Women Entrepreneurs as Key Drivers in the Decentralised Renewable Energy Sector

Best Practices and Innovative Business Models

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Gender equality is both a necessary condition and a strong catalyst to achieve universal energy access by 2030.

At the intersection of gender equality, clean and affordable energy access and sustainable economic development, the connection between SDG-7 and SDG-5 offers an untapped array of innovative solutions and a pool of talents that traditional approaches are likely to miss.

IMPRINTS

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ABOUT THE ALLIANCE FOR RURAL ELECTRIFICATION (ARE)

ARE is an international business association with over 170 Members that promotes a sustainable decentralised renewable energy industry for the 21st century, activating markets for affordable energy services and creating local jobs and inclusive economies in emerging countries in Sub-Saharan Africa, Asia-Pacific and Latin America & the Caribbean.

With a vision of achieving affordable energy for all, since its inception in 2006, ARE has taken leadership and has established itself for its efforts on mobilisation, linking and coordination of private sector activities with international cooperation and development support programmes. To find out more about how ARE supports sector and industry development please visit: http://www.ruralelec.org/are-service-lines

ABOUT GET.INVEST

GET.invest is a European programme which supports investments in decentralised renewable energy. The programme works with private sector business and project developers, financiers and regulators to build sustainable energy markets in developing countries.

Services include market information, a funding database, matchmaking events and access-to-finance advisory, delivered across different market segments.

The programme is supported by the European Union, Germany, Sweden, the Netherlands, and Austria, and works closely with other initiatives and industry associations. Learn more on the GET.invest website: https://www.get-invest.eu/

ARE-GET.INVEST COOPERATION

ARE and GET.invest work towards the common goal of advancing the development and bankability of decentralised renewable energy projects in developing markets. Based on this shared objective, ARE and GET.invest cooperate on several activities in Africa, the Caribbean and Pacific region, including information and matchmaking events with developers, financiers and government officials, capacity building activities for the public and private sector, as well as outreach and mobilisation activities, such as publications, workshops, webinars and business delegations.

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LIST OF ABBREVIATIONS

AEPC Alternative Energy Promotion Centre

ARE Alliance for Rural Electrification

AWEEF African Women Energy Entrepreneurs Framework

CSO Civil Society Organisation

DRE Decentralised Renewable Energy

DESFERS Développement Economique et Social des Femmes à travers les Energies Renouvelables au Sahel

ECODEV Accès à l'Énergie et Développement Économique

EUR Euro

EWiEn Ethiopian Women in Energy Association

GALS Gender Action Learning System

GDP Gross Domestic Product

HPNET Hydro Empowerment Network

KPI Key Performance Indicator

kW Kilowatt

kWh Kilowatt-hour

kWp Kilowatt-peak

MGA Micro-Grid Academy

MHP Micro Hydro Project

MSMEs Micro, Small and Medium-sized Enterprises

MWp Megawatt-peak

NGN Nigerian Naira

NGO Non-governmental Organisation

OCEF Off-Grid Clean Energy Facility

PIDG Private Infrastructure Development Group

PURE Productive Use of Renewable Energy

REDP Rural Energy Development Programme

REEWF The Renewable Energy Empowering Women Farmers Project

REMREC Resource Management & Rural Empowerment Centre

RENAC The Renewables Academy AG

RES4Africa Foundation Renewable Energy Solutions for Africa Foundation

SDG-5 Gender Equality

SDG-7 Affordable, Reliable and Sustainable Energy

SDGs Sustainable Development Goals

SEW School of Electricians for Women

SHS Solar Home Systems

SIII Sumba Iconic Island Initiative

SMEs Small and Medium-sized Enterprises

STEM Science, Technology, Engineering and Mathematics

UNDP United Nations Development Programme

USD United States Dollar

WISIONS Wuppertal Institute for Climate, Environment & Energy

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Introduction

1. INTRODUCTION

Affordable, reliable and sustainable energy (SDG-7) and gender equality (SDG-5), are key drivers for development and economic growth.[1] Beyond the intrinsic value of these Sustainable Development Goals (SDGs), their potential to catalyse other SDGs is key to create sustainable, resilient and inclusive societies. While SDG-7 is necessary to power productive activities and enable socio-economic development, SDG-5 further catalyses progress, as women are more likely than men to reinvest their earnings within their communities in micro, small and medium-sized enterprises (MSMEs) and vital services such health, education and nutrition.[2]

Over the past decade, the decentralised renewable energy (DRE) sector has made tremendous strides in providing affordable, reliable, sustainable and modern electricity for rural populations, improving quality of life and unlocking economic opportunities in hardest-to-reach communities. **Between 2010 and 2017, more than 920 million people have been connected to electricity,[3] with the DRE sector currently providing services to more than 420 million people across the globe**.[4]

Despite these advances, at current rates of electrification around 620 million people will remain without access to clean and affordable electricity by 2030, from which 85% will live in Sub-Saharan Africa.[5] **To achieve universal access by 2030, new energy access policies, business models, programmes and investments must maximise the socio-economic benefits that electricity brings, while making sure that no one is left behind**. At the intersection of gender equality, clean and affordable energy access and sustainable economic development, the connection between SDG-7 and SDG-5 offers an untapped array of innovative solutions and a pool of talents that traditional approaches are likely to miss.

To begin with, **energy poverty is a gender-related issue that affects women and men differently**. Constrained by socio-cultural norms and traditional male-dominated structures, women in emerging markets are widely reported to lack the skills, knowledge, decision-making power and/or financial means to access electricity.[6] Furthermore, women spend three hours of work per day on average more than men on activities such as cooking, cleaning and household care and 100 hours per year on collecting solid fuel.[7]

> GENDER-SENSITIVE APPROACHES HAVE A LARGER POTENTIAL TO REDUCE HOUSEHOLD POVERTY AND IMPROVE THE OVERALL WELL-BEING OF THE COMMUNITY

For those reasons, women are particularly vulnerable to the lack of electricity and should be considered as essential beneficiaries of DRE solutions. In doing so, access to energy can reduce exposure to particulate matter emissions by powering clean and efficient cooking methods, increase safety by improving lighting as well as mobile phone and online communications, and minimise the time spent in housekeeping activities and drudgery. This in turn can result in **better health and unlock time for**

1 UN, The 17 Goals, 2020 (online)
2 OECD, Investing in Women and Girls: The Breakthrough Strategy for Achieving all the MDGS, 2010: page 5
3 IEA, IRENA, UNSD, World Bank, WHO, Tracking SDG 7: The Energy Progress Report 2019, 2019: page 15
4 Lighting Global, GOGLA, ESMAP, Off-Grid Solar Market Trends Report 2020, 2020: page 2
5 IEA, IRENA, World Bank & WHO, Tracking SDG7: The Energy Progress Report 2020, 2020: page 4
6 IRENA, Renewable Energy: A Gender Perspective, 2019: page 60
7 IRENA, Renewable Energy: A Gender Perspective, 2019: page 14

education, leisure and/or business development, leading to an increase in household incomes and community well-being[8] —as long as women own the productive use equipment and can decide how their 'freed up' time is spent.

The uses of energy also differ for each gender. Women traditionally focus on indoor activities and are the main energy users at the household level, yet they often have little power to decide how the household income is managed.[9] Therefore, **gender-sensitive approaches that identify and integrate the different end-user needs of women and men into the design and planning phase can reduce household poverty and improve the overall well-being of the community**.[10]

Moreover, women entrepreneurs are strong agents of change. Recent evidence, including the case studies in this publication, demonstrates that DRE solutions have enabled unprecedented opportunities in rural communities, especially for women. Women-owned small and medium-sized enterprises (SMEs) are estimated to represent 30 to 37% of the total number of SMEs in emerging markets.[11] Thus, DRE solutions can power the development of rural businesses and improve both women's incomes and decision-making power in local communities.[12]

Furthermore, evidence shows that **local companies with gender parity or that are led by women are more reliable and as profitable as those led by men, often outperforming the latter**.[13,14] This is because, as main electricity users themselves, women are well-positioned to understand customer needs, take advantage of their extensive local networks to drive sales and build trust around sustainable energy products.[15] Besides, available data

DRE SOLUTIONS CAN POWER THE DEVELOPMENT OF RURAL BUSINESSES AND IMPROVE BOTH WOMEN'S INCOMES AND DECISION-MAKING POWER IN LOCAL COMMUNITIES

indicate that **women tend to spend more of their generated income —up to 90%, compared to 35% in the case of men— on the well-being of their family and community**.[16]

In addition, recent gender mainstreaming research shows that companies with better gender equality numbers at the board, high and mid-level management tend to have important benefits. Amongst those, the studies point to **higher business profits and transparency, better motivation and working environments, as well as greater innovation and sustainability impact,**[17] **which are essential to advance gender and energy access impact on the ground**.[18]

However, for gender-sensitive approaches to be most effective, **energy access stakeholders also need to address gender equality within their organisations**, including in the public and private sector, civil society organisations (CSOs) and funding partners. Currently, **women represent only 32%**[19] **of the total workforce in the renewable energy sector and are disproportion-**

8 IRENA, Renewable Energy: A Gender Perspective, 2019: page 57-75
9 Embassy of Norway in Mozambique, ENERGIA, Ministry of Energy Mozambique & Norad, Mainstreaming Gender in the Energy Sector: Training Manual, 2012: page 11
10 IBRD & World Bank, Energy Access and Gender: Getting the Right Balance, 2017: page 1-3
11 IFC, Women Entrepreneurs Are Essential for Private Sector Development in Emerging Markets, 2017: page 1
12 ENERGIA, Scaling up energy access through women-led businesses, 2017: page 12
13 ENERGIA, Women's Energy Entrepreneurship: A Guiding Framework and Systematic Literature Review, 2019: page 27
14 IDS Bulletin, vol 51 (1), Gender and Entrepreneurship in the Renewable Energy Sector of Rwanda, 2020
15 UNCDF, How can energy companies improve gender hiring strategies?, 2019 (online)
16 IFC, IFC Jobs Study: Assessing Private Sector Contributors to Job Creation and Poverty Reduction. Findings on Gender, 2013: page 5
17 GWNET, Women for Sustainable Energy: Strategies to Foster Women's Talent for Transformational Change, 2019: page 25-26
18 IRENA, Renewable Energy: A Gender Perspective, 2019: page 9
19 IRENA, Renewable Energy: A Gender Perspective, 2019: page 10

ally concentrated in the lower spheres of the decision-making hierarchy.[20] A similar trend can be observed in the energy access sector, with many organisations characterised by an uneven distribution of board and senior roles between men and women.

Combined, these arguments make a strong business case of risk reduction, improved performance and positive community impact for integrating a gender-specific dimension in energy access business models, programmes and investments.

With this in mind, the Alliance for Rural Electrification (ARE), the international business association for the DRE industry, is convinced that gender equality is a necessary condition and a strong catalyst to achieve universal energy access by 2030. This publication highlights the essential role that women play in advancing sustainable socio-economic development in rural communities and gives examples of how to consolidate gender equality at each level of the DRE supply chain.

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20 IRENA, Renewable Energy: A Gender Perspective, 2019: page 19

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Recommendations

2. KEY RECOMMENDATIONS FOR DRE COMPANIES, CIVIL SOCIETY ORGANISATIONS, PRIVATE INVESTORS AND INTERNATIONAL FUNDING PARTNERS

Based on best practices from the 17 case studies in this publication as well as available publications and research on gender and energy access, ARE has the following recommendations for DRE companies, CSOs, private investors and international funding partners that strive to achieve SDG-7 and the socio-economic benefits associated with it, by ensuring gender equality in the DRE sector (see summary of recommendations in figure 1).

