



## Development of agriculture and allied micro enterprises and rural livelihood

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### **Abstract**

*This study presents an overview of the impact of rural livelihood programmes supported by the context of the Millennium Development Goals, and explores some of the lessons learned under headings of income generation and rural growth, better management of natural resources, targeting the poorest and marginalised, and local institutions and self-governance. It goes on to consider some of the new challenges and opportunities facing rural India including converging different rural development schemes for greater development effectiveness, tackling persistent food insecurity and adaptation to climate change.*

**Key words:** Income generation, rural growth, better management of natural resources

### **Introduction:-**

#### **An Overview of Rural Poverty in India**

Indian economy recorded a fairly high GDP growth rate of 9.2 percent during 2008-2013. Notwithstanding the relatively high growth rate, over 25 crore rural population (45 million households) in the country remain locked in poverty. Contrary to the earlier estimates of rural poverty, the Tendulkar Committee reported a rural poverty ratio of about 42 percent. While the number of rural people living on less than Rs.50/-(US\$1) a day decreased by 2.9 crores, the number of rural people living on less than Rs.62.5 (\$1.25) a day grew by 3.5 crore during the same period.

The key challenge before the Indian economy today is to ensure that its

growth becomes inclusive and contributes to a significant reduction in rural poverty. It is in this context that XI Five Year Plan has adopted an inclusive growth strategy of expanding livelihood opportunities to the excluded social and occupational groups.

The rural poverty situation in India is highly complex and greatly differentiated by geography, demography and social class. Nearly 60 percent of the rural poor households are concentrated in the states of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh. These states lag behind several others not only in terms of per capita income but also in human development outcomes. Some of these states have also been witnessing Maoist insurgency.



In addition, certain social and occupational groups in these states have been bearing a disproportionate burden of rural poverty. The Scheduled Castes, the Scheduled Tribes, the Minorities, single Women and households headed by women, persons with disability, the landless and the migrant labor suffer a disproportionate impact of poverty. Apart from deprivation, isolation and exclusion that these communities and groups are subjected to, their factor endowments are very limited and a significant proportion of them live in fragile ecological zones, experiencing rapid depletion of natural resources

Nature of Rural Poverty.

Rural poverty in India is multi-dimensional. It is influenced by systemic factors as well as structural changes in the economy and exhibits geographic and social characteristics. Multi - Dimensionality of Poverty

Most of the poor rural households are resource - poor. A vast majority of them belong to the socially marginalized groups of the SCs, the STs, the minorities and those engaged in low productivity occupations. A predominant proportion of these households are engaged in agricultural labor, even as agriculture sector has been experiencing a relative decline in Gross Domestic Product (GDP). In addition, the rural poor have a limited skill base that restricts their occupational mobility to benefit from the urban- centric growth process. Poverty denies the poor households access to a wide range of markets and services, including credit.

Lack of access to last-mile services further intensifies their poverty and affects their food security, health and nutritional status.

### **Rural livelihoods in India**

India's strong economic growth has consistently sought to include the rural poor, who are concentrated in areas where rainfed agriculture is the main economic activity. However, poverty persists because of limited and inequitable access to productive resources, such as land, water, improved inputs and technologies and microfinance, as well as vulnerability to drought and other natural disasters. Low levels of literacy and skills conspire to keep people in the poverty trap, preventing them from claiming their basic rights or from embarking on new activities to earn income or build assets.

The Department for International Development of the United Kingdom (DFID) has made a substantial contribution to improving rural livelihoods in India. This has been mainly achieved by supporting programmes led by state governments in Andhra Pradesh, Orissa, Madhya Pradesh and West Bengal. These programmes have adopted different approaches – from 'watershed plus' in Andhra Pradesh and western Orissa to supporting Panchayat Raj institutions in Madhya Pradesh and West Bengal and Integrated Tribal Development Agencies in southern Orissa.

However, the reduction of rural poverty through livelihoods promotion has been



a unifying goal. These programmes focus on some of the poorest and most remote districts in these states and particularly target women and socially excluded tribal and caste groups. The rural livelihoods approach places people at the centre of development, and programmes based on this approach help men and women build assets and develop their skills so that they can access new opportunities for income generation and employment. Most rural people depend on natural resources and agriculture for their livelihoods and DFID-supported programmes pay particular attention to the sustainable management of water, land and forests. Particular packages of support are directed to the landless and to marginal farmers so they also have opportunities to benefit.

