

A photograph of a vibrant green rice field. In the background, there is a structure covered with a green net, possibly for shade or protection. The field is filled with tall, healthy rice plants. The overall scene is bright and natural, representing sustainable agriculture.

Sustainable Agriculture in the Northern Central Belt of India:

Farmer Community Upliftment and Agroforestry



THE PROBLEM

- Uttar Pradesh and Madhya Pradesh are located in the Northern Central belt of India.
- These areas are subjected to water scarcity due to their geographical circumstances. The Bundelkhand districts in Uttar Pradesh are subjected to draught and purely depend on monsoons for cultivation.



- About 12,50,000 people are affected in this region.
- The irrigation facilities for these regions are facilitated mainly by dug wells and tube wells and also through canals and ponds.
- Due to insecure irrigation system in these regions, crop production is very poor despite land availability; they also face problem with open grazing.
- The tribal farmers in this region have very little resource access for cultivation and are unaware of sustainable agriculture, where as the resource rich farmers utilize high amount of fertilizers for their crop cultivation.



ABOUT THE PROGRAM

- Agroforestry is anticipated in private lands and community lands for planting cover crops and Nitrogen fixing plants and trees.
- Inducing better crop residue management by directly or indirectly adding vegetative matter into the soil or to the compost.
- Establishing climate smart model village activities in 10 villages.
- Switching from continuous flooding practice to alternate wetting and drying method of irrigation (*only for irrigated rice paddies).
- Increasing the use of organic amendments in the soil (manure application/compost/residue incorporation/ mulching).
- Trees are to be planted on community lands and on embankments.
- In total 40,000 to 50,000 trees will be planted on beneficiaries' farmer land and community land.

