Trading practices work unfairly against producers with under weighing, unfair grading and opportunist pricing in many instances and Theft is a problem in most producing areas. It is perceived to be a crop of backward tribal communities and sometimes difficult to attract other new producers.

Taxes (VAT and mandi tax) on lac in MP reduce grower returns compared with neighboring states. Chhattisgarh has removed both Vat and CESS on lac. Maharashtra has removed VAT. Unfortunately lac is treated as both a NTFP and agricultural crop under taxation (and other) laws. Inoculation for the katki crop in July comes at a time when labour is short in some intensive agricultural cropping areas. No minimum price support or crop insurance schemes operate for lac. and No crop credit facilities exist for lac producer input requirements.

Opportunities

The doubling of lac production that has taken place in the past four years could relatively easily be doubled again and there is a favorable export market outlook with increasing interest in natural and sustainable products. Scope exists for greater value added activity within the State - including possibly a special export zone for lac industries and Opportunity for some producers/districts to specialize on brood lac production.

The opportunity to unify produce through support to encourage increased production, collective marketing and possibly processing., The opportunity to use lac in conjunction with Joint Forest Management (JFM) as a major forest conservation tool.

Threats

Other States in India could also quickly increase production and possibly threaten export market stability. Little is known about the lac end uses and risks of substitution in export markets and the similarly little is known about the plans of other producing countries.

A shortage of supply and high lac export prices over the past 4 years are stated by exporters to have reduced market uptake in some markets and encouraged substitutes. Global warming and more variable climates could increase climatic risk.

मध्यप्रदेश (14.48%) लाख उत्पादन मे तीसरा बङा राज्य है! म.प्र. में वर्तमान समय में मुख्य लाख उत्पादन कर रहे मिलों में मुख्यतः बालाघाट, मण्डला, सिवनी, नरसिहंपुर, डिंडोरी, अनूपपुर, शहडोल, होशंगाबाद, खरगोन व देवास है ।

यह माना जाता है कि लगभग 80 से 90 प्रतिशत लाख के आश्रित पेडों की क्षमता का उपयोग नहीं हो पाता, मध्य प्रदेश में कम नगदी एवं थोडे मजदूर आगतों के साथ अधिकतम लाभ के साथ रोजगार एवं आय उत्पादित करना ही ग्रामीण क्षेत्रों मे लाख की खेती की शक्ति है ।

लाख मौसमी अनिश्चितता, से सीधे रूप से प्रभावित होता है एवं 50 प्रतिशत प्रभावी फसल साधारणतः खराब मौसम से नश्ट हो जाती है ।

राज्य में लाख हेतु मूल्य से सवंर्धन एवं निर्यात बाजार की भरपूर संभवनाएं व्याप्त है । आपूर्ति की कमी एवं उच्च निर्यात लागत के कारण विगत 4 वर्शों से निर्यातक कुछ बाजारों से खरीदी कम करती है तथा यहां पर विकल्पों को प्रोत्साहन देना आवश्यक है । मध्य प्रदेश में लाख उत्पादन, तकनीक प्रशिक्षण एवं निगरानी लाख कीट वितरण (Brood lack) और विपणन, बाजार सूचना प्रणाली और एक मजबूत राज्य स्तरीय नियोजन और निगरानी संगठन, लाख की खेती के विकास के लिए आवश्यक है ।

Reference

MP Forest Department: www.forest.mp.gov.in
MP Minor forest Produce Federation: www.mfpfederation.com
Indian Lac Research Institute Ranchi: www.icar.org.in/ilri/default.htm
www.kvkjabalpur.org
www.pradan.org.in
www.zeezivisa.nic.in

(Manuscript Receivd : 16.12.12; Accepted : 8.10.13)