



CLIMATE SMART GRAM PANCHAYAT

Summary of Recommendations

Chopan Gram Panchayat

Department of Environment,
Forest and Climate Change
Government of Uttar Pradesh





Enhancing Green Spaces and Biodiversity

- Plantation of trees
- Agroforestry
- Arogya Van
- People's Biodiversity Register

Short Term

Plantation of 2,000- 2,500 tree saplings | Sequestration potential (in 15-20 years): 8,900 tCO₂ | Establishing *Arogya Van* on 0.2 - 0.5 ha allocated land

Medium Term

Plantation of 1,500-2,000 tree saplings | Sequestration potential (in 15-20 years): up to 7,200 tCO₂ | Adoption of agroforestry in ~76 ha land (40%) | Sequestration potential (in 20 years): up to 67,000 tCO₂

Long Term

Additional 1,500-2,000 saplings planted | Sequestration potential (in 15-20 years): up to 7,200 tCO₂ | Adoption of agroforestry in ~115 ha land | Sequestration potential (in 20 years): 1,15,000 tCO₂

Departments

Department of Environment, Forests and Climate Change | State Biodiversity Board | Panchayati Raj Department | Rural Development Department | Central Institute of Medicinal and Aromatic Plants, Lucknow

Estimated Cost

Over ₹1.2 crores across three phases (Short term: ~₹27.25 lakhs | Medium term: ~₹40.6 lakhs | Long term: ~₹56.2 lakhs)

Management and Rejuvenation of Water Bodies

- Rainwater harvesting
- Rejuvenation of ponds
- Repair of wells
- Reboring & repair of handpumps
- Tree plantations
- Recharge pits
- Enhancing drainage infrastructure
- Wastewater management
- Capacity building

Short Term

Installation of RWH structures in all (9) PRI buildings | Repair of existing recharge pits | Rejuvenation of 3 ponds, ~1,000 trees planted around water bodies | Cleaning of 85 wells (50%) | Construction of 112 soak pits | Construction of 3.6 km drainage network | Village Water Security Plan preparation

Medium Term

Maintenance of ponds, drainage channels and other water related infrastructure | Cleaning of additional 85 wells (100%) | Installation of RWH structures in 10 pucca households | Additional soak pits constructed as per need | Additional recharge pits as required

Long Term

Continued maintenance of water resources | Installation of RWH structures in 10 pucca households

Key Departments

Rural Development Department | Irrigation and Water Resources Department | Uttar Pradesh Department of Land Resource

Estimated Cost

Over ₹8.1 crores across three phases (Short Term: ~₹4 crores | Medium Term: ~₹2.9 crores | Long Term: ~₹1.3 crores)

Sustainable Agriculture

- Micro-irrigation
- Bunds
- Farm ponds
- Adoption of drought tolerant varieties of rice and wheat
- Transition to natural farming
- Sustainable livestock management

Short Term

Introduction of micro-irrigation on 14 ha (30%) | Construction of 5 - 10 farm ponds | Construction of bunds around 248 ha (75%) | Transitioning 50 ha (15%) of agricultural land to natural farming

Medium Term

Expanding micro-irrigation on 19 ha (70%) | Construction of bunds around 83 ha (25%) | Additional farm ponds as required | Transitioning ~132 ha to natural farming

Long Term

Expanding micro-irrigation on 14 ha (100%) | Maintenance of farm ponds and bunds | 100% transition to natural farming (331 ha)

Departments

Department of Agriculture | Centre for Integrated Pest Management (CIMP) | Department of Horticulture and Food Processing | Department of Land Resources | Jal Shakti Department | Animal Husbandry Department | Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA) | Regional Centres for Organic Farming | Krishi Vigyan Kendra, Sonbhadra

Estimated Cost

Over ₹9.6 crores across three phases (Short term: ~₹1.5 crores | Medium term: ~₹2.2 crores | Long term: ~₹5.9 crores)

Sustainable Solid Waste Management

- Enhanced waste management infrastructure
- Compost pits
- Sanitation management
- Ban on single-use plastics

Short Term

Setting up segregation and storage facility | Installation of 17 bins | Setting up 25 plastic banks | Procurement of 1 electric garbage van | Setting up 52 compost pits | Construction of community toilets | Engagement of 200-250 women for manufacturing plastic-alternative products (SHG alignment)

