GENDER & CLIMATE ANALYSIS REPORT

Women as Champions of Climate Action in Southeast Asia

Perspectives from Cambodia, the Philippines, and Viet Nam through the ASEAN Green Recovery through Equity and Empowerment (AGREE) Project

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ASEAN Green Recovery through Equity and Empowerment (AGREE) Project

The Cambodia Partnership for Sustainable Agriculture (CPSA), the Philippines Partnership for Sustainable Agriculture (PPSA), and the Partnership for Sustainable Agriculture in Viet Nam (PSAV) have undertaken a multi-country project entitled "ASEAN Green Recovery through Equity and Empowerment (AGREE)". This gender and climate-responsive value chain analysis examined three value chains: maize in the Philippines, rice in Viet Nam, and fruit and vegetables in Cambodia.

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Gender and Climate Responsive Analysis of Vegetable Value Chains in Cambodia

In Cambodia, agriculture remains one of the largest contributors to economic growth and employment, particularly in rural areas. The Cambodian agricultural sector is, however, increasingly under threat from climate-driven weather events such as extreme flooding or drought. This threatens both livelihoods and food security in the country and exacerbates existing gender-based and socioeconomic inequities.

Considering the importance of the agricultural sector in Cambodia, investment in this area represents a significant opportunity to improve sustainability, increase resilience to climate change, and decrease gender-related social and economic inequalities. This study was designed to lay the foundation for addressing these issues by conducting in-depth research into a promising value chain (vegetables) to better understand the barriers and opportunities to improving sustainability and climate-resilience, and ensuring equitable participation for women. In addition to an extensive literature review, this study utilizes primary qualitative interviews with key stakeholders along the vegetable value chain to map existing dynamics and identify barriers and opportunities for future programming. Specifically, the study focuses on women's experiences within vegetable production and processing, the use of climate-smart agricultural technologies to maximize sustainable production, and the intersection between expanding gender equity and improving climate resilience and sustainability.

Qualitative interviews revealed that largely, men and women share responsibility when it comes to farming and often make decisions together, including those related to what to plant and how to manage finances. Women tend to give more power to men in crop selection because they think that men are responsible for heavy farming activities. Although men and women often make large financial decisions together, women are generally primarily responsible for the household's finances, making independent decisions about small expenditures and managing tasks like loan repayment.

In terms of division of labor, women are more involved in "lighter" tasks such as seeding, planting, farm management, harvesting, and marketing. More physical tasks such as land preparation, spraying chemical pesticides, fertilizer application, and operating heavy farm machinery are often taken on by men, particularly on larger, commercially-oriented farms. This puts women without a male partner at a disadvantage, as they often have to hire outside labor to support with these tasks. Women are also generally primarily responsible for housework and caring for dependents, which some interview respondents cited as the reason they were unable to participate in agricultural trainings or capacity building activities at the same rate as men. Both men and women have limited roles in processing, as this is a sector that is still quite limited in Cambodia. The small-scale processing that does occur, however, is generally carried out by women.

Even though women played key roles in agricultural production, their position in the leadership of agricultural sector is limited. Women are just over half (51%) of the agricultural labor force, and produce 70% of the country's food, but are only 24% of household agricultural holding managers, 12% of agricultural extension officers and 10% of agricultural extension services beneficiaries. 60% of agricultural cooperative members and 34% of agricultural cooperative Board of Directors are women. The survey results showed that few members of agricultural cooperative committees are women, and the women who are involved often fill administrative positions while men take on leadership roles.

Regardless of gender, the biggest challenges faced by vegetable farmers in Cambodia included fluctuations in vegetable price and demand and difficulty meeting domestic quality standards as per contract farming agreements designed to supply supermarkets or vegetable shops.

Farmers with contracts to supply supermarkets and vegetable shops struggle to produce vegetables that meet the required minimum standards in terms of size, appearance, and weight due to limited agricultural technology and knowledge and difficulties adapting to variable weather conditions. Additionally, the high price of agricultural inputs (including many climate-smart technologies) hampered vegetable producers in the areas. Women face additional barriers, including challenges in operating heavy machinery and time poverty[1] which limits their ability to access trainings and attend agriculture-related events.

These barriers also prevent farmers from accessing climate-smart interventions, with many farmers highlighting that the high upfront cost of these interventions coupled with uncertainty surrounding vegetable yields and prices made investment too risky. Largely, however, farmers were broadly aware of the benefits of these technologies, and many farmers already use more affordable interventions such as drip irrigation, spray tube irrigation/sprinklers, and plastic mulch. Costlier tools like net houses[2] are less frequently used. Most farmers who do use net houses received both technical and financial support from the government or an NGO to construct them.

