

Renewable Energy and Energy Efficiency Program (REEEP)

Solar Energy Technologies Application in Irrigation: Scope and Opportunities



Implemented by

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH



unofficial translation for discussion only

Overview of REEEP

Objective:

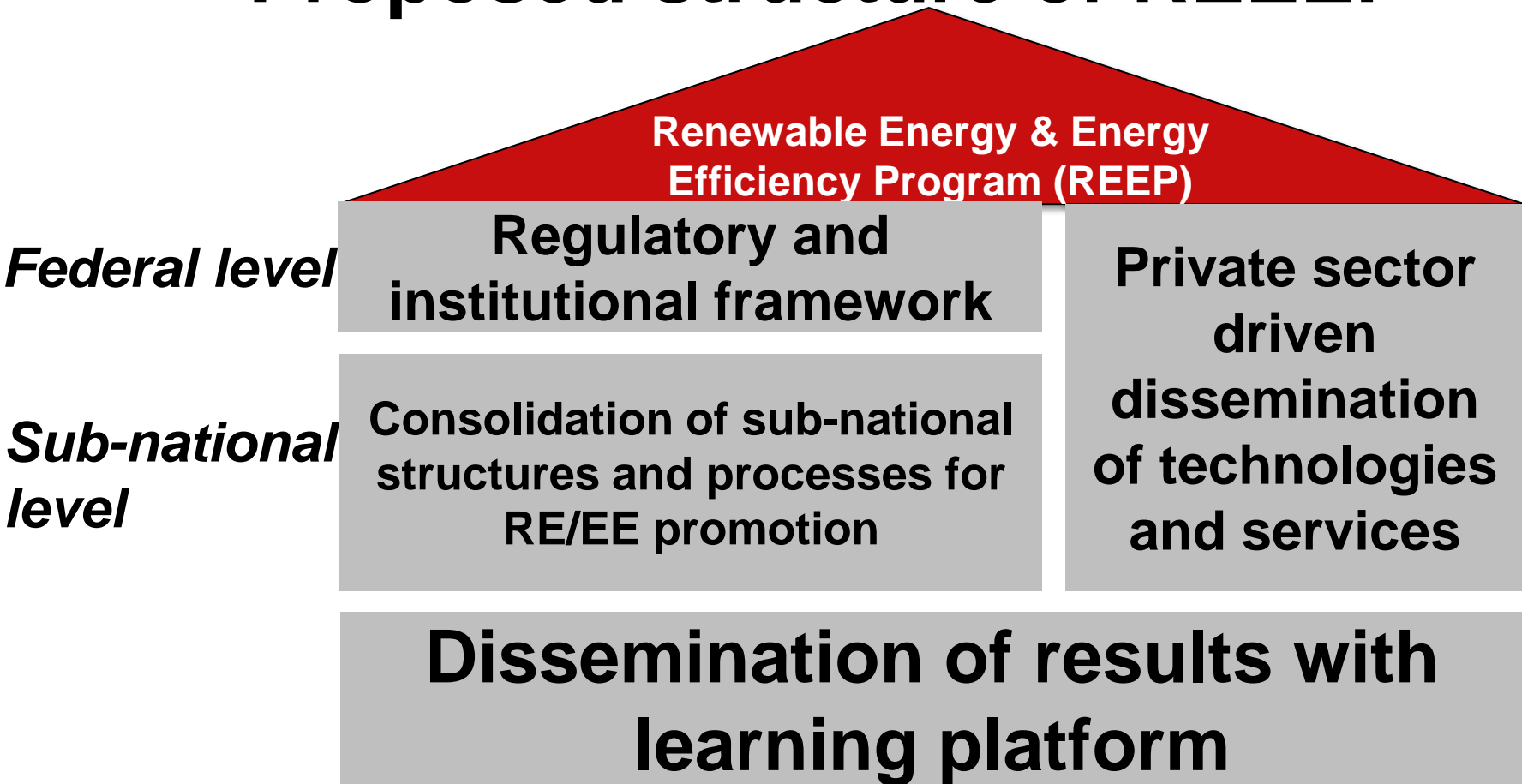
The regulatory, institutional and private-sector conditions for disseminating renewable energy and raising energy efficiency are created.

Time: July 2021 – December 2023

Lead Agency: Ministry of Energy, Water Resources and Irrigation, GoN

Main Implementing Partner : AEPC along with Provincial and Local Governments

Proposed structure of REEEP



National and International Commitments for RE

Sustainable Development Goal (SDG):

Goal no. 7: Sustainable Energy for All

- **Nepal as Conference of Party for International Renewable Energy Agency (IRENA)**
- **Agreement with various development partners**
- **Green Climate Fund (GCF)**
- **National Determined Contribution Nepal (NDCN)**

National Goals

- **Constitution of Nepal 2015, Article 51.6 Protection, Conservation, Utilization of Natural Resources policy-3)**
- **Fifteen five year plan of Nepal**
- **GoN's policy and programme and annual goal**

