



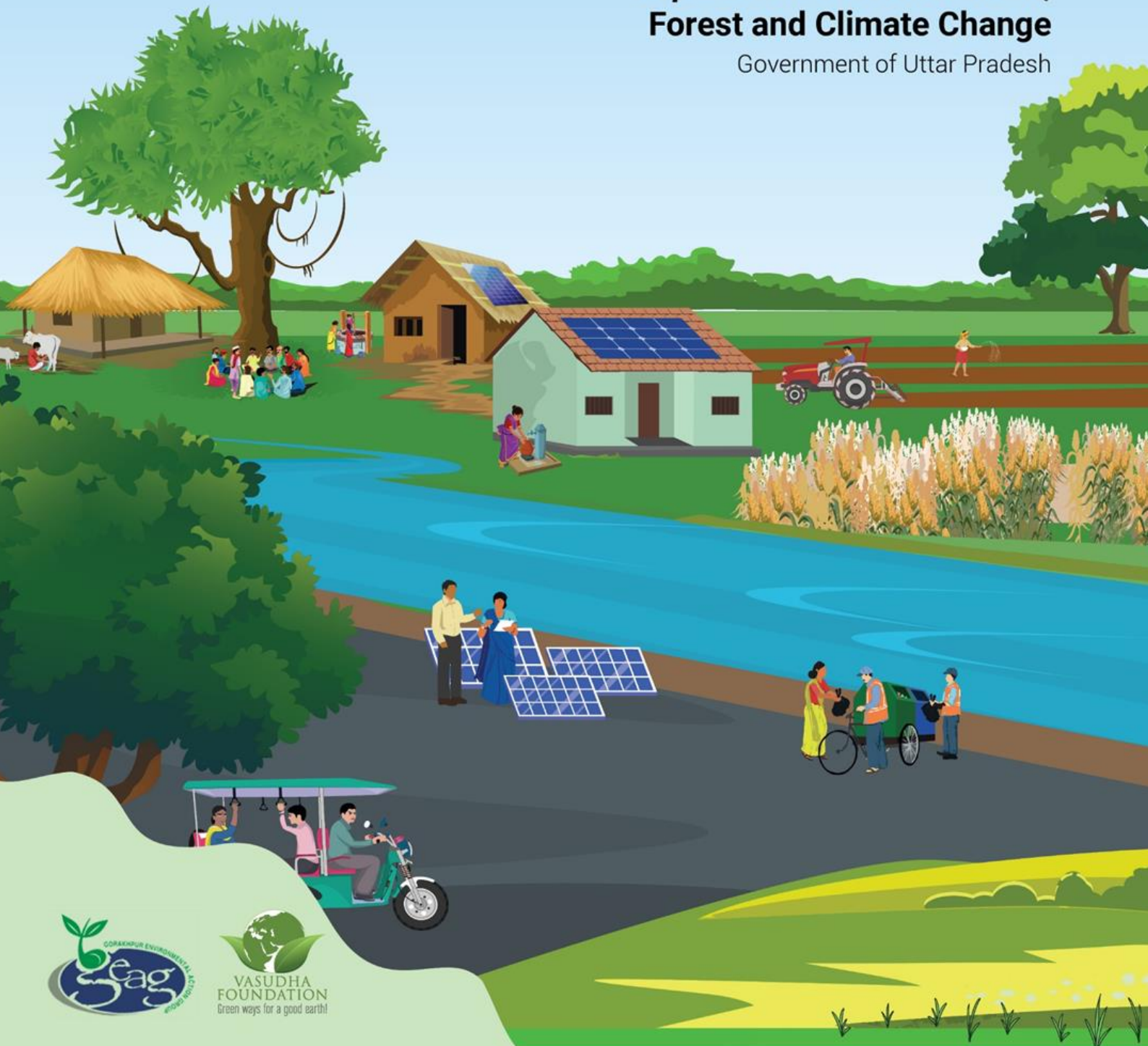
CLIMATE SMART GRAM PANCHAYAT

SUMMARY OF RECOMMENDATIONS

Benda Gram Panchayat

Department of Environment,
Forest and Climate Change

Government of Uttar Pradesh





Management and Rejuvenation of Water Bodies

- Rejuvenation of water bodies
- Repair of hand pumps
- Tree plantations
- Enhancing drainage infrastructure
- Rainwater harvesting
- Recharge pits

Short Term

Maintenance of 6 wells and reboring of 20 hand pumps, ~1,000 trees planted around water bodies | Installation of RwH structures in all (20) PRI buildings | Construction of 50 recharge pits

Medium Term

Maintenance of 9 ponds | Additional plantation of ~1000 trees | Installation of RwH structures in 106 households | Additional soak pits constructed as per need

Long Term

Maintenance of 9 ponds | Continued maintenance of water resources | Regular maintenance of drains | Installation of RwH structures in 70 households

Departments

Rural Development Department | Irrigation and Water Resources Department, Ministry of Jal Shakti | Uttar Pradesh Department of Land Resource

Estimated Cost

Over ₹1.7 crores across three phases (Short Term: ₹49.5 lakhs | Medium Term: ₹70.8 lakhs | Long Term: ₹58.2 lakhs)

