











Green-Ag: Transforming Indian Agriculture for Global Environmental Benefits and the Conservation of Critical Biodiversity and Forest Landscapes



Chambal Landscape, Madhya Pradesh

Green-Ag Project

The project "Green-Ag: Transforming Indian Agriculture for Global Environmental Benefits and the Conservation of Critical Biodiversity and Forest Landscapes" is funded by the Global Environment Facility (GEF). In India, the Ministry of Environment, Forest & Climate Change (MoEF&CC) is the GEF Operational Focal Point, and the Ministry of Agriculture & Farmers Welfare (MoAFW) is the National Executing Agency for this project. The Food and Agriculture Organization of the United Nations (FAO) is the designated GEF Implementing Agency for this project in India.



The Green-Ag project is being implemented in five production landscapes in Madhya Pradesh, Mizoram, Odisha, Rajasthan, and Uttarakhand. The project intends to mainstream the four Global Environment Benefits (GEBs), namely, biodiversity (BD), land degradation (LD), sustainable forest management (SFM), and climate change mitigation (CCM) through agriculture and environment-related interventions. This innovative project facilitates synergy between investments in agriculture and the environment through multi-sectoral approaches. Landscape management tools are embedded in the project design and the project will build on the existing institutional arrangements in the landscape for its implementation.

Project Objective

To catalyze a transformative change in India's agricultural sector to support the achievement of national and global environmental benefits and conservation of critical biodiversity and forest landscapes.

Project Components and Outcomes

Component 1: Strengthening the enabling framework and institutional structures to mainstream BD, Sustainable Land Management, CCM, and SFM policies, priorities, and practices in India's agricultural sector.

Outcome 1.1: National and state-level institutional, policy, and programme frameworks strengthened to integrate environmental priorities into the agriculture sector to enhance the delivery of global environmental benefits (GEB) across landscapes of the deepest conservation concern.

Outcome 1.2: Cross-sectoral knowledge management and decision-making systems at national and state levels to support the development and implementation of agroecological approaches at landscape levels that deliver global environmental and enhanced socioeconomic benefits.

Component 2: Improved agricultural and conservation practices demonstrating sustainable production, resilient livelihood advancements, habitat improvements, and delivery of tangible BD, LD, CCM, and SFM benefits.

Outcome 2.1: Institutional frameworks, mechanisms and capacities at District and Village levels to support decision-making and stakeholder participation in Green Landscape planning and management strengthened, with Green Landscape Management Plans developed and under implementation for target landscapes.

Outcome 2.2: Households and communities able and incentivized to engage in agroecological practices that deliver meaningful GEB at the landscape level in target high conservation priority landscapes.

Strategic Aims of the Project

- Ensure that farmers have the capacities and incentives/support to maintain and/or adopt environment-friendly agriculture and land use practices
- Maintain and conserve biodiversity including agrobiodiversity, soil and water productivity and other services derived from nature (such as soil conservation flood control, and pollination
- Ensure the sustainability of agricultural production, and
- Improve rural livelihood and enhance farmers' incomes

Chambal Landscape: Madhya Pradesh

In Madhya Pradesh, the Green-Ag project is implemented in the Chambal Landscape, and the Directorate of Farmer Welfare and Agriculture Development, Bhopal Government of Madhya Pradesh is the Operational Partner. The project covers the protected area of the National Chambal Sanctuary which is an important part of the Chambal River. The Sanctuary's area is 134,475 ha and includes a buffer zone of approximately 400,000 ha. Though the National Chambal Sanctuary falls in three states viz Rajasthan, Madhya Pradesh, and Uttar Pradesh, the Green-Ag project focuses only on Madhya Pradesh covering 97,982 ha area. The project is being implemented in Sheopur and Morena districts covering 58 gram panchayats comprising 116 villages of Vijaypur (78 villages) and Sabalgarh (38 villages) Blocks, respectively.

One of the most striking features of the Chambal landscape is the deep erosion rivulets that have formed in the soils derived from alluvium over centuries of intensive land use and poor surface runoff management. Wind and water erosion is worsened by deforestation, over-grazing, and poorly planned tillage practices.

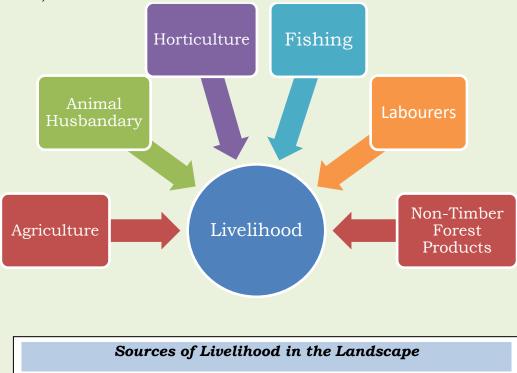


Critically endangered Species in the Chambal Landscape

The National Chambal Sanctuary is also listed as an important bird area (IBA) and is a proposed Ramsar site. Vegetation of the Chambal region mainly consists of two types of forests viz. **Tropical dry broadleaf forests** and **tropical ravine thorn forests**.

Important agrobiodiversity resources from this area include Gundli - Little millet (*Panicum sumatrense*), Jautri -Wheat (*Triticum aestivum*), and many varieties of

Pigeonpea (*Cajanus cajan*) such as Jhunki rahar, Jhunku rahar, Kataksa rahar, Katki rahar, Lal Tur.



