

Regional Initiative for Promoting Small-Scale Renewable Energy Applications in rural areas of the Arab Region

Economic and Social Commission for Western Asia



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**National Meeting “Women Empowerment and Entrepreneurial Development in the Rural Context: The Role of Renewable Energy”
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Background

- Lebanon A small Country, Free market economy dominated by Small and Medium Enterprises (97%) employing 51% of the total workforce in Lebanon ;
- A well developed entrepreneurial scene: 30.7% self-employment as per CAS 2009;
- An Economy highly dependent on Services sector: IT services, Tourism, Banking, financial services Trade- Contributing to 60% of the GDP and 73% of the labor force (IDAL, 2018) ;
- Productive Sectors such as Agriculture regarded as main source of income for Rural areas- 50% of the population ;
- Regional Disparities in terms of economic opportunities and employment: 38% in Bekaa, 36% in the North, and 31% in the South (World Bank 2018)
- Gender wise, Lebanon ranks 140 out of 149 in the World Economic Forum's Global Gender Gap Index 2018: Women participation in the labor force is low; three times less likely to participate than men.
- Moreover, 83% of women working are wage-employed and only 17% are self-employed compared to 43% for men in the same category. (MoSWEE, 2019)

Over 8% of Lebanese Population Residing in Urban Areas

- Half of the Urban Population are living in Capital Beirut and its surroundings ;
- Based on Energy Vulnerability Study- 56% of population reside in cities and will increase to 68% by 2050;
- Main impact of such increase: Reduced access and availability of water, food, and energy, along with environmental degradation and pollution
- Rural Areas will be most affected in terms of access to energy; negatively impacting economic performance: Leading to poor living standards and lower quality of life

Relying on renewable energy (RE), mainly decentralized systems, can help **rural communities** overcome such challenge, where access to renewable energy technologies can support in **reducing energy poverty, create jobs, and improve livelihoods and socio-economic conditions of the rural population.**

Renewable Energy Account for 4% of Total Electricity Production in Lebanon

The Overall Picture



PV-based electricity generation and water heaters are an increasingly attractive alternative to diesel-based back-up generators to help households cover chronic disruptions to power supply and reduce bills.



Government Commitment to increase RE sources to 12% by 2020: Embedded National Energy Efficiency Action Plan (NEEAP) for 2010-2015 and National Renewable Energy Action Plan (NREAP) 2016-2020. Climate change Commitment Intended Nationally Determined Contributions (INDC)- to increase the percentage to 15% of RE by 2030, and 3% reduction in power demand through energy efficiency



More Government Commitment in 2018- New Target of 30% of the nation's electricity and heat in 2030 to be sourced from renewable energy.

RE: Potential for Creation of New Economic Opportunities, But What About Gender Impact?

- Shift to Reliance on RE impacts gender differently: To what extent this is taken into consideration in the different governmental policies and actions adopted or planned?
- UN Women Study in 2012: Large gender gap in the energy sector- women accounted for less than 6% of technical staff and only 1% of top managers ;
- International Renewable Energy Agency (IRENA) 2019 : women's global share in employment accounting for only 32% of the renewable energy workforce- under-representation of women and inequality in access to such jobs between men and women in the sector,
- What's the case of Lebanon in that Aspect?:

Gender Assessment carried out, within REGEND Framework: review and analysis of the **gender issues associated with energy services in Lebanon**, highlighting the **challenges and barriers rural women face in employment and entrepreneurship in energy sectors** and the potential for gender mainstreaming within the identified opportunities for **supporting the local private sector for promoting and expanding the use of small-scale renewable energy** technologies and their associated environmental-climate benefits .

Gender Equality in Lebanon, Relevant to SDG5: Empowering All Women and Girls

High Educational Attainment

- 74.7% Primary Education Compared to 82.5% males
- 32.5% Secondary Education (33.4% males)
- 45.8% Tertiary Education (39.6%)-2014

Health and Survival

- Higher Life Expectancy: 66.8% , 65.5% males
- But Gender Based Violence Still Prevalent: 35%

Political Empowerment

- Weakest Participation of Women
- Women in Parliament: only 3.7% (WEF, Gender Gap 2018)
- Women in Ministerial Positions (3.4%) but some change (4 new ministers)
- No representation at higher level