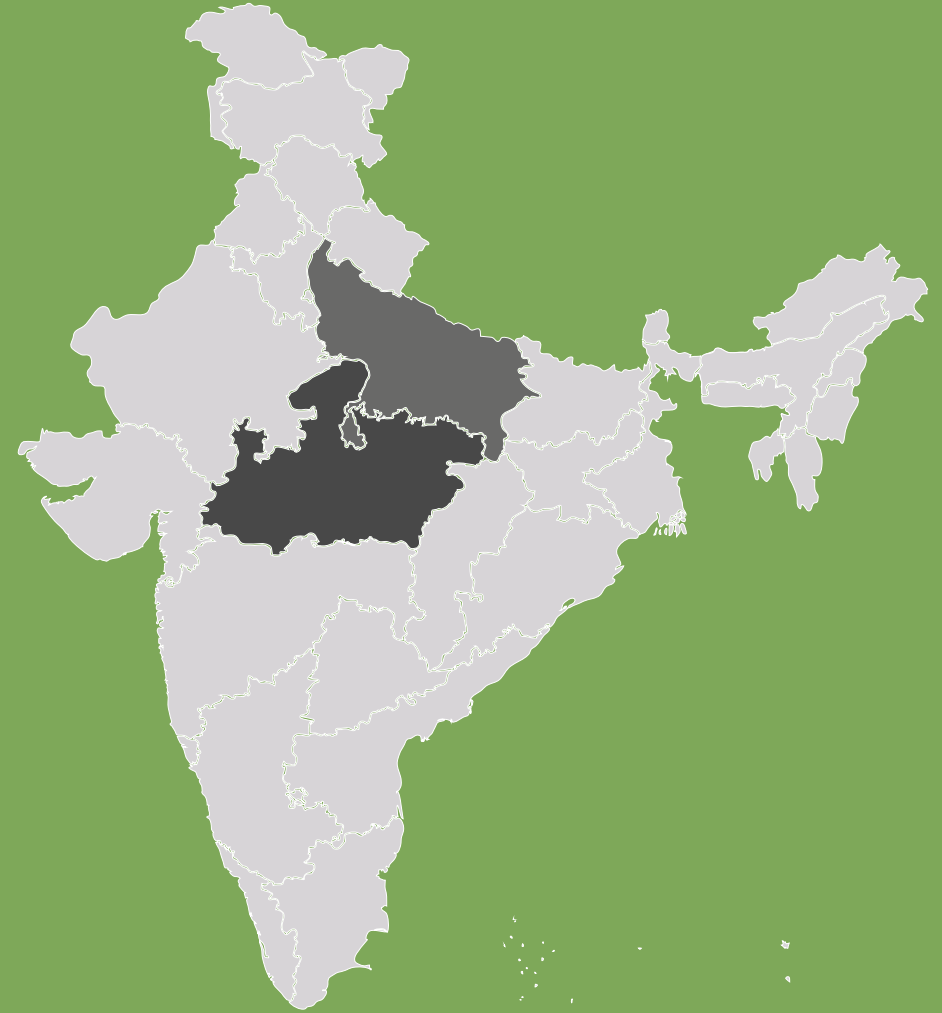


PROJECT FOCUS AREA

Implementation partner:
Haritika

Project Duration:
10 Years

Districts:
**Chattarpur, Banswara,
Mahoba, Bijawar, Datiya**





PROJECT DETAILS

Project Area
55,000 ha.

With a scope for expansion

No of Villages
125 villages
on each block

No. of farmers
300,000 – 400,000
Farmers Approximately

Total amount of land
for farm forestry
800+ HA

**Type of Activities in
association**

Carbon Finance
Program, Agroforestry,
Irrigation Facilities,
Increase Plantation in
Non Timber Forest
Products and Block
plantation

Types of crops :

Wheat, Jowar, Gram, Sesam, Urad, Soy bean, Moong & Arhar

Species of interest for Agroforestry:

Mango, Aonla, Guava, Kinnu, Ber, Karonda, Bel, Anjeer, Banyan, Bamboo, Pipal, Neem and Lemon



OUR APPROACH

Climate Smart Agriculture



- Support increased vegetable cultivation along-side other major crops.
- Encourage conservation tillage and cover crops to reduce soil erosion and runoff as well as other benefits such as carbon sequestration (by soil).
- Improved cropping practices and opting for organic systems (through activities like vermi-composting).
- Explore climate-resilient crop varieties (eg: drought-prone), Land restoration and land-use changes.
- Increase nitrogen fixation efficiency (reduced chemical fertilizer use; better nutrient management).
- Better, cleaner energy for irrigation (avoidance of diesel) and smarter water management (eg: drip-irrigation).
- Assistance in facilitation of loans for farmer Self-help groups.
- Bring about behavioral change by demonstrating technology and its benefits and encouraging farmers to adapt to using them.



OUR INTERVENTIONS

- Farmers will be trained and supported on the various interventions on choice of climate resilient varieties and efficient nutrient management practices by the on-ground implementation partners.
- Residential training will be provided on Community based organic farming techniques, zero tillage mulching, crop residue management, and Crop diversification through introduction of vegetable/millet cultivation.
- Training on weed and pest management, crop residue management, training on Zero tillage mulching and composting methods.
- The farmers will also be trained in water budgeting and participatory development of cropping calendar.
- These interventions are not necessarily area specific; hence the project activities can be replicated across various regions in India.
- The creation of farmer groups creates an opportunity for the community to work together as a whole. This enables planning and synchronization of cultivation practices and irrigation activities, also a conducive environment for project implementation as all members are involved.

PROJECT OUTCOMES



Farmer sensitization on benefits of Agroforestry and Organic Farming



Farmer training, capacity building and monitoring activities



Enhancement in the income of the farmers from fruits and vegetable cultivation



Irrigation facility to the resource deprived farmers



Decrease in the use of nitrogenous fertilizers and fossil fuels for farm activities



Increase in use of organic amendments in the soil (manure application/compost/residue incorporation/ mulching)



Reduction in emissions by residue crop burning



Switch from conventional tillage to reduced/conservation tillage

COMMUNITY ENGAGEMENT AND BENEFITS



Increased source of income and new employment opportunities through monitoring and maintenance activities