Madhya Pradesh has the good number of Scheduled Tribe population. However, the project villages have less population of tribes, and the Sahariya and Mongiya tribes reside in the landscape in some villages.

Project Institutional Structure in Madhya Pradesh

In the state, the State Nodal Agency i.e. Directorate of Farmers Welfare and Agriculture Development, (DFW&AD) Bhopal has set up the State Project Management Unit (SPMU) for the day-to-day project management and has established the Green Landscape Implementation Unit (GLIU) a technical and implementation unit at the landscape level. SPMU is based in the DFW&AD, Bhopal while GLIU is based in the Vijaypur Block and implements the project activities in the landscape villages of Morena and Sheopur Districts. Both SPMU and GLIU are guided and technically supported by the National Project Management Unit (NPMU) established by FAO in New Delhi. The SPMU and GLIU are responsible for coordinating with the SSC and TSG respectively and developing the implementation reports, action plans, and budgets for their approvals.

IMPLEMENTATION COMMITTEE AT DIFFERENT LEVEL

STATE LEVEL

- The State Steering Committee (SSC) to guide overall project implementation in the Chambal Landscape and is chaired by the Chief Secretary, Govt of Madhya Pradesh
- Representatives of all the relevant line departments, and the agriculture university of the state are the members of SSC.
- SPMU coordinates with the SSC for the state strategy, action plans, and for policy directions, etc.

DISTRICT LEVEL

- The Technical Support Group (TSG) at the district, monitors the project implementation at the landscape level and is chaired by the District Collector with representatives of relevant line departments, farmers, women, landless, NGOs, and SHG, as members.
- TSG also supports the convergence of various schemes of the government in the landscape, approves the Green Landscape Management Plan (GLMP) for the landscape area in the district, oversees implementation and monitors the progress.
- The Green Landscape Implementation Unit (GLIU) acts as a Secretariat to the TSG

VILLAGE LEVEL

- The Village Implementation Committees (VICs) at the village level to discuss project activities with the community, develop and implement the GLMPs in their respective villages and is headed by the Sarpanch of the village or its nominee along and includes representative from different existing villagelevel community organizations, women, representatives of marginalized groups and also staff of all the relevant line departments as members.
- The CRPs for the respective village is the ex-officio Secretary to the VICs. They support VICs in conducting the monthly meetings and act as a bridge between VIC and GLIU.

PROJECT IMPLEMENTATION ACTIVITIES AT THE LOCAL LEVEL

The landscape activities will be implemented with the approach of participatory engagement of farmers/ communities in the project villages in both districts. The proposed activities in the Chambal Landscape can be broadly categorized as:

- 1. Sustainable Agriculture
- 2. Improved Livestock Management
- 3. Community-based Natural Resource Management
- 4. Landscape-level activities

The tentative list of the activities is given below. However, these will be decided

Sustainable Agriculture

- Promote agroecological practices, including sustainable soil and water management, and the quality of indigenous crop varieties and livestock.
- Farmers trained through Farmer
 Field Schools approach on
 sustainable agriculture, with
 modules adapted to the specific
 needs of farmers near PAs and
 other high ecological value
 areas.
- Support community seed banks
- Strengthen/ establish green value chains
- Facilitate linkages for local procurement through social safety net programmes

Improved Livestock Management

- Farmers field school on management of livestock adapted to the farmer needs
- Improve the quality of indigenous livestock
- Enhanced nutrition and fodder management

Community-based Natural Resource Management

- Engage community institutions to manage ravine and riverine ecosystems
- Stabilize steep & medium ravines
- Soil and water conservation measures
- Community Forestry

Landscape-level activities

- Community managed Green Landscape Management Plans
- Promote and conserve indigenous medicinal and aromatic plants
- Participatory management of natural resources and sharing
- Promote Community-based Ecotourism
- Support documentation and use of Indigenous Traditional Knowledge
- Eco Clubs to promote awareness of sustainable agriculture among school children
- Biogas units for reducing methane emission

with due consultation with communities forming a part of GLMP:

Project Outcomes at Chambal Landscape

Through the above activities, the Green-Ag project in the Chambal Landscape is expected to achieve the following outcomes during the entire duration of the project:

4000 women benefitting from female Farmer Field Schools 185,000 households involved in community natural resources management plans

9000 ha of farms and 7500 households under sustainable land and water management

8000 households with improved livestock management practices

At least 10 per cent reduction in threat index covering 18000 ha ravines, 35000 ha high conservation value forest

6,833926 tCO2eq GHG emission mitigation

CONTACT DETAILS - Project website: https://greenag.nmsa.gov.in/

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FACT SHEET Chambal Landscape, Madhya Pradesh

Protected Areas: National Chambal Wildlife Sanctuary

Specifications of Chambal Landscape

- Unique combination of riverine and ravine ecosystems
- Host to the largest gharial population in the world
- High density of river dolphins, freshwater crocodiles and otters
- Important nesting ground for Indian skimmer, small Indian pratincole, etc.
- Staging ground for migratory waterfowl
- Significant vulture population in Sheopur District

Project Landscape

Districts covered: Sheopur and Morena.

Villages in the Target Landscape: 116 Villages
Population affected: 102,141 (as per Census 2011)

Landscape area covered: 98000 ha

Tribes in the landscape: Sahariya and Mongia

Agriculture Produce: Pearl millet, Lentil, Green gram, Mustard & Wheat

Livelihoods: Agriculture and livestock are major livelihoods, followed by poultry, fishing, collection of

medicinal and wild plants, small businesses and work as labourers.