Green Energy SMEs Development Project

Sustainable Energy Days
Dushanbe, Tajikistan
October 25-26, 2023

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Main points of the presentation:

1. Challenges and opportunities for Tajikistan's energy sector in the face of climate change and the potential for diversification and adaptation through renewable energy sources (RES).
2. Green Energy projects in Tajikistan.
3. Success of the UNDP-GEF "Green Energy SMEs Development Project".

Challenges and opportunities for Tajikistan's energy sector in the face of climate change and the potential for diversification and adaptation through renewable energy sources (RES)

- Hydropower Dependency.
- Climate Impact on Energy Production.
- Winter Electricity Shortage.
- Diversification through Renewable Energy.
- Small Hydropower Potential.
- Underutilized Wind Energy.

Green Energy projects in Tajikistan

- United Nations Development Programme (UNDP)/Global Environment Facility (GEF) “Green Energy Small and Medium Enterprises (SMEs) Development Project”.
- Asian Development Bank (ADB) “Access to Green Finance Project”.
- European Bank for Reconstruction and Development (EBRD) “Green Economy Financing Facility (GEFF)”.
- U.S. Agency for International Development projects on the installation of the “Solar Power Plants and (SPPs) and the Hydro Power Plants (HPPs)”.
- World Bank (WB) “Tajikistan Rural Electrification Project (TREP)”.
- Roghun Hydro Power Plant (HPP).
- Eclectic vehicles for all public transportation of Tajikistan.

UNDP-GEF “Green Energy SMEs Development Project”

PROJECT OBJECTIVE:

Identify, support and promote scalable, private sector-led business models for provision of affordable and sustainable energy products and services for Tajikistan's rural population

OVER

17,000

new users (individuals) of RE products/services;

