



CLIMATE SMART GRAM PANCHAYAT

SUMMARY OF RECOMMENDATIONS

Tharepah Gram Panchayat

Department of Environment,
Forest and Climate Change

Government of Uttar Pradesh

Kanpur Nagar





Management and Rejuvenation of Water Bodies

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

Short Term

Installation of RWH structures in all (5) PRI buildings | Construction of 10 recharge pits | Rejuvenation of 2 ponds, ~1,000 trees planted around water bodies | Cleaning of 12 wells | Reboring of 5 handpumps | Construction of new drains and repairing existing ones | Wastewater treatment through 1 DEWAT (200 KLD capacity)

Medium Term

Installation of RWH structures in 115 households | Construction of 10 additional recharge pits | Regular maintenance of ponds, wells, drainage channels, and other water-related infrastructure

Long Term

Installation of RWH structures in 150 households | Continued maintenance of all water resources

Departments

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

Estimated Cost

Over ₹2.2 crores over three phases (Short Term: ~₹94 lakhs | Medium Term: ~₹58 lakhs | Long Term: ~₹67 lakhs)

Sustainable Agriculture

- Micro-irrigation
- Bund construction
- Farm ponds
- Need-based nutrient management in crops
- Mini weather stations
- Promotion of diverse cropping systems
- Transition to natural farming
- Sustainable livestock management

Short Term

Introduction of micro-irrigation on ~60 ha | Construction of bunds on 169 ha of agricultural land | Construction of 5 farm ponds | Transitioning 51 ha of agricultural land to natural farming | Setting up of automatic/mini weather stations | Organising workshops for community members on sustainable livestock rearing practices

Medium Term

Expanding micro-irrigation on ~80 ha | Construction of bunds on 169 ha of agricultural land | Construction of 10 additional farm ponds | Transitioning 84 ha to natural farming | Continued training and capacity building for livestock management

Long Term

Expanding micro-irrigation on ~60 ha | Transitioning of 202 ha 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 Nagar

Estimated Cost

Over ₹10 crores across three phases (Short Term: ~₹1.9 crores | Medium Term: ~₹2.8 crores | Long Term: ~₹5.5 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 18 bins | Procurement of 1 electric garbage van | Setting up of 6 NADEP compost pits | Construction of twin-pit toilets in 25 households | Engagement of 100-120 women for manufacturing plastic-alternative products (SHG alignment)

Medium and Long Term

Installation of additional waste bins and maintenance of existing infrastructure | Construction of twin-pit toilets in 20 households | Construction of toilets in all new houses constructed | 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

~₹16 lakhs over three phases

Enhancing Green Spaces and Biodiversity

- Community-based 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 ~120 ha land | Sequestration potential (in 15-20 years): up to 1,45,000 tCO₂

Long Term

Additional 2,500 to 3,000 saplings planted | Adoption of agroforestry in ~180 ha land | Sequestration potential (in 15-20 years): up to 2,10,000 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 ₹2.1 crores across three phases (Short Term: ~₹25 lakhs | Medium Term: ~₹79 lakhs | Long Term: ~₹1.1 crores)

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: 177 kWp | Mitigation potential: 70 tCO_{2e} per year

Medium Term

Solar rooftop installation on 40% of pucca houses (158) | Agro-photovoltaic installed on 2 ha | Solarisation of 25 grid-connected electric pumps | Installation of 50 solar streetlights and 5 high-mast solar LED street lights at

key locations in GP | Solar potential: ~974 kWp | Mitigation potential: ~1,070 tCO₂e per year

Long Term

Solar rooftop installation on 100% of pucca houses (237) | Agro-photovoltaic installed on 2 ha | Purchase of all new pumps to be solar-powered | Replacing all CFL light fixtures with LED tube lights/ bulbs; installation of EE fans across households | Solar potential: ~1,211 kWp | Mitigation potential: ~1,330 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 ₹14 crores across three phases (Short term: ~₹83 lakhs | Medium term: ~₹6.6 crores | Long term: ~₹7.3 crores)

Sustainable and Enhanced Mobility

- Improving road infrastructure
- Enhancing Intermediate Public Transport
- E-vehicles and E-tractors

Short Term

Elevation and repairing of roads | Introducing e-auto rickshaws in the GP (as required) | 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

~₹98 lakhs over 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

Engaging women and SHGs for manufacturing products from plastic-alternative materials | 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 | Setting up of cold storage with 5 to 10 metric tonnes 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