Info Note

Equity, empowerment and gender relations

A literature review of special relevance for climate-smart agriculture programming

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Key messages

- A wider and more equitable gender sensitivity is now seen amongst policy makers and local government, with a corresponding enhanced and out-scaled uptake on CSA.
- The issue of how climate-smart agriculture can advance equity and empowerment of women and their inclusion in disaster and climate adaptation programs could be addressed via community-level research studies (i.e., the engagement of farm women in the design, management, and implementation of enterprises in homesteads and family farms).
- The increased control of production assets by women and a responsibility (value chain-oriented) for establishing and managing links with markets is by itself empowering.
- Improved access to resources, information, markets and decision-making opportunities of women will bring them on par with men as equal partners in climate change and disaster risk reduction efforts. Applying social learning improved the adaptive capacities of women.

The impacts of climate change are hitting all walks of life, regardless of age, gender, or race. They can be seen from short-term natural hazards such as landslides, floods, earthquakes, and typhoons, and in the long-term through more gradual degradation of the environment. These impacts, however, vary between women and men (Josh et al. 2015; Kristjanson et al. 2014).

Women make up most of the world's poor sector. They rely more on natural resources than men for their livelihoods and survival. Due to various factors, women tend to earn less and are more likely to be economically dependent than men. As a result, they suffer more than men do from the undue impacts of natural disasters, severe weather events, and consequently, climate change. The situation is far worse for women in marginalized groups, as well as in indigenous communities. In the Philippines, for instance, rural women are saddled economically due to stronger natural disasters and more extreme weather events.

The impacts of environmental problems caused by climate change not only destroy sources of livelihood and food for women, but also damage their health and their lives in general (FPW 2001-2004). Climate change deals critical implications on the four dimensions of food security: food availability, food accessibility, food utilization, and food systems stability. Issues on food security can then lead to loss of life; increased food insecurities; decreased ability to earn income and grow food; less arable land available; less access to clean water; and more diseases.

This lopsided situation being experienced by women is due to existing cultural norms and unequal distribution of roles and resources, which are prevalent in developing countries (Yabinsky 2012).

These forms of inequality are exacerbated by climate change and are manifested in the situation of the poor—regardless if they are men or women—who are not capable enough to bounce back from shocks and climate hazards, driving them down deeper into poverty (Ortega and Klauth 2017).

Different vulnerabilities; different capacities

The CGIAR Research Program on Climate Change, Agriculture, and Food Security (CCAFS) learned that farmers—both women and men—in developing countries differ in vulnerabilities and capacities to deal with the impacts of climate change on agriculture (Huyer et al. 2015; Gonda 2016). Due to these differences, their

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adaptation measures vary as well (Gonda, current issues; Huyer et al. 2015).

For example, issues on land tenure, lack of capital, and limited farm inputs pose major barriers to adaption and conservation agriculture (a climate change adaptation strategy) in Sub-Saharan Africa (Goh 2012). More studies even found that financial and resource constraints, as well as lower levels of access to information and extension services, can prevent women from implementing adaptive practices (Jost et al. 2015; Tall et al. 2014; Twyman et al. 2014).

Climate variability and weather-related shocks affect women's and men's assets in different ways (Josh et al. 2015; Kristjanson et al. 2014). Women and men are changing their cropping practices in response to climate variability, with different impacts on access to and control of the income, as well as their respective workloads (Josh et al. 2015; Nelson and Stathers 2009). Women are also more vulnerable because they have less access to education and information that would allow them to manage climate-related risks on agriculture and livestock.

Gender-sensitive

The International Institute of Rural Reconstruction (IIRR) launched the CCAFS-funded community-based climate change adaptation project in Guinayangan Quezon, Philippines. The participatory vulnerability studies under the project revealed that the perceptions of men and women on the nature of risks of climate change may be the same, but how they respond or made to respond on the risks differ. Related research is also undertaken at ICRAF's site in My Loi Vietnam.

A trend towards seasonal "feminization" of agriculture is noted in post-disaster events. For instance, men vacate their properties after a natural disaster, leaving behind women to take care of (devastated) coconut farms. They are further undermined for their lack of financial capability. They only take home one fifth of their harvest for their labor on transplanting and harvesting; whenever a natural disaster hits them, they rely on micro credit to recoup their crop loss (Rosimo et al. *forthcoming*).

Supported by the Department of Agriculture-Bureau of Agriculture Research, IIRR's project is looking for new evidences to prove that gender-sensitive technologies can reduce the impacts of natural disasters and climate variability on women (Mendez et al., *forthcoming*).

