



**LIFE**  
Lifestyle for  
Environment



# CLIMATE SMART GRAM PANCHAYAT

## Summary of Recommendations

 **Kannauj**

**Bahadurpur Majhgawan Gram Panchayat**

**Department of Environment,  
Forest and Climate Change**

Government of Uttar Pradesh





## Management and Rejuvenation of Water Bodies

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

### Short Term

Installation of RWH structures in all (6) PRI buildings | Cleaning and desilting of 23 ponds | Cleaning and restoration of 5 wells | Construction of 20 recharge pits | Plantation of 1,000 tree saplings | Construction of 45 recharge pits | Construction of ~2.5 km drainage network | Construction of ~200 household toilets | Construction of 200 soak pits

### Medium Term

Installation of RWH structures in 75 households | Maintenance of waterbodies and related infrastructure | Construction of additional recharge pits as required | 500 additional saplings planted around water bodies | Construction of 140 additional household toilets | Construction of additional soak pits

### Long Term

Continued maintenance of water resources | Installation of RWH structures in 154 households | Construction of additional recharge pits | 500 additional saplings planted around water bodies

### Key Departments

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

### Estimated Cost

Over ₹4.2 crores over three phases (Short Term: ~₹1.2 crores | Medium Term: ~₹1.5 crores | Long Term: ~₹1.6 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): 10,000 tCO<sub>2</sub> | 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): 15,000 tCO<sub>2</sub> | Adoption of Agroforestry in ~87 ha land | Sequestration potential (in 15-20 years): 87,000 tCO<sub>2</sub>

### Long Term

Additional 1,500 to 1,500 saplings planted | Sequestration potential (in 15-20 years): 15,000 tCO<sub>2</sub> | Adoption of Agroforestry in ~130 ha land | Sequestration potential (in 15-20 years): 1,30,000 tCO<sub>2</sub>

### 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 ₹6 crores across three phases (Short term: ~₹12 lakhs | Medium term: ~₹53.8 lakhs | Long term: ~₹5.4 crores)

## Sustainable Agriculture

- Micro-irrigation
- Farm ponds
- Construction of bunds
- Drought-tolerant rice varieties
- Setting up a mini-weather station
- Transition to natural farming
- Sustainable livestock management

### Short Term

Introduction of micro-irrigation on ~65 ha (30%) | Construction of bunds on ~349 ha (50%) | Construction of 10 farm ponds (300m<sup>3</sup> capacity each) | Install 1 mini weather monitoring station | Transitioning 105 ha (15%) of agricultural land to natural farming

### Medium Term

Expanding micro-irrigation on ~87 ha (40%) | Construction of bunds on ~349 ha (50%) | Construction of 10 farm ponds (300m<sup>3</sup> capacity each) | Transitioning 175 ha (40%) to natural farming

### Long Term

Expanding micro-irrigation on ~65 ha (30%) | Maintenance of infrastructure | 100% (419 ha) transition to natural farming

### Departments

Department of Agriculture, Cooperation and Farmer Welfare | Department of Horticulture and Food Processing | Centre for Integrated Pest Management (CIMP) | Fisheries Department | Department of Land Resources | Jal Shakti Department | Animal Husbandry Department | Agriculture Technology Management Agency (ATMA) | Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA) | Regional Centres for Organic Farming | Krishi Vigyan Kendra, Kannauj

### Estimated Cost

Over ₹20.84 crores across three phases (Short Term: ~₹3.35 crores | Medium Term: ~₹5.8 crores | Long Term: ~ ₹11.6 crores)

## 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 | Procurement of 4 electric garbage vans | Installation of 40 bins | Construction of 20 vermicompost pits | Engagement of 50 women for manufacturing plastic-alternative products (SHG alignment)

### Medium and Long Term

Installation of an additional 10 waste bins and 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

Approx ₹14.25 lakhs over three phases

## Access to Clean, Sustainable, Affordable and Reliable Energy

- Solar rooftops,
- Solar-powered pumps
- Agro-photovoltaics

### Short Term

Solar rooftop installation on all government buildings | Solar rooftop installation for suitable residential buildings | 35 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 68 LED streetlights & 7 solar high mast streetlights | Solar potential: ~53 kWp | Mitigation potential: ~94.75 tCO<sub>2</sub>e per year

- Clean cooking solutions- Household biogas, Solar induction cookstoves, improved chulhas, LPG
- Energy efficient (EE) fixtures
- Solar street lights

### Medium Term

Solar rooftop installation on 40% of pucca houses (~535) | Agro-photovoltaic installed on 2 ha | 35 diesel pumps replaced with solar pumps | Installation of 67 LED streetlights | Solar potential: ~2,105 kWp | Mitigation potential: ~2,347.75tCO<sub>2e</sub> per year

### Long Term

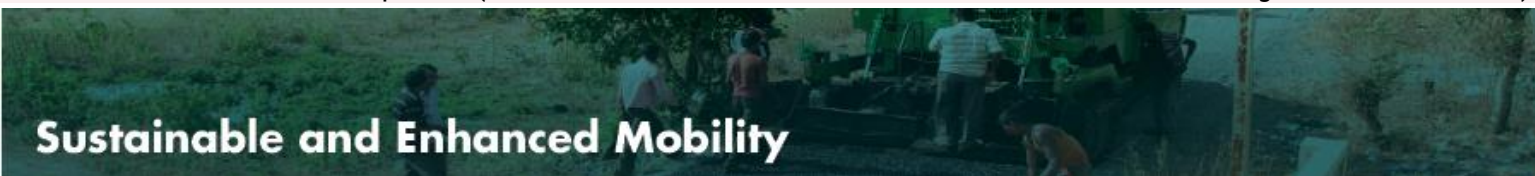
Solar rooftop installation on 100% of pucca houses (251) | Agro-photovoltaic installed on 2 ha | 50 diesel pumps replaced with solar pumps | Replacing all CFL light fixtures with LED tube lights/ bulbs; installation of EE fans across households | Solar potential: ~3,408 kWp | Mitigation potential: 4,840 tCO<sub>2e</sub> per year

### Departments

MNRE |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 | Department of Agriculture | Education Department

### Estimated Cost

Over ₹19.4 crores across three phases (Short Term: ~₹3.14 crores | Medium Term: ~ ₹6.73 crores | Long Term: ~ ₹9.5 crores)



## Sustainable and Enhanced Mobility

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

### Short Term

Road elevation and RCC for 2.1 km | Replacing 3 auto-rickshaws with e- autorickshaws | Promoting adoption of 5 e-tractors and 5 e-goods carriers | Mitigation potential: ~1.73 tCO<sub>2e</sub> per auto

### 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 ₹95.94 lakhs 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
- Animal husbandry and sustainable farming

### Short Term

Capacity building, training, and support for 100 women and other entrepreneurs to establish enterprises across the GP | Involving 3 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 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**