



Green Financing Scheme for Supporting Women in Energy Transition

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Abstract

This paper examines transitioning from a traditional capital system to a more modern and sustainable financing system. Green financing or green microfinance is one of the efforts to provide opportunities for micro-scale businesses initiated by women to start businesses in the energy sector. Green financing is considered part of financial inclusion, providing business financing schemes oriented towards ecological conservation values. This research considers the context of opportunities and potential obstacles women face in accessing green financing. A literature study was conducted to describe microfinance schemes by drawing closer to efforts to mainstream gender and efforts to transition to a more sustainable financial system. At least several stages need to be passed to transition the financial system toward a more gender-friendly and sustainable direction. First, it is important to socialize the awareness-raising program on green entrepreneurship for women more massively. Second, steps to develop the capacity of women entrepreneurs should be accompanied by preparing business proposals to apply for bank financing, which is part of financial literacy education. Business mentorship programs from the government for women who have micro-scale businesses are also needed. Such technical assistance interventions will be the beginning of preparation for micro-enterprises to start consistently opening a sustainable business. This paper finds that the green financing strategy will ultimately help transition business models that seek to integrate efforts to save the ecology with business schemes, including developing a gender-friendly sustainable business ecosystem.

Keywords *Green Financing, Microfinance, Sustainable Financing, Women Entrepreneurs*

INTRODUCTION

Mainstreaming gender in the energy transition sector requires government involvement in providing financing schemes that make it easier for women to start businesses. The energy transition is urgent, considering that women are the most vulnerable group to experience the effects of climate change, in contrast to what is experienced by men. So, empowerment programs related to women's resilience in overcoming climate change through the energy transition are necessary. Extreme weather, drought, and natural disasters will eventually affect the role of both men and women in social life. The extreme impact of climate change will force people to migrate to other areas, start adapting to the new environment, and look for new jobs. At least for men, it is not difficult to run. In contrast to women who have to bear a double burden while caring for their children and the household, they also have to think about strategies to get out of the snares of the adverse effects of climate change.

The dimension of gender inequality in Southern countries is still relatively high. East Asia and the Pacific are at 68.8% parity, marking the fifth-highest score out of the eight regions (WEF, 2023). In the context of development, women are behind compared to men, especially in several aspects, such as health, education, and opportunities to get decent jobs. The gap in access to energy is also a concern in the Southern states. The importance of expanding access to new and renewable energy for women can be one way to reduce the gender gap. In the social, economic, and political dimensions, women can be fully involved in the development agenda by participating in the energy transition.

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Developing this new renewable energy will provide benefits and good impacts for women even though the energy scarcity that often occurs will make it difficult for women to carry out social life, especially household tasks. Some areas still have frequent energy supply shortages, making it difficult for women to increase household productivity. Women and girls are the worst impacted by energy poverty. Their lack of access to energy to enable healthcare, education, food security, public safety, and economic opportunity affects their ability to live modern, dignified lives (Cecelski, 2023). In domestic life, women have to bear many jobs, such as taking care of children; women are also involved in food storage and transportation.

Women are also involved in income-generating activities outside the formal economy, often called “cottage industries”. These can also be categorized as microenterprises or small- and medium-sized enterprises (SMEs) (Rewald, 2017). In several countries, in the informal sector, more work is done by women than men. The reason is entirely rational, namely because women tend to choose to do work close to home or at least that can be done from their respective homes. Businesses run on an average small scale with little capital. Indeed, this work will be able to help the family’s economy but tends to generate very little profit and tends to be concentrated in the labour-intensive sector. Aside from the fact that work tends to be monotonous and boring, small-scale work will affect women’s ability to scale up their capacity. Based on the above conditions, discussing ways to increase women’s role in social life is important, especially in the energy transition. Access to modern energy and innovation must be supported by promising access to capital. Increasing access to energy will directly impact and provide positive benefits, especially in activities that can increase women’s income.

LITERATURE REVIEW

It is interesting to consider that studies on the relationship between women’s empowerment and economics have already been widely explored. Fundamentally, the debate of gender and empowerment through soft loans tries to uncover the glass ceiling phenomenon caused by gender imbalances that place women at a disadvantage in economic terms compared to men. Numerous aspects are increasingly putting women at a disadvantage, such as the economic crisis and environmental difficulties, which are putting women at a disadvantage. One of the more fascinating studies on this topic has already been explored by (Sutiyo et al., 2020), which tries to analyze how women and soft loans might be interconnected and positively impact empowering women in Indonesia. The study demonstrates the impact of savings and loans, sometimes soft loans, on rural women’s empowerment. Furthermore, this study discusses the government’s involvement in promoting women’s empowerment through the availability of soft loans.

