



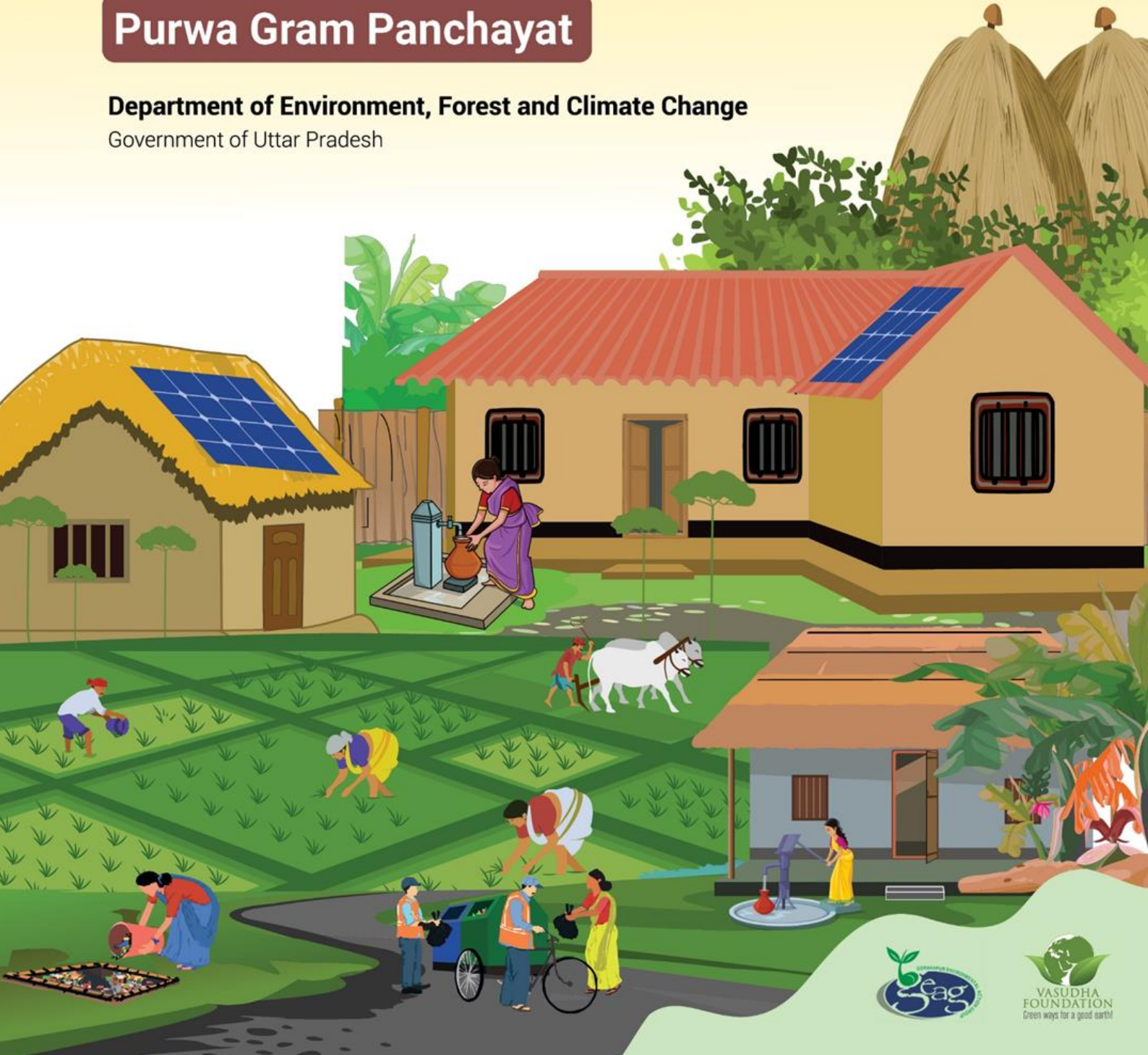
CLIMATE SMART GRAM PANCHAYAT SUMMARY OF RECOMMENDATIONS



Hardoi

Purwa Gram Panchayat

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





Sustainable Agriculture

- Micro-irrigation
- Farm ponds
- Construction of bunds
- Adoption of drought tolerant varieties of rice & wheat
- Transition to natural farming
- Sustainable livestock management

Short Term

Expanding micro- irrigation on ~26 ha (30%) | Construction of bunds on 215 ha (50%) of agricultural land | Construction of 5 farm ponds | Transitioning 64 ha (15%) to natural farming