Solar Lift Irrigation/Drinking Water System

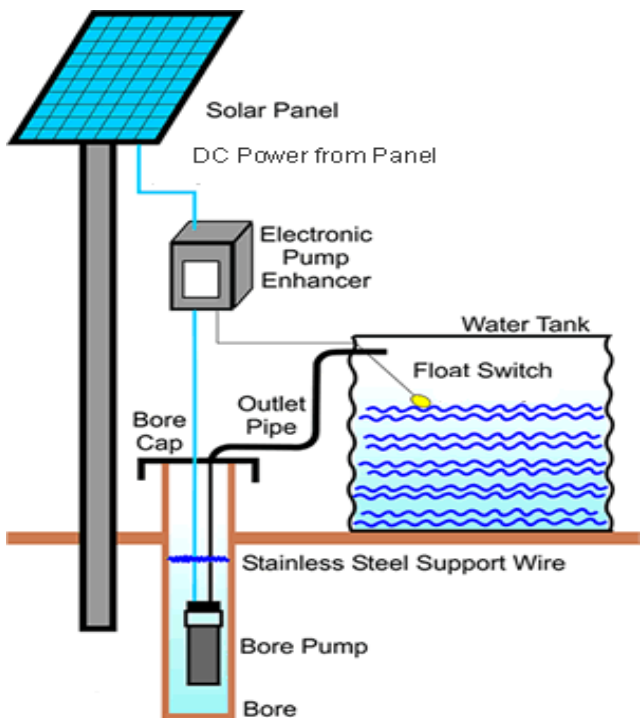
Solar Energy Technologies

Solar Thermal System

1. Solar Water Heater
2. Solar Dryer
3. Solar Cooker

Solar PV System

1. Solar Irrigation/ Pumping
2. Solar Street Light
3. Solar PV System for Institutions
4. Solar Mini Grid
5. Solar Home System

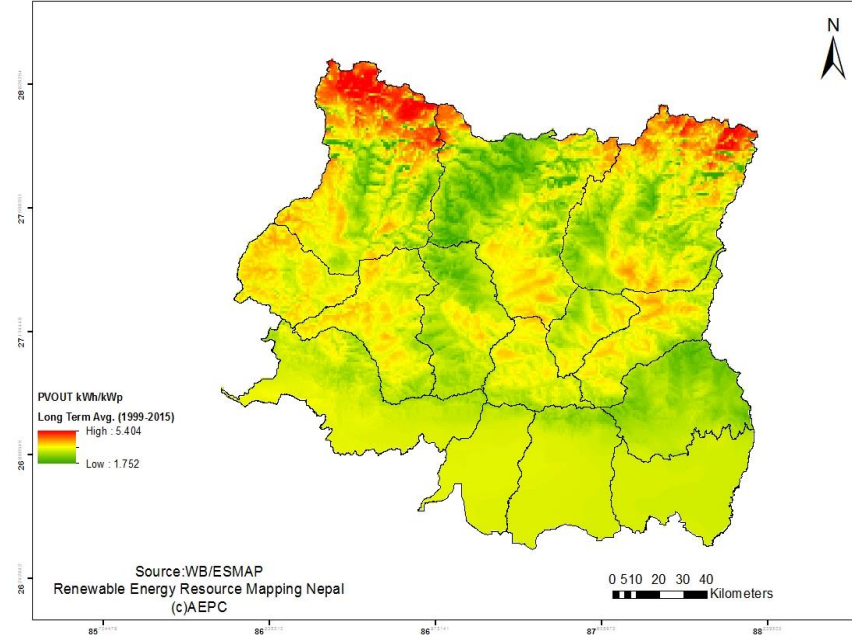


RE Application in Irrigation

Status till f.y. 2076/77

- Implementation of over **400 PVPS** for drinking water
- **20 MUS** project and **4,000 plus Irrigation (Province-1 about 650 plus)**
- **Lifting water ranging from 5 to 750 meters.**

Solar Power Resources Mapping in P1



AEPC Subsidy provision in Solar Pumping System:

- Maximum subsidy up to 60% of total costs but not exceeding **NRs. 2,000,000** per system for **irrigation**.
- Maximum subsidy up to 60% in total costs but not exceeding **NRs. 1,500,000** per system for **drinking water**.
 - *An additional subsidy of NRs. 4,000 per household will be provided to the “targeted beneficiary groups”*

Technical Support for Solar Pumping System

Local Government	District	No. of Solar Pumping System
Jahada RM	Morang	3
Gauriganj RM	Jhapa	3
Mai Municipality and Mangsebung RM	Ilam	3
Miklajung RM	Panchathar	7
Siddicharan Municipality, Manebhanjyang RM and Sunkoshee RM	Okhaldhunga	7
Khotelang RM, Dibrung chuichumma RM and Haleshi Tuwachung Municipality	Khotang	6
Nechasalyan RM	Solukhumbu	3
Ram Prasad Rai RM	Bhojpur	1
Khandabari Municipality	Sankhuwasabha	1
Total		34

Solar Pumping System