The second article comes from Rahadiantino and Rini (2021), which describes how women’s access and awareness affect financial inclusion in Indonesian society. This publication explains how the financial system is crucial in empowering communities and eradicating gender inequities. The study by Rahadiantino and Rini (2021) implicitly concludes that women’s active participation in utilizing technology can favour achieving financial inclusion for women’s empowerment. Although the author’s study will have the same scope as several other studies, the authors will provide a fresh perspective to exhibit research novelty. To create a study that is different from others, the authors will do research on women’s empowerment through green finance in order to promote a solution to the climate issue through women’s empowerment.

The authors will analyze the study of the role of women’s empowerment through green finance by focusing on two fundamental themes, especially green finance and women’s empowerment. According to UN Women, women’s empowerment is a condition that allows women to achieve independence through their efforts or interventions, with the ultimate goal of eliminating gender inequities between men and women (UN Women, 2020). Meanwhile, green

finance can be defined as a financial practice centred on long-term development and environmental conservation (GEF, 2022). The authors will analyze how green finance might help unleash the potential of women to participate more in empowering women and minimizing some of the hazards of climate catastrophe, which can exacerbate gender inequities between men and women, using these two concepts.

RESEARCH METHOD

The authors employ a qualitative research approach utilizing literature-based data gathering as the primary foundation for assessing the depiction of women's empowerment in the context of green finance. To fulfill both primary and secondary data requirements, information was collected through a comprehensive review of existing literature. The authors accessed the primary data from official government websites, international organizations, and non-governmental organizations (NGOs). On the other hand, the secondary data was acquired through supplementary sources like journals and books. The primary focus of this study is to present a descriptive and qualitative analysis of women's role in green finance, their empowerment, and how it contributes to addressing climate energy crises.

FINDINGS AND DISCUSSION

Integrating Women's Empowerment into Green Finance Initiatives

Undoubtedly, women are more susceptible to the effects of climate change and other environmental occurrences compared to men. Unfortunately, this situation is exacerbated by prevailing gender disparities within society, which emphasize socio-economic and cultural barriers. In numerous developing countries, women bear a disproportionate burden of the impacts of climate change, deforestation, land degradation, and water scarcity. Consequently, achieving gender equality and environmental objectives must go hand in hand. Regrettably, the connections that shape the relationship between gender and the environment often receive inadequate research attention and lack sufficient policy focus (OECD, 2022).

Finance represents a potent tool for addressing gender-environmental inequalities. Although the sustainable financial market has shown promising growth, considerations pertaining to gender and the environment have traditionally remained separate, viewed through 'a distinct lens' and integrated independently into various financial instruments. Notably, Environmental, Social, and Governance (ESG) investments hold significant potential as the primary avenue for effectively managing gender-environmental relations (George, 2022). Consequently, women should play a more significant role in empowering individuals and mitigating the climate crisis through green finance. The recent focus on green finance as an environmentally friendly financial policy extends beyond governmental initiatives and includes private sectors, NGOs, and philanthropists.

According to data from the Climate Bonds Initiative (CBI), Southeast Asia is one of the regions with particularly rapid growth in the green finance climate. Green finance is a financial product that is used to finance projects, assets, and activities that help with climate change adaptation and mitigation. It consists of green bonds and loans. Governments, municipalities, banks, and corporations can all issue this type of financial system. Green bonds and loans can refer to any type of debt, including private placements, securities, covered bonds, and sukuk. While there is no universal definition of green bonds and loans, the Climate Bonds Initiative employs the Climate Bonds Taxonomy, which includes eight categories: energy, buildings, transportation, water, waste, land use, industry, and information communications and technology (ICT) (CBI, 2019).

