Gender Mainstreaming to Strengthen Community-Based Renewable Energy Projects

In Central Lombok District

BACKGROUND

Yayasan Rumah Energi, through the Pro Women Team, has been working in Karang Sidemen, Lantan, and Aik Berik villages since January 2023 and commissioned the installation of units of mini-scale biogas reactor (biodigester) and solar photovoltaic (PV) off-grid for dryer dome and house. Before, during, and after installation, the Pro Women Team introduced participants, primarily women, to the productive uses of energy through financial literacy training, gender training, and other training.

Works of literature conclude that women can primarily benefit from small renewable energy interventions. Women tend to be mainly responsible for household chores, especially in low- and middle-income rural areas, and therefore more exposed to polluting energy sources in the absence of clean domestic energy. International organizations agree that accelerating access to energy is essential in reducing poverty and gender inequalities.

This program emphasizes the positive changes that emerged from the project, especially for local women and marginalized groups, including young people who participated in the training. We also offer some recommendations for government and non-government organizations working in this sector, particularly concerning involving local women and marginalized groups, including young people, in such projects and collaborating with local institutions.

PROJECT OVERVIEW

PROJECT TITLE:
Pro Women for
Renewable Energy Projects

RESPONSIBLE AGENCY:
Yayasan Rumah Energi

DURATION:
1 Year
(January – November 2023)

GEOGRAPHICAL COVERAGE:
In Karang Sidemen, Lantan, dan Aik Berik villages, Central Lombok District – Indonesia

[1] IEA, IRENA, UNSD, World Bank, WHO, Tracking SDG 7: The Energy Progress Report, Washington DC, https://trackingsdg7.esmap.org/data/files/download-documents/2021_tracking_sdg7_chapter_6_outlook_for_sdg7.pdf, 2022.

STATE OF RENEWABLE ENERGY IN CENTRAL LOMBOK

This project focused on issues B, C, and D by involving local women and marginalized groups, including young people in Karang Sidemen, Lantan, and Aik Berik villages in the Central Lombok District, in the local renewable energy sector.

The program has the scope for local women, marginalized groups, and young people to shape decisions and build resilience, including through new access to finance, technology, and renewable energy, mainly in solar PV in dryer domes and mini-scale biogas as a driver of better livelihoods leading to enhanced community resilience in Central Lombok District.

A. The local women and marginalized groups, including young people, are not adequately involved in project planning.

B. The local women and marginalized groups, including young people, cannot benefit as much as men from the local renewable energy opportunities.

C. The three villages' local women and marginalized groups, including young people, do not have the same access to jobs in the local renewable energy industry.

D. There are fewer formal meetings for the local women and marginalized groups, and they have limited decision-making power.

E. Security and safety for the local women and marginalized groups are not considered equal to local men in the local renewable energy projects.

TIMELINE PROJECT

Jan

January '23
Project Socialization and Selection Process of Potential Beneficiaries

Feb

February '23
Collecting Baseline Data and Need Assesment

Mar

30 March '23
Renewable Energy Workshop

Apr

May

22-23 May '23
Gender Action Learning System (GALS) Training

Jun

June - September '23
Production of Renewable Energy Advocacy Module

Jul

July - August '23
Solar PV Rooftop and Solar Dryer Installation
7-8 July '23
Solar PV Installation, Operation, and Maintenance Training
24-26 July '23
Financial Action Learning System (FALS) Training
July - November '23
Production of Renewable Energy Community-based Guidlines

Aug

10 August '23
Field Visit of Renewable Energy Community-based
24 August '23
Financing Literacy Training

Sep

11 September '23
Planning and Financing of Renewable Energy Community-based Workshop

Oct

4-5 October '23
Renewable Energy Advocacy and Campaign Training
7 October '23
Institutional Financing of Solar PV Training

Nov

16 November '23
Renewable Energy Community-based Guidlines Workshop
28 November '23
Learning Event

PROJECT STRATEGY

Impact: Local women and marginalized groups, including young people at grassroots levels in Karang Sidemen, Lantan, and Aik Berik villages, experience greater gender equality and the full enjoyment of representing, empowering, and accessing economic opportunities across the renewable-energy value chain

Outcome 1: Local women and marginalized groups, including young people, increase their knowledge for transitioning their livelihood activities to adopt appropriate mini-scale renewable energy sources on gender-responsive

