LiFE
Lifestyle for Environment

CLIMATE SMART GRAM PANCHAYAT

SUMMARY OF RECOMMENDATIONS

Pipalsana Gram Panchayat

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

VASUDHA FOUNDATION
Green ways for a good earth!

Suggested Climate Smart Activities

Targets

- Rainwater harvesting
- Rejuvenation of ponds
- Construction of bunds along ponds
- Reboring of handpumps
- Tree plantations
- Enhancing drainage infrastructure
- Wastewater management
- Capacity building

Short Term
Installation of RwH structures in all (4) PRI buildings | Construction of bunds along 6 ponds | Restoration of 3 ponds |Construction of 70 recharge pits | Reboring of 27 handpumps| Plantation of 1,000 tree saplings | Installing siphons and construction of RCC drain (~3.8 km) |Cleaning and digging of drain (1.8 km) | Construction of ~1.6 km drainage network | Setting up 3 DEWATS (400 KLD capacity each)

Medium Term
Installation of RwH structures in 120 households | Maintenance of waterbodies and related infrastructure| Construction of additional RCC as required | 1,000 additional saplings planted around water bodies | Setting up 2 DEWATS (400 KLD capacity each) | Construction of additional soak pits

Long Term
Continued maintenance of water resources | Installation of RwH structures in 1,700 households | Construction of additional soak pits

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

Estimated Cost
Over ₹23.8 crores across three phases (Short Term: ~₹14.7 crores | Medium Term: ~₹1.96 crores | Long Term: ~₹7.07 crores)

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

Short Term
Plantation of 2,000 tree saplings | Sequestration potential (in 15-20 years): 20,000 tCO_2 | Establishing *Arogya Van* on 0.2 ha allocated land

Medium Term
Plantation of 2,000 to 2,500 tree saplings | Sequestration potential (in 15-20 years): 25,000 tCO_2 | Adoption of Agroforestry in ~3 ha land | Sequestration potential (in 20 years): 3,000 tCO_2

Long Term
Additional 2,500 to 2,500 saplings planted | Sequestration potential (in 15-20 years): 25,000 tCO_2 | Adoption of Agroforestry in ~4.5 ha land |Sequestration potential (in 20 years): 4,500 tCO_2

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 | Infrastructure and Industrial Development Department

Estimated Cost
Over ₹96 lakhs across three phases (Short term: ~₹25.67 lakhs | Medium term: ~₹34.75 lakhs |Long term: ~₹ 36.2 lakhs)

- Enhanced waste management infrastructure
- Compost pits
- Improving sanitation infrastructure and management
- Ban on single-use plastics

Short Term
Setting up segregation and storage facility| Procurement of 5 electric garbage vans | Installation of 40 bins | Construction of 20 vermicompost and 30 Nadep compost pits| Engagement of 100 women for manufacturing plastic-alternative products (SHG alignment) | Construction of twin pit toilets in 232 households

Medium and Long Term
Installation of an additional 30 waste bins and maintenance of existing infrastructure | Installation of 1 plastic shredder unit | Scaling up partnerships | Regular awareness, training, and capacity-building programs| | Engagement of an additional 200 to 300 women for manufacturing plastic-alternative products (SHG alignment) | Construction of twin pit toilets in 100% households (581)

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 ₹2.3 crores across three phases (Short Term: ~₹66.8 lakhs | Medium Term: ~₹66.57 lakhs | Long Term: ~₹1 crore)

- Micro-irrigation
- Farm ponds
- Construction of bunds
- Transition to natural farming
- Sustainable livestock management

Short Term
Introduction of micro-irrigation on ~22 ha (30%) | Construction of bunds with trees on 105.5 ha (50%) |Construction of 10 farm ponds| Transitioning 32 ha (15%) of agricultural land to natural farming

Medium Term
Expanding micro-irrigation on ~30 ha (40%) | Construction of bunds with trees on 105.5 ha (50%) | Construction of 10 farm ponds | Transitioning 84 ha (40%) to natural farming

Long Term
Expanding micro- irrigation on ~74 ha (100%) |Maintenance of infrastructure| 100% (95 ha) transition to natural farming

Departments
Department of Agriculture | Department of Horticulture and Food Processing | Centre for Integrated Pest Management (CIMP)|Fisheries Department| 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, Moradabad

Estimated Cost
Over ₹6.26 crores across three phases (Short term: ~₹1.12 crores | Medium term: ~₹2.57 crores | Long term: ~₹2. crores)

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

Short Term
Solar rooftop installation on all government buildings | Solar rooftop installation for suitable residential buildings | 41 diesel pumps (50%) 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 LED streetlights & Upgrading 25 high mast streetlights to Solar high mast streetlights
Solar potential: 43.5 kWp | Mitigation potential: ~ 90.7 tCO2e per year

Medium Term
Solar rooftop installation on 40% of pucca houses (800) | Agro-photovoltaic installed on 2 ha | 61 diesel pumps replaced with solar pumps | Installation of 50 solar LED streetlights & Upgrading 25 high mast streetlights to Solar high mast streetlights
Solar potential: ~2,900 kWp | Mitigation potential: ~3,248 tCO_2e per year

Long Term
Solar rooftop installation on 100% of pucca houses (1,200) | Agro-photovoltaic installed on 2 ha | 103 diesel pumps replaced with solar pumps | Replacing all CFL light fixtures with LED tube lights/ bulbs; installation of EE fans across households
Solar potential: ~4,100 kWp | Mitigation potential: 4,610 tCO_2e per year

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

Estimated Cost
Over ₹33.56 crores across three phases (Short term: ~ ₹1.3 crores | Medium term: ~₹14.07 crores | Long term: ~ ₹18.17 crores)

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

Short Term
Road elevation and RCC for 11.5 km | Road repair for 500 m | Replacing 5 CNG auto-rickshaws with e-autorickshaws | Promoting adoption of 5 e-tractors and 5 e-goods carriers | Mitigation potential: ~1.73 tCO_2e per auto

Medium Term
Replacing private 2-wheelers with e-2-wheelers (10%) | Maintenance of existing infrastructure

Long Term
Replacing additional private 2-wheelers with e-2 wheelers (30%) | 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 ₹2.97 crores across three phases

- 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 supporting women and other entrepreneurs to establish enterprises across the GP | Involving 5 - 10 SHGs | Establishing partnerships between Panchayat, community members, FPOs for marketing and selling of compost | Training of community members| Setting up fodder bank | Plantation of fruit trees | Promoting innovative agricultural practices

Medium Term
Expanding capacity building programmes to cover 100 more women and other groups as per need and enhancing marketing of products and services | Setting up of cold storage (7-10 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