Recognizing that women are among the vulnerable groups impacted by the climate crisis, there is a need to enable their creativity and empowerment through financial and environmental

inclusivity. The government and private banks have extensively pursued green financing practices in Indonesia. For instance, Bank Rakyat Indonesia (BRI) reported a sustainable green financing credit amounting to Rp 671 trillion in the third quarter of 2022 (Walfajri & Perwitasari, 2022), while Bank Central Asia (BCA) allocated more than Rp 72 trillion in credit during the first quarter of 2023 (Aprilia, 2023). Building upon this foundation, green financing holds crucial significance for investment purposes in environmentally friendly projects (Knight Frank, 2022). Infrastructure is estimated to be responsible for 79% of all greenhouse gas emissions and contributes to 88% of all adaptation costs (UNOPS, 2021). Improved access to sustainable infrastructure services and participation in infrastructure investment projects (e.g., water, energy, transportation, housing, and social infrastructure) that cater to the needs of women are crucial to enhancing women's economic empowerment, workforce participation, and productivity while simultaneously reducing environmental externalities and enhancing the overall quality of life for everyone. Enhanced transportation, electricity, and digital infrastructure can bolster women's participation in the labour market and increase their self-sufficiency.

Microfinance Scheme in Raising the Community Awareness

Financial assistance will help capitalize on women who start businesses at the household level and on a small scale. This can be a solution for homemakers who need formal jobs and savings for entrepreneurship. Microfinance is considered an essential strategy in poverty reduction, and governments, donor institutions, NGOs, and public banks have opened various microfinance services. While there has been significant growth in microfinance activities, several issues of concern have arisen (SMERU, 2006). Indonesia was one of the first countries to develop commercial microfinance in Asia, with regulated financial institutions providing the bulk of microfinance services throughout the archipelago (BWTP, 2018). Guidelines for implementing microfinance distribution for MSMEs are based on the issuance of Presidential Instruction Number 6 of 2007. Regulations regarding microfinance have also increased dynamically in line with changes in the direction of economic policy in Indonesia, the results of policy evaluations that are considered ineffective or social and economic changes in society due to the coronavirus disease (COVID-19) pandemic (Kemenko PMK, 2016).

Government programs to issue capital assistance schemes for the micro sector can facilitate business actors and credit providers. Several microfinance channelling institutions exist in Indonesia, such as commercial banks, People's Credit Banks (BPR), and Pawnshops. The targets of the recipients of microfinance assistance include micro, small, and medium enterprises; prospective Indonesian workers who will work abroad; family members of employees who have a fixed income or work as Indonesian workers; Indonesian workers who have retired from working abroad, workers who have been terminated (PHK) (Perbarindo, 2016). This program aims to offer solutions and assist in efforts to develop micro-enterprises and empower women who live in a low-income economy.

The average micro-scale business initiated by women starts with businesses close to their social life or businesses run from home. However, this does not rule out the possibility that women will also take a role in more specific issues, for example, trying to take business opportunities in the new and renewable energy sector. The stigma that has been formed towards work in this sector is dominated by men. This step will support more innovative and inclusive ideas. Although historically, the energy sector is dominated by men, and the number continues to increase yearly. On average, 76% fewer women than men work in the energy sector, a significant difference from the average 8% gap seen in the total workforce, according to 2018 data from 29 countries. In addition, wages for female employees are almost 20% lower than for male employees, with the gap

being somewhat more remarkable than in non-energy firms (IEA, 2020). This is a form of gap that still occurs in the involvement of women in work in the energy sector. Providing opportunities for women to be involved in entrepreneurship in the energy sector can increase income and reduce poverty, considering that women's income is also used to cover household needs, health, and children's education. Understanding how energy can be saved in everyday life is an effort that women can make. Especially in household life, women can initiate energy transition education starting from the household level. This unique ability is only owned by women because they are the closest to children, family, and social life in society.

However, current microfinance policies still need to be sensitive or provide strong affirmations for women to get opportunities and easy access to capital assistance (Mawesti, 2018). There are several factors why microfinance schemes for women in Indonesia are still an obstacle, including limited mobility of women, social and cultural norms that are still rooted, low financial literacy, regulations that limit women from borrowing credit at banks to low ownership of assets that can be used as collateral at banks. These obstacles need to be overcome immediately by improving the system built within the microfinance scheme. From the context of law and administration in Indonesia, it is gender neutral or not in favor of one party. However, some social-cultural factors are still patriarchal, so they often fail to consider women's difficult situations (Agustina, 2023). The issue of gender inequality in the context of financial inclusion has received attention from various global forums and initiatives. Many parties believe financial inclusion for women's groups will significantly benefit economic growth, equality, and social welfare (Mawesti, 2018). In global meetings such as the G20, several country leaders prioritize women's and financial issues through the G20 Financial Inclusion Action Plan program. A bureaucracy that hinders women can be a source of crimes against women. Structurally, the requirements and bureaucracy for women should be made more accessible to access capital.

