

Economic and Social Commission for Western Asia

Regional Initiative for Promoting Small-Scale Renewable Energy Applications in Rural Areas of the Arab Region REGEND

Regional Workshop on “Policy Toolkit as Guidelines for Policymakers to Integrate
Small-Scale Renewable Energy in Rural Development” – 2 December 2021

REGEND Policy Toolkit Presentation



Shared Prosperity Dignified Life



Sweden
Sverige

Outline

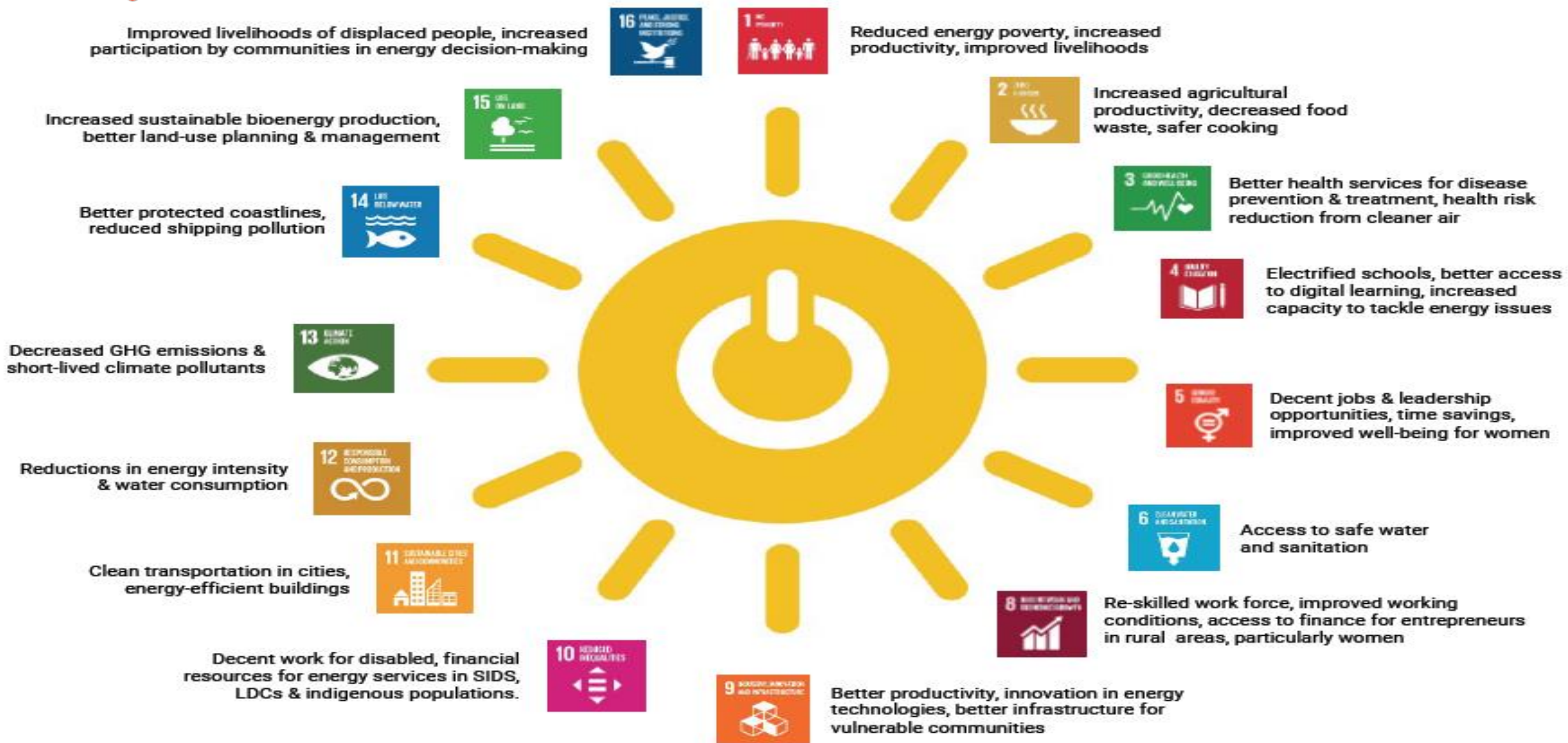
- Objectives of the Toolkit
- Rural energy use and access gap
- REGEND Overview and business Model
- Small-Scale Renewable Energy Technology and rural communities
- Challenges to the adoption of small-scale RETs in rural areas
- Policies needed to support small-scale RET adoption in rural areas
- Policies that help strengthen local governance
- Obstacles facing rural women in accessing sustainable energy
- Gender-affirmative policies to address the gender gap
- Recommendations.