Economic Participation and Opportunities

- Still Low despite Higher Education Attainment
- Occupy low positions and lower paid jobs: only 5% reach top management
- **Higher Unemployment rate: 18% compared to national 11%**
- **Women 3 times less likely to be employed than men**

National Policies to Reduce Inequality

The National Commission for Lebanese Women (NCLW)

- Established in 1998- Gender Mainstreaming in Public Institutions
- National Strategy for Women in Lebanon (2011-2020) and the National Action Plan in 2012
- Support for Gender Mainstreaming- Appointment of Gender Focal Points in Ministries
- Support for Appointing 6 gender audits nationwide

Ministry of State for Women Affairs

- **Set up in 2016- Focused on Achieving SDG5 7 SDG17**
- Renamed in 2019 to Ministry of State for Women's and Youth Economic Empowerment
- Developed, with support of World Bank, 5 years strategy focused on economic empowerment of women and youth

Prioritizing Economic Growth Opportunities

- Capital Investment Plan- CEDRE Conference, 2018, investment in infrastructural upgrading and productive sectors including renewable energy
- Entrepreneurship Support through SME Strategy- ICT and Creative Sectors
- Renewable Energy Focus: Wind Energy Purchase Power Agreements in 2018- Akkar

Evaluating Impact of Such Policy Interventions on Women in Energy Sector- Major Gap in Statistics

- **Gender Statistics Gap:** Gender statistics on energy access are unavailable, be it at policy or local level- World Bank Indicated (2018): only 20% students are enrolled in renewable energy or energy efficiency studies, and 12% in general energy programs. Gender wise, there is more women participation in renewable energy and energy education programs, around 47% as compared to 25% in petroleum studies
- **Absence of Data on Employment in Energy-Gender Level:** Particularly in relation to women participation, at rural and urban level, employment or Self-employment
- **No Official Classification** Occupations and positions available within the renewable energy sector by gender
- **Gender mainstreaming recently adopted through assigning gender focal point** at the Ministry of Energy and Water, but concrete actions to ensure equal access and benefit among gender to renewable energy sources are not fully planned or exploited – No Official Statistics to Form Base for Developing Interventions

The Situation Today: Weak Women Participation in Renewable Energy – Looking at Key Influencing Factors

- **Stronger Influence on Rural Women-** face several key gender issues associated with energy service's needs, ranging from access to energy to participating to actually benefiting in the energy sector.
- **The access to energy** affects the time spent, health issues, and livelihoods of women in general, be it in urban or rural areas.
- **Participation** is more related to equal opportunities for livelihood in the sector, availability of training and capacity building, availability of business development services, and interest of women to join the sector
- **Control/Benefit** is more related to the capacity of women to advance in the sector and take on leadership positions
- **Various Challenges Exist that Affect Women Access and Participation in Various Economic Sectors, and some particular to the Energy Sector**

Major Challenges Hindering Women's Access to Energy- Male Dominant Sector

Legal Barriers

- **Absence of perceptible laws** and policies that support women in the labor force, and equal access to energy
 - Law Ratifications but still presence of Restrictive Articles
- **Article 9 of the Personal Status Law:** Constitution delegating full power to the religious communities to apply their own laws whether discriminatory or not- inheritance, children custody, divorce and marriage- Limiting Access to finance
- Absence of Minimum Age for Marriage- At expense of Professional Development/education
- **No specific legislation pertaining to rural women in the Lebanese Labour Law-** No access to National Social Security Fund-75% of Rural Women Workers in Agriculture hired informally

Limited Access to Financial Resources

- **Influenced by the Inheritance Law**, which in most cases denies women the right to ownership of land.
- Women in Lebanon still face obstacles to **get collateral or a guarantor for loans** especially in rural areas
- Facing legal finance restrictions or difficulties in **taking actions without a man's consent, discouraged from engaging in businesses.**

Lack of STEM Education- Main Challenge Hindering Participation & Control

Lack of Stem Education for Women

- **Global Challenge but stronger in Lebanon**
- Decrease in female enrollment numbers in STEM majors, compared to overall enrollment numbers: 10% in public universities, 14% in private
- Limited Awareness and Orientation- 40 % of Agriculture Labor Women- no awareness

Limited Access to Technical training skills and capacity building trainings

- Lack of technical skills that would improve their access to renewable energy sector
- Training centers, Incubators not widely available or accessible for women, particularly rural women. Incubators mostly in urban areas.