2.1. RECOMMENDATIONS TO IMPROVE GENDER EQUALITY AT THE COMMUNITY LEVEL

A major challenge for women to reap the full benefits of energy access in rural areas arises from their disadvantageous position to access financial means, training, information, productive use equipment and land. This situation is a result of socio-cultural norms that often impede women's ability to control their lives, such as movement restrictions and pre-determined social roles.

Gender considerations, such as the different energy uses of women and men and how to address them, as well as the capacity of women to decide on how their income is spent at home, are key to develop a more realistic and inclusive approach to energy access. Thus, DRE companies and CSOs need to **inform every stage of their energy access projects with data on local gender dynamics, acquired through community consultations and workshops in partnership with local associations of women**, ensuring that men and —particularly— women's views are collected.

To enable gender equality in rural communities, the existence of an enabling environment is necessary. On that note, CSOs are encouraged **to conduct local gender and DRE awareness campaigns, in partnership with local associations and DRE companies, to build consensus** on what community members think could be sustainably managed or implemented to advance gender equality and sustainable development at the local level. **Involving both women and men in such activities is vital** so that the benefits of women empowerment are acknowledged, gender-based violence risks reduced and the prevailing social barriers can be progressively lifted while making sure that no one is left behind.[21]

Besides, **DRE projects should equip women with the right technical and business capacities to become independent and improve the scale and efficiency of their productive and commercial activities**, as women are key to economic development.

21 BMZ, GIZ, Oxfam & WEMAN, Gender Action Learning System: Practical Guide for Transforming Gender and Unequal Power Relations in Value Chains, 2014: page 7

This is because **women are not only the main users of energy but also constitute key generators of income for their families and communities**, in many cases through small-scale agriculture and agri-processing activities. Furthermore, the case studies in this publication show that women are strategically well-positioned to become entrepreneurs, as they can have access to a wider pool of potential customers, understand their needs and build longer-term relationships of trust.

Thus, ARE strongly recommends DRE companies and CSOs to **collaborate with international development partners, governments and local associations in the development of capacity building programmes for women technicians and entrepreneurs on the ground**. These programmes should be adapted to the different educational levels of rural women and integrate agency and leadership strategies to strengthen women's belief in their own skills, motivation and thus long-term engagement in the programmes.

DRE companies and CSOs can also **collaborate with public authorities and international funding partners in strengthening the capabilities of existing regional training centres —or creating new ones wherever needed— to further extend the scope and reach of the capacity building activities**.[22] The regional centres and local associations could advise DRE companies and CSOs on how to promote gender equality and women empowerment in the communities and serve as communicators, trainers and knowledge sharing hubs, thus creating a local pool of potential employees, suppliers and customers for the DRE companies.

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> **WOMEN ARE NOT ONLY THE MAIN USERS OF ENERGY BUT ALSO CONSTITUTE KEY GENERATORS OF INCOME FOR THEIR FAMILIES AND COMMUNITIES**

Here, international funding partners and CSOs involved in energy access programmes could also **consider supporting women's access to productive use equipment**, which is needed for local business development (i.e. mobile phones, productive use machinery or commercial goods), **through financing schemes for women-owned businesses in partnership with local banks and microfinance institutions**. International funding partners and CSOs should ensure that the productive use equipment facilitated to women is adapted to their physical needs (i.e. height and strength), so that women can use it comfortably.

Besides, evidence shows that women-led business activities in rural areas can be further improved with modern digital solutions helping women entrepreneurs gain financial and commercial data on their customers, receive remote market linkage support and build a bankable profile over time to unlock further finance for their businesses.

Consequently, DRE companies are advised to **promote the use of innovative digital solutions, involving women in the design to address their specific needs**. The same solutions can also be used to generate data

22 UNIDO, Empowering young women through renewable energy training, 2017 (online)

on gender and energy access impact. As women in rural communities tend to have a lower level of digital literacy than men,[23] DRE companies and CSOs should also **adapt their solutions to the different literacy levels of rural women and consider to provide basic capacity building for the use of digital tools**. Such support could be offered as an integral part of the capacity building programmes mentioned above by conducting specific training sessions on the ground or through the company's field agents.

Furthermore, CSOs and international funding partners could **partner with local associations to support existing[24] —or build, wherever needed— networks of women entrepreneurs and 'saving groups' of around ten women**. These networks are an effective way to support the entrepreneurs in developing their own business models, sharing project risks and accessing credit.[25] This proves particularly constructive in increasing women confidence and sharing success stories of female role models to inspire other women.

2.2. RECOMMENDATIONS TO IMPROVE GENDER EQUALITY AT THE ORGANISATIONAL LEVEL

The solutions above are important steps to advance gender equality in the DRE sector, yet DRE companies and CSOs **need to move from siloed activities to a systemic, multi-stakeholder approach. ARE strongly believes that the best way forward is to integrate such solutions into the company business model or organisation's programmes**. The first step for DRE companies and CSOs should be to develop a Gender Action Plan with clear objectives to guide the gender mainstreaming process, from data collection to monitoring and impact analysis.[26,27]

DRE companies and CSOs should **follow by collecting gender-disaggregated data** (i.e. energy uses, number of formal and informal MSMEs owned by women in the community, purchasing and decision-making power of women, etc.) for project and programme design through community consultations. The data collected could then be used by DRE companies to design products, marketing and sales strategies, or by CSOs to adapt **financial and capacity building support**, around the specific needs of local women (i.e. system size and configuration) at scale and across portfolios. The data collection process could be part of a wider government initiative and serve to inform relevant policy interventions, such as the establishment of special subsidies and lifeline rates.

Furthermore, it is essential that DRE companies and CSOs **monitor the effectiveness of their projects and programmes by analysing their gender impact and integrate the lessons learnt into the planning phase**. Impact assessments should also be informed by gender-disaggregated data such as different access levels to energy, financial and productive use equipment of men and women, revenue generation, etc.

> THE BEST WAY FORWARD IS TO INTEGRATE SUCH SOLUTIONS INTO THE COMPANY BUSINESS MODEL OR ORGANISATION'S PROGRAMMES

Other actions that DRE companies and CSOs should undertake in the implementation and operational phases are exploring **new communication channels to reach a wider female audience** (i.e. local and regional women networks as well as universities and educational centres) and **setting up a gender-inclusive policy with key performance indicators (KPIs) for**

23 A4AI, Affordability Report 2015/16, 2016: page 32
24 ESEPARC, Stokvels: An Instrument for Income Generation and Wealth Creation?, 2019
25 Plan International, Savings Groups, Microfinance and Financial Inclusion, 2020 (online)
26 ADB, Project Gender Action Plans: Lessons for Achieving Gender Equality and Poverty Reduction Results, 2009
27 ADB, Gender-Inclusive Approaches in the Energy Sector, 2018

the recruitment and promotion of local internal and external local staff (i.e. technology providers, installers, sales agents, etc.). **Gender policies should also include gender-sensitive risk mitigation mechanisms**, such as work-life balance strategies and formal complaint management processes (grievance mechanisms) to ensure women's safety and engagement on the ground.

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A useful recommendation for DRE companies is to **partner with and support national and international educational programmes, universities and other educational centres to create a diverse pool of talents, especially for science, technology, engineering and mathematics (STEM) jobs**. Ideally, such programmes would include mentorship activities as well as internship placements to provide real work experience. Furthermore, with only 32% of female representation in the renewable energy market,[28] ARE notes that **sharing and communicating examples of female role models is essential to encourage other women to engage in the sector**.

Decentralised renewable energy companies, CSOs, private investors and international funding partners need to break their internal gender barriers, too. Only then can the DRE sector effectively advocate for and implement gender equality at the community level as well.

The first recommended step is to **start the gender mainstreaming process by analysing internal recruitment and promotion processes**, as well as employee benefits and working environment from a gender perspective.

Secondly, it is recommended that DRE companies, CSOs, international funding partners and private investors **ensure a minimum ratio of women in each department, as well as top management and board positions**. As exemplified by several case studies in this publication, this ratio could be ensured by implementing an internal policy with recruitment and promotion diversity ratios at all levels of management and departments, as well as equal pay and strategic benefits (i.e. flexible schedule for employees with young children and maternity and paternity support). In the recruitment process, many ARE members already use inclusive language in their job descriptions and clearly encourage women to apply**.**

Ensuring a good ratio of female employees through the implementation of KPIs is a good start, but it is not enough.[29] DRE companies, CSOs, private investors and international funding partners need to **pair their efforts in this regard with strategies to foster an open and respectful working culture**.

A strong constraint that is often overlooked is the prevalence of gender biases and male-dominated environments where women feel uncomfortable, undervalued and not motivated to share their ideas.[30] This is a common problem that can hamper the benefits of a well-intentioned gender strategy, as it hinders the potential of diverse teams to innovate and think outside the box. Over time, this problem results in women losing motivation to express themselves and restricting their performance to the role they have been unconsciously assigned to or directly leaving the company and compromising the value of the gender policy itself.

To avoid this, is it recommended that DRE companies, CSOs, private investors and international funding partners **consider investing time and resources in understanding the underlying gender bias in their corporate culture through training,**

28 IRENA, Renewable Energy and Jobs: Annual Review 2020, 2020: page 3
29 Harvard Business Review, Research: When Gender Diversity Makes Firms More Productive, 2019 (online)
30 GWNET, Women for Sustainable Energy: Strategies to Foster Women's Talent for Transformational Change, 2019: page 2-6

capacity building sessions and mentorship programmes. Various international initiatives offer comprehensive resources to guide companies and foundations in their gender mainstreaming journey.[31,32] Finally, DRE companies, CSOs, private investors and international funding partners could consider hiring **an external expert to review their gender equality status** and provide an objective view with fundamented solutions.

2.3. RECOMMENDATIONS TO IMPROVE GENDER EQUALITY AT THE INVESTOR LEVEL

An important barrier for DRE companies and CSOs to integrate a gender element into their internal policies, projects and programmes is access to specific financing for the same.

There is certainly a growing interest in gender lens investing amongst private investors and international funding partners alike, followed by increasing funding opportunities for companies that have good gender practices.[33] However, the number of gender-investing strategies that are available in capital markets is still low. ARE and its members have identified three main challenges that slow down the engagement of private investors and international funding partners in gender lens investing.[34]

Firstly, **the business case for gender lens investing needs to be communicated and strengthened further**, as it is not always obvious to private investors how gender lens investing can improve their financial returns. Besides, impact investors and international funding partners must be fully aware of why gender is a key element in the investment process to achieve their impact goals (i.e. in energy access, poverty reduction, health, education, etc.).

This problem is closely related to a second challenge, namely the lack of sufficient gender-disaggregated data that is needed to inform the investment process.[35] The persistent lack of data makes it difficult for private investors and international funding partners to build a strong business and development case and set gender-sensitive conditions according to business performance, the return of investment and interest rate, as well as to analyse and monitor gender impact in their investments.

To build awareness, DRE companies and CSOs should **collaborate to create knowledge products based on impact and financial data from the field**, as well as best practices such as the case studies featured in this publication.