Objectives of the Policy Toolkit

- Increase the use of **small-scale renewable energy** technologies (RETs).
- Offers good practices and business models, including **regulatory and institutional frameworks** for enabling an environment conducive to the use of small-scale RETs directed towards policymakers in Arab countries as part of the REGEND initiative.
- Includes policy options, guidelines for **financing and innovative incentive mechanisms, best practices and indicators** for facilitating the dissemination and use of small-scale RETs in rural areas.
- Encompasses additional incentives for **women entrepreneurs** that will result in real formulation and implementation of **gender-affirmative actions** .



Energy as an Enabler of Sustainable Development



KEY FACTS IN NUMBERS – Is the Arab region on Track?

Total access to modern energy but very slow progress in energy efficiency and a marginal role of renewable energy



Electrification -

- **Arab region:** 89.51% access



Clean cooking -

- **Arab region:** 87.24% access for 2019



Renewables -

- **Arab region:** 13% in total final energy consumption, mainly in residential sector.



Efficiency -

- **Arab region:** 5.06 MJ/2017 PPP GDP with transport having the highest energy intensity followed by industry.

Source: SDG7 Tracking: Energy Progress Report 2021

Lack of access to sustainable, modern energy is a form, an outcome and a cause of poverty.....

It constrains human capabilities, productivity, access to basic services including health and education, and reinforces the lack of income-generating capacity and economic opportunities.

The rural energy access gap

Some of the facets of lacking access to sustainable energy in rural communities in Arab countries are:

- ***Interruptible energy services:*** even where modern energy is available, its supply is not always guaranteed to be safe, reliable, and secure.
- ***Affordability:*** energy costs are high compared to the average incomes levels in rural areas.
- ***Inferior fuels:*** inferior liquid fuels come at high environmental and economic cost.



Regional Initiative for Promoting Small-Scale Renewable Energy Applications in Rural Areas of the Arab Region: REGEND

INCLUSIVE , SUSTAINABLE, ENVIRONMENTAL AND ECONOMIC REVIVAL & DEVELOPMENT OF THE ARAB RURAL COMMUNITIES

DRIVER

PILLARS

RE Technologies

- Effective/innovative RE-Small scale decentralized and modular, energy systems.
- Water-Energy-Food nexus
- Access to productive resources, appropriate and reliable services.

Human Capacity

- Model based on knowhow
- Trainings, Knowledge skills/Advisory Services.
- Brining change among rural community from resource poor living standards to reliable, affordable and modern sources of energy.

Women's Empowerment & Social inclusion

- Economic power in rural women's hands
- Female mentor
- Participative and bottom-up approach

Entrepreneurial development

- Economic transformation, Environmental and socio-economic development priorities
- Entrepreneurial jobs in productive sectors
- Spawn energy-based enterprises around RE based service providers

Policy and institutional Framework

- Pro-poor investments and private sector involvement
- Synergies among national/regional stakeholders.
- Innovative incentive mechanisms.