KEY RESULT IN PRO WOMEN

30
government officials from BANGDA of the Ministry of Home Affairs, Province government, Central Lombok District, and Village officials trained and increased knowledge on integrating gender in their work on climate change and disaster management

50
local women were empowered to influence decision-making on climate change mitigation and mini-scale renewable energy projects through GALS training

50
local women farmers were capacitated on financial literacy livelihoods through practicing low-cost locally-led adaptation schemes through FALS training cooperated with Ford Foundation

ACTIVITES :

- Prepare an integrated implementation plan to facilitate alignment and implementation of policies related to climate change, gender, renewable energy, and entrepreneurship through GALS training.
- Strengthen the capacity and knowledge of local women and marginalized groups, including young people, in climate change and foster collaboration to create a gender-responsive, financial literacy society.
- Support inclusive and sustainable investments in renewable energy to advance local women's economic empowerment.

PROJECT STRATEGY

Outcome 2: Local women and other marginalized groups in Karang Sidemen, Lantan, and Aik Berik villages engage in community-based renewable energy projects

ACTIVITIES :

- Initiate discussions with banks and other financing institutions to develop a broad guideline to create/align a dedicated financing scheme with Leave No One Behind principles.
- Support local women's and marginalized groups through technical assistance to access renewable energy technology and finance.
- Raise awareness and engage with partners to promote community-based renewable energy projects, new technology, and equitable financial schemes.

Outcome 3: Local women in all their diversity and other marginalized groups are represented as key local mini-scale renewable energy actors in advocacy and campaign.

ACTIVITIES :

- Foster collaboration among local CSOs to advance their leadership and participation in gender-responsive climate mitigation actions in promoting local renewable energy projects.
- Conduct capacity development to increase knowledge/awareness of renewable energy projects among communities within villages.
- Design feminist public awareness campaigns to address the importance of renewable energy usage and the limited representation of women's leadership in renewable energy projects.

KEY RESULT IN PRO WOMEN

15
individuals have been designated as focal points for renewable energy initiatives

1 SOLAR PV,
2 SOLAR DRYER DOME,
AND **10** MINI-SCALE BIOGAS
have been installed

50
local women people have increased their capacity through workshops on advocacy

Inauguration of the Local Renewable Energy Women's Coalition

GUIDELINE AND ADVOCACY MODUL TO INTEGRATE GENDER IN MINI-SCALE RENEWABLE ENERGY PROJECT have been developed and adopted for implementation

THE PRO WOMEN PROJECT IS GUIDED BY SEVERAL KEY CONSIDERATION :

Booming Community-Based Biodigester Construction in West Nusa Tenggara

Acknowledging the growing trend of household-scale biodigester construction in the province provides a favorable environment for project implementation and follow-up on the previous PROWOMEN Project in 2022. Building upon the successes and lessons learned from the last PROWOMEN project, ensuring continuity and enhanced impact.

Gender Perspective

Addressing the beneficiaries from various groups, primarily female participants, including local women farmers (KWT—Kelompok Wanita Tani) members, women entrepreneurs, young individuals, and coffee farmers. The selection criteria involve recommendations from KWT, including village and local government.