Lack of Awareness on Opportunities in Renewable Energy Sector

- Prevailing perception -energy sector not appropriate for women, tracing it to social and cultural norms
- Rural women lack self-confidence and beliefs- susceptible to cultural barriers (stay at home)

The dominance of the male figure in the renewable energy sector

- Small number involved in renewable energy sector, mostly in the head office : administrative or customer service roles.

Lack of Role Models - Main Challenge Hindering Control and Advancement of Women in Energy Sector

Lack of Role models and success stories inspiring for Women Given limited participation in Sector

Lack of Mobility and Flexibility- in terms of working hours required, and mobility to travel to different locations for installation and maintenance- Family Prioritization, Safety

Lack of Access to technology

- In RE, women are end-users rather than partners in design and installation
- Unaware of small-scale technologies at the household or commercial level- impacting Market Access

Opportunities- Entry Points for Further Promoting Women Participation in Renewable Energy- Rural Level

Energy Efficiency in Processing Facilities

- Initiatives supporting Installation of PV systems at coops for Improving Productivity
- Women cooperatives present a large entry point in rural areas- create success stories for other businesses, and increase job opportunities

Opportunities through Solar Photovoltaic (PV)-

- Decentralization of the power supply- more women potential in head office as start

Opportunities through Wind Energy

- Rural areas : can provide employment opportunities for people- especially for women, within the framework of Corporate Social Strategy

Opportunities through Bioenergy

- Potential synergies with other sectors such as forestry, solid waste management and water treatment
- Women Potential Contribution: in various stages from processing technologies to marketing end products such as other bioenergy carriers, power and heat

Indirect Opportunities

- Improved Participation in Rural Tourism and Agro-Food Processing

What Should be Done to Improve Participation of Women in Renewable energy Sector? - Main Recommendations

Improved Counseling and Orientation towards STEM Education for Young Women Starting At School- Special Focus for Rural Areas

Awareness Campaigns on Renewable Energy Sources and Technologies: Highlighting how women can integrate and contribute to the advancement in this sector.

Support the Establishment of Rural Incubators: specifically for renewable energy, a one-stop shop, providing potential entrepreneurs with opportunities to test their ideas and acquire technical support.

Working closely with financial and micro-finance institutions to improve financial access of women

More to be Done at Policy Level - Main Recommendations

National and trans-national dialogues on the need for change in social norms: continuous dialogue and exchange of experiences, for promoting change in social and cultural norms that improve the status of women in Lebanon and the region.

Research and research-based advocacy on gender justice: a platform required for launching evidence-based research on gender issues within the renewable energy context, main base for future plans.

Conscious and concerted efforts towards a gender-responsive shift in policy and practice: Whilst this exists currently, need to further strengthen and make it more effective in application, through exploring the synergies between these two topics.

Integration of renewable energy access to women's productive sector: highlighting monetary and environmental benefits of using renewable energy to reduce operating costs- financial incentives for rural areas- speed up the adoption of renewable energy.

Joint Efforts Required for Integrating Such Recommendations and Transforming them to Actions

National Commission for Lebanese Women (NCLW)-

- Ensuring all municipalities' actions and strategies are gender sensitive. Also can provide access to a wide network of women-supporting organizations, working in different areas

Lebanese Center for Energy Conservation (LCEC)

- Work on developing with different organizations and academic institutions knowledge transfer programs that can accelerate integration in the renewable energy sector

Ministry of Environment

- Enforcing Compliance for integrating clean technologies and increase the integration of renewable energy technologies in rural areas
- Integration in Plans for Mitigating Climate Change

International Organizations (UNDP, FAO, Others)

- Accelerate the integration through increased awareness and coaching to integrate women in the renewable energy sector.

Joint Efforts Required for Integrating Such Recommendations and Transforming them to Actions

Universities & Research Institutions

- Training and knowledge transfer through their presence in rural regions, and designing programs tailored to the energy education needs of youth in these regions

Incubators

- Support the promotion of start-ups in renewable energy by offering coaching, mentoring, and access to finance for women

Access to Finance Institutions

- Quota for women applicants, be it through access to loans or micro-loans in energy or productive sectors

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Create a Favorable Environment for Economic Growth- Women Leading and Generating Positive Renewable Energy!



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Thank YOU