



# CLIMATE SMART GRAM PANCHAYAT

## SUMMARY OF RECOMMENDATIONS



Mirzapur

### Bagahi Gram Panchayat

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





## Sustainable Agriculture

- Climate resilient practices
- Micro-irrigation
- Farm ponds
- Transition to natural farming
- Sustainable livestock management

### Short Term

Introduction of micro-irrigation on ~21 ha | Bunds with trees around ~175 ha of agricultural land| Construction of 5 farm ponds | Transitioning 52 ha (15%) of agricultural land to natural farming | Training of 2 para vets

### Medium Term

Expanding micro- irrigation on ~57 ha | 5 Additional farm ponds constructed | Construction of bunds with trees around ~175 ha of agricultural land | Transitioning 140 ha (40%) to natural farming

### Long Term

Expanding micro irrigation on additional ~64 ha | Maintenance of farm ponds and bunds| 100% transition to natural farming (~157 ha)

### Key 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, Mirzapur

### Estimated Cost

Over ₹10 crores across three phases (Short term: ₹1.5 crores | Medium term: ₹4 crores | Long term: ₹4.5 crores)

## Enhancing Green Spaces and Biodiversity

- Plantation of trees
- Agroforestry
- *Arogya Van*
- People's Biodiversity Register (PBR)
- Establishment of nursery

### Short Term

Plantation of 2,000 tree saplings | Sequestration potential: ~20,000 tCO<sub>2</sub> in 15-20 years| Allocation of 0.1 ha land for *Arogya Van* | Updation of PBR | Establishing 1 nursery (involving SHGs)

### Medium Term

Plantation of 2,000 to 2,500 tree saplings at strategic locations | Sequestration potential: 25,000 tCO<sub>2</sub> | Adoption of Agroforestry in ~68 ha land | Sequestration potential: 68,000 tCO<sub>2</sub> in 15-20 years | *Arogya Van* established

### Long Term

Additional 2,500 to 3,000 saplings planted | Sequestration potential: 30,000 tCO<sub>2</sub> in 15-20 years | Adoption of Agroforestry in ~102 ha land | Sequestration potential: ~1,02,000 tCO<sub>2</sub> in 15-20 years

### 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 ₹1.6 crores across three phases (Short term: ~₹28 lakhs | Medium term: ₹60.7 lakhs |Long term: ₹80.7 lakhs)





## Sustainable Solid Waste Management

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

### Short Term

Installation of 22 waste bins | Procurement of 1 electric garbage van | Setting up of 20 compost pits | 452 households covered under GP's waste management system | Construction of toilets in 28 households | Engagement of 100-120 women for manufacturing plastic-alternative products (SHG alignment)

### Medium Term and Long Term

Installation of additional waste bins and maintenance of existing infrastructure | Expanding construction of household toilets | Scaling up partnerships | Regular awareness, training and capacity-building programs | Additional women engaged in manufacturing plastic-alternative products (SHG alignment)

### 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 ₹11 lakhs across three phases



## Management and Rejuvenation of Water Bodies

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

### Short Term

Installation of RwH structures in all (3) PRI buildings | Rejuvenation of 5 ponds, ~1,000 trees planted around water bodies | Construction of 4 recharge pits | Construction of 1.45 km drainage network | Wastewater treatment through 0.5 MLD DEWATs and soak pits

### Medium Term

Maintenance of ponds, drainage channels and other water related infrastructure | Installation of RwH structures in 22 households | Additional soak pits constructed as per need

### Long Term

Continued maintenance of water resources | Installation of RwH structures in 135 households

### Departments

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

### Estimated Cost

Over ₹2.3 crores across three phases (Short Term: ₹9 lakhs | Medium Term: ₹52.9 lakhs | Long Term: ₹66 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

### Short Term

Solar rooftop installation on all (6) government buildings | Replacing 4 diesel pumps 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 |

- Energy efficient (EE) fixtures
- Solar street lights

Replacing existing fixtures in all government buildings with energy efficient fixtures (LED lights, EE fans) | Installation of 35 solar street lights and 5 solar high masts at key locations in GP | Solar potential: 68 kWp | Mitigation potential: ~51 tCO<sub>2</sub>e per year

#### Medium Term

Solar rooftop installation on 40% of pucca houses (114) | Agro-photovoltaic installed on 2 ha | Solarisation of 15 grid connected pumps | Solar potential: ~924 kWp | Mitigation potential: ~927 tCO<sub>2</sub>e per year

#### Long Term

Solar rooftop installation on 100% of pucca houses (246) | Agro-photovoltaic installed on 2 ha | Replacing all CFL light fixtures with LED tube lights/ bulbs; installation of EE fans across households | Solar potential: ~1,238 kWp | Mitigation potential: ~1,359 tCO<sub>2</sub>e per year

#### Departments

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 ₹15.2 crores across three phases (Short term: ~₹74.4 lakhs | Medium term: ₹7 crores | Long term: ₹7.5 crores)

## Sustainable and Enhanced Mobility

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

#### Short Term

Elevation of ~1.2 km of road | Replacing 4 CNG autos with e-auto rickshaws in the GP | Promoting adoption of 5 e-tractors and 5 e-goods carriers

#### Medium Term and Long Term

10 more e-auto rickshaws added to GP fleet | 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 ₹1.4 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 120 women and other entrepreneurs to establish enterprises across the GP | Involving 9 SHGs | Establishing partnerships between Panchayat, community members, FPOs for marketing and selling of compost | Training of community members | 1 nursery established (with SHG involvement)

#### 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

\* 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**