### **Andhra Pradesh and livelihoods approaches**

A Sustainable Livelihoods (SL) approach aims to provide a wider view of poverty than conventional income-based approaches. It recognises the importance of ability to access resources and entitlements, reduce risk and vulnerability, and exercise voice; it therefore emphasises that the poor do have assets, options and strategies, and that they are decision-takers; its concern with 'getting below the surface' to informal institutions and processes is particularly important; and it offers the prospect of identifying entry points for pro-poor change, and of sequencing activities in such a way as to minimise the danger of appropriation of benefits by local elites. The rationale for the

promotion of a 'livelihoods approach' in the watershed programme in states such as Andhra Pradesh lies in the desire to take a more inclusive approach to community development and directly address some of the criticism that the watershed programme, which is essentially land-based, does not benefit the poor, many of whom are landless. Such an approach focuses on people's livelihood assets and strategies. People's own human capital – comprising the skills, knowledge, ability to labour and good health – is one asset on which they can draw. Hitherto, there has been insufficient differentiation in considering human capital within livelihoods frameworks. In reality, people's human capital exhibits wide diversity – including that attributable to disability – and livelihoods approaches need to reflect this.

The DFID-supported Andhra Pradesh Rural Livelihoods Project (APRLP) covers five districts in Andhra Pradesh, with a total population of over 15 million. The target group for the project are the rural poor in those districts, estimated to be up to 40% of the population. There are likely to be at least 150,000 Profoundly disabled people in the project's target population, and probably many more affected by some un-enumerated form of disability.

### **Andhra Pradesh Irrigation and Livelihood Improvement Project (APILIP)**

The irrigated area in Andhra Pradesh (GoAP) forms about 40% of the net sown



area by different sources. Out of the total area irrigated, 46% is irrigated by wells, 35% by canals, 14% by tanks and remaining 5% by other sources. However, figures indicate that only 38% of the geographical area is under cultivation which supports almost about 65% of labour force engaged in agriculture. Andhra Pradesh Irrigation and Livelihood Improvement Project was mooted to tap the vast untapped potential that improved irrigation holds and its positively impact and rural livelihoods. The Andhra Pradesh Irrigation and Livelihood Improvement Project (APILIP) was initiated to increase the irrigation potential and create livelihood programmes in subproject areas. The Japan Bank for International Cooperation extended Special Assistance for Project Formation of Andhra Pradesh Irrigation and Livelihood Improvement Project (APILIP). Consequently it was agreed by Government of Andhra Pradesh (GoAP) and Japan International Cooperation Agency (JICA) that 55 new minor irrigation tanks will be formed and 20 medium irrigation projects modernized in the next six years that will be constructed or rehabilitated in two phases to improve irrigation as well as livelihood in Andhra Pradesh. It is funded by Japan International Cooperation Agency (JICA).

Andhra Pradesh Irrigation and Livelihood Improvement Project (APILIP) was created broadly for the: Creation and Stabilization of irrigation potential; Increasing of agricultural

production; Increasing efficiency of water use; Managing water resources optimally by stakeholders; Alleviate poverty with diversified livelihood programs through newly constructed minor irrigation tanks for increasing Agricultural production and rural income in the economically backward areas of Andhra Pradesh. The tanks created under Andhra Pradesh Irrigation and Livelihood Improvement Project (APILIP) cover the districts of Adilabad, Khammam, Prakasam, Kadapa and Ranga Reddy and rehabilitation of the existing medium irrigation projects that stabilizes ayacut in Adilabad, Karimnagar, Warangal, Khammam, Nalgonda, Medak, Vijayanagaram, Prakasam, Chittoor, Kurnool, Nellore, Kadapa and Ananthapur districts is another part of programme under Andhra Pradesh Irrigation and Livelihood Improvement Project (APILIP).

### **Objective of APILIP**

The key objective of the project is increasing the agricultural production in the state of Andhra Pradesh by constructing and rehabilitating irrigation facilities interspersed in the state and improving water management and agriculture practices, thereby enhancing agricultural income and alleviating poverty. Care is taken to ensure that the output of the Project is transparent, easily evaluated, and sustainable for all stakeholders. Two important points of focus of the project are:



**Good balance of hard and soft components:**

Civil works i.e. construction of new minor irrigation tanks, rehabilitation and modernization of medium irrigation, as well as capacity building and reform activities are to be well synchronized.

**Self completion of sub-projects** (no more capital investment after construction): The Project will contain around a hundred individual sub-projects of minor irrigation tanks and medium irrigation all proposed to be completed within the Japan International Cooperation Agency (JICA) loan period.

