



CLIMATE SMART GRAM PANCHAYAT

SUMMARY OF RECOMMENDATIONS

Karanpur Gram Panchayat

Department of Environment,
Forest and Climate Change

Government of Uttar Pradesh





Management and Rejuvenation of Water Bodies

- Rainwater harvesting
- Rejuvenation of ponds
- Repair of wells
- Tree plantations
- Recharge pits
- Enhancing drainage infrastructure
- Wastewater management

Short Term

Installation of RwH structures in all (6) PRI buildings | Rejuvenation of 5 wells and 3 ponds, ~1,000 trees planted around water bodies | Construction of 65 recharge pits | Reboring of hand pumps | Construction of new drain, cleaning and desilting of existing drains | Wastewater treatment through DEWATS of capacity 0.70 MLD

Medium Term

Installation of RwH structures in 30 households | Maintenance of ponds, wells, drainage channels, and other water-related infrastructure | Additional recharge pits constructed as per need

Long Term

Installation of RwH structures in 345 households | Maintenance of ponds, wells, drainage channels, and other water-related infrastructure | Continued maintenance of water resources | Additional recharge pits constructed as per need

Key Departments

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

Estimated Cost

Over ₹3.74 crores across three phases (Short Term: ~₹1.8 crores | Medium Term: ~₹47.7 lakhs | Long Term: ~₹1.45 crores)

Enhancing Green Spaces and Biodiversity

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

Short Term

Plantation of 1,000 tree saplings | Sequestration potential (in 15-20 years): 10,000 tCO₂ | Establishing Arogya Van on 0.1 ha allocated land

Medium Term

Plantation of 1,500 to 2,000 tree saplings | Sequestration potential (in 15-20 years): 17,500 tCO₂ | Adoption of Agroforestry in ~15 ha land | Sequestration potential (in 20 years): 15,000 tCO₂

Long Term

Additional 1,500 to 2,000 tree saplings | Sequestration potential (in 15-20 years): 17,500 tCO₂ | Adoption of Agroforestry on additional ~15 ha land | Sequestration potential (in 20 years): 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 ₹66.95 lakhs across three phases (Short term: ~₹14.95 lakhs | Medium term: ~₹26 lakhs | Long term: ~₹26 lakhs)

Sustainable Agriculture

- Micro-irrigation
- Farm ponds
- Bunds
- Transition to natural farming
- Sustainable livestock management
- Soil Health and Management

Short Term

Introduction of micro-irrigation on ~7 ha | Construction of 5 farm ponds | Construction of bunds around 75 ha | Transitioning 23 ha (15%) of agricultural land to natural farming

Medium Term

Additional 5 farm ponds | Additional bunds around 150 ha | Transitioning 38 ha (40%) to natural farming

Long Term

Maintenance of infrastructure | 100% transition to natural farming (90 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, Raebareli

Estimated Cost

Over ₹3.97 crores across three phases (Short term: ~₹70.1 lakhs | Medium term: ~₹1 crore | Long term: ~₹2.22 crores)

Sustainable Solid Waste Management

- Enhanced waste management infrastructure
- Compost pits
- Sanitation management through the construction of toilets
- Ban on single-use plastics

Short Term

Setting up segregation and storage facility | Installation of 80 bins | Procurement of 1 electric garbage van | Setting up 45 Nadep and 50 vermicompost pits | Construction of toilets in all new houses constructed | Ban on single-use plastics | Engagement of 100 -120 women for manufacturing plastic-alternative products (SHG alignment)

Medium and Long Term

Maintenance of existing facilities and waste management system | 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

Over ₹59.75 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 | Solar rooftop installation for suitable residential buildings | 75 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 75 solar LED streetlights & 10 solar high mast streetlights

Solar potential: ~31 kWp | Mitigation potential: ~115 tCO_{2e} per year

Medium Term

Solar rooftop installation on 40% of pucca houses (365) | Agro-photovoltaic installed on 2 ha | Solarisation of 20 existing grid-connected electric pumps | Installation of 75 solar street lights at key locations in GP | Replacing existing fixtures in all households with energy efficient fixtures (LED lights, LED bulbs, EE fans)

Solar potential: ~1,596 kWp | Mitigation potential: ~1,752 tCO_{2e} per year

Long Term

Solar rooftop installation on 100% of pucca houses (548) | Agro-photovoltaic installed on 2 ha | Replacing all CFL light fixtures with LED tube lights/ bulbs; installation of EE fans across households

Solar potential: ~2,143 kWp | Mitigation potential: ~2,354 tCO_{2e} per year

Departments

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

Estimated Cost

Over ₹21.45 crores across three phases (Short Term: ₹1.88 crores | Medium term: ₹9.3 crores | Long Term: ₹10.27 crore)

Sustainable and Enhanced Mobility

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

Short Term

Construction and repairing of pavements (3.1km) | Interlocking of roads (1 km) | Introducing 10 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 | Expanding public transport (as required).

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 2.43 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 4 SHGs | Establishing partnerships between Panchayat, community members, FPOs for marketing and selling of compost | Training of community members

Medium Term

Expanding capacity-building programs 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