Gaps between men and women in agriculture

Agriculture plays a significant role in the Philippine economy. Employing about 40 percent of Filipino workers, it contributes an average of 20 percent to the Gross Domestic Product. This output is mainly sourced from agribusinesses, which, in turn, accounts for about 70 percent of the total agricultural output (CIDA-LGSP 2003). The main agricultural enterprise is crop cultivation. Others are chicken broiler production, including operation of chicken hatcheries (20.4 percent), agricultural services (19.8 percent), and hog farming (18.4 percent) (NSO 2002).

This sector also remains one of the most important livelihoods of women in the world. More than a third of employed women work in agriculture. Women comprise about 40% of the agricultural labor force in developing countries (FAO 2011). However, they comprise less than 20% of agricultural landholders worldwide (FAO 2010).

The agricultural activities of women are characterized by global gender gaps in vulnerabilities, access to resources and productivity (FAO 2011; Perez et al. 2015; Quisumbing and Pandolfellin 2010). Substantial gender gaps persist in access and control of six key resources and inputs for agriculture: land, labor, credit, information, extension, and technology (Sheahan and Barett 2014; World Bank 2012).

In most countries including the Philippines, agricultural policies and investments still fail to consider the difference in available resources for men and women, their roles, workloads, and the various constraints they face every day. Specifically, in the Philippines, inequities and economic gaps prevail in conventional agricultural programming—considered an irony as the Philippines consistently finishes high in gender equality rankings. With the prevalence of extreme weather and disasters, rural women in the country now carry more economic burdens. This is aggravated with the increasing feminization of agriculture during times of natural disasters as women play critical roles in the sector.

Two strategic and interrelated gender issues in the Philippines were outlined in Women's Empowerment, Development and Gender Equity Plan 2013-2016 (WEDGE): (1) women's limited access to and control over resources; and (2) their limited participation and representation in decision-making. Women in agriculture, fisheries, and forestry have limited access to and control over land, water, and other resources for food security and self-sufficiency. The Department of Agrarian Reform reported in 2010 that women comprised only 29% of agrarian beneficiaries, indicating that men were still considered as the land title holders.

This finding implies that many women are deprived of their right to own property, which limits their bargaining power in the household and the community. Little control over land and aquatic resources leads to loss of control over food resources and unsustainable food production. Women's access to support services is hindered by unequal gender relations in the household, existing stereotypes, their non-recognition as farmers and fishers, and gender-based violence. Many indigenous people own

no legal documents, such as diploma or land ownership titles, which are required to access credit, training, and other support services. No woman serves as deputized fish warden (bantay dagat) or law enforcer because of gender biases or cultural norms.

Based on the agriculture and fisheries census made by Census Planning and Operation Division and Bureau of Agricultural Statistics, rural women undertake a variety of production and caring activities. Although not counted in official statistics, women are active economic actors who act as landless workers and traders of agricultural and fishery products. They are important agents of innovations in response to climate-induced change (Denton 2002). They also engage in micro-manufacturing enterprises. From the total rural work force, women comprised 27.3 percent of the 10.4 million workers employed in the agricultural, hunting, and forestry sector in 2004 (NSO 2004). The women's actual contribution to food production and rural economy remains undervalued, if not invisible. As a result, women have less access to productive resources than men do. Access to land, technology, extension services, capital, and infrastructure support tend to favor rural men (WAGI 2003).

Women's economic empowerment

Men and women view empowerment and specifically, women empowerment differently. The concept of empowerment is commonly related to an individual's capability set (Sen 1993; Bennett 2002; Narayan 2002). In literatures, empowerment is defined differently, depending on the context where it is applied. For instance, in the context of capabilities, Benett (2002) defined empowerment as the process of enhancing the assets and capabilities of diverse individuals and groups for them to engage, influence, and hold accountable the institutions that affect them. In terms of capabilities and participation, Narayan (2002) described empowerment as an expansion of assets and capabilities of poor people to participate in, negotiate with, influence, control and hold accountable institutions that affect their lives.

To empower women, their role in decision-making processes must be considered (Schuler and Hashemi 1994; Balk 1997; Rowlands 1997; Hindin 2000; Kumar and Paul 2007). For Kishor (2008), empowerment is defined as the process of increasing women's control over their own lives, bodies and environment. In simple terms, it means giving them autonomy (Dyson and Moore 1983; Basu and Basu 1991; Schuler and Hashemi 1994; Jeejebhoy and Sathar 2001) and some agency (Gage 1995; Tzannatos 1999; Roy and Niranjan2004; Alkire 2007; Kabeer 2008).

The importance of agency in the discourse on empowerment emerges from the "bottom-up" perspective that replaced the "top-down" approaches in development. Women must be active agents rather than passive recipients of change. In this regard, Jo Rowlands asserted that empowerment is a bottom-up process and cannot be bestowed via top-down system.