DIRECT EMISSIONS REDUCTIONS

53,000

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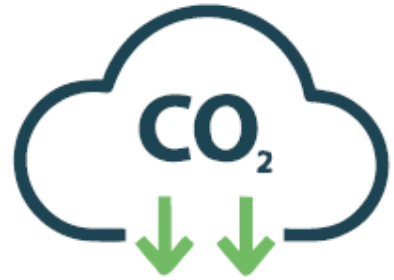
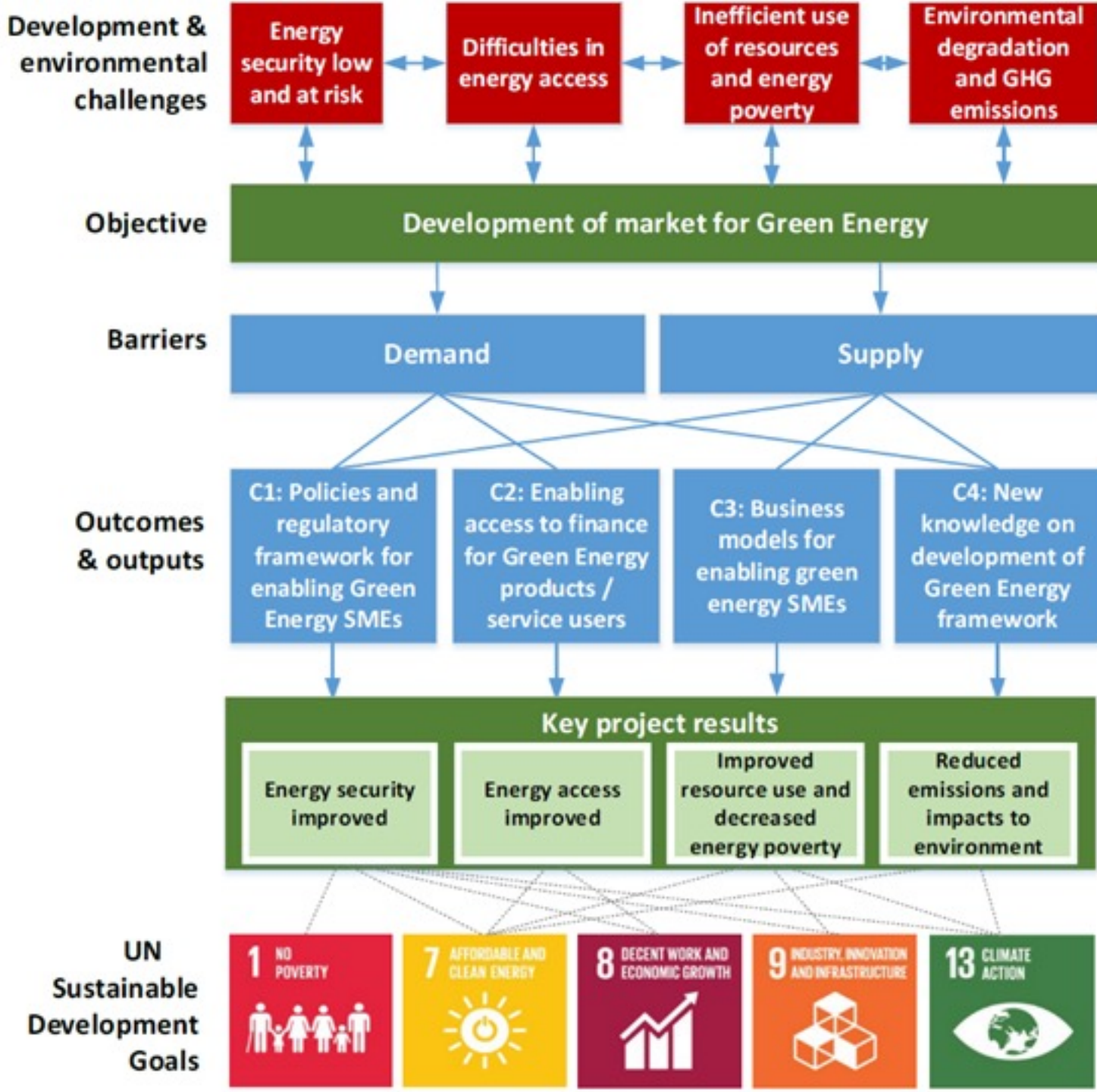


UNDP-GEF “Green Energy SMEs Development Project”

Theory of Change



COMPONENT 1.

Enabling policy and regulatory framework and capacity development for green energy SMEs

50 OFFICIALS TRAINED
(15 women)

3 BY-LAWS FOR THE IMPLEMENTATION OF THE LAW

"On the Renewable Energy" and the Law "On the Energy Efficiency" adopted

Actual results up-to date:

With the support of the project the following policy documents were elaborated and one approved by the Government of the Republic of Tajikistan:

1. Concept for the Development of the Energy Sector.
2. Regulations on energy diagnostics and expertise of energy saving in the economic sectors.
3. Contract for the sale and purchase of electricity generated using renewable energy sources.
4. Guidelines for the procedure of obtaining a permit for the installation and placement of energy facilities operating on renewable energy sources in the territory of the Republic of Tajikistan.
5. Programme on “Development of Renewable Energy Sources and construction of Small Hydropower Plants for 2022-2030”.
6. Concept for the development of industries of the fuel and energy complex of the RT for the period up to 2040.

COMPONENT 2.

Access to finance for green energy SMEs and/or energy service users

2,000 loans

US$ 2,600,000

(at least 100 loans to women-led SMEs)

BENEFICIARIES USING RE

16,000

Actual results up-to date:

- Solar technologies (PV and SWH systems) promoted in Zarafshan valley and GBAO covering over 32,000 people.
- 634 potential clients identified and developed for receiving green loans.
- 500 loans (total value USD 217k) disbursed to households and SMEs in GBAO, including 238 women loan recipients.

COMPONENT 3.