Furthermore, international funding partners could encourage DRE companies, CSOs and private investors to **collect accurate gender-disaggregated data by supporting the development of a standardised impact measurement framework for DRE programmes and projects, with a strong focus on gender**. Essential data could include indicators such as number of women-owned MSMEs and their income generation, number of women with control

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over their income and/or saving accounts, as well as access to loans or credits.[36]

This data could then be used to inform both public and private investment approaches to gender equality in energy access and to monitor impact in a standardised way across the DRE sector. For instance, private investors could **build on the impact measurement framework to analyse the impact of their investments from a gender perspective** (by calculating the social

31 GWNET, Resources, 2020 (online)
32 Equal by 30, Resource Centre, 2020 (online)
33 Financial Alliance for Women, The Growing Power of Gender Lens Investment, 2019 (online)
34 "Gender lens investing" is a term used to describe an investment process that integrates gender considerations
35 IDB, Sex-disaggregated Supply-side Data Relevant to Financial Inclusion, 2018: page 6
36 IDB, Sex-disaggregated Supply-side Data Relevant to Financial Inclusion, 2018: page 21-25

return on investment) and compare the results with the purely financial performance (traditional return on investment) of the same investments over time.[37,38]

Thirdly, private investors are often not sure about how to start mainstreaming gender, as current best practices for gender lens investing are not sufficiently well-known and there is often a low number of employees with good knowledge on the topic to promote them. Investors could **start linking gender considerations to current investment objectives and existing projects**. For instance, the gender investing lens developed by the 2X Challenge Criteria,[39] with five different sets of gender-related KPIs, is a simple and effective way for investors to start screening their portfolio and to encourage investees to advance specific gender goals.

Here, private investors could **dedicate a percentage of their portfolio to match funding for projects to advance female entrepreneurship and clean energy through concessional loans and microfinance schemes**, supported by international funding partners through a guarantee scheme and in partnership with local banks and microfinance institutions. A second step for private investors and international funding partners alike could be to **provide financial incentives to investees with good gender practices and women empowerment programmes**, such as loans with reduced interest rates and eliminated collateral requirements for certain loan levels.[40]

Additionally, international funding partners can **launch calls for proposals to fund women-led businesses and projects, and promote gender equality by including gender impact or participation as scoring criteria in all tenders**. International funding partners in a more advanced position could mainstream gender throughout their full investment cycle, for instance by including gender balance as a pre-qualification requirement in tender documents and by combining such measures with impact assessment guidelines that incorporate a gender-lens in all stages of their programmes.[41]

37 WAWCAS, Social Return on Investment 2017, 2017
38 WHO, Social Return on Investment: Accounting for Value in the Context of Implementing Health 2020 and the 2030 Agenda for Sustainable Development, 2017
39 2X Challenge, Criteria, 2020 (online)
40 2DII, Sustainability Improvement Loans: A Risk-based Approach to Changing Capital Requirements in Favour of Sustainability Outcomes, 2019
41 PIDG, Gender Equality Advisory Services for Infrastructure Programs: Gender Review, 2016: page 18-19

Challenge	Recommendation	Stakeholders
Community Level		
Different energy needs, impacts and energy access levels of men and women	Run community consultations and workshops to understand gender dynamics in partnership with local associations	CSOs; DRE companies
Little local awareness about the benefits of DRE solutions and women empowerment	Conduct local gender and DRE awareness campaigns in partnership with local associations and DRE companies, involving both men and women, to build DRE and gender consensus	CSOs
Lack of technical and business skills	Conduct technical and entrepreneurship capacity building programmes for women in partnership with local associations	CSOs; DRE companies; international funding partners
	Work with governments and regional centres to scale up such programmes	
Limited access to productive use equipment	Develop financing schemes in partnership with local banks and microfinance institutions for women-owned businesses to buy productive use equipment powered by DRE	CSOs; international funding partners
Lack of financial and commercial tools	Promote innovative digital solutions	DRE companies
	Provide basic training on digital tools	CSOs
Limited access to finance	Support existing small saving groups and/or build them wherever needed	CSOs; international funding partners
Organisational Level		
Need for a systemic approach to gender equality in energy access	Develop a Gender Action Plan	CSOs; DRE companies
	Collect gender-disaggregated data	
	Include women needs in project/programme design	
	Monitor, analyse and internalise lessons learnt from gender impact data of each project/programme	
	Explore new communication channels	
	Set KPIs for the recruitment of local internal/external staff	
	Set gender-related risk mitigation mechanisms	
	Partner with international educational programmes and educational centres to create a diverse pool of talents, especially for STEM jobs	
	Share examples of female role models in the DRE sector	

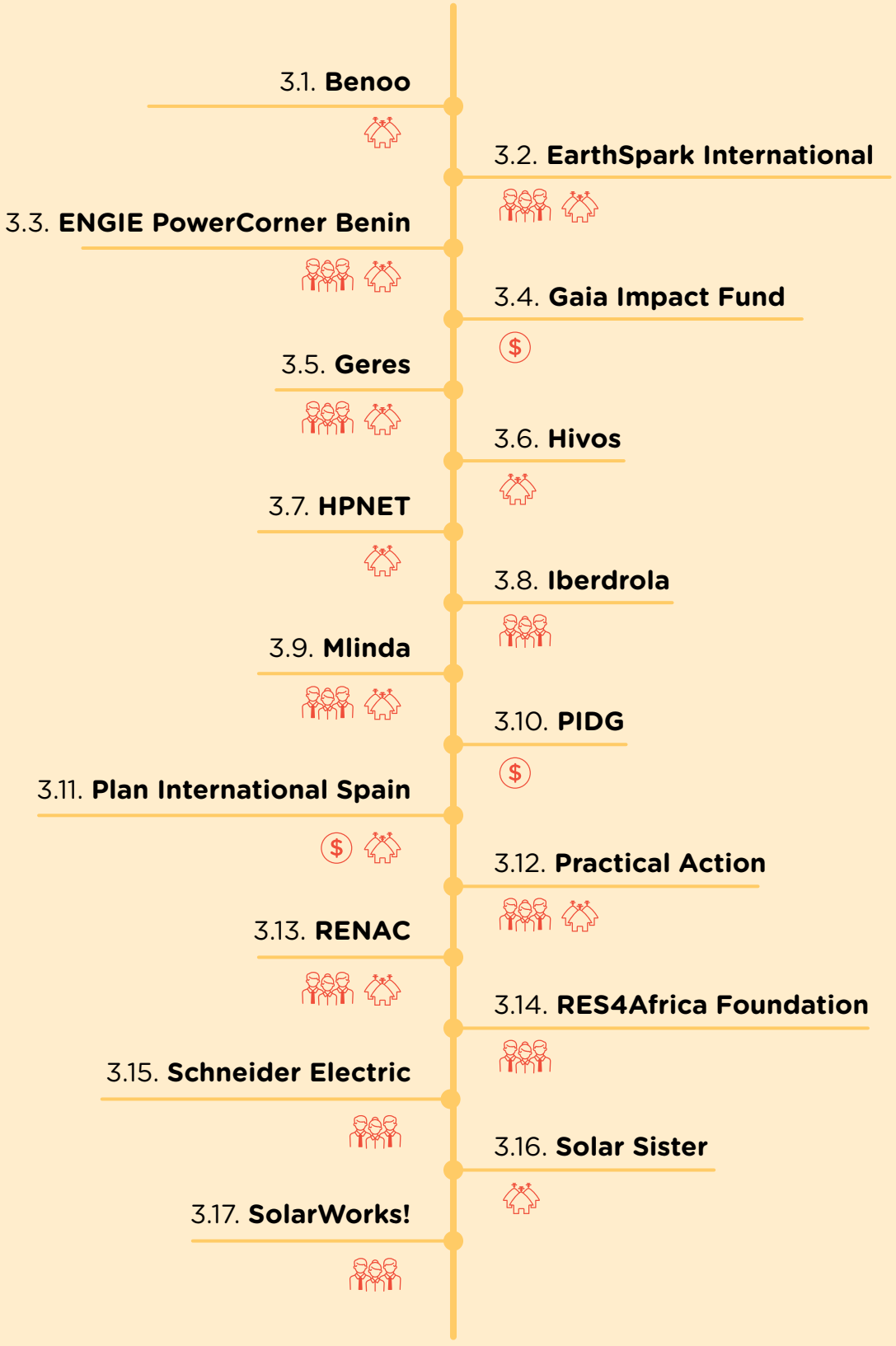
Lack of female representation and gender awareness	**Step 1:** Analyse internal recruitment and promotion processes	CSOs; DRE companies; international funding partners; private investors
	Step 2: Set an internal gender policy with KPIs per department and responsibility level, as well as equal pay and gender-smart benefits	
	Step 3: Undertake research, capacity building and mentorship activities to understand underlying bias in the corporate culture and foster an inclusive culture	
	Step 4: Hire an external expert to review the gender status of the company/organisation	
Investor Level		
Lack of impact data on the benefits of gender lens investing	Create knowledge products based on impact and financial data from the field and best practices	CSOs; DRE companies
	Incentivise the collection of gender-disaggregated data by DRE companies, CSOs and private investors by supporting the development of a standardised impact measurement framework for DRE programmes and projects with a gender focus	International funding partners
	Analyse the impact of investments from a gender perspective	Private investors
Kick-starting gender mainstreaming in investment portfolios	Apply a gender lens to current investments	Private investors
	Allocate a percentage of the investment portfolio to match public funding for female entrepreneurship projects in the DRE sector	
	Provide financial incentives to investees with good gender practices and women empowerment programmes	
	Launch funding calls for women-led businesses and projects	International funding partners
	Support concessional loans and microfinance schemes in partnership with local banks and microfinance institutions for women entrepreneurship and clean energy	
	Set official gender criteria and objectives for beneficiaries	

Figure 1: Summary of recommendations

3

Case Studies

ARE MEMBERS IMPACT IN MAINSTREAMING GENDER THROUGHOUT THE DRE SUPPLY CHAIN:
17 CASE STUDIES AT A GLANCE



Organisational level Community level Investor level

3.1. BENOO: EMPOWERING WOMEN ENTREPRENEURS WITH SOLAR KIOSKS & DIGITAL TOOLS

» **Home base:** Bordeaux, France
» **Focus countries:** Benin, Burkina Faso, Cameroon, Ghana, Senegal and Togo

ABOUT THE COMPANY

Benoo supports African companies and organisations for the development and management of commercial and productive activities in areas that are either poorly or not connected to the electricity grid in Sub-Saharan Africa.

CONTEXT

Since 2017, Benoo has been supporting the development of female entrepreneurship in the energy sector in Togo. Feedback from the field shows that micro-enterprises run by women are more successful, as women are widely represented in the rural workforce. Therefore, their empowerment is essential not only to overall economic growth at the local level, but also the well-being of individuals, families and rural communities as a whole. However, it remains difficult to access pools of women entrepreneurs in rural areas due to two main factors. Firstly, the recruitment of women is obstructed by the prevalence of social norms that hinder women empowerment. Secondly, women are generally less trained than men and are thus more limited by their lower level of education.

@Benoo

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

In order to remove barriers to the development of local female entrepreneurship, Benoo has developed a mobile application to facilitate the management of income-generating activities that require energy.[42] The mobile application offers an integrated tool that allows the entrepreneurs to manage, within a single interface, several actions related to the management of their point of sales such as sales, supply management and mobile payments.

The business model is structured around two elements provided to the entrepreneurs:

- A leased stand-alone solar generation and storage system and a set of efficient equipment (i.e. freezer, printer, TV, etc.) to incentivise productive and commercial uses of energy.
- A digital platform to support the entrepreneurs' sales, logistics and financing needs.

The model is particularly suitable for women entrepreneurs. Women are the main sellers of fresh products in the villages, for which clean and affordable electricity is essential to power their cool chain and keep the products refrigerated.

The model has been tested in three leased solar kiosks so far (1.5 kW each) and the results show that the most successful business was led by a woman. This success story shows how the women-led business has had an impact in a community of around 2,000 inhabitants, as well as in the business itself by performing 30% better than other businesses.

