

Renewable energy related livelihoods for women & climate resilience

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Asia: Women's excising livelihoods & climate change

Large share of women's participation in

- Agriculture
- Horticulture
- Forestry
- Handicraft & small business and commerce
- Fishing

All in which are **affected** by climate change

Climate resilience is access to natural and economic resources, decision-making, information, technology and alternative income sources





Renewable energy and women's livelihoods – what's the connection?

Access to RE can promote alternate, climate resilient livelihoods and enhancing the economic opportunities, specifically for women

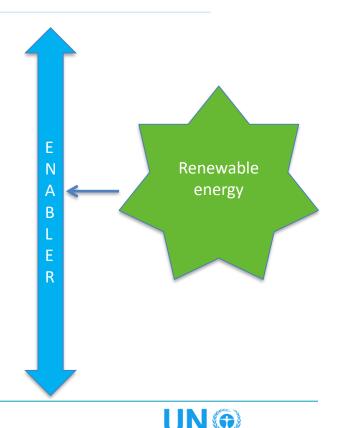
Strengthening ability to bounce back from disasters and shocks

Saving time and increasing productivity

Enabling more women entrepreneurship in the whole value chain and supporting economic empowerment

Saving energy, providing cleaner environment and

Triggering socio-economic development and overall well being of the community



environment



Barriers to women's leadership in renewable energy sector

Lack of:

- $\circ~$ Access to financing
- National and regional gender inclusive renewable energy policies and strategies
- o Capacity
- o Access to technology

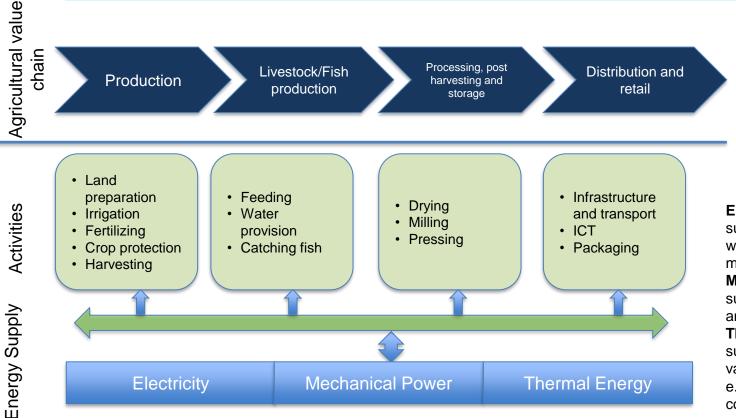
And:

Cultural norms and harmful stereotypes





Renewable Energy use in agricultural value chain







Electrical energy:

suitable for powering water pumps, milling machines, fridges **Mechanical energy**: suitable for production and processing **Thermal energy**: suitable for different value-added process e.g cooking, drying, cooling

Case Study 1: Solar power for promoting women's livelihood in Bangladesh

- Rangpur district in northern Bangladesh was prone to seasonal drought
- Supported by IDCOL, Solar Gaon, a social enterprise operating in the Rangpur-Dinajpur area helps the farmers install the solar pumps and maintain those.
- Solar power promotes women's livelihood such as making and selling clothes, other handicrafts
- The solar power is used for
 - Water pumping for irrigation
 - Water purification (for drinking water)
 - Cold storage for mushroom growing
 - · Machinery used for brick making
 - Crop processing







Case Study 2: Women led biogas enterprise in Vietnam

- Ms. Trin has started the biogas enterprise under the SNV's biogas entrepreneurs support programme
- She assess the feasibility of biogas plant once any customer is keen to install biogas plant
- She negotiates price and payment schedule with the customer and subsequently install biogas plant with her team
- She has 8 employees working in her company
- So far, she has sold around 3000 biogas digesters in 7 districts in Vietnam



https://www.unenvironment.org/ne ws-and-stories/story/pig-penspower-solution-climate-changevietnam





EmPower's approach to support women entrepreneurs on renewable energy 1. Policy: Action plans to supp

Policy & plans

Women

Entrepreneurship

development and

enhancing climate resilient livelihood

generation activities

through Renewable

Energy (RE)

Capacity development & knowledge sharing

Access to finance & Funds Pipeline, demonstration & business model **1. Policy:** Action plans to support Women Entrepreneurship development and enhancing climate resilient livelihood generation activities through Renewable Energy (RE). Ensure gender inclusive national RE policies and plans.

2. Capacity: training and mentorship on business skills, financial literacy, operation and maintenance of renewables-based enterprises. Incubation of enterprises, synergies with long-standing

capacity building programmes and partnerships. Fostering regional knowledge and South-South learning

3. Business model: Support Women Enterprise projects

- Develop pipeline of projects
- Actual implementation
- Demonstration of business model
- Detailed feasibility studies and due-diligence of women's enterprises to support the market linkages

4. Finance: Support to access existing public and private funds and loans. Leveraging partnerships with government institutions to finance enterprises. Channeling co-funding based on requirement, targeting current and future women entrepreneurs.



EmPower will consider 20 different enterprises across Vietnam, Cambodia and Bangladesh – focusing on 3 enablers of women's economic empowerment and renewable energy



Renewable energy to improve

productivity in existing value chains (powered water pumps to improve agriculture and horticulture in drought prone areas, solar energy for crop drying, agro-processing, handicraft making, poultry)



Renewable energy technologies sale and supply (sale of solar lanterns, solar home system, solar power packs, cookers, dryers, water heaters, biodigesters, improved cookstoves for efficient cooking)



Renewable energy for associated livelihood benefits

(lighting systems, clean cookstoves, refrigeration and cooling, drinking water systems, healthcare applications)









Ly Thi Quyen in the Bac Kan Province, Viet Nam

Policy recommendations to promote gender inclusive RE based livelihood generation

- 1. Introduce dedicated "livelihood generation through RE programme for women" to promote entrepreneurship opportunities
- 2. Develop national skill development programme (including RE sector) for women and ensure women's access to sustainable technology
- 3. Introduce separate financing mechanism/scheme for enhancing women's livelihood generation through RE
- 4. Develop and implement a gender and RE action plan
- 5. Ensure RE integration in other relevant sectoral activities
- 6. Develop gender specific indicators (wherever feasible) in implementation of various RE programmes