Business models for green energy SMEs

IMPROVED ACCESS TO ENERGY FOR MORE THAN

17,000 people

INCREASE IN INSTALLED RE CAPACITY

0.750 MW

RENEWABLE ENERGY

5,000 m²

SOLAR WATER HEATERS

including **100** SWH systems in tourism facilities and SMEs

LIFETIME RE PRODUCTION OF

59,130 MWh

FROM RENEWABLE ENERGY SOURCES

3,000,000 people

ACCESSED BY MARKETING AND AWARENESS RAISING CAMPAIGN

Component 3: Business models for green energy SME

- **Solar Photovoltaic (PV,) systems, Wind and Battery Energy Storage Systems (BESS):**
  - Solar PV, Wind and small hydro installed with the generation capacity of 6,721 kW and approximate lifetime generation of 13,000 MWh
- **Solar Water Heater (SWH):**
  - 72 SWH installed (water tanks from 100 l to 500 l)
- **More than 11,000 beneficiaries improved their access to energy, including 50% of women**
- **More than 15 awareness raising activities on green energy conducted for local communities, with participation of women**
- **USD 217k of investment mobilized for receiving green loans**

COMPONENT 4.

Knowledge Management and M&E

100%

OF IDENTIFIED PARTICIPATING STAKEHOLDER ORGANIZATIONS

recieved the results of project, including GHG emissions and socio-economic benefits.

Actual results up-to date:

- **Comprehensive market assessment for Green Energy project demand prepared and published.**
- **6 green loan products developed for households and SMEs.**
- **Awareness & outreach materials on the promotion of Green Energy technologies distributed throughout the country.**
- **Project results were presented at the:**
  - Side-event “Leveraging NDCs to achieve net-zero emissions and transitioning to clean energy globally” within Tajikistan Pavilion at COP-27 in Egypt.
  - Conference “Promoting Low Carbon Development and Energy Security at the Central Asia Climate Change” in Tajikistan.
- **More than 15 awareness raising activities on green energy conducted for local communities.**

Project contributions to strengthening the role of women

500 loans (total value 217k US$) disbursed to households and SMEs in GBAO, including 327 women loan recipients

2,258 women (out of 3,348 of people) directly benefited from the project activities

More than 11,000 beneficiaries improved their access to energy, including 5,500 women

More than 15 awareness raising activities on green energy conducted for local communities, with participation of women

Success stories in the UNDP website

STORIES

Tourism Gets a Green Boost from Entrepreneurs in Tajikistan

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STORIES

Solar power helps fish farmers reach record survival rate of young alevins

READ MORE >

STORIES

Solar-powered sewing machines empower girls in Tajikistan

READ MORE >

Success stories

RAKHIMA DORENSHOEVA, OWNER OF A GUESTHOUSE

“In the summer, many tourists come to my guesthouse, many foreigners come. Even in winter Kamaz tracks (drivers) stop. I work in a guesthouse, and if there is light, then when it’s washing, I’ll be better on a washing machine. Every two days I do laundry and if washing is done by a washing machine it's better for me. Something to cook, a cake or something we will make in the oven, it is better for me and for tourists too.”

ZHULURKEYEV SIROJIDDIN, HEAD OF DISTRICT HOSPITAL

“In a hospital setting, obtaining essential equipment like oxygen can be challenging when we lack access to 220-volt electricity. While solar panels are available, they typically provide only 12 volts, suitable for lighting but inadequate for powering critical medical devices requiring 220 volts. This limitation can significantly impact the hospital's ability to operate effectively and provide necessary medical care.”

Thank you!

Links to success stories in UNDP website:

1. https://www.undp.org/tajikistan/stories
2. https://www.undp.org/tajikistan/stories/solar-powered-sewing-machines-empower-girls-tajikistan
3. https://www.undp.org/tajikistan/stories/tourism-gets-green-boost-entrepreneurs-tajikistan
4. https://www.undp.org/tajikistan/stories/climate-action-women-tajikistan
5. https://www.undp.org/tajikistan/stories/solar-power-helps-fish-farmers-reach-record-survival-rate-young-alevins

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