Medium and Long Term

Installation of additional 10 waste bins | Setting up additional 25 plastic banks | Maintenance of existing infrastructure | Setting up 1 GP-level plastic shredder unit | Scaling up partnerships | Regular awareness, training and capacity-building programs

Departments

Panchayati Raj Department | Department of Health and Family Welfare | Department of Rural Development | Department of Agriculture | Uttar Pradesh Khadi and Village Industries Board

Estimated Cost

Approx ₹26.6 lakhs across three phases

Access to Clean, Sustainable, Affordable and Reliable Energy

- Solar rooftops,
- Solar-powered pumps
- Agro-photovoltaics
- Clean cooking solutions- Household biogas, Solar induction cookstoves, improved chulhas, LPG
- Energy efficient (EE) fixtures
- Solar street lights

Short Term

Solar rooftop installation on all government buildings (9) | Solar rooftop installation for suitable residential buildings | 4 diesel pumps replaced with solar pumps | Suitable households to adopt clean cooking interventions like household biogas, solar induction cookstoves and improved chulhas | Replacing existing fixtures in all government buildings with energy efficient fixtures (LED lights, EE fans) | Installation of 15 high-mast solar lights and 49 solar street lights at key locations in GP | Solar potential: 64.9 kWp | Mitigation potential: ~75.4 tCO₂e per year

Medium Term

Solar rooftop installation on 40% of pucca houses (124) | Agro-photovoltaic installed on 2 ha | Solarisation of 54 grid connected electric pumps | Installation of 10 high-mast solar lights and 50 solar street lights | Replacing existing fixtures in all households with energy efficient fixtures (LED lights, LED bulbs, EE fans) | Solar potential: ~872 kWp | Mitigation potential: ~958 tCO_{2e} per year

Long Term

Solar rooftop installation on 100% of pucca houses (186) | Agro-photovoltaic installed on 2 ha | Replacing all fans with EE fans across households | Solar potential: 1,058 kWp | Mitigation potential: ~1,162 tCO_{2e} per year

Departments

MNRE | Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA) | Uttar Pradesh Power Corporation Limited (UPPCL) | Purvanchal Vidyut Vitran Nigam Limited | Panchayati Raj Department | Rural Development Department | Department of Agriculture | Education Department

Estimated Cost

Over ₹14.2 crores across three phases (Short Term: ~₹68 lakhs | Medium Term: ~₹6.5 crores | Long Term: ~₹7.08 crores)

Sustainable and Enhanced Mobility

- Road infrastructure
- Enhancing public transport
- E-vehicles and E-tractors

Short Term

Repairing and maintenance of road infrastructure | RCC/ interlocking on 1.54 km | Introducing 7 e-auto rickshaws in the GP | Promoting adoption of 5 e-tractors and 5 e-goods carriers

Medium Term and Long Term

Maintenance of existing infrastructure | 10 e-autorickshaws added to GP's IPT fleet

Departments

Infrastructure and Industrial Development Department | Transport Department | Panchayati Raj Department | Department of Rural Development | Uttar Pradesh New & Renewable Energy Development Agency (UPNEDA)

Estimated Cost

Over ₹1.3 crores across three phases

Enhancing Livelihoods and Green Entrepreneurship

- Engaging SHGs to manufacture sustainable products
- Organic fertilizer production
- e-tractor and e-goods carrier rental services
- Solar powered cold storage facility
- Production and sale of natural medicines and supplements
- O&M of RE installations

Short Term

Capacity building, training and support for 100 women and other entrepreneurs to establish enterprises across the GP | Involving 7 SHGs | Establishing partnerships between Panchayat, community members, FPOs for marketing and selling of compost | Training of community members

Medium Term

Expanding capacity building programmes to cover 200 more women and other groups as per need and enhancing marketing of products and services | Setting up of cold storage (5-10 MT capacity)

Long Term

Continue scaling entrepreneurship opportunities and strengthening market linkages

Departments

Panchayati Raj Department | Department of Rural Development | Department of Horticulture and Food processing | Uttar Pradesh Skill Development Mission | UP State Council for Vocational Training

* Expansion of suggested climate smart activities and regular maintenance of any installations and infrastructure throughout the plan implementation and beyond.

Please refer to action plan for detailed recommendations