Cross Cutting

Human Rights, Gender equality, resilience to Climate Change

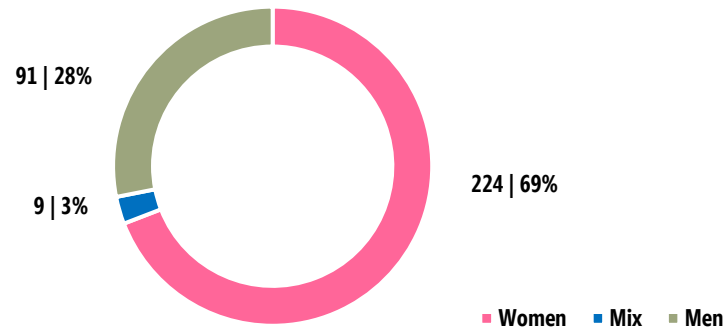
FONDATION

Untapped RE Resource, high Unemployment, chronic poverty, water scarcity, food insecurity, energy poverty and vulnerability to climate change of the rural communities of the Arab countries

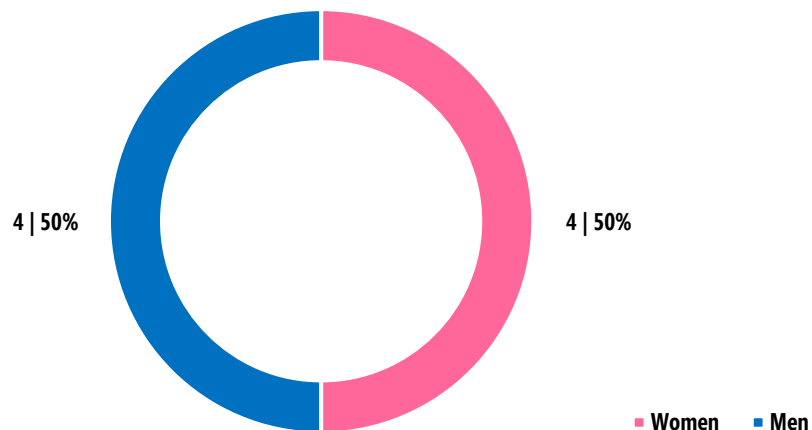


Gender Mainstreaming

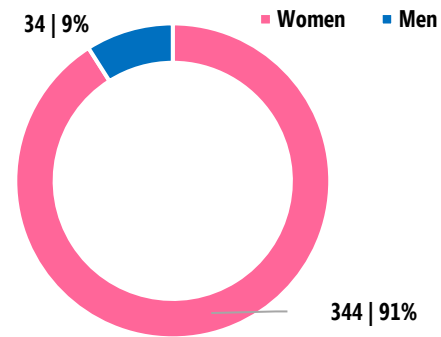
Gender distribution of the field projects' beneficiaries



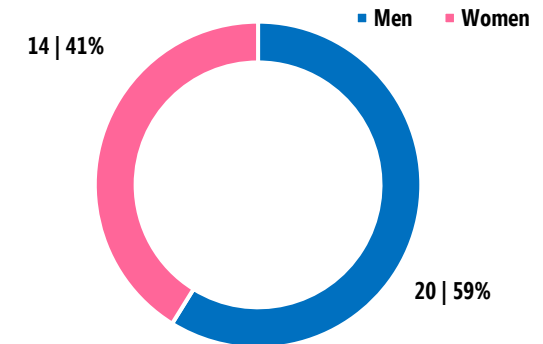
Gender distribution of the Project's consultants



Gender distribution of the capacity-building workshops' beneficiaries



Gender distribution of the capacity-building workshops' experts



Women representation throughout the Project's activities highlighted above amounted to:

- 69% in the field projects
- 91% in the capacity-building workshops (beneficiaries)
- 41% in the capacity-building workshops (experts)
- 50% in terms of Project consultants
- **for a total average of 64%**