1 Time poverty refers to the fact that women often have less free time to attend trainings or other events as a result of their disproportionate responsibilities.

2 Net houses or shade houses are structures enclosed by agro nets or any other woven material to allow required sublight, moisture, and air to pass through the gaps. It creates an appropriate micro-climate conducive to plant growth.

Based on the findings, researchers proposed the following recommendations to increase vegetable production and income of farmers and reduce gender gaps in vegetable production, including:

- Develop awareness and capacity among local agricultural service providers to develop trainings and resources that are accessible to and meet the needs of both men and women farmers. This includes ensuring all actors are aware of the specific barriers women face, how this inequity negatively impacts all members of the community, and how these constraints can be alleviated. Some options for increasing women's access may include holding trainings at times convenient for women, allowing women to attend with their children, or sharing training summaries electronically via a platform that is accessible to women in rural areas (e.g. Telegram groups which allow for voice and video messaging).

- Provide trainings on gender directly to both men and women farmers. To create meaningful change for women engaged in vegetable value chains, the research team recommends considering developing and implementing these trainings at the household level. To increase sustainability, one option may be to develop the capacity of agricultural cooperatives and other existing actors to provide these trainings directly to farmers by integrating them into existing curricula.

- **Work with financial institutions to provide access to safe, low-cost financing options for climate-smart technologies.** One of the biggest barriers to adopting climate smart technologies such as net houses was the high cost of these products. To help farmers mitigate risk, the research team recommends working with reputable financial institutions to provide access to safe, low-cost financing options for farmers to invest in net houses and other climate-smart technologies. To increase uptake, it may be beneficial to offer loans in which the payments correspond to harvest cycles and fluctuations in crop pricing as a means of reducing uncertainty and mitigating risk for farmers.[1]

- **Market climate-smart technologies to women by demonstrating how these technologies can meet women's unique needs.** In some cases, women farmers who did not have a male partner reported that commercial farming was more challenging as it is often physically difficult for women to take on certain tasks, including operating heavy machinery. Building awareness of climate-smart technologies should include ensuring that women are fully aware of how these technologies can help them break down barriers to entry and participate more fully in all stages of the farming process. Climate-smart technologies have a significant role to play in reducing the gender gap in labor burden for women in agriculture. Women farmers will invest in these technologies if they are well aware of its effectiveness rather than hiring labor over time. An impact approach to address this gap can be useful in developing a women-responsive climatic risk management plan focused on reducing their labor burden in agriculture, especially in areas with high climate risks. The plan includes mapping women in agriculture, climate risks, and poverty hotspots and entails understanding the role of women in agricultural activities to identify the suitable CSA options for reducing the levels of labor drudgery.

- **Strengthening of value-added processing.** The agricultural processing section in Cambodia remains limited due to limited processing facilities and technologies, a lack of capital to develop these resources, fluctuations in the supply of qualified vegetables, and high operational costs,

1 Hira Channa, Jacob Ricker-Gilbert, Shiferaw Feleke, Tahirou Abdoulaye, Overcoming smallholder farmers' post-harvest constraints through harvest loans and storage technology: Insights from a randomized controlled trial in Tanzania, Journal of Development Economics, Volume 157, 2022, 102851, ISSN 0304-3878, https://doi.org/10.1016/j.jdeveco.2022.102851. (https://www.sciencedirect.com/science/article/pii/S030438782200027X)

namely as a result of the high price of electricity. One option to address these issues could be to support the formation of public private partnerships, through which the government can collaborate with NGOs, service providers, and financial institutions to strengthen the capacity of processors. This could include introducing new processing technologies and machinery, providing technical support, facilitating contract agreements between farmers and processors, expanding market linkages between processors and domestic and international buyers, and providing financial support for manufacturing operations.

Strengthening market linkages between producers and buyers.

Through qualitative interviews, farmers reported that they faced several challenges, including frequent fluctuations in the price of vegetables, limitations related to agricultural techniques, unstable demand from collectors, and the high cost of agricultural inputs. To address these challenges, the project could consider working with the government and private sector to establish and strengthen farming contracts between producers and buyers to secure stable markets for vegetable producers.

