

Significant Achievements

- ◆ 108 water harvesting and conservation structures benefit 2500 ha belonging to 4500 small and marginal farmers. This was achieved through leveraging about Rs. 3 crores (30 million) from various sources.
- ◆ System of Rice Intensification replicated in about 10 villages involving 300 farmers.
- ◆ Nutrition Gardens established in 500 households in 25 villages. Floriculture and fodder grass units established in more than 30 villages, covering 400 households.
- ◆ 10 grassroot institutions including 600 self help groups established, covering 8,500 households and utilizing a bank credit of Rs. 13 crores. 120 role models identified for horizontal transfer of knowledge during training programmes,
- ◆ Agricultural productivity enhanced in about 3000 ha, 6000 farmers have adopted integrated crop management farming practices,
- ◆ About 300,000 horticultural and forest trees planted in rain fed, irrigated, hillocks and common lands,
- ◆ 5000 households had enhanced income generation through various Off and Non-Farm enterprises,
- ◆ 12 SHG women members elected as Panchayat leaders in Puducherry,
- ◆ About 30,000 trainee days a year invested in capacity building.

Way Forward

The Biovillage project is currently spreading to the other ecological regions of different Indian states where MSSRF works. This includes Villupuram, Kannivadi and Pudukottai regions of Tamil Nadu and Koraput region of Odisha. This model intends to benefit around 20,000 households targeting 25,000 ha of agricultural land spread over 250 villages.

The Biovillage Project has demonstrated that knowledge, skill, technological, and managerial empowerment holds the key to poverty eradication on a self-replicating and self-sustaining basis. It is hoped that the Biovillage model of Sustainable Human Development will become the pathway to happy and sustainable societies in the coming decades.

How does a village qualify to become a Biovillage?

1. Conservation and enhancement of life support systems with reference to soil, water, biodiversity and climate change adaptation and mitigation,
2. Care and sustainable management of common property resources such as community grazing ground and fallow lands, water harvesting tanks, threshing floor, etc.
3. Adoption of cropping/farming systems which can enhance the productivity, profitability and sustainability of small holdings,
4. Creation of opportunities for non-farm employment and income through market-driven micro-enterprises, supported by micro-credit,
5. Achieving nutrition security through concurrent attention to the needed macro and micro nutrients, clean drinking water, sanitation, environmental hygiene and primary health care,
6. Establishment of community managed Village knowledge Centres and weather stations,
7. Commitment to gender and social equity and to environmentally sustainable and socially equitable growth.

We are deeply indebted to the

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BIOVILLAGES

Paradigm of Human-Centered Sustainable Development



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Genesis

M S Swaminathan Research Foundation (MSSRF), a non-profit, research, and capacity building organisation, was established in 1988, with the aim to develop and follow a pro-nature, pro-poor, pro-women, and pro-sustainable, on-farm, off-farm, and non-farm patterns of livelihood development, through skill, technology and knowledge empowerment.

The concept of Biovillage emerged at MSSRF's annual inter-disciplinary dialogue in 1991, titled, 'New Technologies: Reaching the Unreached'. Biovillages thus aim at taking the benefits of modern biological technology and research for improving the lives and livelihoods of the resource poor rural communities.

In response to the invitation by the Government of Pondicherry (now known as Puducherry) the Biovillage project was initiated in March 1991 in Pondicherry. In China, a similar programme "Qianxian Biovillage Model" was initiated in five regions of the Hubei province of Huairou Country of Beijing, by the Chinese Academy of Sciences (CAS). CAS is a leading academic institution and comprehensive research and development centre in natural science, technological science and high-tech innovation in China. The Asian Development Bank provided the initial funding support to establish Biovillages in India and China

Contemporary Relevance

A detailed examination of the impact of contemporary development pathways on human well-being and long-term survival, at national and international levels, lists the following major problems impeding India's development:

