





# CLIMATE SMART GRAM PANCHAYAT

Bahraich

**SUMMARY OF RECOMMENDATIONS** 

# **Ashoka Gram Panchayat**

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

Government of Uttar Pradesh





# Management and Rejuvenation of Water Bodies

- Rainwater harvesting
- Rejuvenation of ponds
- Tree plantations
- Recharge pits
- Enhancing drainage infrastructure
- Capacity building

#### **Short Term**

Installation of RwH structures in all PRI buildings (4) | Cleaning of 6 ponds | Deepening of 1 pond | ~1,000 trees planted around water bodies | Construction of 1 km of drains | Construction of 4 recharge pits

#### **Medium Term**

Maintenance of ponds and drains | Installation of RwH structures in 50 households | Additional ~1,000 trees planted | Additional recharge pits constructed as per need

#### **Long Term**

Continued maintenance of ponds and drains | Installation of RwH structures in 110 households

### **Key Departments**

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

#### **Estimated Cost**

Over ₹2.30 crores across three phases (Short Term: ~₹61.8 lakhs crores | Medium Term: ~₹73.8 lakhs | Long Term: ~₹94.8 lakhs)

# Sustainable Agriculture

- Micro-irrigation
- Bunds
- Drought tolerant rice and wheat variety
- Farm ponds
- Transition to natural farming
- Integrated pest management
- Awareness on crop loss insurance program
- Mini-weather station
- Sustainable livestock management
- Sustainable Aquaculture practices

#### Short Term

Introduction of micro-irrigation on 57 ha (30%) | Construct bunds on 95 ha (70%) agriculture land | Construction of 5 to 10 farm ponds | Setup 1 mini weather station | Transitioning  $\sim$ 29 ha (15%) of agricultural land to natural farming

#### Medium Term

Micro- irrigation on 93 ha (70%) |100% bund construction on agricultural land | Construct 15 to 20 farm ponds | Maintenance of mini weather station | Transitioning  $\sim$ 76 ha (40%) to natural farming

#### Long Term

Maintenance of bunds, farm ponds and mini weather station | 100% adoption of micro-irrigation | Transitioning additional ~84 ha to natural farming (100%)

#### **Departments**

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

### **Estimated Cost**

Over ₹6.9 crores across three phases (Short term: ~₹1.4 crores | Medium term: ~₹3 crores | Long term: ~₹2.5 crores)

# **Enhancing Green Spaces and Biodiversity**

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

#### **Short Term**

Plantation of 1,000 tree saplings | Sequestration potential (in 15-20 years): up to 10,000 tCO<sub>2</sub> | Establishing *Arogya Van* on 0.1 ha allocated land |Setting up 1 nursery

#### **Medium Term**

Plantation of 1,500 to 2,000 tree saplings | Sequestration potential (in 15-20 years): up to 17,500 tCO $_2$  | Adoption of agroforestry in 19 ha land | Sequestration potential (in 20 years): up to 19,000 tCO $_2$ 

### **Long Term**

Additional 1,500 to 2,000 saplings planted | Sequestration potential (in 15-20 years): up to 17,5000 tCO $_2$ | Expansion of agroforestry in 28 ha land | Sequestration potential (in 20 years): 28,000 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

#### **Estimated Cost**

Over ₹95.9 lakhs across three phases (Short term: ~₹22.7 lakhs | Medium term: ~₹34.8 lakhs | Long term: ~₹38.4 lakhs)

# Sustainable Solid Waste Management

- Enhanced waste management infrastructure
- Vermi-compost pits
- Enhance Sanitation Infrastructure
- Ban on single-use plastics

#### **Short Term**

100% door to door waste collection system for 625 household | Installation of 50 waste bins | Procurement of 1 electric garbage van | Setting up of 20 vermi-compost pits | Construction of 13 special toilet (disabled community) and 3 public toilets | Ban on single-use plastics | Engagement of 100-120 women for manufacturing plastic-alternative products (SHG alignment)

#### **Medium and Long Term**

Installation of additional compost pits | 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**

Over ₹33.45 lakhs across three phases

# 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
- Energy efficient (EE) fixtures
- Solar street lights

## **Short Term**

Solar rooftop installation on all government buildings | 60 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 50 solar LED and 5 high-mast solar LED street lights at key locations in GP | Solar potential: ~28.5 kWp | Mitigation potential: ~94 tCO<sub>2</sub>e per year

#### **Medium Term**

Solar rooftop installation on 186 pucca houses (40%) | Agro-photovoltaic installed on 2 ha | 150 diesel pumps replaced with solar pumps | Solar potential: ~1,058 kWp | Mitigation potential: ~1,257 tCO<sub>2</sub>e per year

#### **Long Term**

Solar rooftop installation on 280 of pucca houses (100%) | Agrophotovoltaic installed on 2 ha | 100% transitions from diesel pumps to solar pumps | Replacing all CFL light fixtures with LED tube lights/ bulbs; installation of energy efficient fans across households | Solar potential: ~1,340 kWp | Mitigation potential: ~1,629 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 ₹21.51 crores across three phases (Short Term: ~₹1.63 crores | Medium Term: ~₹8.83 crores | Long Term: ~₹11.05 crores)

# Sustainable and Enhanced Mobility

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

#### Short Term

Road elevation of 1 km length | Introducing 15 e-auto rickshaws in the GP and 10 diesel autos to be replaced with e-autorickshaws | Mitigation potential:  $\sim$ 45 tCO<sub>2</sub>e | Promoting adoption of 5 e-tractors and 5 e-goods carriers

### **Medium Term and Long Term**

Additional 10 e-autorickshaws introduced and additional e-vehicle and e-tractor procurement as required | Repairing and maintenance of road infrastructure | Maintenance of existing infrastructure | Expanding public transport (as required)

#### **Departments**

Infrastructure and Industrial Development | Transport Department | Panchayati Raj Department | Department of Rural Development | Uttar Pradesh New & Renewable Energy Development Agency (UPNEDA)

### **Estimated Cost**

Over ₹1.37 crores across three phases

# **Enhancing Livelihoods and Green Entrepreneurship**

- Engaging SHGs to manufacture sustainable products
- Sustainable Aquaculture
- 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 17 SHGs | Establishing partnerships between Panchayat, community members, FPOs for marketing and selling of compost | Adoption of sustainable aquaculture practices | Training of community members

### **Medium Term**

Expanding capacity building programs 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.