Gender and Climate Responsive Analysis of Rice Value Chains in Viet Nam

Summary

Across Viet Nam, women play an important role in agricultural production and in coping with climate change, which is causing serious impacts on agriculture and rural society. However, there are still differences in access to resources, opportunities, and responsibilities. Gender inequality limits women's capacities to take up climate-smart initiatives in agriculture. Only by empowering women can sustainable development be achieved.

The aim of the study is to analyze gender issues and climate change adaptation of the rice sector, particularly, the roles of women and men, who work in rice value chains, on climate mitigation and adaptation practice; barriers and challenges that hinder women's and men's ability to participate in and access to resources and opportunities in low-carbon rice value chains; climate innovation practices or solutions may help women and men overcome gender-based constraints in rice value chains; and entry points for promoting and scaling women's empowerment and gender transformation in low-carbon rice value chains.

The research evaluated six rice-farming models, specifically, the traditional practice model, and System of Rice Intensification (SRI) models in Thai Binh province, as well as the "One Must Do, Five Reductions" (1M5R), Rice-shrimp, and Sustainable rice platform (SRP) models in Kien Giang province. For each production model, there was a focused group discussion (FGD) conducted with around 5 participants. Key informant interviews (KII) were also conducted for each group. Specifically, samples for each model were as follows: 1 cooperative; 10-20 farmers; 3-5 other key stakeholders (SMEs, input suppliers, extension officers). There are still many constraints regarding gender in Vietnam's rice value chain, particularly in perceptions and decision power, production and communication resources, financial resources, labor division, and the health of workers.

Key Findings

First, interviewing actors in the value chain showed that there are still gender-based stereotypes.
Gender affects perceptions and therefore decision-making power in rice farming and generally in the rice business.

Second, there was a lack of off-farm work opportunities
and unequal gender participation in some communication resources and training courses.

Third, in the north of Vietnam, although family members share information on the household's production and economic activities
including credit, gathering information related to credit and making financial decisions is usually assigned to a woman70% of the time), to handle on her own.

Fourth, women in the north of Vietnam
have to take care of more household activities than their counterparts in the south.

Finally, the health of workers, their health care needs, and health protection guidance in training courses requires more attention
due to the effects of the working environment such as weather, field mud, and chemical materials used in rice cultivation, and also the aging of women laborers.

Recommendations

To promote women's empowerment and gender transformation in low-carbon rice value chains, the study suggests three entry points including increasing economic efficiency, improving social communication, and increasing farmers' health care.

Firstly, the study suggests that increasing the training should be a must,

because it will promote the application of climate-smart models, which can help increase farmers' incomes in the context of climate change. Besides, the application of mechanization should also be focused to increase production efficiency, as well as reducing the need for labor , which will give women more leisure time or the opportunity to earn more income from other production activities. More importantly, job creation in rural areas should be prioritized to support farmers increasing their incomes.

Second, it is also necessary to run social communication campaigns

to support more participation of the rice-producing supporters of the family in training courses, especially in the north of Vietnam. Some measures for improving the capability of women's associations should also be launched.

Regarding farmers' health care, support towards increasing social insurance participation should also be considered.

Furthermore, it is necessary to raise awareness and convince enterprises to invest more in developing their farmer communities.

PPSA

Philippines Partnership for Sustainable Agriculture

Gendered Barriers and Parallel Realities: Gender and Climate Action Research on Corn Value Chain in Bukidnon and Maguindanao, Philippines

Summary

The Philippines has a total land area of 30 million hectares with 14.1 million hectares or 47 percent of the country considered as agricultural land used for production of rice and corn – the two major crops of the country. Agriculture is one of the main drivers of the Philippine economy contributing 8.5 percent to the Philippine GDP and employing more than one third or approximately 24.5 percent of the population (PSA, 2022).

It is against this background that the ASEAN Green Recovery through Equity and Empowerment (AGREE) is being implemented in the Philippines. This research project has two main objectives - to understand opportunities and barriers, and generate recommendations for private and public sector actors to ensure that their efforts to transition to a low-carbon economy in ASEAN's agriculture sector are gender-inclusive and promote livelihoods and green job opportunities for women. Towards this end, the research investigates the conditions necessary to promote equal opportunities for women and men to engage in and benefit from agriculture value chain practices that contribute to a low-carbon economy. Findings from the research will inform a pilot testing of solutions with private sector partners and recommendations for policymakers.

