



# CLIMATE SMART GRAM PANCHAYAT

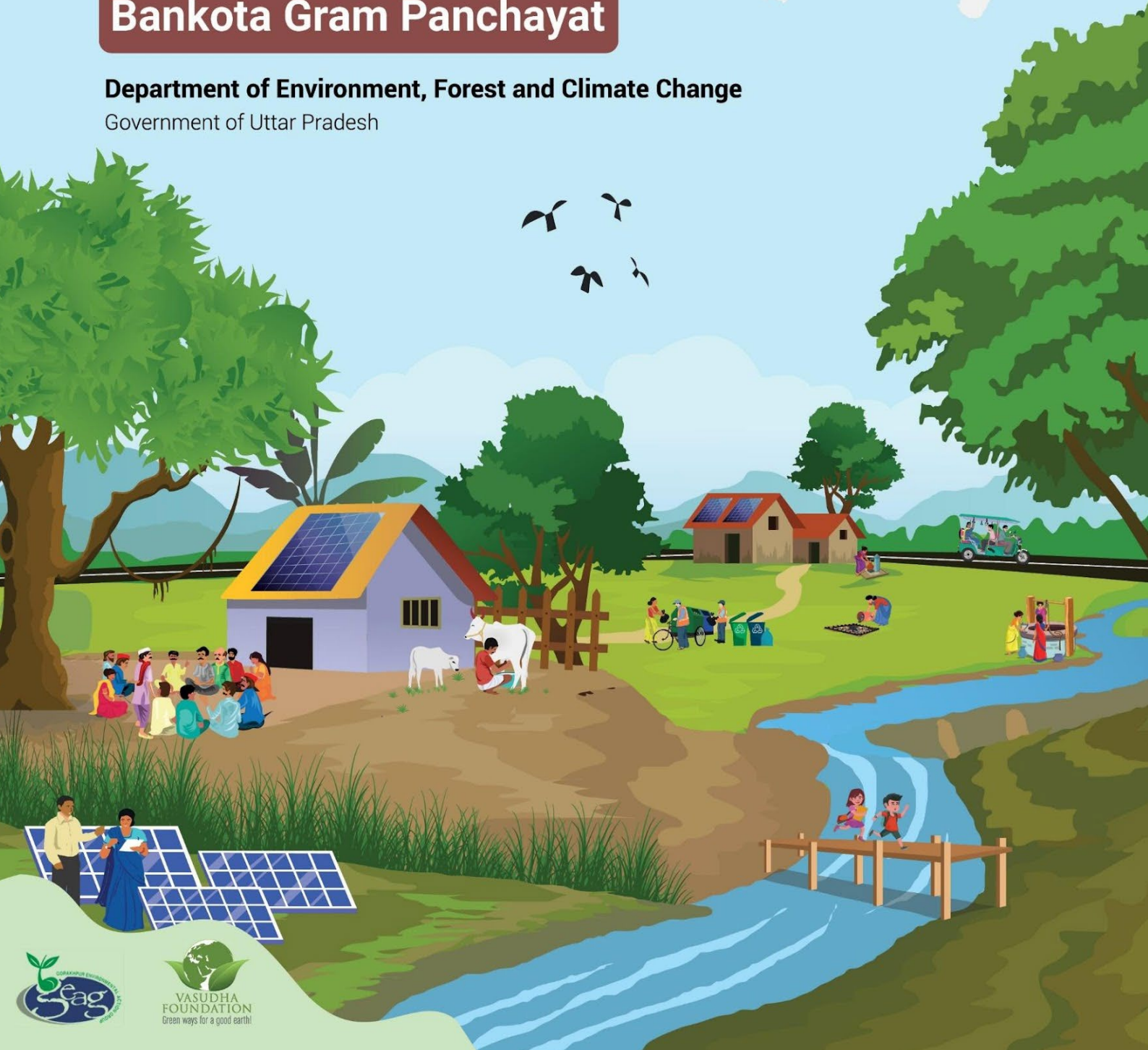
## SUMMARY OF RECOMMENDATIONS



Badaun

### Bankota Gram Panchayat

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





## Management and Rejuvenation of Water Bodies

- Rainwater harvesting
- Rejuvenation of ponds
- Reboring and repairing of handpumps
- Tree plantations
- Recharge pits
- Enhancing drainage infrastructure
- Capacity building

### Short Term

Installation of RWH structures in all PRI buildings (8) | Rejuvenation of 4 ponds | ~1,000 trees planted around water bodies | Reboring of handpumps (72) and repairing of handpumps (100) | Construction of 40 recharge pits | Maintenance of drainage network

### Medium Term

Maintenance of ponds (4), drainage channels and other water related infrastructure| Installation of RWH structures in 50 households |Additional ~1,000 trees planted around water bodies| Additional recharge pits constructed as per need

### Long Term

Continued maintenance of water resources | Installation of RWH structures in 100 households

### Key Departments

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

### Estimated Cost

Over ₹1.3 crores across three phases (Short Term: ~₹49.7 lakhs | Medium Term: ~₹32.5 lakhs | Long Term: ~₹50 lakhs)