42 Benoo, Rubize Ops, 2020 (online)

Correlations between gross margins generated by the woman entrepreneur and the levelised cost of energy of the solution show that, with smart solutions, well-equipped women entrepreneurs can cover energy and equipment costs (EUR 3.25 gross margin per kWh) and make projects bankable.

@Benoo

This is especially thanks to the combination of accurate energy production and digital tools, most notably: efficient equipment (i.e. freezer, printer, etc.), 24/7 available energy (90% load factor) and digital tools that have tripled the profit of the kiosk owners up to an average monthly turnover of EUR 1,000.

Women do not always have direct access to information from outside the village, which is often controlled by men. The mobile application developed by Benoo is an important lever for the empowerment of women entrepreneurs, as they are able to manage all aspects of their activity from end to end, limiting the use of intermediaries. In addition, digital media offers greater ease of assimilation of content and methods, allowing women to have a faster learning curve than with traditional media. Digitalisation makes it possible to close the educational gap with men.

CONSTRAINTS & RECOMMENDATIONS

Women entrepreneurs have great potential for managing business activities in rural areas. They are present in the village on a regular basis, they master micro-businesses and have better access to the entire village population. Efforts must be maintained to promote women's employability as a priority. Nevertheless, a real question arises in terms of training and support, which requires the mobilisation of significant financial resources.

Benoo recommends that the private sector works hand-in-hand with governments and international funding partners to solve this issue at scale. Projects must include budgets for the revitalisation of rural areas through training and support for women by integrating result-based finance mechanisms to foster connections or solar systems for women.

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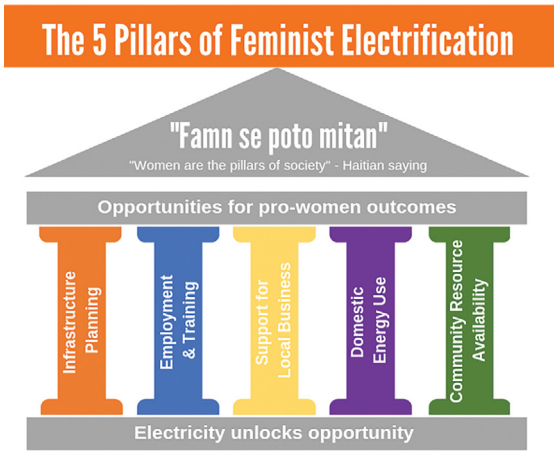
Benoo

3.2. EARTHSPARK INTERNATIONAL: A FEMINIST ELECTRIFICATION APPROACH TO MICROGRID DEVELOPMENT

» **Home base:** Washington D.C., United States
» **Focus countries:** Haiti

ABOUT THE COMPANY

EarthSpark International is a women-led non-profit that builds business models to solve energy poverty. EarthSpark's smart metering spin-off company, SparkMeter, is now in 25 countries. EarthSpark has incubated three enterprises to date: Enèji Pwòp,[43] SparkMeter[44] and Participant Power. The company is currently focused on scaling up microgrids in Haiti and its two battery-backed solar hybrid microgrids currently serve over 4,300 people — which will soon increase through a recently launched expansion project,[45] supported by the Green Climate Fund.



CONTEXT

In Haiti, only five to ten percent of people in rural communities have access to electricity. Access to electricity improves people's lives by creating opportunities for improved health, education, and economic development —yet women are often underrepresented in these opportunities and the decision-making process behind them.

To solve this, EarthSpark's Feminist Electrification approach to microgrid development proactively disrupts gender norms and unlocks opportunities for gender equity by integrating women into the energy access cycle, from planning to operations.[46] The approach focuses on five strategic pillars: Infrastructure Planning, Training and Employment, Small and Medium-sized Enterprises, Domestic Energy Use and Community Resource Availability.

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

Electricity can improve health outcomes and increase usable work and leisure hours for women. EarthSpark is currently piloting electric cooking technologies for 30 households. Furthermore, EarthSpark's 83 streetlights help to deliver community lighting and safety benefits, particularly for women. Power for health facilities is also planned, which can help improve access to medical services like maternal healthcare.

GENDER APPROACH & IMPACT AT THE ORGANISATIONAL LEVEL

EarthSpark involves women throughout infrastructure planning to help ensure that their unique needs and priorities are integrated into microgrid design and operations. Energy Committees —each of them comprised by at least 50% of women— in every community ensure effective local governance, outreach and inclusion of all members of the community. Extensive pre-development surveys and smart-metering data also highlight where outreach and training can be best deployed.

43 Enèji Pwòp, Enèji Pwòp, 2020 (online)
44 SparkMeter, SparkMeter, 2020 (online)
45 Green Climate Fund, SAP013, 2020 (online)
46 EarthSpark International, Feminist Electrification: Gender Planning for Pro-women Outcomes in Rural Electrification, 2018 (online)

EarthSpark also improves the capacity and professional opportunities for women in the workforce, particularly in technical and leadership roles. Both EarthSpark and its Haitian microgrid utility, Enèji Pwòp are led by dynamic women leadership teams with majority-female boards. Enèji Pwòp is also developing specific training programmes for female technicians. Furthermore, EarthSpark's microgrids increase income opportunities through the development of women-led SMEs (at least 56 of them are currently in operation) and expanded access to financing for capital purchases —including a collaboration and microloan agreement with a women's agricultural cooperative to co-develop and invest in electric machinery for crop preservation.

@EarthSpark International

CONSTRAINTS & RECOMMENDATIONS

In order to ensure a truly just and effective transition, energy access cannot consider gender solely as an ancillary benefit but must instead make it a central driving factor in the decision-making processes for development and operations. Microgrid developers and other key stakeholders should apply a gender lens to all aspects of microgrid development, which can effectively open up new opportunities, deepen community engagement, stimulate demand, and broaden local stakeholder governance —all of which enhance the sustainability and impact of energy access microgrids.

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EarthSpark INTERNATIONAL

3.3. ENGIE POWERCORNER BENIN: OFF-GRID CLEAN ENERGY FACILITY PROJECT

» **Home base:** Cotonou, Benin
» **Focus countries:** Benin

ABOUT THE COMPANY

Set in 2016, ENGIE PowerCorner is the smart mini-grid solution provider from ENGIE and part of ENGIE Energy Access, the entity which hosts all energy access activities of ENGIE in Africa. ENGIE PowerCorner produces clean, productive and affordable energy, easily accessible by rural populations in developing markets. ENGIE PowerCorner is operating and has some ongoing construction projects in Tanzania, Zambia, Benin, Uganda and Nigeria. Its subsidiary in Benin was incorporated in 2019.

©ENGIE PowerCorner

CONTEXT

The electrification rate of Benin in 2018 was 29.2%, with a huge disparity between rural areas (6.5%) and cities (53.9%). In rural areas, women are more exposed to health risks as a consequence of their daily usage of highly polluting energy sources, tedious work or lack of electricity in the medical centres. Women also face safety risks in the night and higher poverty rates due to precarious jobs. ENGIE PowerCorner renewable mini-grid activities lower health risks while enabling socio-economic welfare in rural areas through access to 24/7 clean and affordable electricity, lease-to-own appliances and machines, as well as some entrepreneurs support (i.e. business training).

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

ENGIE PowerCorner Benin uses smart renewable mini-grids to power economic development. In total, 2.5 MWp will be installed through the Off-Grid Clean Energy Facility project in 22 villages in Benin before June 2022.[47] The capacities to be installed range from 75 to 140 kWp, depending on the specific needs. It is expected that the 22 mini-grids will provide connections to more than 30,000 beneficiaries.

The mini-grids will enable the development of small industrial platforms used by women to process crops, add a higher value to their products and earn increase their income. ENGIE PowerCorner Benin will develop training programmes for communities, with a focus on women entrepreneurs. Furthermore, the company has committed to electrifying all the health centres in the 22 villages, which will significantly increase maternal health and female sanitary staff conditions. The company will also implement a social electricity tariff that will allow low-income households to access electricity, especially single mothers with children.

Aside from electricity, the company will provide the electrical appliances on a lease-to-own model to support women as they launch their business.

Finally, Engie PowerCorner Benin will measure the impact of these activities through

47 OCEF, Off-Grid Clean Energy Facility, 2020 (online)

periodic customer satisfaction surveys with a gender focus.

©ENGIE PowerCorner

GENDER APPROACH & IMPACT AT THE ORGANISATIONAL LEVEL

ENGIE has for many years practised a conscious policy of promoting gender diversity and professional equality between men and women. At the Group level, ENGIE is developing a gender diversity policy and taking concrete actions to support women in their development. The company has the following goals:

- 50% of women managers by 2030
- A score of 100 of the gender equity index (an index that examines, for comparable positions and ages, the wage gaps between men and women and the measures taken each year to reduce those gaps) at Group level by 2030.
- At the local level in ENGIE PowerCorner Benin, a minimum of 40% of women and men at all levels and positions.

ENGIE PowerCorner Benin has already achieved a 50% ratio of positions held by men and women at the management level. The company expects to reach the same ratio at least amongst operational employees.

CONSTRAINTS & RECOMMENDATIONS

The main barriers to gender equality identified by ENGIE PowerCorner Benin are the difficulty to find skilled women for technical-related positions, as well as the lower access to finance of its female customers. To solve this, the company recommends other private companies to invest in capacity building and technical training for women and implement gender mainstreaming plans with a clear set of targets.

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3.4. GAIA IMPACT FUND: A GENDER-SENSITIVE APPROACH TO INVESTMENT THROUGH THE 2X CHALLENGE LENS

» **Home base:** Paris, France
» **v v** India, South-East Asia and Sub-Saharan Africa

ABOUT THE COMPANY

Gaia Impact Fund (Gaia) is a venture capital firm specialised in renewable energy. Gaia invests and builds long-term partnerships with start-ups and SMEs operating in Sub-Saharan Africa and South-East Asia with a strong environmental and social focus.

CONTEXT

Many studies[48,49,50] prove a strong correlation between gender diversity and improved business outcomes: better customer experience, increased exchanges of ideas and innovation and improved corporate performance. Furthermore, women tend to spend more of their earned incomes on their families to provide better nutrition, health care and education. Investments that improve the lives of women tend to have an expanded effect in their families and communities at large. However, this understanding has not translated into widespread action in the investment world.

@EasySolar

GENDER APPROACH & IMPACT AT THE INVESTOR LEVEL

At Gaia, gender progress is deeply involved throughout its investment lifecycle. Gaia applies a specific gender lens to identify off-grid companies that promote diversity, monitor the gender progress of its current portfolio of investees and analyse its own operational management within Gaia's team. The company also promotes the hiring and empowerment of female talents whenever possible.

Gaia keeps track of the number of women in its portfolio companies at the workforce, senior management and board level through KPIs, according to the 2X Challenge criteria —the 2X Challenge indicators are aligned metrics to measure the gender impacts of investments.[51] These KPIs inform the company's investment process and monitoring of Gaia's investees quarterly, making sure that the investee companies improve the same gender KPIs as they grow. Currently, the average ratio of female employees is 26% against 11% in top management positions.

CONSTRAINTS & RECOMMENDATIONS

Female role models today are still incredibly scarce at the top, which has an impact on the talent pool. Women in junior positions who do not see other women in leadership positions might doubt their own capabilities and fail to put themselves forward for additional responsibilities or to advance their careers. Currently, 33% of Gaia's portfolio companies are co-founded by a woman, yet much more is needed.