Leveraging Local Institutions' Support

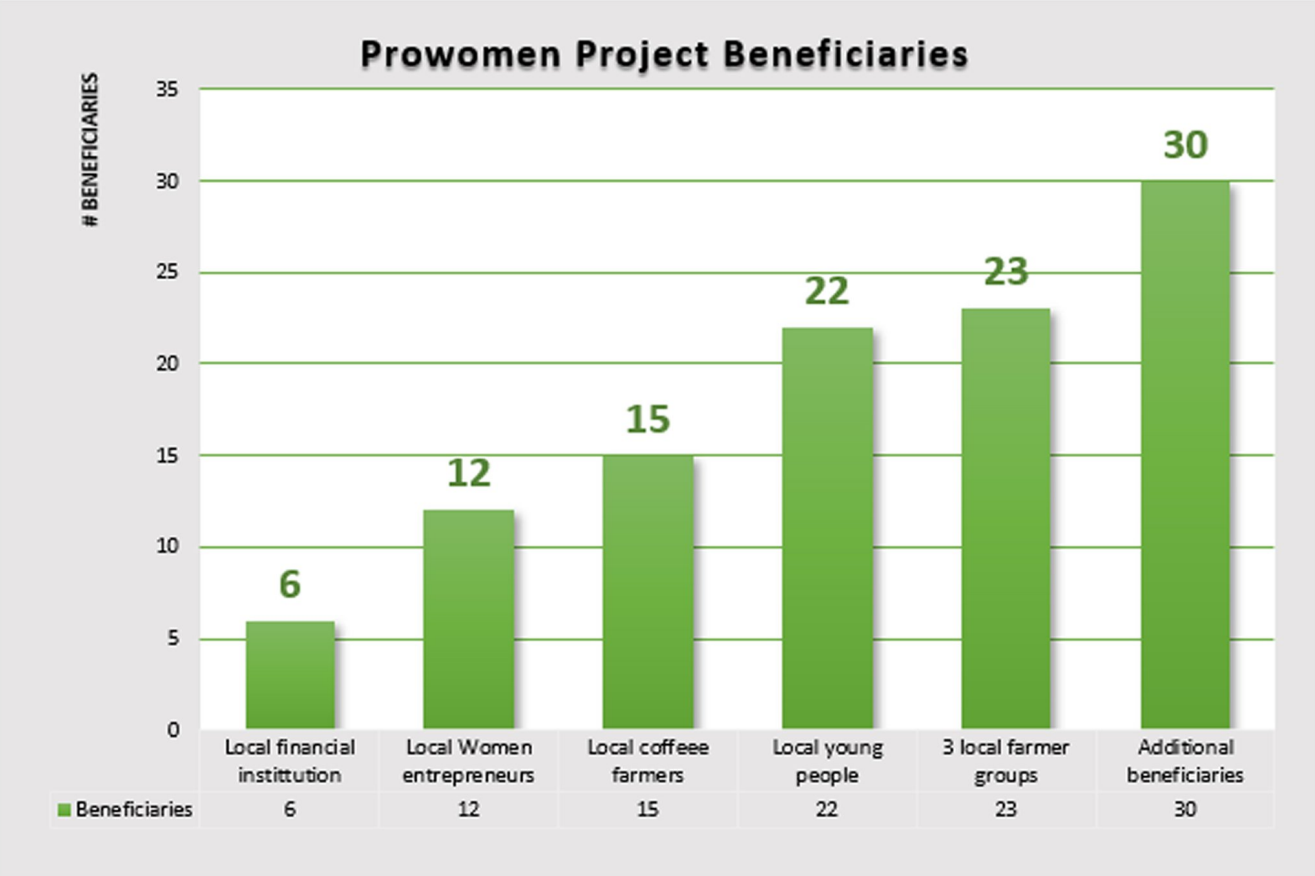
Recognizing the potential for collaboration and support from local institutions, strengthening the project's foundation. Gender Mainstreaming Context

Gender Mainstreaming Context

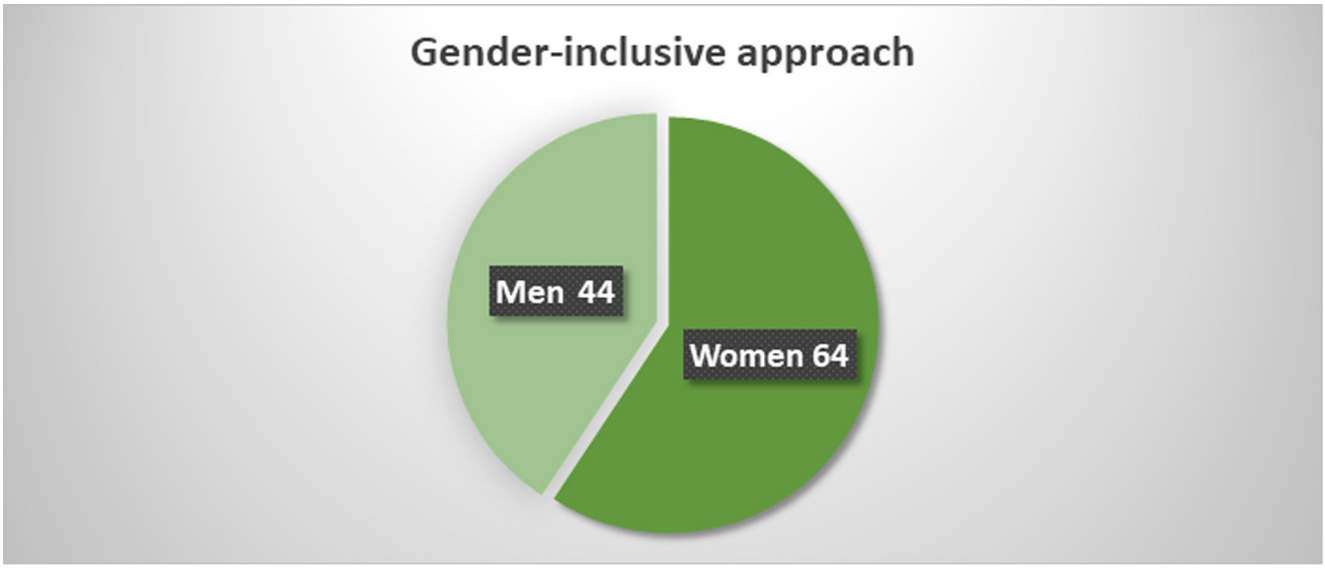
Indonesia Statistics data (BPS) for 2022 identified West Nusa Tenggara as having the highest Gender Inequality Index (IKG) in the country, and Central Lombok District was the highest rank for the index . Three villages were explicitly selected as they serve as coffee production centers facing challenges in the drying process.