The Government of Andhra Pradesh negotiated the Andhra Pradesh Irrigation and Livelihood Improvement Project (APILIP) to construct new minor irrigation tanks in water surplus basins and rehabilitate medium irrigation projects, improving water management and agriculture practices and thereby increasing agricultural income to be implemented in three batches over a period of 6 years during 2007-2013. The project comprises four components:

- Civil Works
- Sector Reforms
- WUA Component and
- Consultancy Service

**Agriculture and Allied Micro-enterprise in A.P**

Agriculture and allied activities support livelihoods of nearly 70 per cent of India's rural population. In recent years,

land-based livelihoods of small and marginal farmers are increasingly becoming unsustainable, since their land has not been able to support the family's food requirements and fodder for their cattle. As a result, rural households are forced to look at alternative means for supplementing their livelihoods. In this context, natural resource-based micro-enterprises have emerged as alternative livelihood opportunities in rural areas. Varying socio-economic and environmental trends including declining crop prices, swelling labour forces, migration and urbanization increased the demand for alternative employment and off-farm livelihood opportunities. Due to lack of skill development, formal employment ceased to keep pace with the demand for employment. In this context, watershed development strategy facilitated small landholders, landless and women groups to benefit from small scale allied activities.

Micro-enterprises are worth giving attention to for several reasons. Firstly, in some areas these make a significant contribution to household income, employment and economic production. Secondly, they have a potentially key role to play in supplying resilient and flexible services. Thirdly, compared to land-based agriculture, they tend to generate relatively good income and hence provide resilience to household economic conditions. Finally, being relatively less technology oriented, these activities support a proportionately larger section of the unskilled labour



force and produce larger number of livelihoods per unit of output. Micro-enterprises are the keys to generate employment opportunities as well as income earning avenues to both landless, women and landholding people. Therefore, the poverty alleviation in semi-arid regions requires a greater understanding of the interactions of agriculture and allied enterprises and their implications for the household economy.

Information on micro-enterprise based livelihoods was drawn from a wide range of published and unpublished sources, including field research by members of GT- Agroecosystems at ICRISAT. Although there is now rich debate and discussion on various aspects of livelihoods, there is no evidence on overall synthesis of micro- enterprises, which are dependent on natural resource. This paper brings information together to create composite picture of changes in rural livelihoods and enhanced livelihood opportunities.

### **Micro-enterprises, Markets and Technology**

Small-scale entrepreneurship through watershed development plays a significant role in poor people's lives and is one of the keys to lifting people out of poverty. Some of the activities are the backbone on which the rural society survives in most arid and semi-arid regions. Watershed development primarily aiming sustainable management of natural resources contributing for overall agriculture

development and livelihood promotion in rural areas. Initial poverty eradication efforts in India concentrated on supply of agricultural technologies, inputs and services that were often 'production' orientated. However, they were largely inappropriate to the needs of the poor and the benefits were mostly captured by the wealthy.

Later, the approach changed towards 'capacity-building' in sector organizations to equip people and organizations with the skills and resources to do a better job. The concept of livelihoods and livelihoods analysis emerged in the mid nineties – closely associated with poverty reduction strategies. This approach was useful to identify and prioritize the needs of the community in enhancing their livelihoods.

### **Market Structure**

Although micro-enterprises operate in very informal, unregulated environments, the fortunes of most of these activities are connected by supply chains through production channels and the influence of competition, to mainstream commercial markets. These interrelationships increasingly link allied enterprise activities performance to the behavior of other actors in economic networks. Most times production activities of allied enterprises are supported by local markets to fulfill local demand. However, monopoly does not arise as diverse actors are involved in the production processes. Thus, most often, micro-enterprise activity serves as a strong social capital, within the



community, builds strong social network.

### **Livelihood Opportunities for Agriculture and Micro-enterprise**

The innovative farmer participatory approach for integrated watershed management implemented through a consortium of research organizations, development agencies and NGOs envisages a strategy of convergence of the activities in watersheds. In this paper, experiences from APRLP-ICRISAT, ADB funded and other projects are used to describe success stories of growing micro-enterprise activities in rural watersheds .

#### **1.Medicinal and Aromatic Plant Extracts:**

Medicinal and aromatic plants possess the ability to grow in poor soils and under low rainfall and moisture conditions, there by assisting in the natural regeneration of these crops. These crops improve specialized skills; encourage contacts with niche markets; adds to crop diversification; and provides employment opportunities. Value addition to medicinal and aromatic plants product is one of the objectives of crop diversification.

#### **2.Apiculture:**

The harvesting of honey from the forest has been in practice since long and huge profits from this enterprise promoted rearing bees in the farms. In the recent past rural communities while diversifying their agricultural practices, have adopted this practice gradually.