Reduced gender inequalities - Involvement of both men and women



Capacity building and knowledge sharing



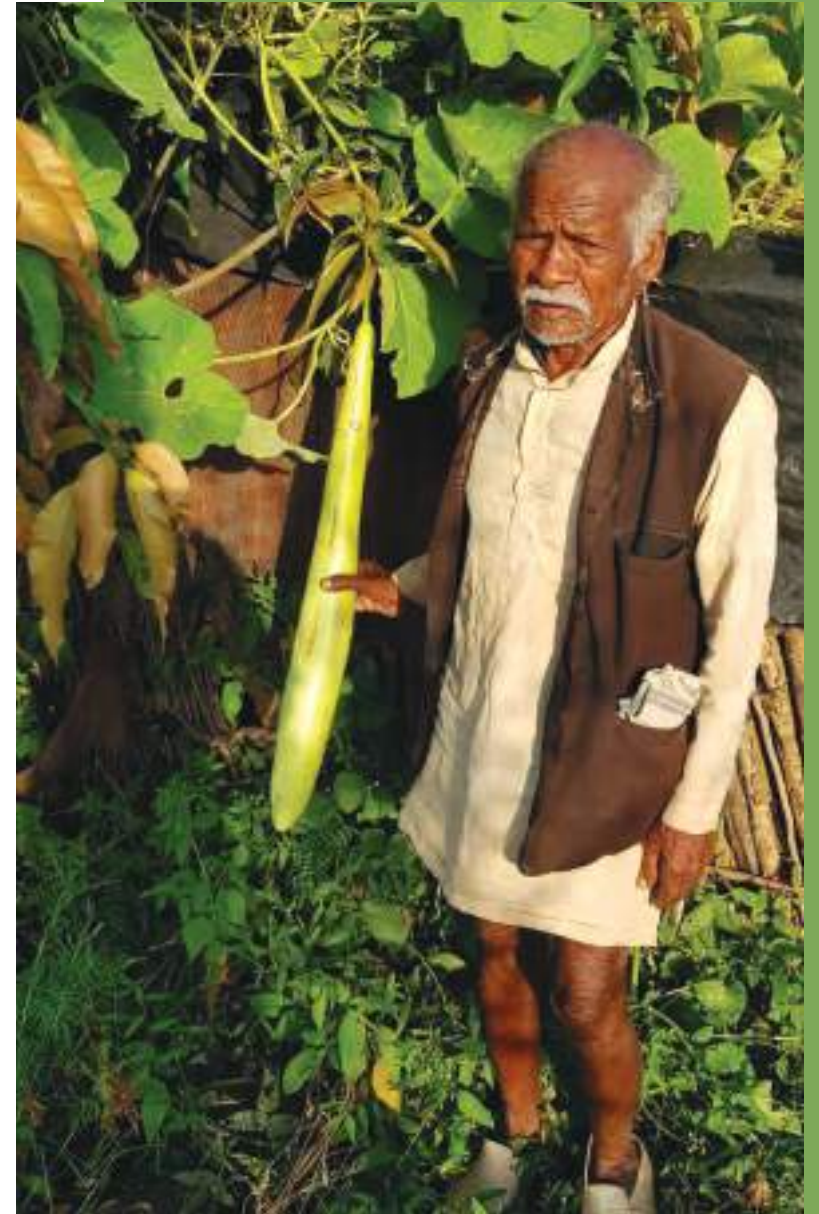
Awareness and education on carbon markets



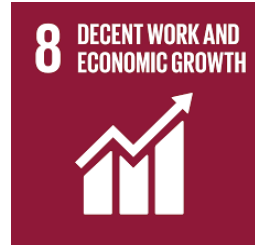
Afforestation by tree plantation and horticulture in common lands



Financial contribution to the farmers for planting trees in their land from the beneficiary



SDGs ADDRESSED BY THE PROJECT





VNV Advisory Services has been at the forefront of working with climate change and livelihoods. Our decade-long experience has seen us develop low-carbon projects that support these communities in getting their basic needs while adapting to and mitigating the harsh impacts of climate change. We work in areas of clean cooking, social forestry, sustainable agriculture, rural energy access and many other related community based technologies. With support from over 50+ NGOs and implementation partners, our work encompasses over 5 million rural households and 400,000 Hectares of forest areas under management across the South Asian (India, Bangladesh, Nepal, Laos, Myanmar and Sri Lanka) region. We have also been able to engage with businesses to address issues of Social Responsibility, Environmental Sustainability and Carbon Neutrality.



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