[4]BPS, Indeks Ketimpangan Gender (IKG) 2022 Provinsi NTB
[5]Badan Pusat Statistik, Statistik Gender Provinsi Nusa Tenggara Barat 2022.

BENEFICIARY COMPOSITION
(108 BENEFICIARIES)



30 Additional Beneficiaries from:
The Ministry of Home Affairs, West Nusa Tenggara Provincial and Central Lombok District government, village officials, and local academics.

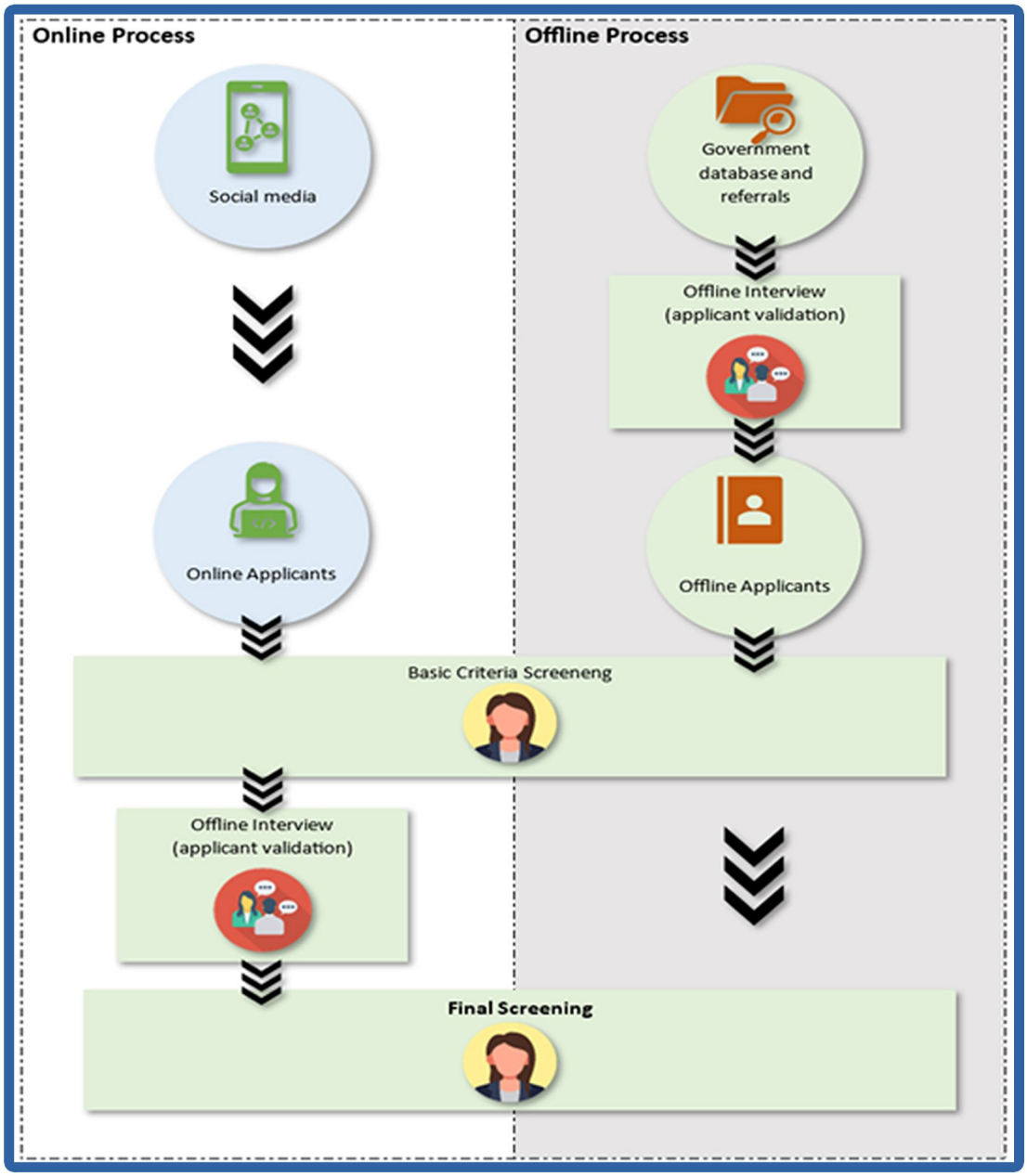


The project prioritizes inclusivity, reflecting a commitment to gender balance.

STEPS OF PARTICIPANTS SOURCING & SELECTION:

Identification through Interviews:
Interviews were conducted with women who were members of local Women Farmers Groups (KWT—Kelompok Wanita Tani), Women Entrepreneurs, Youth Groups, and Coffee Farmers. Questions covered knowledge about renewable energy, household energy usage, monthly energy expenditure, and community involvement.

Joint Agreement on Beneficiaries:
Identification results were collectively reviewed to determine project beneficiaries, prioritizing local women with limited access to information. The collective agreement ensured a commitment to participate in the program for one year, a dedication to renewable energy, and the requirement of having a registered group in the village.



RECOMMENDATION

The pro-women Yayasan Rumah Energi (YRE) team's intervention in three villages in the Central Lombok District has been a transformative force, creating opportunities and positive change, particularly for local women, marginalized groups, and overlooked young individuals. This comprehensive report outlines the project's impact, underscores critical lessons learned, and highlights the YRE team's commitment to building local capacity for sustained participation in renewable energy initiatives.

LESSON LEARNED #1

Determine specific baseline programs on GESI standards to develop an effective action plan and budget.

The integration of renewable energy revolutionizes the agriculture production process in KWT and household chores in Central Lombok District. It presents a transformative opportunity for local women. Adopting renewable energy translates to time, energy, and cost savings, allowing local women to engage in social activities, pursue entrepreneurship, and augment their income. Local entrepreneurial women utilizing renewable energy redefine societal perceptions of women's capabilities and create new avenues for active participation in public spaces.