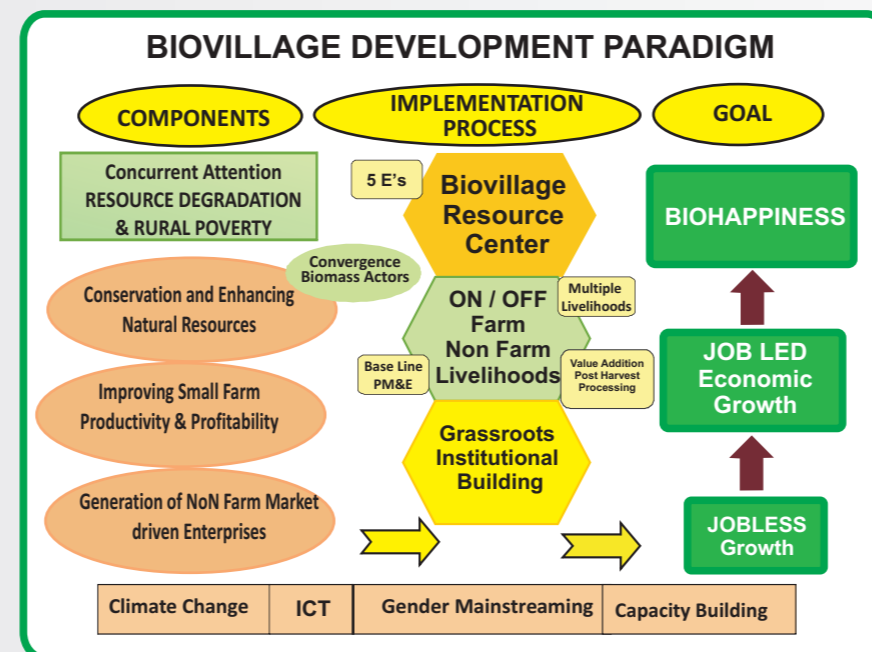
- ◆ Increasing rich-poor divide resulting in the co-existence of unsustainable lifestyles and abject poverty,
- ◆ Increasing feminization of poverty,
- ◆ Increasing damage to basic life support systems of land, water, biodiversity, forests, oceans and atmosphere,
- ◆ Increasing unemployment, Jobless economic growth
- ◆ Expanding urbanization and the rapid growth of urban slums caused by the influx of environmental and economic refugees, who have no livelihood opportunities in the native villages,
- ◆ Prevalence of malnutrition and under nutrition among over 200 million children, women, and men, and the prevalence of silent (hidden) hunger caused by micro nutrient deficiencies in over 300 million persons.

The biovillage model of rural development has been designed to address some of these issues at the micro-level. The name 'biovillage' denotes human-centered development, where the health and happiness of rural families is the goal of development.

Definition and Framework of a Biovillage

Biovillage is a pro-nature, pro-poor, pro-women and pro-jobs development paradigm that seeks sustainable agricultural and rural development by concurrently attempting to mitigate the twin concerns of the present times, viz. the creeping degradation of the resource base and the persistence of rural poverty, through technologies which are ecologically compatible, economically viable and socially equitable

Biovillages aim to bring transformational technologies to villages, for sustainable transformation of lives and livelihoods of the resource-poor communities, without endangering their long-term production potential. The resource-poor, landless labourers, marginal, and small farmers (particularly women) are the main partners of this project.

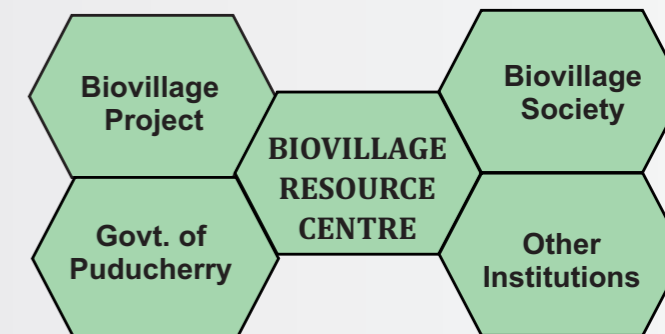


- ◆ **Pro-nature** orientation is reflected through ensuring the sustainability of productivity of bio-physical resource base and employing environmentally compatible interventions.
- ◆ **Pro-poor** orientation is achieved by employing interventions that improve the livelihood security of the resource-poor, through empowering them with technology and skills, to enhance access to income and employment. This is achieved through value addition to time and labour, through knowledge, skill, information and organizational empowerment of rural families.
- ◆ **Pro-women** orientation is ensured through empowering women with skills and access to income and reducing the drudgery of work at home and outside. Reduction in the number of hours of work and adding economic value to each hour of work is the means to this end.

Biovillage Resource Centre

The Biovillage Resource Centre (BVRC) is the hub of the Biovillage project, developed as a single window centre, for addressing specific needs and aspirations of the rural communities of these villages. This centre is established in the Pilliyarkuppam village in Puducherry. The main components of a BVRC are:

- ◆ **Technology research, assessment and pilot demonstrations:** Natural Resources Management, On-farm, Off-farm and Non-farm technology enhancing interventions are the key components. The BVRC is the focal point for development and demystification of technologies, testing and demonstration of new crop varieties and hybrids, integrated and intensive cropping and management systems and pilot scale demonstration of viable micro enterprises.
- ◆ **Training:** Trainings on micro-enterprises, micro-credit and crop management are imparted to rural communities, NGOs, and institutions.
- ◆ **Knowledge Management:** Through the Village Knowledge Centre on Sustainable Food Security, on-farm and off-farm technologies, market price intelligence, meteorological information and entitlements are disseminated to the resource-poor, through use of ICT tools and technologies.
- ◆ **Service centre:** Service facilities such as timely availability of quality seeds, custom hire of farm implements, input supply management, animal health care centre, bio-control agents, and poultry feed production; spawn and mushroom production and processing are provided.



Knowledge Connectivity

Biovillages address the urgent, unmet need for locale-specific, demand driven, information and knowledge, among the resource-poor, marginalized communities, ensuring last mile and last person connectivity. Managed and owned by the communities, innovative Information Communication Technologies are appropriated through capacity building and skill development, to address life and livelihood issues of the rural poor.