Medium Term

Expanding micro- irrigation on ~34 ha | Construction of bunds on 431 ha (100%) of agricultural land | Additional farm ponds | Transitioning ~108 ha (cumulative 40%) to natural farming

Long Term

Expanding micro- irrigation on 86 ha (100%) | Maintenance of infrastructure | 100% transition to natural farming (431 ha)

Departments

Department of Agriculture | 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, Hardoi

Estimated Cost

Over ₹11 crores across 3 phases (Short Term: ~₹1.92 crores | Medium Term: ~₹3 crores | Long Term: ~₹6.6 crores)



Management and Rejuvenation of Water Bodies

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

Short Term

Installation of RWH structures in all (4) PRI buildings | Rejuvenation of 22 ponds | ~1,000 trees planted around water bodies | Repair of 20 wells | Construction of 2 recharge pits | Construction of 1.8 km drainage network

Medium Term

Maintenance of ponds, wells and drainage network| Installation of RWH structures in 160 households

Long Term

Continued maintenance of water resources | Installation of RWH structures in 80 households

Departments

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

Estimated Cost

Over ₹4.7 crores across three phases (Short Term: ~₹2.2 crores | Medium Term: ~₹1.4 crores | Long Term: ~₹1.12 crores)



Enhancing Green Spaces and Biodiversity

- Plantation of trees
- Agroforestry
- Arogya Van

Short Term

Plantation of 1,000 tree saplings | Sequestration potential (in 15-20 years): 3,200 tCO₂ | Establishing Arogya Van on 0.2 ha allocated land

Medium Term

Plantation of 1,000 to 1,500 tree saplings | Sequestration potential (in 15-20 years): ~4,800 tCO₂ | Adoption of Agroforestry in ~100 ha land | Sequestration potential (in 20 years): ~99,000 tCO₂

Long Term

Additional 1,000 to 1,500 saplings planted | Sequestration potential: 4,800 tCO₂ (in 15 to 20 years) | Adoption of Agroforestry in ~100 ha land | Sequestration potential (in 20 years): 99,000 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 ₹1.3 crores across three phases (Short Term:~ ₹12.7 lakhs | Medium Term:~ ₹59.5 lakhs | Long Term: ~₹59.5 lakhs)

Sustainable Solid Waste Management

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

Short Term

Setting up segregation and storage facility | Installation of 40 bins | Procurement of 1 electric garbage van | Setting up of 34 compost pits | Engagement of 200-250 women for manufacturing plastic-alternative products (SHG alignment)

Medium and Long Term

Installation of additional waste bins and maintenance of existing infrastructure | Installation of 10 bins | 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 ₹42.7 lakhs across three phases (Short Term: ~₹41.2 lakhs | Medium Term: ~₹1.5 lakhs)

Access to Clean, Sustainable, Affordable and Reliable Energy

- Solar rooftop installations
- 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 | 36 diesel pumps replaced with solar pumps | Solar rooftop installation for suitable residential buildings | 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 120 solar street lights at key locations in GP | Solar potential: 15.3 kWp | Mitigation potential: 54.6 tCO₂e per year

Medium Term

Solar rooftop installation on 40% of pucca houses (296) | Agro-photovoltaic installed on ~4 ha | 54 diesel pumps replaced with solar pumps | 90 LED street lights replaced with solar street lights & 10 high mast street lights | Solar potential: ~1,888 kWp | Mitigation potential: ~2,129 tCO₂e per year

Long Term

Solar rooftop installation on 100% of pucca houses (445) | Agro-photovoltaic installed on ~4 ha | 90 diesel pumps replaced with solar pumps | Replacing all CFL light fixtures with LED tube lights/ bulbs; installation of EE fans across households | Installation of 5-10 additional high mast street lights (as required) | Solar potential: ~2,335 kWp | Mitigation potential: 1,480 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 ₹31 crores across three phases (Short Term: ~₹1.1 crores | Medium Term: ~₹14 crores | Long Term: ~₹16 crores)

Sustainable and Enhanced Mobility

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

Short Term

Road elevation works (3.5 km) | Promoting adoption of 5 e-tractors and 5 e-goods carriers

Medium Term

Maintenance of existing infrastructure | Introducing 10 e-auto rickshaws in the GP | 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 ₹3.3 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

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 land beyond.

Please refer to action plan for detailed recommendations