However, to harness the full potential of renewable energy at the community level, there is a crucial need for strengthened access and synergies with various stakeholders. The project envisions a sustainable formula that extends beyond community boundaries, with aspirations for regulatory integration and broad community support. The Pro Women for Renewable Energy project embarks on a journey to enhance the capacity of beneficiaries, particularly women, ensuring their active involvement in shaping the renewable energy landscape within villages.

Recognizing the gender disparity in village development, where local women's participation is around 20%, the Pro Women for Renewable Energy project intervention strategically establishes focal points. These focal points, comprising 67% women representatives from each village, play a pivotal role in advocating for the importance of renewable energy and garnering community-wide support. The impact of this advocacy is evident in tangible improvements in renewable energy development processes at the village level.

A compelling example is the village of Lantan, where advocacy efforts led to allocating village funds for constructing 10 biogas units and expanding solar dryer dome shelves. This success story underscores the project's effectiveness in catalyzing local support and resources for sustainable energy initiatives. As the Pro Women for Renewable Energy project unfolds, it continues to champion local women's empowerment, reshape societal perceptions, and lay the groundwork for a future where renewable energy adoption is not just a community.

LESSON LEARNED #2

Apply strategies to involve local women and marginalized groups, including young people.

This lesson highlights the importance of employing appropriate strategies to engage and involve local women, marginalized groups, and young people in community development initiatives. This lesson is grounded in the understanding that a one-size-fits-all approach is inadequate when working with diverse communities, and successful involvement requires tailored and context-specific strategies.

Local women and marginalized groups, including young people in three villages, face limited access to information, knowledge, and renewable energy options at the grassroots and community levels. Traditionally, women have been perceived merely as users or consumers. To address this disparity, a targeted approach was employed from the outset of implementation, focusing on identifying and empowering women and young people as project beneficiaries.