Capacity Building

Country	Number of Workshops	Topics	Beneficiaries	Number of Attendees
Jordan	6	<ul style="list-style-type: none"> Good agricultural practices to promote energy sustainability Good practices for food manufacturing and hygiene Good practices for packaging, labeling, and marketing 	<ul style="list-style-type: none"> Women agri-food cooperative Women entrepreneurs (Agriculture and Agri-food) Farmers 	117
Lebanon	11	<ul style="list-style-type: none"> Renewable energy and energy efficiency Food manufacturing, food safety, financial management, and accounting Project proposal development Social media marketing Embroidery and sewing 	<ul style="list-style-type: none"> Women agrid-food cooperative Women embroidery cooperative Local civil society activists Municipal staff 	252
Tunisia	9	<ul style="list-style-type: none"> Renewable energy and energy efficiency Good agricultural practices Distillation of medicinal and aromatic plants Good practices for packaging, labeling, and marketing Entrepreneurship Cattle Breeding 	<ul style="list-style-type: none"> Dairy cooperative Water pumping cooperative Women Entrepreneurs (Agriculture and Agri-food) Farmers Municipal Staff 	121
Total	26			490



Embroidery workshop in Akkar, Lebanon



Good agricultural practices workshop in Chorbane, Tunisia



Good food manufacturing practices workshop in Maan, Jordan



Financial management workshop in Akkar, Lebanon



Field Projects

Country	Location	Number of Projects	Capacity (kWp)	Beneficiaries	Number of Beneficiaries (Direct and Indirect)
JORDAN	Al-Achaari, Maan and Batir, Al-Karak	17	76	<ul style="list-style-type: none"> – Women agri-food cooperative – Women entrepreneurs (Agriculture and Agri-food) – Farmers 	850
LEBANON	Akkar Al-Atika and Chaqdouf, Akkar	6	35	<ul style="list-style-type: none"> – Women agrid-food cooperative – Women embroidery cooperative – Beekeepers cooperative – Agricultural cooperative – Municipality – Municipal clinic 	600
TUNISIA	Chorbane, Mahdia	7	117	<ul style="list-style-type: none"> – Dairy cooperative – Water pumping cooperative – Women Entrepreneurs (Agriculture and Agri-food) – Farmers 	1,050
Total		30	228		2,600



25 kWp solar PV system and solar water heating system in Akkar, Lebanon



Solar water heating system in Maan



10 kWp solar PV pumping system in Chorbane, Tunisia



10 kWp solar PV system in Akkar, Lebanon

What do small-scale RETs have to offer to rural communities?

RET is the technology which converts renewable energy sources into electrical or thermal energy with an output power capacity up to around 100 kW.

- Water and food security
- Improving health and education
- Increased economic activity
- More stable electricity supply
- Entrepreneurship and business development
- Closing the gender gap
- Reduced pollution and local environmental destruction
- Biodiversity conservation

Challenges to the adoption of small-scale RETs in rural areas



Policies needed to support small-scale RET adoption in rural areas

1. Integrating RETs with rural development policy
2. Facilitating access to finance
3. Facilitating private sector investment
4. Integrating rural energy and environmental management
5. Raising quality standards
6. Local capacity building
7. Raising Awareness and Improving Communication
8. Data collection

Policies needed to support small-scale RET adoption in rural areas

1. Integrating RETs with rural development policy

- ❖ RETs need to become an integral part of rural development **planning** at the local, national, and regional levels.
- ❖ Have modern energy available sustainably for productive purposes through a **know-how approach**
- ❖ Strengthen municipalities' and local governments' mandates and capacities

2. Facilitating access to finance

- ❖ Identify and support the creation of innovative financing models targeting rural communities' traditional constraints and rural women
- ❖ Supporting credits and other financial facilities for farmers and rural entrepreneurs
- ❖ Introducing fiscal incentives such as strategically designed subsidies on RET products

3. Facilitating private sector investment

- ❖ Governments can help with additional benefits for individual small-scale applications of RETs
- ❖ Making rural access to RETs an essential item in government's policy agenda towards rural development
- ❖ Actively having governments partnering with the private sector

