

### Tribal Context

Tribal communities in India face characteristic travails of poverty - lack of choice and absence of hope. Although tribals represent over 9% of the total population in the country, there are certain hilly regions where they represent over 40-50% of the population, living on the edge of the forests collecting minor forest produce for their food security and most of them have been compelled to migrate for their survival. A majority of the tribals having small and marginal holdings are practising rainfed agriculture with paddy, millets and pulses, barely enough to meet the needs of the family. Severe shortage of drinking water in summer, poor access to health care, education and other basic services make the tribal communities vulnerable to disease and acute poverty.



*Agri-horti-forestry on degraded lands*

For ensuring sustainable livelihood for the tribal communities, BAIF initiated a programme to provide alternative sources of food security and improved quality of life.



*Cultivation of food crops for additional income*

### Wadi Concept

Understanding the affinity of tribals towards trees, an innovative programme was evolved in 1982 by supporting the tribal families to establish fruit and forestry species on 0.4 ha denuded, slopy uplands. Thereafter, the wadi programme gradually expanded into a concept of a holistic tree-based farming system. Activities such as development of water resources, cultivation of food grains, vegetables, tuber and cash crops as inter-crops, and establishment of plant nurseries have been further promoted to generate additional income. These farmers living in the hamlets have formed their wadi groups to take up backward and forward linkage activities.

### Programme Development

The wadi programme has contributed significantly in developing sustainable livelihood for the tribal families. Fruit species like mango, cashew, lime and anola are very well adopted by these families who find ready market for their produce. The forestry plants along the border not only serve as windbreak-cum-live fence, but also contribute to fodder, fuel, minor forest produce,

medicinal herbs and other useful products. These need-based programme components are developed with flexibility, based on the available resources to convert wastelands into orchards through the efforts of the participant families. While the inter-crops start generating income from the first year, tree crops start bearing after 4-5 years. These farmers who were earning Rs. 12,000 - 15,000/year before the wadi are now able to earn Rs. 40,000-55,000/year.



*Value chain development through people's organisation*

### Value Chain Development

The local wadi groups aggregate the produce and supply it to their cooperatives for grading and processing. To provide marketing support to these cooperatives, BAIF has promoted a producer company under Vasundhara Agri Horti Producer Company Ltd. (VAPCOL). All the cooperative federations have joined this company as members. VAPCOL has undertaken procurement and processing of mango, cashew and amla products apart from marketing of fresh produce.

### Innovative Initiatives

Studying the market sensitivity, various new crops and enterprises have been promoted. As over 20% tribal families are landless and alienated from the benefits of land-based

development activities, special programmes are designed to impart skill-oriented training for them to develop new enterprises both in on-farm and non-farm sectors. Some of the important activities pursued by them are establishment of nurseries, production of vermicompost, dairy husbandry, goatery, poultry, collection of non-timber forest produce, aggregation of farm produce and involving in post-production activities and marketing. With enhancement of skills in non-farm sector, many of them could also engage themselves as masons, artisans, water technicians, mechanics and traders.

Other major initiatives taken up by the tribal families are highlighted below:

- ◆ Floriculture with synchronised harvesting for important festivals and collective marketing, enabled 2500 families to generate additional income of Rs. 35,000 to Rs. 1,50,000 per year.
- ◆ 1200 families adopted tasar sericulture to generate additional income of Rs. 7000 to Rs. 12000 per annum;
- ◆ 700 families started cultivation of water chestnut and fishery in ponds to generate income of around Rs. 10,000 per annum.
- ◆ 1300 families cultivated aromatic grasses such as lemon grass, palma rosa and citronella;
- ◆ 575 families have taken up lac cultivation on tree species such as butea, kusum and ber.



*New Initiative - Lac production*

- ◆ Nursery of 4000 grafted mahua plants annually, facilitated early flowering.





*Nursery management by tribal families*

### **Empowering through Knowledge and Skills**

People-centric approach increased involvement of communities in the development. Imparting new knowledge and skills through demystification and creating a cadre of community level technicians to provide services and guidance to the participant families enabled to carry out soil and water conservation, agri-horti-forestry, development of water resources for drinking and irrigation, pursuing housing and engineering skills, community health and book keeping. Facilitation for formal education helped their children to complete their education in various fields to pursue self-employment in agri-business, construction and service sectors.



*Skill enhancement for tribal youth*

### **Women Participation**

Traditionally, women were over-burdened with long hours of hard work to fetch water and fuel, nurture children and attend to various income generation activities, neglecting their health. Thus, empowerment of women has been undertaken through installation of clean kitchen measures and promotion of kitchen gardens. This enabled them to take active part in the process of social, political and economic development. To facilitate participation in mainstream development, self help groups of women from the wadi families were formed. Skill-oriented training on entrepreneurial skills were imparted to women to set up their micro-



*Active participation of women*

enterprises and their savings groups were linked with financial institutions to avail credit facilities. Series of interventions for hardship reduction and health care have been emphasized.

### **Wadi Coverage**

The wadi programme has been widely accepted by tribal families across the country. The programme has reached nearly 2,00,000 tribal families spread over 5628 villages in 10 states covering diverse tribes such as Warlis and Kuknas, Bhils, Pawras, Gonds, Santhals, Barelals and Sahriyas. The programme has been expanded across the country through various

implementing agencies under the support of NABARD with BAIF functioning as a facilitator for wadi and allied skills development.



*Vegetable cultivation for additional income*

Cumulative Coverage (2015-2016)			
States	Villages (No.)	Families benefitted	Area covered (ha)
Bihar	23	574	145
Chhattisgarh	10	526	210
Gujarat	799	38982	14558
Jharkhand	16	350	140
Karnataka	521	20512	9234
Madhya Pradesh	247	6068	2421
Maharashtra	3299	96999	38800
Rajasthan	604	25561	5270
Uttarakhand	5	800	105
Uttar Pradesh	104	4215	1031
<b>Total</b>	<b>5628</b>	<b>194587</b>	<b>71914</b>

### Major Programme Impact:

- ♦ Food security and sustainable livelihood for over 2 lakh tribal families;
- ♦ Conversion of 71000 ha of degraded lands into agri-horti-forestry, while increasing the carbon sequestration and family income;
- ♦ Introduction of following initiatives:
  - Nurseries of 20-25 lakh mango grafts, valued at Rs. 5 crores per annum, is a source of superior planting material;

- Establishment of 18 producer cooperatives and a producer company to collect, grade and market farm produce;
- ♦ Introduction of climate-smart agricultural practices reduced external inputs and energy consumption. The carbon sequestration is approximately 23 tons of carbon/ha in 10-year old wadis;
- ♦ Assured supply of water for drinking and irrigation and year-round employment generation, resulted in significant reduction in migration of women and children and better quality of life;
- ♦ Increase in literacy and enrollment of over 95% children particularly girls in schools;
- ♦ Increase in entrepreneurship with upgraded skills and leadership to ensure programme sustainability;
- ♦ Active involvement of participants in local institutions, Gram Sabhas and Panchayati Raj Institutions to facilitate social development and welfare of the community.



*Addressing twin problems of poverty and environment*

BAIF has been recognised as a Centre of Excellence by the Ministry of Tribal Affairs, Government of India in the area of rural technologies for improvement in livelihood and quality of life.



**BAIF DEVELOPMENT RESEARCH FOUNDATION**

Dr. Manibhai Desai Nagar, Warje, Pune 411 058

Telephone: +91 20 25231661

Fax: +91 20 25231662

E-mail: [baif@baif.org.in](mailto:baif@baif.org.in)

Website: [www.baif.org.in](http://www.baif.org.in)