48 BCEC, Gender Equity Insights 2020: Delivering the Business Outcomes, 2020
49 Harvard Business Review, Research: When Gender Diversity Makes Firms More Productive, 2019 (online)
50 Harvard Business Review, The Other Diversity Dividend, 2018 (online)
51 2X Challenge, Criteria, 2020 (online)

Secondly, the business case for incorporating gender in investment decisions needs to be strengthened in impact investment markets. In addition, investors tend to be confused about how to integrate gender into their activities. For this reason, a sector-specific framework with gender KPIs and realistic targets, such as the 2X Challenge, would be useful to illustrate investors on how to best incorporate gender in their analysis.

Finally, the lack of quantitative data collection of gender-specific financial and impact KPIs also makes it hard to make the case for gender equality in impact investing markets. Monitoring tools could be designed to encourage investees to collect gender-specific data at both employee and end-user levels. These results would enable investors to measure the impact of investing with as well as in women over time and thus make the case for additional investments.

@EasySolar

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GAIA IMPACT FUND

3.5. GERES: SCALING-UP GREEN WOMEN-LED LOCAL BUSINESSES THROUGH THE ECODEV PROGRAMME

» **Home base:** Aubagne, France
» **Focus countries:** Benin, Burkina Faso, Mali, Morocco, Myanmar and Senegal

ABOUT THE ORGANISATION

Set up in 1976, Groupe Energies Renouvelables, Environnement et Solidarités (Geres) is a non-governmental organisation (NGO) working to improve the living conditions of the poorest and tackle climate change, with energy transition as a major lever in all its actions. Geres promotes the development and dissemination of innovative local solutions and supports climate-energy policies and actions.

CONTEXT

Geres is building its gender strategy to systematise gender considerations in its practices. The organisation aims at promoting women's entrepreneurship by analysing the structural causes of inequalities and identifying women needs to activate the levers that will remove the barriers preventing them from fulfilling their economic potential.

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

The ECODEV programme (2015 to 2021) aims at promoting SDG-7 through clean energy access in rural areas by scaling up green local businesses through battery-backed mini-grids to support the productive use of renewable energy (PURE) (i.e. agroecology and small bakeries), paying particular attention to women's constraints in becoming or evolving as entrepreneurs in three countries: Mali, Myanmar & Morocco.[52]

Economic empowerment and leadership are two key levers in promoting energy and gender transition. To do this, Geres brings women into decision-making processes through awareness and training activities, the provision of productive equipment, as well as documenting and feeding feedback from local women into Geres' activities. Geres also supports the creation of networks that comprise influential female local allies, within the communities where they operate, to highlight the contribution and achievements of economically active women to their communities' well-being. The economic impact is also well acknowledged: from May to October 2020, 17 women entrepreneurs from the network developed in Myanmar had a total turnover of almost EUR 6,000 on energy-related products ((i.e cookstoves, Solar Home Systems (SHS), etc.)). In Mali, the total turnover of five SMEs led by women, connected to two mini-grids, was EUR 7,500 between January and June 2020.

©Geres

GENDER APPROACH & IMPACT AT THE ORGANISATIONAL LEVEL

Geres normalises gender policies in its business model through various stages: gender-specific diagnostics, analysis of the structural causes of inequalities, identifying the specific needs of women and men, implementing its empowerment strategy through a gender action plan and monitoring gender impact through gender-disaggregated data management and dedicated focus group discussions. To en-

52 AFD, ECODEV: Accès à l'Énergie et Développement Économique, 2020 (online)

sure that women are listened to and can take part, Geres' country teams bring in female graduates from local universities as field and technical workers, which sends out a strong signal to the communities that women are performing well in STEM jobs, thus undermining cultural stereotypes.

Started in Myanmar in 2014, the gender approach is now being mainstreamed in all Geres' regions of operation: in the Mediterranean area, Geres has started to address different gender challenges related to energy (i.e. existing gender relations in their territories) and build capacities of its partners to do the same. The objective is to generate a relevant understanding of the gender dynamics behind energy poverty to further adjust the interventions of Geres and its partners, leading to positive dynamics and ultimately increased impact.

©Geres

CONSTRAINTS & RECOMMENDATIONS

There is a lack of dedicated funds to implement a strong and comprehensive gender approach —systematising in-depth gender studies, building team capacities in identifying and tackling those challenges and designing specific activities to decrease observed inequalities.

There is still a lack of evidence-based studies demonstrating the benefits of gender mainstreaming. The promoted approach should actively seek to address and transform gender roles, norms and relations and start with the basics: convincing communities and authorities of the benefits of gender mainstreaming. Showing quantifiable information on the impact of women-led initiatives, inviting successful women entrepreneurs to share their stories with local communities and working with women and men alike to recognise and deconstruct gender stereotypes are powerful actions to do this.

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3.6. HIVOS: SUMBA ICONIC ISLAND INITIATIVE

» **Home base:** The Hague, the Netherlands
» **Focus countries:** Guatemala, Indonesia, Kenya, Malawi, Myanmar, Nepal, Tanzania and Zimbabwe

ABOUT THE ORGANISATION

Hivos seeks new and creative solutions to persisting global problems; solutions created by people taking their lives into their own hands. Hivos offers a positive counterbalancing force against discrimination, inequality, abuse of power and the unsustainable use of the Earth's resources.

©Hivos

CONTEXT

In 2010, Hivos initiated the Sumba Iconic Island Initiative (SIII).[53] Access to energy was, and still is, very limited on the island, but Sumba has many potential sources of renewable energy that could be used to drive the local economy forward. The patriarchal culture however excludes women from reaping the fruits of developments. Women participation in community meetings, economic activities and power to decide on how to spend their household income is low, and women barely hold any leadership position.

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

The main objective of SIII is to provide access to reliable and 100% renewable energy (i.e. solar, hydro, wind and/or bio, battery/diesel backed solutions), as well as to support gender-balanced development. Hivos gives women a prominent role in the SIII programme and has adopted the Gender Action Learning System (GALS) approach,[54] —a community-led empowerment methodology consisting of specific participatory processes and diagram tools— with a significant impact in women empowerment:

- Increased number of women in strategic positions (i.e. in the village forum and Badan Usaha Milik Desa, the village-owned enterprise). 48.7% of women could deliver their aspiration in village meetings.
- More equal division of roles between family members. The GALS capacity development activities for both men and women have encouraged men to be more involved in domestic activities.
- Reduced time spent on pounding and milling (3-4 hours a day). 30% of women stated they now use this time to attend social activities.
- Women are more enrolled in economic activities. 50% of the total 20-80% increase in household incomes can be attributed to women.
- Equal decision making. Women are increasingly aware of their rights and more confident to speak out about important family matters such as household's finance. 59% of women were involved in decision-making on household asset selling.
- Increased asset ownership as men are more willing to share their assets, so women can start or increase their own entrepreneurial activities and save money, which can in turn be provided as a guarantee for loans from local cooperatives to expand women's businesses.

53 Hivos, Iconic journey of an iconic island, 2018 (online)
54 Hivos, Social and Gender Inclusion in Renewable Energy Development: Gender Action Learning for Sustainability (GALS) Module, 2019

Better practical skills and knowledge regarding renewable energy and gender equality for women and men have improved their professional and personal capacities, leading to increased entrepreneurial opportunities, especially for women.

©Hivos

CONSTRAINTS & RECOMMENDATIONS

The main barriers for gender mainstreaming stem from the fact that project developers, financial institutions and governments are not yet aware of gender mainstreaming benefits. Besides, gender mainstreaming takes time and benefits cannot be harvested right away. This leads to hesitation at the investor' level. One way in which a gender strategy can be encouraged is by changing how financial institutions grant loans.

For instance, financial institutions could give incentives to gender inclusion initiatives such as a discounted loan interest rate for the following year repayment period, waived taxes, loan top-up with fewer interests, capacity building opportunities and acknowledgement.

Financial institutions could also use gender KPIs in loans and gender incentives in addition to business or financial numbers, and/or incorporating the 'do no harm' principle in the operations of financial institutions: minimum gender compliance (i.e. remuneration and working hours of women, composition of women workers, ratio of women in high-level positions), percentage of loan disbursement to women, as well as gender-sensitive rewards accompanied by monitoring and evaluation methods).

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Hivos
people unlimited

3.7. HPNET: STUDY OF A WOMEN-CENTRIC MICRO HYDRO PROJECT

» **Home base:** Kuala Lumpur, Malaysia
» **Focus regions:** Asia Pacific, Latin America and Sub-Saharan Africa

ABOUT THE ORGANISATION

The Hydro Empowerment Network (HPNET) is a knowledge exchange and advocacy platform to advance community-scale hydropower for rural electrification and livelihoods. With more than 150 multi-actor members, the network develops solutions for technology, policy, finance, community, and environmental aspects. The network was formed in 2013 with support from the WISIONS of Sustainability initiative at the Wuppertal Institute for Climate, Environment and Energy (WISIONS), which continues to support HPNET's core activity.[55] HPNET co-facilitated the development of this study.

CONTEXT

The Pinthali village (situated 70 km east from Kathmandu) remained severely underdeveloped before 1998. At the time, there was no running water, nor electricity. That year, the Alternative Energy Promotion Centre (AEPC)[56] and the United Nations Development Programme (UNDP) Rural Energy Development Programme (REDP) initiated a community-based Micro Hydro Project (MHP) to electrify the village.[57] Pinthali's 12 kW MHP was commissioned in 1999 and has been running for more than 20 years. It supplies electricity to 150 houses in the early morning and the evening. In the afternoon, it is used to run an oil press, a rice huller and a grain mill. The tailrace water is used to irrigate the fields.

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

The MHP allowed Pinthali to establish its own electric mill and rice huller, thus reducing the physical drudgery of women significantly. The MHP also replaced dirty kerosene lamps with clean lights at home and street. Thanks to this, women could both attend adult classes and prepare for the next day's farming in the evening. Furthermore, water from the tailrace helped to improve irrigation, resulting in increased agriculture income over time.

The MHP incorporated significant gender work in its planning phase. Community mobilisation activities were carried out by UNDP REDP in collaboration with a local NGO, the Resource Management & Rural Empowerment Centre (REMREC), such as demonstrating gender roles via posters/daily logs, awareness campaigns about sexual health, encouraging women to take part and introduce themselves in meetings. Furthermore, women groups were formed to tackle social issues and provide feedback on the MHP. These groups are active till date and serve as saving and credit platforms for women, allowing them to access finance in times of need and gain some financial independence as the household income is typically controlled by men.

©Ranisha Basnet

55 WISIONS, WISIONS of Sustainability, 2020 (online)
56 AEPC, Alternative Energy Production Centre, 2020 (online)
57 UNDP, Energy Access Case Study 10 – Energy to Move Rural Nepal Out of Poverty: The Rural Energy Development Programme Model in Nepal, 2015 (online)

In Pinthali, 20 years ago, women had very limited contact with the people outside their village. They would not speak up or participate in meetings as men were typically the ones to engage in 'external activities.' Thus, the initial gender mainstreaming activities were essential to create an enabling environment to empower local women and bring them into the decision-making process of the MHP.

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CONSTRAINTS & RECOMMENDATIONS

Gender mainstreaming is an ongoing process. Thus, continuous training and sensitisation programmes for both operational/management of the MHP and end-user level are needed. Along with access to finance and PURE, providing positive examples of women technicians/engineers and business owners is needed to build up women's motivation and confidence to engage in DRE provision and economic activities. Women are not a homogenous group and thus gender mainstreaming activities should be customised to target women of different ethnic groups, age groups and social standing.

Gender mainstreaming activities also require male cooperation and involvement. Unless the husband/partner/family is supportive, it is difficult for women to engage in the energy project. Also, if the men of the village are unemployed, focusing only on women-centric end uses can have a negative impact on the social dynamics of the households.

