



Project title

Grid Connected Solar PV Based Mini Grids for Agricultural Pump Sets (Under SAP)

Result areas

Energy access and power generation

Health and well-being, food and water security

Sector

Public

Total financing, USD

USD 14 million

GCF financing, USD

USD 10 m grant

Financial instrument

Grant (SAP)

Description of specific climate change problem and how the project will address it

The proposal intends to develop a programme to provide a renewable energy source to agricultural pumps which are currently being operated by thermal power based grid supply.

**Objectives**

- Switch from conventional Thermal power to solar power to achieve Emission reduction
- Enhanced energy efficiency of pumps
- Switch from Subsidised electricity and from water guzzling crops to pulses/ oilseeds to achieve Water conservation
- Additional income by selling power to Discom would Increase income of farmers
- Ensuring reliable power supply for farmers

Farmers will be given DC and AC pumps and solar mini grid of capacity equal to almost three times the existing pump sets. The additional capacity will enable the farmer to sell the excess electricity to the grid and this enhance his income.

Total 800 numbers of Solar PV based Agricultural pump sets will be installed with a cumulative capacity of 16 MW.

Alignment with key country priorities and stakeholders engaged

Aligned with NDC and Solar Mission

- Increase the share of the installed electric power from Non-fossil fuel sources to 40% by 2030 as a part of NDCs
- In Solar Mission 2022 ,the ambitious target of 175 GW of installed ,Of this 100 GW has to be achieved using solar power projects.

# INDIA

AE: NABARD



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## Project title:

Grid Connected Solar PV Based Mini Grids for Agricultural Pump Sets (Under SAP)

## Activities

### Project Interventions:

- Signing Power Purchase Agreement with DISCOM
- Open tendering for procurement of Solar module.
- Agreement with Operational and maintenance( O&M) provider to fix the power generation unit.
- Provide training to farmer for O&M (Cleaning and other related works).
- Letter of credit for Payment security mechanism form DISCOM to farmer through corporative society
- Training/ exposure visits for farmers for crop diversification.

## Expected outcomes

- Promotion of use of renewable energy in Agriculture.
- The proposal would address the issues of indiscriminate use of water resources and promote energy efficiency in irrigation water pumping with co benefit of emission reduction.

## Paradigm shift potential

- *Building an ecosystem that would promote solar energy, energy efficiency as well as efficient management of water resources, which can support scaling and replication.*

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## Project title

Enhancing Climate Resilience and adaptive capacity of rural areas through conservation, harvesting and management of water resources

## Result areas

Health and well-being, and food and water security  
Most vulnerable people, communities and regions

## Sector

Public

## Total financing, USD

USD 325 million

## GCF financing, USD

USD 49 million

## Financial instrument

Grant

## Description of specific climate change problem and how the project will address it

In Rajasthan, with geographical area of 34.3 m hectare, about 10 m hectare is unproductive wastelands. In the state, usually every three out of five years are affected by drought due to uncertain and varied distributions of rainfall. As water table is continuously going down, a significant part of the area under crop production is getting converted into wasteland, resulting in scarcity of fuel, fodder and livestock . This is resulting into poor socio-economic conditions of farmers of the state.

The solution proposed is adaptation to water stress and resilience to droughts and famines in the state. The project will enhance water Conservation, Augmentation, and manage water resources integrated with extensive plantation.

### The objectives of proposal are as following:

- To make villages "self-reliant" in terms of water requirement.
- To enhance adaptation measures during drought/famine and improve adaptability/resilience to climatic vagaries (storage structures etc.)
- Increase in ground water levels / minimizing water depletion.
- Providing drinking water.
- Increase in crop production and productivity.
- To ensure that the surface water flow remains maintained in the stream.

## Alignment with key country priorities and stakeholders engaged

- The project proposal is aligned three National Missions namely The National Mission on Water, The National Mission for a Green India and The National Mission for Sustainable Agriculture, details for each are available on the website of the Ministry of Environment, Forest & Climate Change.
- The project is aligned with the SAPCC in terms of Integrated Agriculture Management, Forestry, Water, and Health management.

# INDIA

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## Project title:

Enhancing Climate Resilience and adaptive capacity of rural areas through conservation, harvesting and management of water resources

## Activities

- Watershed (catchment) area treatment
- Drainage line treatment
- Repair of minor irrigation work
- Increasing the capacity of water storage structures
- Pasture development & plantation over-seeding, fencing
- To Increase Agricultural Productivity – crop rotation, micro irrigation, etc.

## Expected outcomes

- Increase in ground water level
- Increase in surface water storage availability
- Increase area under irrigation
- Changes in the cropping pattern
- Increase in Water Use Efficiency adoption of drip & sprinkler systems
- Enhanced resilience to droughts
- Increase in afforestation and plantation through horticulture activities
- Reduction in seasonal migration of population and cattle
- Decreased siltation of water bodies in the downstream of project area

## Paradigm shift potential

- *The project efforts will be sustained through leveraging multiple sources of funding i.e. various funds of Central/State govt. schemes, public contribution, State plan funds etc.*
- *Use of Technology: Geo Tagging, Satellite Imagery*