Sustainable Agriculture

- Drought Management
- Micro-irrigation
- Tree bunds
- Farm ponds
- Transition to natural farming
- Solar-powered farm fencing
- Revival of barren land
- Sustainable livestock management

Short Term

Construction of 600 ha (50% of total agricultural area) tree bunds around agricultural land | Introduction of micro-irrigation on ~ 58 ha | Construction of 5-10 farm ponds | Transitioning 180 ha (15%) of agricultural land to natural farming | Agroforestry in ~70 ha (10%) of uncultivable land ~ 21,000 trees plantation | Sequestration potential: ~ 2,10,000 tCO₂ in 15-20 years

Medium Term

Tree bunds in remaining 600 ha (100% covered) agricultural land | Expanding micro-irrigation on 195 ha | Additional 15-20 farm ponds | Transitioning 408 ha (40%) of agricultural land to natural farming | Agroforestry in ~70 ha (10%) of uncultivable land ~ 21,000 trees plantation | Sequestration potential: ~ 2,10,000 tCO₂ in 15-20 years

Long Term

Practice of micro-irrigation in remaining 137 ha (100% covered) | Maintenance of infrastructure | Transitioning 612 ha (100% covered) of agricultural land to natural farming | Agroforestry in ~140 ha (20%) of uncultivable land ~ 42,000 trees plantation | Sequestration potential: ~ 4,20,000 tCO₂ in 15-20 years | Continued adoption of mixed cropping and agronomic measures

Departments

Department of Agriculture | Department of Horticulture and Food Processing | CIPM - Centre for Integrated Pest Management | Department of Land Resources | Jal Shakti Department | Agriculture Technology Management Agency (ATMA) | Animal Husbandry Department | Regional Centres for Organic Farming | Krishi Vigyan Kendra, Banda | Banda University of Agriculture & Technology, Banda

Estimated Cost

Over ₹37.1 crores across three phases (Short Term: ₹5.8 crores | Medium Term: ₹13.7 crores | Long Term: ₹17.6 crores)

Enhancing Green Spaces and Biodiversity

- Improving green cover
- Plantation of trees
- Agroforestry

Short Term

Plantation of 2,000 tree saplings | Sequestration potential (15-20 years): ~20,000 tCO₂

Medium Term

Plantation of 3,000 to 4,000 tree saplings | Adoption of Agroforestry in ~51 ha land (5,100 trees planted) | Sequestration potential (15-20 years): ~91,000 tCO₂

Long Term

Additional 3,000 to 4,000 saplings planted | Adoption of Agroforestry in ~77 ha land (7,700 trees planted) | Sequestration potential (15-20 years): ~1,17,000 tCO₂

Departments

Department of Environment, Forests and Climate Change | State Biodiversity Board | Panchayati Raj Department | Department of Rural Development

Estimated Cost

Over ₹1.8 crores across three phases (Short Term: ₹25.6 lakhs | Medium Term: ₹73 lakhs | Long Term: ₹83.4 lakhs)

Sustainable Solid Waste Management

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

Short Term

Procurement of 2 electric garbage vans | Installation of 60 waste bins | Construction of 39 vermicompost pits | Engagement of ~120 women for manufacturing plastic-alternative products (SHG alignment) | Construction of 1 disability accessible toilet, 39 soak pits, and maintenance of 1 community toilet

Medium and Long Term

Installation of additional waste bins, compost pits, and maintenance of existing infrastructure | Engagement of additional 200 women for manufacturing plastic-alternative products (SHG alignment) | 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

Approx ₹24.8 lakhs across three phases

Access to Clean, Sustainable, Affordable and Reliable Energy

- Solar rooftop
- 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 | 37 diesel pumps replaced with solar pumps | Mitigation potential: 38.8 tCO₂e per year | 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 150 solar street lights along roads and 5 solar high mast at key locations | Solar potential: 153 kWp | Mitigation potential: 206.8 tCO₂e per year

Medium Term

Solar rooftop installation on 40% of pucca houses (283) | Agro-photovoltaic installed on 2 ha | 130 diesel pumps replaced with solar pumps | Additional installation of solar lights and solar high mast | Replacing all CFL light fixtures

with LED tube lights/bulbs; installation of EE fans across households | Installation of 150 solar street lights along roads and 5 solar high mast at key locations | Solar potential: ~2,064 kWp | Mitigation potential: ~1,617 tCO₂e per year

Long Term

Solar rooftop installation on 100% of pucca houses (435) | Agro-photovoltaic installed on 2 ha | Remaining 18 diesel pumps replaced with solar pumps | Replacing all CFL light fixtures with LED tube lights/ bulbs; installation of EE fans across households | Regular maintenance and addition of streetlights as required | Solar potential:~1,904 kWp | Mitigation potential: ~2,000 tCO₂e per year

Departments

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 | Agriculture Department | Education Department

Estimated Cost

Over ₹22.6 crores across three phases (Short term: ~₹2.1 crores | Medium Term: ~₹10.9 crores | Long Term: ~₹9.6 crores)

Sustainable and Enhanced Mobility

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

Short Term

Repairing and maintenance of road infrastructure | Purchasing 5 e-tractors and 5 e-goods | Replacing 3 auto-rickshaws with 3 e-auto rickshaws

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 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 8 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