Beneficiary Identification:

Interviews were conducted with women from diverse groups, including Women Farmers, Women Entrepreneurs, Youth Groups, and Coffee Farmers. The interview scope covered knowledge of renewable energy, household energy usage, monthly expenditure, and participation in group and village activities.

Strategic Approach:

A strategic approach involves group meetings conducted in residents' homes or group settings. Communication groups were tailored to the specific needs and equipment available within the community. Monthly meeting schedules were agreed upon, and What App Groups were utilized for ongoing communication. Meeting results were distributed offline.

Inclusive Engagement:

Local women farmers, entrepreneurs, youth groups, and coffee farmers actively participated in these meetings. A game-based approach, using cards or pictures related to renewable energy, ensured the active involvement of all participants, fostering a sense of inclusivity.

Renewable Energy Potential Mapping:

A renewable energy potential map was created for each village, identifying possible community-scale renewable energy development locations. Local resources such as cow dung, chicken, and household kitchen waste were considered, addressing waste management issues.

Community Communication and Knowledge Dissemination:

The results of the renewable energy potential map became vital for communicating with the village government and disseminating information about renewable energy to the community. This approach aimed at increasing awareness and knowledge about renewable energy options.

Empowerment and Decision-Making:

As knowledge about renewable energy increased, it changed self-confidence and courage among local women and marginalized, including young people. This empowerment translated into active participation in household, group, and village decision-making. The traditional roles of women and young people shifted from mere users to active contributors, ensuring that planned renewable energy initiatives positively impacted their lives.

Through this comprehensive approach, the initiative addresses energy disparities. It promotes gender and youth inclusivity, fostering a community-driven approach to sustainable development. The empowerment of women and young people extends beyond energy use, influencing decision-making processes and ensuring a more

LESSON LEARNED #3

Connect programs with ecosystems and institutions at the central and local levels.

Yayasan Rumah Energi (YRE) has demonstrated strategic engagement with diverse stakeholders in the Pro Women for Renewable Energy project. The emphasis is on empowering local women through community-based renewable energy development. This lesson underscores the importance of establishing connections at the central level and within local ecosystems and institutions. YRE's approach ensures a comprehensive and inclusive strategy that aligns with the unique dynamics of each community involved in the project. Ensuring the sustainability of programs requires a connection with established systems and institutions at both the central and local levels. YRE recognized the significance of this approach and engaged in a collaborative effort with local agency offices. These local institutions possess the expertise to train local women, marginalized individuals, and young people in creating biodigesters and solar PV systems.

In a strategic move to embed gender and inclusion considerations, YRE also conducted a consultative workshop. This workshop aimed to sensitize and educate local offices, fostering an environment where gender-specific needs could be accommodated in facilities, policies, and program curricula. By providing capacity-building initiatives on gender and inclusion for these local institutions, a foundation for long-term improvements in gender equality at the local level was established.

Benefiting from the experience of local agency offices in Central Lombok District, particularly in training locals in biodigester and solar PV construction, the potential for continued impact is significant. These institutions can play a crucial role in advancing local renewable energy projects through vocational education and capacity-building programs specifically designed for local women, breaking barriers in historically reserved domains for local men. This collaboration paves the way for sustained progress and inclusivity in renewable energy initiatives.

We have taken a holistic approach to fostering sustainable community-based renewable energy systems. In three villages within the Central Lombok District, YRE was pivotal in establishing a village-owned enterprise (BUM Desa) to manage biodigesters and solar PV operations. This initiative ensures that gender and inclusion considerations are seamlessly integrated. We facilitated crucial meetings between the newly formed enterprise, contractors responsible for the biodigesters and photovoltaic systems, and their young trainees. This effort guarantees these trainees will actively serve and maintain the biodigesters and photovoltaic systems. The continuous learning process involves hands-on experience with engineering procurement and local construction companies during installation, plant operation, and maintenance.

Furthermore, YRE, in collaboration with partner companies, provided comprehensive training on safety, security, tool usage, and procedural adherence. Now equipped with valuable skills, the former trainees are poised to serve as technical operators for biodigesters and solar panel installations. They are also prepared to contribute to maintenance and repair services while supplying essential products and services for the village enterprise. This strategic approach ensures the longevity and effectiveness of the programs initiated by the demonstration project, creating a pathway for sustainable impact within the local communities.