The project kicked-off with a virtual consultation workshop convened by the Philippines Partnership for Sustainable Agriculture (PPSA) for the selection of the value chain of focus for AGREE. The workshop served as a focus group discussion where participants, who have strong experiences in working with women farmers, and with climate-smart agricultural practices, explained actual government programs, business practices, and initiatives related to their respective value chains of involvement. Following this and field research activities, the project pursued a study on the role played by and the participation of women farmers in the corn value chain. The sites covered are Bukidnon and Maguindanao with a total of 170 respondents in household interviews,focus group discussions, and key information interviews[1]. Of this number, there were 80 farmer respondents recorded in the household interviews.

The research found that women play a real significant role in corn farming, evidenced by their presence in most of the value chain activities, specifically in bringing quality yield attributed to women's diligent upkeep of the farms using climate friendly practices. More than half of the women respondents are taking on a number of production activities such as harvesting, pest control, spraying, pruning and clearing, land maintenance, and transplanting; while also doing most of the reproductive tasks that make production possible. Men do more physically heavy tasks such as land preparation (plowing) and operation of farm equipment. Women mostly do the weeding, which takes time to do and can also be physically taxing. Weeding is an invisible chore that women are expected to perform, and as a result, it's frequently undervalued. This undervaluation has led to the overreliance on herbicides for corn production, with men primarily employed in the fields. However, if women's crucial role in weeding is recognized and supported, they can become vital agents of climate action in corn production.

1 Key informants are from local government functionaries and local trader groups, social enterprises, community-based women's groups.

Based on the field research, the issues affecting women corn farmers pertain to low income, crop failure, effects of hazards including pests and diseases, lack of government financing and crop protection, and lack of and high prices of farm inputs.

> The situation experienced by farmers is surrounded by systemic challenges including some key strategic concerns such as little to no access to information and local planning opportunities, and a lack of access to an enabling environment that could increase the agency of the farmers. Policies are in place but there is a gap in implementation.

On the other hand, climate action is still focused on adaptation, e.g., use of genetically upgraded or modified varieties of seeds in corn farming. These varieties have higher yield but also demand a higher quantity of inputs such as chemical fertilizers, pesticides, and glyphosates. While there are good initiatives by the government in place, these programs remain far from benefiting farmers on the ground, especially women farmers. Mitigation-related practices can be pursued but takes a higher level of investment, resources, and absorptive capacity.

Furthermore, the lack of government operationalization of gender-transformative climate action, the invisibility of private sector efforts to support smallholder production, and the problem associated with price control by traders make corn production difficult and economically unstable on the side of the small farmers, who, when gathered together, make a big contribution to the entire corn value chain.

Gender-inclusive approaches also seem to be missing at the operational level. This is true for the micro, meso, and macro practices and innovations in climate action among communities, social enterprises, and businesses.

Women farmers are missing in the agricultural data used by the local government functionaries, as evidenced by the lack of data on the percentage of farming households, and the inexistence of sex-disaggregated data on agricultural households. There are currently no government programs aimed at supporting women's livelihoods, nor are there any formal green jobs available in the covered areas.

The results of the study call for further engagement and incentivization of women corn farmers in climate action. Green jobs would be one of the ways to involve women in meaningful climate action. An example is the involvement of women in organic fertilizers and zero GHG renewable-natural energy production and marketing.

For green jobs to be sustainable, government and private-sector actors should come in with initial financing that are equitable to address the issues of lack of access to assets, such as tools, equipment, and land as well as rights to own these. Knowledge, skills, and

technology from government programs on climate change needs to be transferred not only to farmers but also to stakeholders, especially the duty bearers.

Other recommendations include the following key suggested solutions:

Massive information and communication for social and behavior change

promoting women's contributions in climate mitigation

Scale up existing local climate innovation practices

such as those done by local community women social enterprises by helping them become climate mitigation leaders that can soon lead and teach profitable climate mitigation farming practices and distribution/marketing to others like them

Maximize existing government programs and create customized community programs on climate actions

for promoting and scaling women's empowerment and gender transformation in agricultural value chains, e.g., policy or program on organic or natural farming method

Implement real and equitable transfer of knowledge, skills development, and technology

that integrates the development of gender, climate, and crisis lens of farmers

Design various forms of investment that incentivizes climate-smart initiatives at the local level

by providing financing, crop protection, farm input support, provision of cheaper farm input options, facilities, access to market, and price control

Generate green jobs at the local level that conditions equitable access to assets and resources

to keep women farmers available to sustain and/or upscale natural farming methods

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