## Enhancing Green Spaces and Biodiversity

- Plantation of trees
- Agroforestry
- Arogya Van
- People's Biodiversity Register
- Establishing a nursery

### Short Term

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

### Medium Term

Plantation of 1,500 to 2,000 tree saplings | Sequestration potential (in 15-20 years): 17,500 tCO<sub>2</sub> | Adoption of Agroforestry in ~67 ha land | Sequestration potential (in 20 years): 67,000 tCO<sub>2</sub>

### Long Term

Additional 1,500 to 2,000 saplings planted | Sequestration potential: 17,500 tCO<sub>2</sub> | Adoption of Agroforestry in ~101 ha land | Sequestration potential (in 20 years): 1,01,000 tCO<sub>2</sub> | Maintenance of nursery

### 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 ₹1.4 crores across three phases (Short term: ~₹16 lakhs | Medium term: ~₹54 lakhs | Long term: ~₹67.6 lakhs)

## Sustainable Agriculture

- Micro-irrigation
- Bunds
- Farm ponds
- Drought tolerant variety of rice & wheat
- Dry Direct seeded rice
- Promotion of millets

### Short Term

Introduction of micro-irrigation on 80 ha | Construction of 5-10 farm ponds | Transitioning 114 ha (15%) of agricultural land to natural farming |~380.5 ha to have bunds with trees

- Transition to natural farming
- Sustainable livestock management

#### Medium Term

Expanding micro-irrigation on 107 ha | Additional 15-20 farm ponds | Transitioning 304 ha (40%) to natural farming | All agriculture land ~761 ha to have bunds with trees

#### Long Term

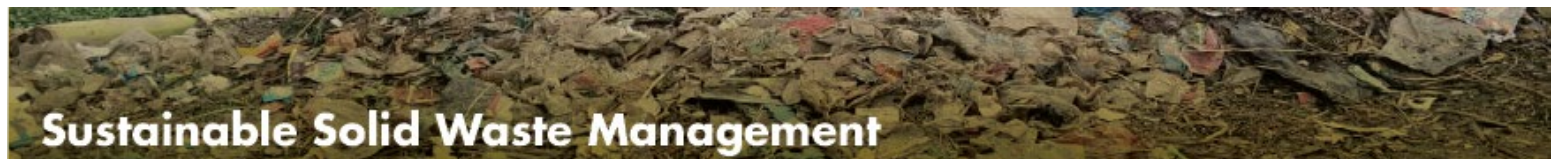
Expanding micro-irrigation on 80 ha | Maintenance of infrastructure | 100% transition to natural farming

#### Departments

Department of Agriculture | Centre for Integrated Pest Management (CIMP) | Department of Horticulture and Food Processing | Department of Land Resources | Fisheries Department | 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, Badaun

#### Estimated Cost

Over ₹21.8 crores across three phases (Short term: ~₹3.7 crores | Medium term: ~₹8.8 crores | Long term: ~₹9.3 crores)



## Sustainable Solid Waste Management

- Enhanced waste management infrastructure
- Nadep/vermicompost pits
- Sanitation management
- Ban on single-use plastics

#### Short Term

Setting up segregation and storage facility | Installation of 1,177 bins for all households | Procurement of 1 electric garbage van | Setting up of 20 Nadep/vermicomposting pits | Construction of community and household toilets | Engagement of 100-120 women for manufacturing plastic-alternative products (SHG alignment) | Ban on single-use plastics

#### Medium Term and Long Term

Setting up additional compost pits | 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

Over ₹12.1 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 | 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 150 solar street lights along roads and pathways & 15 high-mast solar LED streetlights at key locations | 30 diesel pumps replaced with solar pumps | Solar potential: 61 kWp | Mitigation potential: 98.3 tCO<sub>2e</sub> per year

#### Medium Term

Solar rooftop installation on 40% of pucca houses (428) | Agro-photovoltaic installed on 2 ha | 95 grid connected electric pumps replaced with solar pumps | Installation of 200 solar street lights & 15 high-mast solar LED streetlights at key locations in GP | Solar potential: ~1,748 kWp | Mitigation potential: ~1,959 tCO<sub>2e</sub> per year

### Long Term

Solar rooftop installation on 100% of pucca houses (644) | Agro-photovoltaic installed on 2 ha | Remaining 95 grid connected electric pumps replaced with solar pumps | Replacing all CFL light fixtures with LED tube lights/ bulbs; installation of EE fans across households | Installation of 200 solar street lights along roads and pathways | Solar potential: ~2,432 kWp | Mitigation potential: 2,671 tCO<sub>2</sub>e 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) | Madhyanchal Vidyut Vitran Nigam Limited | Panchayati Raj Department | Rural Development Department | Department of Agriculture | Education Department

### Estimated Cost

Over ₹23.3 crores across three phases (Short Term: ~₹1.6 crores | Medium Term: ~₹9.8 crores | Long Term: ~₹11.9 crores)

## Sustainable and Enhanced Mobility

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

### Short Term

Introducing 3 e-auto rickshaws in the GP | Mitigation potential: 3.6 tCO<sub>2</sub>e | Promoting adoption of 5 e-tractors and 5 e-goods carriers

### 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 ₹85.8 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

### Short Term

Capacity building, training and support for 100 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

### 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**