4. Integrating rural energy and environmental management

- ❖ A critical tool in governments' policy toolbox
- ❖ Water management is an important case in point where the expansion of access to modern irrigation technologies has to be coupled with sustainable water use

Policies needed to support small-scale RET adoption in rural areas

5. Raising quality standards

- ❖ The success of small-scale RETs and their sustainable use in rural areas depend on well-designed products and the quality of their installation and maintenance
- ❖ Significant effort needs to be made to increase the regulatory and technical capacity of governments, at national and local levels

6. Local capacity building

- ❖ Training local communities to install, operate, maintain and repair small-scale RETs is a critical condition of their successful deployment
- ❖ Local capacity building needs to include entrepreneurial skills
- ❖ Promote local technology training

7. Raising Awareness and Improving Communication

- ❖ The step from how life has always been to investing in an unknown technology in rural areas is very distinct as there are far less incentives for individuals to become frontrunners
- ❖ Promoting sustainable energy technologies involves thematic communication and communication channels

8. Data collection

- ❖ Improving access to data requires significant active efforts by Arab governments such as:
- ❖ Developing strong mechanisms to facilitate data sharing between institutions
- ❖ Broaden the range of indicators to collect
- ❖ Building institutional capacity within governments

The role local and regional governments can play in rural energy provision

- Strengthening different levels of government – regional and local – can contribute to more social dialogue and the better integration of rural viewpoints and perspectives in national policymaking.
- Local and regional governments have some fundamental advantages that offer complementarity to central governance: they operate closer to citizens, being able to oversee their own specific social, economic and geographical context, and to devise – if given powers and capacity – policy solutions that address local and national concerns.
- If provided with the right capacity, local and regional governments can become frontrunners and advance initiatives that benefit rural development based on local initiatives.

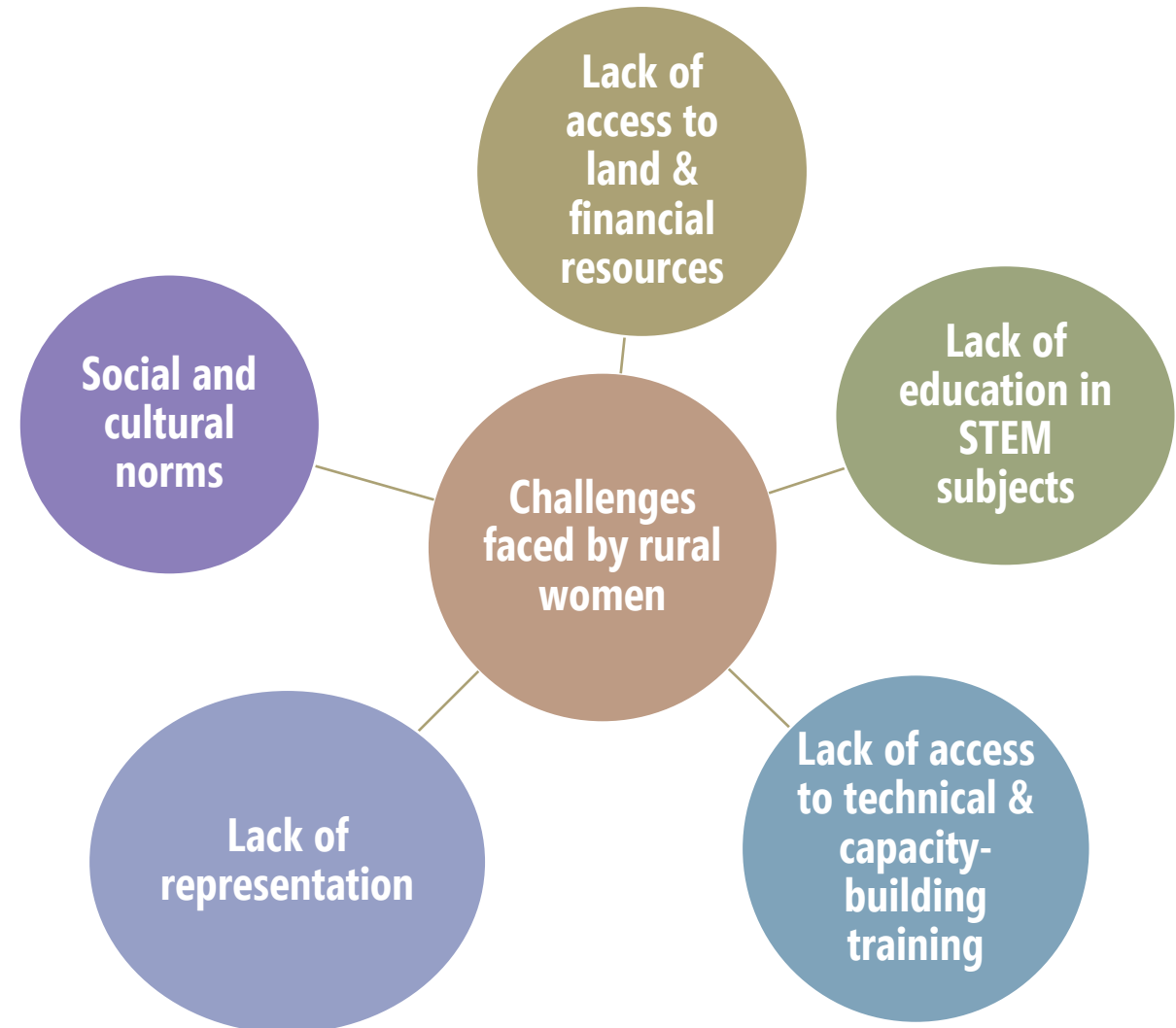
Policies that help strengthen local governance