KEY STAKEHOLDER

This collaborative effort showcases a comprehensive and inclusive approach, integrating government support, financial backing, academic expertise, and the active involvement of NGOs, the private sector, and civil society. The collective efforts aim to create a sustainable framework for empowering women through renewable energy initiatives in the West Nusa Tenggara region.

Central Government Involvement:

-The Directorate General of Regional Development of the Ministry of Home Affairs (Kemendagri) leads the Pro Women for Renewable Energy project.
-The Ministry of Energy and Mineral Resources (KemenESDM) pioneered renewable energy and initiated the BIRU program with the Hivos Foundation and YRE.
-The Ministry of Villages is crucial, being close to villages and influencing hamlets to develop renewable energy initiatives.

Provincial and Local Government Participation:

The West Nusa Tenggara Provincial and Central Lombok District government contributed through various local agency offices, including the BAPPEDA Office and related local agency offices in energy, environmental, agriculture, and women empowerment services, which are responsible for developing local renewable energy projects in society.

Financial Support:

Local financing institutions in the West Nusa Tenggara, such as Bank NTB Syariah, Bank Mandiri, and Bank Rakyat Indonesia (BRI), along with supportive local cooperatives like KSU Syariah Amanah Mardotillah, KSU Syariah Wana Makmur Lestari, KSP Karya Mandiri, and KSP Mitra Sejati, are committed to financing local renewable energy projects.

Academic and Research Involvement:

The Faculty of Food Technology and Agroindustry, along with the Faculty of Engineering at the University of Mataram and the Faculty of Agriculture at the Muhammadiyah University of Mataram, have collaborated with SMKN 1 Lingsar and SMKN 1 Jonggat. This collaboration focused on the opportunity to provide innovation and research aimed at developing household biodigesters and mini-scale solar PV appliances.

NGOs, Private Sector, and Civil Society Engagement:

Various organizations, including PT. Insight Investments, Indonesian Women's Coalition (KPI), New Energy Nexus, IESR, Cerah Indonesia Foundation, Penabulu Foundation, Gema Alam, Conceptions, PEKKA (Empowerment of Women Headed of Families), ASSPUK (Association for Mentoring Women in Small Businesses), youth groups in the Central Lombok District (e.g., Pokdarwis), including the Indonesian Association of Disabled Women (HWDI) and Indonesian Women Entrepreneurs Association (IWAPI) in the Province level, actively contribute to community empowerment, capacity building, and advocacy for gender equality and social inclusion in three villages in Central Lombok District.

LEARNING EVENT:

The community-led discussion on utilizing renewable energy locally, explicitly focusing on household biogas and mini-scale solar photovoltaic systems for the drying dome, was effectively communicated by the beneficiaries to various stakeholders. This collaborative learning activity was a positive lesson for implementing a community-wide renewable energy transition. The primary actors in this initiative were local KWT women, local women entrepreneurs, local young individuals, and local coffee farmers in the three villages in the Central Lombok District. The effort received substantial support from the Directorate General of Regional Development of the Ministry of Home Affairs, local government agencies in the District and Province, and local CSOs / NGOs, including local cooperatives and communities.

"In the past (before there was a solar dryer dome), drying [coffee] took a long time; now that there is a solar dryer dome, it can be done quickly, so we don't have to run around when it rains."
- Verapaty Setya, KWT Kaki Rinjani, Karang Sidemen Village

"By using a solar dryer house, the quality of the coffee being dried in the sun can be even and save energy because we don't have to turn the coffee over and over again."
- Inaq Hamdani, KWT Suli Asli Aik Berik Village

"Before the installation of solar PV on the drying dome, the monthly electricity bill used amounted to one hundred thousand rupiahs. Now, it has been significantly reduced to fifty thousand rupiahs a month. Additionally, after receiving training, it became apparent that using the solar PV system is not difficult."

- Hakiah, KWT Kaki Rinjani, Karang Sidemen Village

"The FALS training helps us identify priority expenses and allocate funds wisely for family needs. This includes reducing cigarette expenses and allocating that money towards savings."

- Romi Hidayat, Coffee Farmer in Karang Sidemen Village

" The Pro Women project provides us access to information about renewable energy."

- Rita Apriliani, KWT Elong Tuna Lantan Village

" The Pro Women for Renewable Energy project has created a platform for young people to engage in discussions and collaborate with KWT in marketing their products."

- Khaeruman, Young People of Aik Berik Village

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MEDIA COVERAGE
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FIELD VISIT

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LEARNING EVENT

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