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HPNET
HYDRO EMPOWERMENT NETWORK

3.8. IBERDROLA: A HOLISTIC GENDER APPROACH TO DRE IN LATIN AMERICAN COMMUNITIES

» **Home base:** Bilbao, Spain
» **Focus countries:** Brazil

ABOUT THE COMPANY

With over 170 years of history behind it, Iberdrola is one of the world's biggest electricity utilities and the number one producer of wind power. Iberdrola has been driving the energy transition forward for two decades to combat climate change and provide a clean, reliable and smart business model.

CONTEXT

Iberdrola Group firmly advocates for a social model committed to professional excellence and good quality of life for its employees. Its corporate policy focuses on creating a favourable framework for labour relations based on equal opportunities, non-discrimination and respect for diversity.[58]

GENDER APPROACH & IMPACT AT THE ORGANISATIONAL LEVEL

Effective equality between men and women is part of Iberdrola's core values, as stated in its Equal Opportunity and Reconciliation Policy. To implement this to its full extent, the company has launched different initiatives in all the countries where it has an active presence.

Internally, Iberdrola's Corporate Governance System expresses the company's firm commitment to equal opportunities across four areas of management: recruitment and selection, salary conditions, training and professional development and communication, which are further divided into six areas of action:

- Promoting equality within and beyond Iberdrola, in the societies in which it operates
- Introducing positive measures of action to correct inequalities
- Ensuring that women take part in all consultation and decision-making areas
- Removing obstacles to women's careers
- Strengthening mechanisms to correct the under-representation of women with the necessary qualification
- Fostering work-life balance and flexibility measures around maternity

©Iberdrola

Externally, through its Brazilian subsidiary Neoenergia, Iberdrola Group has advanced the gender balance in the renewable industry with the creation of the School of Electricians for Women (SEW).[59] SEW provides training and education exclusively to women interested in building electrical installations and energy distribution grids, multiplying employment opportunities for women with economic difficulties and building a mutually beneficial relationship for society and the company through the creation and expansion of local talent pools. Since the programme's creation in August 2019, more than 21,000 women have applied for the programme. Each SEW edition consists of four classes of 25 women and 596 hours of courses over seven months. Furthermore, Neoenergia

58 Iberdrola, Acting for Effective Gender Equality, 2018 (online)
59 Iberdrola, Neoenergia Promotes Unprecedented Action in the Sector with School of Electricians for Women, 2020 (online)

employees support women trainees through the company´s volunteer programme. Currently, 100 women from Bahia are expected to graduate in November, and 100 more from Recife will do so in 2021. At the end of the programme, women will be encouraged to apply for a job position at any of the Neoenergia Group companies.

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CONSTRAINTS & RECOMMENDATIONS

No roadblocks were found since the response of all stakeholders to SEW was always positive. However, the novelty of the project created a series of challenges for the company itself when faced with issues such as team management, considering maternity leave and women's needs in the field (i.e. the need to include women's bathrooms). Nevertheless, those issues generate more and more learning for the company.

As women have a clear desire to join the electrification field, companies must find ways to equip female talent with the skills and training required. Training programmes such as SEW provide an opportunity to grow female talent in the DRE sector and attract this diverse pool of talent for energy corporations, where they will continue to be supported and encouraged in their development.

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IBERDROLA

3.9. MLINDA: A PURE BUSINESS MODEL TO CATALYSE WOMEN'S SUSTAINABLE DEVELOPMENT POTENTIAL

» **Home base:** United Kingdom
» **Focus countries:** India

ABOUT THE ORGANISATION

Mlinda is a social enterprise specialising in rural electrification, which accumulates a total of 40 solar mini-grids in 41 villages. Each solar mini-grid ranges from 20 to 30 kW in size. The average size of the villages in which Mlinda operates is around 200 households, where women make up 50% of the population.

CONTEXT

Lack of education, awareness and dependency on men to fulfil basic needs are common challenges faced by women in the communities where Mlinda operates. Those challenges are compounded by social and caste norms as well as poverty. To solve this, one of Mlinda's main objectives is to improve the engagement of women in income-generating activities and enhance the role of women in intra and inter-household decision making to build their confidence and financial independence. The foundation does this by working closely with existing community groups.

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

From 2018 to 2019, Mlinda developed rice hulling businesses powered by renewable electricity in five villages, through existing women community groups, leading to an increase of income for women farmers. To carry out this project, a business cooperative was created and ran by a self-help group of four to five women across the five villages. This collective model helped to build the women's confidence, as it reduced individual project risks by spreading them across several entrepreneurs. Mlinda provided support with market linkage.

A key factor affecting the sale of agricultural produce is the lack of market options. Local weekly markets and middlemen both fetch a low market price. For this reason, Mlinda developed linkages to larger markets for finished products to ensure greater returns. Better market linkage not only ensured a higher selling price for products but also helped plan cropping practices better in terms of inputs to be used. When government subsidies rendered this model unviable,[60] Mlinda worked with the women groups to transform their cooperative business into family enterprises, in which an individual entrepreneur ran one enterprise per village, catering for its entire demand for hulled rice.

©Mlinda

Mlinda has also supported the development of non-farming businesses which have helped diversify women incomes and broaden the participation in business activities, consequently amplifying economic benefits in the communities. As a result, the increased economic activity in the villages after the project led to an increase of 23% in household incomes, 28% in entrepreneur revenue and 7.3% in the overall gross domestic product (GDP) of the communities.

60 Good quality rice was being provided at a highly subsidised rate, thus leading to price distortions in the market

GENDER APPROACH & IMPACT AT THE ORGANISATIONAL LEVEL

The social, environmental and economic objectives of the programme are established as strategic priorities and have been integrated into Mlinda's business model. They guide decision-making at an operational level, for instance by ensuring that women are consulted in the planning phase of the electrification projects, as well as setting up and working with women self-help groups so their voices can be leveraged.

©Mlinda

CONSTRAINTS & RECOMMENDATIONS

The final outcomes of the programme are still under assessment, but investing time in understanding the relationships between the local socio-cultural contexts and gender roles, as well as building relationships and trust is vital to remove barriers or constraints ahead of the socio-cultural changes necessary to achieve gender equality.

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MLINDA

3.10. PIDG: A GENDER AMBITION FRAMEWORK FOR INFRASTRUCTURE INVESTMENT

» **Home base:** London, United Kingdom
» **Focus regions:** Sub-Saharan Africa and South and South-East Asia

ABOUT THE COMPANY

The Private Infrastructure Development Group (PIDG) is an innovative infrastructure development and finance organisation delivering pioneering infrastructure in the poorest and most fragile countries to help economies grow and change people's lives.

CONTEXT

One of PIDG's core values is impact, which PIDG defines as having a strong, positive and tangible effect on people's lives. Improving the living conditions for women and girls is fundamental to this. Particularly in the countries that PIDG operates in, a variety of barriers prevent women from participating in and benefitting from infrastructure equitably. Furthermore, women are also disproportionately affected by gender-based violence and harassment. For this reason, PIDG aims to safeguard women across its operations and are committed to empowering women through its investments.[61]

©PIDG

GENDER APPROACH & IMPACT AT THE INVESTOR LEVEL

The PIDG Gender Ambition Framework spurs efforts to apply a gender lens in their approach and improve outcomes for women through the investments and projects of PIDG companies.[62] PIDG screens all projects against the PIDG Gender Ambition Framework metrics to see how a project can achieve gender impact across five domains: workforce, supply chain, consumer market (products & services), community and governance.

©PIDG

The framework also provides examples of indicators to track and demonstrate impact on women under each domain. For example, under the "consumer market" domain, the product or service provided would be specifically designed and intended to benefit women, or there would be an aim to ensure that end-users are predominantly women (50% or more). Experiences of women and girls as customers or end-users may be tracked by the marketing and sales team through user feedback or phone surveys, or supplemental assessments or market research. KPIs related to consultation of women from the project market during the design phase may be tracked by the research and development department or project developer.

61 PIDG, PIDG Gender Equity Action Plan 2020, 2020 (online)
62 PIDG, PIDG Gender Ambition Framework 2020, 2020 (online)

CONSTRAINTS & RECOMMENDATIONS

Firstly, improving the awareness and understanding of the business rationale for gender lens investing amongst the investment teams is crucial, however this is hindered by the unavailability of easily digestible data and track record on gender lens investing. To solve this, PIDG has started collecting case studies from their experience and literature to underpin recommendations on how to adopt a gender-sensitive approach to the development of investments with the potential to empower women.

Secondly, improving the awareness and building the capacity of private sector sponsors in emerging markets to understand and mainstream gender is essential to incorporate gender-sensitive measures in the development of the investment projects. The availability of gender experts within the private sector infrastructure space that can work with PIDG clients on context-specific solutions in the markets where the company operates is a tangible constraint.

Ensuring women's participation in project and community consultation is a proven cost-effective and simple way of empowering women, as well as enhancing project results. For example, studies on water projects show that involving women in community initiatives increases programme effectiveness.[63] The creation of inclusive and safe spaces for women to voice their concerns, make decisions and develop invaluable communication and leadership skills provides the opportunity to question gender power structures and advance gender equality.

In conclusion, gender-mainstreaming is key, but a gender lens needs to be actively enforced at the investment/project identification as well as the development and implementation stage, otherwise projects become gender-blind. Gender-sensitive policies are necessary, ranging from safeguarding gender standards to implementing a grievance mechanism (a complaint procedure to be followed by workers, communities and/or organisations in case they are affected by gender-based discrimination and/or violence) to correct gender blind recruitment and remuneration processes.

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pioneering
infrastructure
changing lives

63 UNICEF, Gender-Responsive Water, Sanitation and Hygiene: Key Elements for Effective WASH Programming, 2017

3.11. PLAN INTERNATIONAL SPAIN: POWERING WOMEN-LED SOCIO-ECONOMIC DEVELOPMENT WITH DRE SOLUTIONS

» **Home base:** Madrid, Spain
» **Focus countries:** Mali, Niger and Senegal

ABOUT THE ORGANISATION

The "Fundacion Plan International Spain" is an international development and humanitarian organisation which strives for a just world advancing children's rights and equality for women and girls. Plan International empowers women, young people, communities and governments to make vital changes that tackle root causes of discrimination, poverty, exclusion and vulnerability.

CONTEXT

Since 2018, Plan International has been working in Mali, Niger and Senegal through the project "Développement Economique et Social des Femmes à travers les Energies Renouvelables au Sahel" (DESFERS).[64] The project is funded by the European Union[65] and the OPEC Fund for International Development,[66] and it is implemented through a consortium made up by Plan International, CARE International[67] and ACRA.[68] DESFERS aims at promoting the socio-economic empowerment of women through the application of renewable energies to rural income-generating activities.

©ACRA

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

With the installation of 40 multi-functional solar platforms (5 kWp each), 24 solar mini-grid extensions and 12 solar microgrids (15 kWp each), the project sets a reliable source of energy for PURE and facilitates access to finance for women to buy solar productive equipment, powered by the clean electricity generated (i.e. cookstoves, ovens, pumps, fridges, driers, presses, mills, etc.). DESFERS addresses gender inequality by:

- Providing access to modern energy, as a key enabler for women's socio-economic empowerment. Access to electricity makes a significant difference in women's health and well-being and frees up time for developing income-generating opportunities and education.
- Job creation by offering technical and business management training and facilitating entrepreneurship opportunities within the DRE value chain.
- Changing cultural and traditional roles of women by training them as energy service agents. The energy service agents support women entrepreneurs at the village level and act as a bridge between distributors of DRE equipment/electricity operators and the income-generating activities led by women.
- Providing access to finance to introduce renewable energies into economic activities.