Transforming Rural Microfinance into Green Microfinance

The push for forming gender-equitable microfinance regulations will open up even wider business opportunities for women, for example, in the new and renewable energy sector. The energy transition towards renewable energy is an agenda for sustainable development. The energy transition agenda towards sustainability is integral to achieving ecological change that emphasizes human behaviour and lifestyle changes. The sustainable development agenda is directed at things with green labels, for example, green finance. Green microfinance attempts to improve the potential impacts of (micro) businesses on clients' and communities' health and living environment. It offers to finance with conditions to exclude obsolete polluting or carbon-intensive production practices and actively support socially and technologically appropriate innovation. Green microfinance may also offer economic incentives for ecological service provision, where the promoted practices are linked to conditional credit provisions (PAP, 2014). This opportunity directly provides space for anyone who improves their business with the principle of sustainability, including women entrepreneurs. A green financing scheme that emphasizes gender equality is a strategic step to encourage women to make a positive contribution to climate control.

The green financing scheme is a new model to emphasize the commitment of business actors to maintain environmental sustainability. Achieving climate resilience targets three primary outcomes: mitigation, adaptation, and transformation. Impact investing can support enterprises that contribute to mitigation efforts in clean energy and forest management, adaptation efforts in sustainable agriculture and access to water, and transformation efforts in the blue economy and climate-compatible cities (IIX, 2021). At least the transformation process from traditional funding schemes to green financing needs to be considered. On average, women living in rural areas tend

to borrow money and capital from illegal loan sharks because they do not go through complicated bureaucratic requirements, and the repayment scheme is relatively easy. Even though the interest charged is very high and tends to be unsafe because it is illegal, this habit is also influenced by the level of women's financial literacy, access, and the bureaucratic requirements of conventional banks, which are considered more complicated.

At least several stages need to be passed if the government wants to transform a financing scheme into green financing, starting from planning by financial institutions, education by the government and banks, and evaluating activities in the field. First, it is important to socialize the awareness-raising program on green entrepreneurship for women more massively. This effort can be carried out by organizing capacity-building and knowledge programs for women who wish to start green entrepreneurship. The greening strategies, therefore, adopted several economic and knowledge incentives to enable the borrowers to launch green MEs and maintain their competitiveness relative to the classic ones (Shahidullah & Haque, 2015). There are efforts and incentives in this aspect that will help women understand green financing schemes and switch from traditional financing schemes, which tend to be illegal.

Furthermore, this capacity-building step should be accompanied by preparing business proposals to apply for bank financing. However, only a few women entrepreneurs know how to make business proposals. So that when applying for green financing, it becomes hampered. In addition, a business mentorship program is needed from the government for women who have micro-scale businesses. This technical assistance intervention will be the beginning of preparation for micro-enterprises to start consistently opening a sustainable business. Green financing schemes that are more environmentally friendly will ultimately help micro businesses achieve sustainability by shifting from conventional to new, renewable energy, including changes to production and distribution processes. This has been proven by several businesses that have implemented the green financing scheme. For example, Apoyo Integral in El Salvador has partnered with a company that buys used paper from all of its branches and recycles it. Other MFIs seek to reduce the environmental footprint of their operational activities. This is the case for ACLEDA (Cambodia), Banco Solidario (Ecuador), FIE (Bolivia), K-Rep Bank (Kenya), MiBanco (Peru), and XacBank (Mongolia) (Marion, 2011). The green financing strategy will ultimately help transition business models that seek to integrate efforts to save the ecology with business schemes. Another thing is the existence of efforts to form a gender-friendly, sustainable business ecosystem.

CONCLUSIONS

The green finance sector has emerged as a highly developed aspect in the contemporary era, aiming to balance promoting women's inclusive development through the financial sector and revitalizing the climate. Achieving this goal requires unwavering commitment from all stakeholders. Women, being among the most vulnerable groups affected by the structural impacts of the climate crisis, require special attention and support. As a prominent player in the Southeast Asian region, Indonesia holds significant influence in the realm of green finance and has made noteworthy contributions through various financial initiatives aimed at fostering sustainable green finance in Indonesia; it is essential for all parties to collaboratively commit to promoting inclusive environmental development and empowering women through green finance. For further exploration, the government can play a crucial role as the main actor in articulating clear definitions and regulations pertaining to green finance, making it an intriguing area for future research endeavours.

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