



CLIMATE SMART GRAM PANCHAYAT

Summary of Recommendations

Sarai Jodhrai Gram Panchayat

Department of Environment,
Forest and Climate Change

Government of Uttar Pradesh

Prayagraj





Management and Rejuvenation of Water Bodies

- Rainwater harvesting
- Rejuvenation of ponds
- Repair of wells
- Tree plantations
- Enhancing drainage infrastructure
- Recharge pits
- Capacity building

Short Term

Installation of RWH structures in all (4) PRI buildings | Cleaning & boundary construction around 4 ponds | Cleaning and repairing of 12 wells | Building of raised platforms for 7 handpumps | Construction of 8 recharge pits | Construction of new drains and the repair of existing ones | Installing siphons at strategic locations | Village Water Security Plan preparation

Medium Term

Installation of RWH structures in 21 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 75 households | Continued maintenance of water resources

Key Departments

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

Estimated Cost

Over ₹3.3 crores across three phases (Short Term: ~₹3 crores | Medium Term: ~₹7.3 lakhs | Long Term: ~₹26 lakhs)

Sustainable Solid Waste Management

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

Short Term

Setting up segregation and storage facility | Installation of 50 bins | Procurement of 1 electric garbage van | Setting up of 6 NADEP compost pits | Construction of twin-pit toilets in 98 households | Construction of 1 community toilet | Setting up of plastic banks at strategic locations | Engagement of 100-120 women for manufacturing plastic-alternative products (SHG alignment)

Medium and Long Term

Installation of additional waste bins | Construction of twin-pit toilets in 98 households | Construction of toilets in all new houses constructed | Maintenance of existing infrastructure | 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 ~₹56 lakhs across three phases

Sustainable Agriculture

- Bunds
- Farm ponds
- Transition to natural farming
- Integrated pest management
- Adoption of drought tolerant variety of

Short Term

Bund construction with trees around ~67.9 ha | Construction of 5 farm ponds | Transitioning 20 ha (15%) of agricultural land to natural farming

rice and wheat

- Need based nutrient management in crops
- Sustainable livestock management

Medium Term

Bund construction with trees around ~67.9 ha | Additional farm ponds | Transitioning 34 ha (25%) to natural farming

Long Term

Maintenance of infrastructure | 100% transition to natural farming (82 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, Prayagraj

Estimated Cost

Over ₹3.4 crores across three phases (Short term: ~₹56 lakhs | Medium term: ~₹86 lakhs | Long term: ~₹2 crores)

Enhancing Green Spaces and Biodiversity

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

Short Term

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

Medium Term

Plantation of 1,000 to 1,500 tree saplings | Adoption of agroforestry in ~24.2 ha land (2,420 trees planted) | Sequestration potential (in 15-20 years): up to 39,200 tCO₂

Long Term

Additional 2,500 to 3,000 saplings planted | Adoption of agroforestry in ~36.4 ha land (3,640 trees planted) | Sequestration potential (in 15-20 years): up to 56,400 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 ₹81 lakhs across three phases (Short term: ~₹12 lakhs | Medium term: ~₹28 lakhs | Long term: ~₹39 lakhs)

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 | 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 50 solar street lights and 5 high-mast solar LED streetlights at key locations in GP | Solar potential: ~62 kWp | Mitigation potential: ~48.2 tCO₂e per year

Medium Term

Solar rooftop installation on 40% of pucca houses (158) | Agro-photovoltaic installed on 2 ha | Solarisation of 12 grid connected electric pumps | Installation of 50 solar street lights and 5 high-mast solar LED streetlights at key locations in GP | Solar potential: ~1,061 kWp | Mitigation potential: ~1,104 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: ~995 kWp | Mitigation potential: ~1,092 tCO₂e per year

Departments

Ministry of New and Renewable Energy (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 crores across three phases (Short Term: ~₹1.1 crores | Medium Term: ~₹6.8 crores | Long Term: ~₹6.6 crores)

Sustainable and Enhanced Mobility

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

Short Term

RCC work of existing roads (~2.3 km) | Replacing 4 auto rickshaws with e-auto rickshaws | 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 ₹1.9 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 10 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