By May 2023, DESFERS expects to support 4,650 income generation activities led by women entrepreneurs that are being trained and accompanied throughout the

64 Plan International, Autonomía Energética y Económica (DESFERS), 2020 (online)
65 EU, European Union, 2020 (online)
66 OFID, OPEC Fund for International Development, 2020 (online)
67 CARE, Care International, 2020 (online)
68 ACRA, Fondazione ACRA, 2020 (online)

project, train 600 energy service agents about basic preventive maintenance of solar infrastructure and leverage the productivity of and business opportunities for 21,000 women.

©ACRA

Gender is being mainstreamed from the very initial stages of the project in proposal development and by analysing the social-cultural norms that hinder access to energy solutions to rural women entrepreneurs. For instance, Plan International organises community consultations that include local authorities, religious leaders, husbands, etc. to ensure women's participation in the project. Furthermore, DESFERS proposes a business model based on the creation of regional platforms of small 'saving groups' composed by selected women that are then trained as "energy service agents" for local distributors and local operators.

GENDER APPROACH & IMPACT AT THE INVESTOR LEVEL

DESFERS has negotiated special interest rate conditions with the International Monetary Fund for renewable energy entrepreneurs to access finance, by providing the bank with a guarantee fund of EUR 2,272,349. This model allows women entrepreneurs to access microcredit to buy their productive equipment, of which 5% of its cost is provided in advance and the remaining 95% is covered by the microcredit. The guarantee fund protects the microfinance institutions against up to 50% of defaults.

CONSTRAINTS & RECOMMENDATIONS

The main barriers for rural women to engage in productive activities are low literacy rates and lack of business skills, together with restrictive gender roles and labours that prevent women from joining capacity building activities. Furthermore, the organisation perceives some resistance of men, communities and religious leaders that can hinder access to public spaces and economic activities for women.

To mitigate this, Plan International recommends other organisations and DRE companies to strengthen the technical and business capacities of women and guarantee their presence at all levels of the supply chain so that more women in medium and high management, training and leadership positions can inspire others to join educational and capacity building programmes. Local authorities should also support women in their income-generating activities through streamlined processes for business registration as well as guidance and business training.

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3.12. PRACTICAL ACTION: EMPOWERING WOMEN FARMERS THROUGH RENEWABLE ENERGY

» **Home base:** Rugby, United Kingdom
» **Focus countries:** Bangladesh, Bolivia, Kenya, Nepal, Peru, Rwanda, Senegal, Sudan and Zimbabwe

ABOUT THE ORGANISATION

Practical Action is an innovative international development organisation putting ingenious ideas to work so people in poverty can change their world. It works with communities to harness the transformational power of clean, affordable energy.

CONTEXT

The Renewable Energy Empowering Women Farmers (REEWF) project, funded by the Isle of Man Government to run from August 2018 to January 2021, is being implemented in the Gwanda and Matobo districts in Southern Zimbabwe,[69] where almost half of the population depends on agriculture for livelihoods. The frequency of droughts makes rain-fed cropping a challenge and irrigation is hampered by the lack of energy access, with a minimal chance of connection to the grid within the next 15 years. Where there is water, women farmers use a bucket system to carry water from riverbeds to their garden fields, resulting in a high level of drudgery.

©Practical Action

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

REEWF uses stand-alone solar-powered irrigation systems to benefit 360 households, 70% of which are female-headed. The project enhances skills to increase productivity through the promotion of agroecology, access to finance, relationship-building with market players, coupled with technical components. The planning phase of the project involved a wide range of consultations and a baseline study assessing gender disparities. Training is carried out using the GALS methodology, which engages women and men to negotiate their needs and develop gender-equitable solutions at the household, community and organisational level.

As a consequence, the community has experienced a significant reduction of drudgery —742 women farmers now irrigate using water-efficient and less labour-intensive methods— and crop productivity has doubled, contributing to improved food and nutrition security at household level as well as incomes —from USD 20 to USD 80 per household per month on average.

GENDER APPROACH & IMPACT AT THE ORGANISATIONAL LEVEL

Practical Action actively ensures that gender is integrated into all aspects of its work, including programmes, knowledge sharing, advocacy and external communications, as well as through its own organisational development. To do this, the organisation has set minimum standards and monitoring mechanisms on gender as part of its new gender policy, which guide the staff and partners on how to ensure that the needs of the poor and marginalised women are identified and addressed

69 Practical Action, Zimbabwe, 2020 (online)

through gender-sensitive approaches. The ambition is to be gender transformative, thus addressing structural barriers to gender equality (i.e. promoting inclusive leadership and decision-making at household and community levels and supporting gender-responsive energy policies and plans).

©Practical Action

CONSTRAINTS & RECOMMENDATIONS

Internally, barriers and constraints include lack of staff capacity and skills on gender, as well as insufficient funding for gender-themed interventions. Externally, at the community level, negative socio-cultural beliefs, norms and practices can sometimes result in less effective engagement with men.

Gender mainstreaming in planning and implementation is needed to ensure that gender issues are prioritised and the barriers to engage women are addressed. Effective strategies include training, mentoring, peer learning and building and strengthening market development support for women energy entrepreneurs. Moreover, women often struggle to get access to finance due to social or economic constraints (i.e. not able to meet strict credit requirements due to lack of collateral). Governments, donors and the private sector need to provide financial management capacity building and financing models dedicated to supporting women who sell sustainable energy products or employ them for productive uses.

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Practical
ACTION

3.13. RENAC: EMPOWERING WOMEN AS MANAGERS IN THE RENEWABLE ENERGY SECTOR PROGRAMME

» **Home base:** Berlin, Germany
» **Focus countries:** Chile, China, Indonesia, Malaysia, Mexico, Papua New Guinea, Peru, Philippines, Russia, Thailand and Vietnam

ABOUT THE ORGANISATION

The Renewables Academy AG (RENAC) is one of the world's leading training institutions for capacity building in the field of renewable energy and energy efficiency. Since its foundation in 2008, more than 19,000 participants from over 160 countries have taken part in its training programmes.

CONTEXT

While the share of women working in the renewable energy sector is higher than in the global oil and gas industry (32% in comparison to 22%), gender equality is far from being the norm. Women all over the world still face challenges in entering and advancing their careers due to unequal access to education, training opportunities and funding, as well as open discrimination or implicit gender bias in technical professions.

©RENAC

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

The aim of the Empowering Women as Managers in the Renewable Energy Sec tor programme[70] (from March 2018 to May 2019) was to give women the chance to increase their knowledge, not only of renewable energy technologies but also regarding markets, business development and sector-specific policies. The first phase was a three-month virtual training, at the end of which participants took an online exam. Trainees who passed the exam moved to the second phase, comprising the development of their business plan ideas through professional feedback and engagement with experienced mentors. The selected women with promising business plan ideas then progressed to the third phase, which was an intense one-week, in-person workshop and pitching sessions. An alumni network was created and opened to all participants at the end to facilitate continued peer-to-peer engagement and mentoring after the programme's completion.

As a result, 50 women advanced their knowledge of renewable energy development. Out of them, 25 progressed further into the programme and 14 were able to develop sound, comprehensive and convincing business plans to be pitched to investors and developers. Those projects included solar, wind, hydro and bioenergy technologies in urban and rural settings. One and a half years after the completion of the project, eight alumni have developed new renewable energy projects in their respective countries.

GENDER APPROACH & IMPACT AT THE ORGANISATIONAL LEVEL

There are no active gender preferences at RENAC when it comes to hiring, promotion or division. RENAC is made up 58% of female employees at all levels and in all areas of the company.

70 RENAC, Empowering Women as Managers in the Renewable Energy Sector: APEC Project, 2018

©RENAC

CONSTRAINTS & RECOMMENDATIONS

RENAC cooperates with various organisations in the field of renewable energy in many countries. The role of women varies everywhere. Thus, the restrictions on access to this important economic sector are very different. For this reason, RENAC also ensures equal treatment and equal opportunities in all areas of work. Furthermore, RENAC invites renewable energy companies and organisations to support customised mentoring programmes, which are a successful approach to strengthen alumni and enable them to focus on the implementation of their project and/or business ideas.

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renac
renewables academy

3.14. RES4AFRICA FOUNDATION: A CONTRIBUTION TO GENDER EQUALITY & WOMEN EMPOWERMENT IN DRE THROUGH THE MICRO-GRID ACADEMY INITIATIVE

» **Home base:** Rome, Italy
» **Focus countries:** Algeria, East Africa, Egypt, Ethiopia, Jordan, Kenya, Morocco, Zambia, South Africa and Tunisia

ABOUT THE ORGANISATION

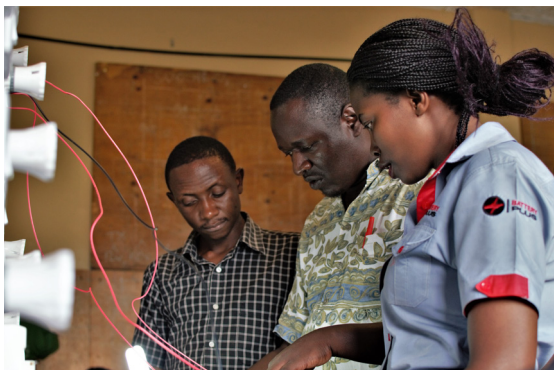
Renewable Energy Solutions for Africa (RES4Africa) Foundation promotes the deployment of large scale and decentralised renewable energy in African markets to meet local energy needs for growth. RES4Africa Foundation gathers a member network of public and private stakeholders throughout the clean energy value chain and supports the creation of an enabling environment for renewable energy investments and strategic partnerships in that regard.

CONTEXT

While women make up 48% of the global labour force, they only account for 22% in the oil and gas sector and 32% in renewables, especially in technical and leadership roles. The gender gap in the renewable energy sector can be explained by unequal access to STEM education, limited access of women to technical skills and training opportunities, lack of female leadership models and unfair company policies.

GENDER APPROACH & IMPACT AT THE ORGANISATIONAL LEVEL

Launched in January 2018, the Micro-Grid Academy (MGA) is a vocational and technical capacity building project based in Nairobi (Kenya) and led by RES4Africa Foundation.[71] MGA aims to create a skilled workforce to deploy DRE solutions within and beyond East Africa, enhancing access to energy in rural and peri-urban communities while strengthening local enterprises and job creation. The goal is to train up to 200 people per year ranging from community technicians to project managers, developers, engineers and academic students. In addition to guaranteeing access to energy for African women, it is crucial to strengthen their skills, knowledge and leadership, so they can have a real opportunity to become future leaders in the renewable energy sector. To do this, RES4Africa Foundation collaborates with African organisations such as the African Women Energy Entrepreneurs Framework (AWEEF)[72] and the Ethiopian Women in Energy Association (EWiEn).[73]



©RES4Africa Foundation

To date, 38% of a total of 500 MGA former and current students are women. RES4Africa Foundation wants to raise this positive figure and is planning to create an "Academy's best talents" competition with a particular focus on women participation, besides reinforcing the organisation's relationship with African, women-led organisations. In terms of strategy, the MGA would ensure women and men are equally represented in all project activities. To do this, RES4Africa Foundation maintains close relations with women-led organisations to encourage female participation in the activities and trainings and defines a clear selection of criteria to ensure gender

71 RES4Africa Foundation, Micro-Grid Academy, 2020 (online)
72 AWEEF, Africa Women Energy Entrepreneurship Framework, 2017 (online)
73 EWiEn, Ethiopian Women in Energy, 2020 (online)

balance, identifying success stories to encourage new models. The Foundation uses KPIs related to capacity building such as:

- Number/percentage of women and female applicants per training opportunity
- Number/percentage of women and men who take part in the MGA trainings
- Trend of the MGA gender participation percentage
- Number of training sessions with female trainers
- Number of female participants who advance their career after they participate in the MGA training.