Production of honey from farmlands can be a secondary activity for farmers as it requires less time as compared with other activities and can be carried out by women in a house. On an estimate, about 80 per cent of honey is used directly in medicines and 10 per cent is used in Ayurvedic and

pharmaceutical production (Gol, 2006). Studies found that apiculture is an excellent, esthetic livelihood generating endangered hobby. It has a potential market with environmental responsibility and worldwide medicinal and nutritional recognition. Apiculture requires less investment and easy-to-learn. It also helps in pollination of crops and increase seed setting in many crops.

#### **3.Upgrading and Rearing Livestock:**

watershed program is an important intervention in dry land areas to improve crop as well as livestock productivity. Small ruminants like, sheep or goats are the best source of regular cash income throughout the year for rural poor without much investment. They form a major component in a tree-crop-livestock diversification/integration paradigm. As integrated crop-dairy

farming system is a viable and profitable proposition to the farmers, upgrading livestock is essential.

#### **4.Village Seed Bank:**

Village seed bank system was introduced as part of income-generating activities in many watersheds. These seed banks are providing self-sufficiency and self reliant for farming communities since they



experience the drudgery of seed companies in terms of spurious seeds supply. Therefore, seed banks emerged as a worthy social capital in rural areas.

#### **5.Vermiculture:**

Vermiculture became a prominent micro-enterprise for rural landless and women groups, as it requires low investment. Vermiculture is environment friendly as it converts disposal of organic wastes generated in farms as well as in household front as productive plant nutrient. These residues contain valuable plant nutrient and can be effectively used for increasing the agricultural productivity. Earthworms convert the residues into valuable source of plant nutrients by feeding on the organic material and excreting out valuable organic manure. Earthworms are one of the major soil macro-invertebrates. The role of earthworms in the soil is to improve soil fertility and soil health. Vermicompost increases water-holding capacity of the soil, promotes crop growth, helps produce more, and improves food and fodder quality.

#### **6.Dal Making:**

Dal making is a best micro-enterprise to avoid middlemen and get maximum market price for the product. Dal-making is also a value addition to the product through which farmers can benefit the most. This micro-enterprise is brings women self-help groups together and builds strong social network among rural communities. Apart from value addition to the

product, farmers also get nutrient-rich fodder to feed animal (ICRISAT, 2004).

#### **7.Poultry-based Activities:**

Agro wastes (eg, from maize cultivation) can be diverted for poultry feed along with other supplemental food. Rearing of improved breed like broilers can increase the returns and improve the livelihood options.

#### **8.Horticulture and Forestry-based**

**Activities:** Teak planting, pomegranate cultivation and custard apple cultivation along the bunds and marginal lands will provide profit to the farmers.

#### **9.Nursery Raising:**

Nursery raising forms a means of livelihood for large number of people . Nursery raising as the means for developing livelihood and income-generating opportunities for the local communities. It also provides capacity building and skills upgrading for members of the communities. Nursery raising generates cash income, means for poverty alleviation, opportunity for women and aged people to contribute to income generation and flexible working hours.

#### **Recommendations for Practitioners**

Micro-enterprises are informal, low costs, local business hubs for livelihood security of poor marginalized section of the society. The further promotion of these allied enterprises lies in the interest of decision makers and practitioners. Thus, following specific points to be taken care while



formulating policies to promote micro-enterprises.

A. Easy availability of rural finance for their effective operation and smooth running.

B. Providing appropriate training to improve necessary skills in their chosen activity.

C. Facilitating effective support system to overcome uncertain and unorganized marketing system for products.

D. Policies should concentrate on effective pricing for goods and services generated by micro-enterprises.

E. Necessary arrangements need to be created to provide sufficient revolving fund as project contribution to SHGs to overcome financial crisis.

F. Adequate capacity building training programs need to be arranged to improve the skills of landless and women groups and to provide necessary information about new technologies, marketing avenues and techniques.

### Conclusion

It has been demonstrated from the above case studies that the relationship between agriculture, natural resources and micro-enterprises are interrelated. It is therefore, important to be able to understand exactly what is likely to occur in particular contexts. Given the increased witness on the role of micro-enterprise in promoting rural livelihoods and the associated increase in the proportion of household income derived from these activities.

Agricultural allied enterprises should be viewed as an alternative to mainstream non-farm employment opportunities and although not the perfect way of providing employment to the poor in rain-fed farming. Therefore, there is an urgent need to understand how watershed development can become a part of efforts to support most diverse livelihood portfolios where a win-win situation can be created through improving the resource base which creates a more conducive environment for undertaking micro-enterprise activities, leading to an overall increase in standard of living, employment, poverty reduction and building resilience of the community to cope with the impacts of drought.

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