



CLIMATE SMART GRAM PANCHAYAT

SUMMARY OF RECOMMENDATIONS



Kanpur Dehat

Pulandar Gram Panchayat

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





Management and Rejuvenation of Water Bodies

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

Short Term

Installation of RWH structures in all (6) PRI buildings | Construction of 5 recharge pits | Rejuvenation of 5 ponds, ~1,000 trees planted around water bodies | Wastewater treatment through 2 DEWATs with 300 KLD capacity each

Medium Term

Installation of RWH structures in 300 households | Construction of 5 additional recharge pits | Maintenance of ponds, wells, drainage channels and other water related infrastructure

Long Term

Installation of RWH structures in 200 households | Continued maintenance of all water resources

Key Departments

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

Estimated Cost

Over ~₹5.7 crores across three phases (Short Term: ~₹3.1 crores | Medium Term: ~₹1.4 crores | Long Term: ~₹1.1 crores)

Sustainable Solid Waste Management

- Enhanced waste management infrastructure
- Sanitation management
- Management of organic waste
- 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 of 8 NADEP compost pits | Construction of twin pit toilets in 150 households | Engagement of 100-120 women for manufacturing plastic-alternative products (SHG alignment)

Medium and Long Term

Installation of an additional 80 waste bins and maintenance of existing infrastructure | Construction of twin pit toilets in 150 households | Construction of toilets in all new houses | 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 ~₹61 lakhs across three phases

Sustainable Agriculture

- Micro-irrigation
- Bund construction
- Farm ponds
- Transition to natural farming
- Sustainable livestock management

Short Term

Introduction of micro-irrigation on ~45 ha |Construction of bunds on 200 ha of agricultural land | Construction of 10 farm ponds| Transitioning 60 ha of agricultural land to natural farming | Organising workshops for community members on sustainable livestock rearing practices

Medium Term

Expanding micro- irrigation on 75 ha| Construction of bunds on additional 200 ha of agricultural land | Construction of 10 additional farm ponds | Transitioning 100 ha of agricultural land to natural farming | Continued training and capacity building for livestock management

Long Term

Expanding micro- irrigation on 180 ha | Transitioning of 240 ha agricultural land to natural farming | Maintenance of infrastructure | Continued training and capacity building

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, Kanpur Dehat

Estimated Cost

Over ₹13 crores across three phases (Short Term: ~₹2 crores | Medium Term: ~₹3.3 crores | Long Term: ~₹7.7 crores)

Enhancing Green Spaces and Biodiversity

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

Short Term

Plantation of 2,000 tree saplings | Sequestration potential (in 15-20 years): up to 20,000 tCO₂ | Establishing *Arogya Van* on 0.1 ha of allocated land

Medium Term

Plantation of 2,000 to 2,500 tree saplings | Adoption of agroforestry in ~82 ha land | Sequestration potential (in 15-20 years): up to 1,07,000 tCO₂

Long Term

Additional 2,500 to 3,000 saplings planted | Adoption of agroforestry in ~123 ha land | Sequestration potential (in 15-20 years): up to 1,53,000 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 ₹1.8 crores across three phases (Short Term: ~₹25 lakhs | Medium Term: ~₹66 lakhs | Long Term: ~₹89 lakhs)

Access to Clean, Sustainable, Affordable and Reliable Energy

- Solar rooftops
- Agro-photovoltaics
- Solar-powered pumps
- 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 | Solarisation of 25 grid connected electric 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 50 solar street lights and 5 high-mast solar LED streetlights at key locations in GP | Solar potential: ~50 kWp | Mitigation potential: ~54 tCO_{2e} per year

Medium Term

Solar rooftop installation on 40% of pucca houses (280) | Purchase of all new pumps to be solar-powered | Agro-photovoltaic installed on 2 ha | Installation of additional 50 solar street lights and 5 high-mast solar LED streetlights at key locations in GP | Solar potential: ~1,340 kWp | Mitigation potential: ~1,471 tCO_{2e} per year

Long Term

Solar rooftop installation on 100% of pucca houses (251) | Agro-photovoltaic installed on 2 ha | Replacing all CFL light fixtures with LED tube lights/ bulbs; installation of EE fans across households | Solar potential: ~1,760 kWp | Mitigation potential: ~1,932 tCO₂e per year

Departments

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

Estimated Cost

Over ₹18 crores across three phases (Short Term: ~₹86 lakhs | Medium Term: ~₹8.2 crores | Long Term: ~₹9.8 crores)

Sustainable and Enhanced Mobility

- Improving road infrastructure
- Enhancing Intermediate public transport
- E-vehicles and E-tractors

Short Term

Elevation and repairing of roads | Road elevation on ~2 km | Introducing 2 e-auto rickshaws in the GP | Promoting adoption of 5 e-tractors and 5 e-goods carriers

Medium 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 ~₹1.1 crores across 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
- Promotion of sustainable aquaculture practices
- 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

Medium Term

Expanding capacity building programmes to cover 50 more women and other groups as per need and enhancing marketing of products and services

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