1. Reviewing existing government structures
2. Strengthening mandates
3. Building capacity
4. Localizing targets
5. Improving intra-governmental collaboration
6. Fostering urban-rural links

Addressing the gender gap

Obstacles facing rural women in accessing sustainable energy

The promotion of small-scale RETs presents an important opportunity to tap into the transformative potential of women in rural areas, as daughters, wives and mothers, as farmers, entrepreneurs and educators, and as tomorrow's technicians and engineers, to the benefit of their entire community.



Gender-affirmative policies to address the gender gap

1. Promoting education, training and technology access for women

- ✓ Maximizing the use of small-scale RETs for access to digital communication.
- ✓ Training and building capacity among rural women.

2. Strengthening women's access to finance

- ✓ Targeting government support.
- ✓ Supporting women's associations and saving groups.

3. Guaranteeing representation

- ✓ Making rural audits participatory.
- ✓ Increasing representation in governments and non-governmental organisations.
- ✓ Increasing the share of women in the renewable energy value chain and private business.
- ✓ Supporting women to help themselves.
- ✓ Improving gender-related data quality.

4. Addressing social norms

- ✓ Understanding local gender dynamics.
- ✓ Informing and consulting women.
- ✓ Reducing prevailing social barriers.
- ✓ Use digital technology and education as a catalyst for change.
- ✓ Building gender competence in political institutions and businesses.

The way forward for RET promotion in rural areas of the Arab region

- The creation of markets for electricity using small-scale RETs has vast potential to benefit rural communities across Arab countries that currently face a gap in sustainable energy supply.
- Helping power a large array of socio-economic opportunities, including the provision of better access to education and health services, modern technology and machinery – including in agriculture – and allowing a wider range of business services to be provided in rural spaces are critical and entirely realistic benefits that small-scale RETs can provide in the Arab region.
- Girls and women are set to benefit significantly from the introduction of small-scale RETs, through improved access to education and health, modern digital communication, and new market opportunities related to improved access to technology and machinery.



Shared Prosperity **Dignified Life**



Thank You