©RES4Africa Foundation

Finally, more than 50% of RES4Africa Foundation staff is comprised of women, who are present at all levels including top management positions, from stakeholders' engagement to project management. The different teams can count on both female and male staff, guaranteeing gender diversity in every project.

CONSTRAINTS & RECOMMENDATIONS

AWEEF has observed that, despite the efforts of women in Africa, they appear to be undervalued and lagging behind in terms of personal and professional growth, especially in male-dominated sectors. In this context, policies, initiatives, events and any activities aimed at raising awareness on gender equality and the importance of education are fundamental (i.e. encouraging sponsorships, scholarships and mentoring). Companies could also network with female associations to provide real jobs for women, such as in the cooperation between RES4Africa Foundation & EWiEn.

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3.15. SCHNEIDER ELECTRIC: AN INTERNAL DIVERSITY & INCLUSION JOURNEY

» **Home base:** Rueil Malmaison, France
» **Focus region:** Global

ABOUT THE COMPANY

Schneider Electric provides energy and automation digital solutions for efficiency and sustainability. Schneider Electric believes that access to energy and digital solutions is a basic human right. The company empowers people to make the most of their energy and resources, ensuring Life Is On everywhere, for everyone, at every moment.

CONTEXT

Despite prominent evidence on the business case for women's participation in the energy sector, it remains a male-dominated sector with women representing one-third of the workforce worldwide. Out of this fraction, women are even more scarce in technical, better-paid jobs.

GENDER APPROACH & IMPACT AT THE ORGANISATIONAL LEVEL

Schneider Electric's diversity & inclusion strategy places a strong emphasis on gender diversity, based on the strong conviction that building a gender-balanced and inclusive company is both the right thing to do and critical to diversity of thought, to unleash innovation and to deliver the best sustainable energy solutions to customers.

One of the key actions in Schneider's diversity & inclusion journey is "equal pay for equal work". Since 2015, as part of its HeForShe commitments, Schneider Electric has developed and implemented a Pay Equity Framework. This is a common global methodology to identify gender pay gaps within comparable groups of employees and lead a country-driven approach to address gaps with appropriate corrective actions. As of the end of 2019, the Framework has been implemented in all countries, covering 99% of Schneider's total workforce.

©Schneider Electric

Furthermore, Schneider Electric has developed a comprehensive educational approach to build inclusive teams and leaders at every level: inclusion and hidden bias coaching session for senior management teams, skills series on inclusive leadership coaching and e-learning for all managers, as well as an e-workout for all employees on overcoming hidden biases.

To help implement its diversity & inclusion vision, Schneider Electric has set up the Diversity & Inclusion Board sponsored by the Executive Committee. The Board convenes monthly to share best practices and is accountable for the Group's diversity & inclusion through Schneider Sustainability Impact,[74] the Group's transformation plan and steering tool for sustainability. Schneider Sustainability Impact is also factored into every employee's short-term incentive plans: all Schneider Electric entities develop diversity & inclusion action plans while meeting local regulations and addressing country-specific situations. Those plans are managed by diversity & inclusion leaders that have been appointed in more than 30 countries/zones.

74 Schneider Electric, Schneider Sustainability Impact, 2020 (online)

Externally, Schneider Electric set foot in the hinterlands of the State of Bahia, Brazil, in 2016 and delivered its first Access to Energy project with a gender lens, which ended in early June of the same year. The project involved a local technical training with a strong gender element (i.e. women participation rate and gender equality messages) of 35 students on basic electricity and, along with Schneider Inside Sales team, the company designed a new and specific business model to support the students become small DRE entrepreneurs in advancing sustainable development in their communities. The gender impacts of the project were monitored through gender-sensitive KPIs.

In Ivory Coast, Schneider Electric has joined forces with the International Rescue Committee[75] and the Mastercard Foundation[76] to train 1,250 young people (60% women) in solar energy and domestic electricity trade and to support 750 of them to become entrepreneurs. In practice, a classroom will be opened in four technical training centres: two in Abidjan, one in Grand Bassam and one in Korhogo.

Recently, the company has set a new project training project in Ivory Coast, in partnership with the International Rescue Committee and Mastercard Foundation. The objective is to train 1,200 young people in solar energy and domestic electricity trade, out of which 60% will be women.

©Schneider Electric

CONSTRAINTS & RECOMMENDATIONS

A key recommendation for other companies in the DRE sector is to develop educational DRE programmes with a gender element in local communities and set gender-specific KPIs to monitor their impact and inform future programmes focused on gender equality in energy access. These approaches need to be encouraged and/or backed by the top management, thus companies must invest resources in generating gender awareness amongst their employees in middle and high management positions.

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Schneider Electric

75 IRC, International Rescue Committee, 2020 (online)
76 Mastercard Foundation, Mastercard Foundation, 2020 (online)

3.16. SOLAR SISTER: SUPPORTING INTERNALLY DISPLACED WOMEN THROUGH THE CREATION OF SOLAR SISTER BUSINESSES IN HUMANITARIAN SETTINGS

» **Home base:** Nigeria
» **Focus countries:** Nigeria and Tanzania

ABOUT THE COMPANY

Solar Sister is a social enterprise set to eradicate energy poverty by empowering women with economic opportunity. Solar Sister provides women with economic opportunities, training and support to distribute clean energy to underserved communities in Africa.

CONTEXT

The North-East region of Nigeria lags behind the rest of the country in terms of access to quality education, energy, health care and other basic amenities and GDP per capita.

The main barriers that impede gender equality are vulnerability and cultural practices. Additionally, women are vulnerable to extreme poverty because they face greater burdens of unpaid work, have fewer assets and productive resources than men, are exposed to gender-based violence and are more likely to be forced into early marriage. In the North of Nigeria, strong religious and cultural practices do not allow women to be outside, be it for social or business reasons, unless they are permitted by their husbands. Furthermore, women are not permitted to talk freely to other men than their husbands.

Solar Sister launched a Humanitarian Project[77] (from November 2018 to December 2019) to provide a means of livelihood, through DRE, for resettled female internally displaced persons who have fled their states for safety and a means of livelihood due to the Boko Haram crisis and other conflicts.

GENDER APPROACH & IMPACT AT THE COMMUNITY LEVEL

Solar Sister's mission is to empower and raise over 10,000 women in off-grid communities as ambassadors and entrepreneurs in clean and renewable energy business across Africa.

Solar Sister is committed to advancing women's equal participation as decision-makers in shaping the sustainable development of societies. Through tailored training, market access, peer support, Solar Sister supports women's economic empowerment, reduces gender inequalities and improve women's decision-making power.

©Solar Sister

77 Solar Sister, The Women's Entrepreneurship Project: Empowering Formerly Internationally Displaced Women through Clean Energy Enterprise, 2020

Through its Humanitarian Project, the company set up Solar Sister businesses for 200 women in the North-Eastern part of Nigeria. These women were trained on how to start a clean energy business to improve household income and positively impact their communities. Each woman was initially seeded with a Solar Sister business kit (bag pack, sight seller and other marketing materials) and trained monthly on how to sell and market their products, save and reinvent their capital, the features of each solar product (pico light, SHS, phone charging lamps and clean cookstoves), as well as record keeping.

The beneficiaries of the project became self-sufficient and together sold a total of 5,446 clean energy products, through Bauchi Solar Sister. Furthermore, Solar Sister provided market awareness support through product fairs and creating awareness on the importance of clean and renewable energy in their communities.

The project also increased decision-making capacity amongst women entrepreneurs and empowered the women to play a more active role in their communities. This was achieved through continuous training, coaching and capacity building efforts in partnership with the entrepreneurs.

Moreover, the project allowed women entrepreneurs to increase their income, adopt business skills, diversify their revenue sources and sustain or grow their income over time. For example, 90 of the 200 entrepreneurs that participated in the Humanitarian Project were reported to earn NGN 30,000 (around EUR 67) on average per month, from May to December 2019. Lastly, women's agency was also improved: women entrepreneurs gained increasing decision-making power and level of confidence, took up more leadership roles and fulfilled more of their aspirations.

©Solar Sister

CONSTRAINTS & RECOMMENDATIONS

Solar Sister advises national governments to apply a gender lens to and support sustainable economic empowerment programmes, especially those related to diversity and rural development, with the overarching goal of empowering women and strengthening community resilience through sustainable livelihoods. Governments should also involve the private sector in these programmes and encourage DRE private stakeholders to ensure gender and social inclusion along their value chain.

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3.17. SOLARWORKS!: PUTTING GENDER OBJECTIVES INTO PRACTICE

» **Home base:** The Netherlands
» **Focus countries:** Mozambique and Malawi

ABOUT THE COMPANY

SolarWorks! is the biggest pay-as-you-go off-grid service energy provider in Mozambique and the second largest in Malawi. SolarWorks! serves close to 50,000 customers and has around 300 employees, as well as 350 independent agents on the ground.

CONTEXT

In the countries where SolarWorks! operates, the educational and professional chances for women and men are often not the same. To change that, SolarWorks! wants to mainstream gender equality in their operations from beginning to end, with initiatives showing that gender equality is important for both the company and the society around it.

©SolarWorks!

GENDER APPROACH & IMPACT AT THE ORGANISATIONAL LEVEL

Firstly, SolarWorks! wants to achieve a more gender-balanced representation of employees within the company.[78] To do this, SolarWorks! is in the process of setting a 50% minimum goal of women employees in the company, with a minimum threshold of 30% women/men at each department.

Secondly, SolarWorks! aims at removing the socio-cultural norms and beliefs that undermine women's confidence and motivation to apply for new positions at the company, through the following actions:

- Explicitly inviting women to apply in the job descriptions
- Organising regular "Power Women" presentations within the company to showcase success stories of women
- Sharing the same success stories through presentations at universities, government and private sector events to effectively communicate on the benefits of hiring women and invite female students to attend SolarWorks! 'introductory' reunions —"SolarWorks! Breakfasts"
- Include flexible childcare and maternity options for female employees

Thirdly, SolarWorks! only has one female-led distribution partner and envisions to significantly increase this number by setting up a national 'mega distribution partner' representing a national network of women entrepreneurs willing to become SolarWorks! agents. The objective is to have at least one female run distribution partner per province, which will be expected to grow progressively.

Finally, SolarWorks! is aware that, if their gender policies are to be taken seriously, the company needs to build stronger evidence of gender equality at its top management positions, for which SolarWorks! has set minimum percentages that need to be reached at country and international board level (from 25% to 45% approximately, depending on the total number of board members).

The company started implementing its gender-related ideas recently, yet it has

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already seen good results. For instance, all new recruits in its technical department are women. In two months, the percentage of female workers in the company has gone up from 42% to 45%. Furthermore, SolarWorks! recruiters get a very clear message: at least 30% of the candidates they bring need to be women. This has already led to a more inclusive environment and motivated team (both women and men) and increased performance, explained by the ability of women employees to better understand the needs of the company's customers and therefore have a larger impact.

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CONSTRAINTS & RECOMMENDATIONS

Even though women often outperform their male counterparts and are more loyal to the company, a major barrier is the cultural belief amongst them that they will never get hired for a technical position. To solve this issue, it is important for private companies to remove any gendered barriers in the application process, as described above (i.e. actively inviting more women to apply and communicating about the job opportunities through new channels).

Similarly, sharing success stories is key to advance gender equality within the DRE sector as it eliminates the belief that women will never be able to get the position. These stories should not only be about women, but also about companies that have managed to attract and retain a good mix of employees.

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