In terms of power, empowerment is considered a social process "of challenging existing power relations and of gaining greater control over the sources of power" (Bennett 2002; Beteille 1999; Schuler 1986; Malhotra 2002; Saraswathy 2008; Mahmud and Johnsten 1994; Batiwala 1994; Agarwal 1997; Beegle et al. 1998; Pulerwitz et al. 2000; Kahlon, 2004). Since it is concerned with power, it deals with the power relations and distribution of power between individuals and group. Other literatures defined empowerment as simply decision-making power.

The concept of power is also defined in various ways: "domestic economic power" (Mason 1998); "bargaining power" (Beegle et al. 1998; Hoddinott and Haddad 1995; Quisumbing and de la Briere 2000).

Climate smart agriculture (CSA): How can it help further gender relations, improve equity and foster empowerment

CCAFS-funded studies conducted by IIRR in the Philippines showed promising results on the potential of climate-smart agriculture (CSA). The results showed that climate-smart interventions provide special opportunities to enhance the economic status of women; reduce gender gaps; and build their adaptive capacities on climate change. These potential benefits of CSA could help foster women economic empowerment.

Empowering women and achieving gender equity could then help to address climate change. With the right approaches, CSA is uniquely suited to the needs of women.

As defined by the Food and Agriculture Organization of the United Nations, CSA refers to a type of agriculture "that sustainably increases productivity, enhances resilience (adaptation), reduces/removes greenhouse gas emission where possible, and enhances achievement of national food security and development goals". It is based on the principles of increased productivity and sustainability, with a focus on climate change adaptation and mitigation to achieve food security for all.

About the CGIAR Research Program on Climate Change, Agriculture, and Food Security (CCAFS)

CCAFS focuses on women as central figures of agriculture in developing countries within a broader social context. This focus is appropriate since gender equality is a key leverage point for change given women's important roles in agricultural production, food security, nutrition, and livelihoods. Addressing gender equality opens spaces to address other social inequalities. The CCAFS gender and social inclusion approaches to CSA, food systems and landscapes follow three main approaches: vulnerabilities; gender transformation; and strengthening institutions.

The CCAFS desired outcome for CSA objectives is 1) CSA options with gender implication; 2) incentives for adopting CSA, which reduces risks and vulnerability; 3) investment to improve access and control to resources such as safety net; and 4) Investment to increase women participation.

CSA can be considered as sustainable agriculture that incorporates resilience while seeking to reduce greenhouse gas emissions. In the context of the Philippines, one of the most vulnerable countries in Southeast Asia, CSA can be nested in disaster risk reduction approaches that were already mainstreamed in the country.

CSA increases productivity and incomes from crops, livestock, and fish without inflicting negative impacts on the environment. It also aims to reduce exposures to short-term risks, while also strengthening the resilience of people by building their capacity to adapt and prosper in the face of shocks and long-term stresses.

Conclusions

The issue of how climate-smart agriculture can advance equity and empowerment of women and their inclusion in disaster and climate adaptation programs could be addressed via community-level research studies. These studies include field-level livelihood activities/action-research managed by women themselves. The following pre-selected ventures will provide women direct access to assets, resources, climate and market information and decision-making opportunities: (i) small livestock; (ii) high value vegetable production; and, (iii) root and tuber crop production and processing. Outcomes accrue from action research due to engagements with farm women in the design, management, and implementation of enterprises in homesteads and family farms

The increased control of production assets by women and a responsibility (value chain-oriented) for establishing and managing links with markets is by itself empowering. While modernization, mechanization, and commodity orientation (rice, coconut in the case of the Philippines) has moved women to a peripheral position, their deliberate engagement in agricultural entrepreneurship-oriented activities (mentioned above) exemplified by high-value CSA activities is expected to provide them a more central role, especially in homesteads and small family farms (where they have better control of productive assets and resources, which they can directly supervise and oversee).

Project designers must learn how to generate new CSA-oriented business opportunities, with multiple functions featuring more prominent, central roles for women. In IIRR's four decades of action research in the Philippines, farmer champions have always featured as the primary agents of change. In more recent initiatives, women innovators already surfaced. Their social transformation is apparent and notable. Their new leadership roles in the community and the improved preparedness towards natural disasters have been recorded. IIRR and CCAFS partners build on this social capital of woman innovators to foster social transformation amongst woman farmers at local levels. Improved access to resources, information, markets and decision-making opportunities of women will bring them on par with men as equal partners in climate change and disaster risk reduction efforts. Applying social learning (learning groups and local innovation platforms and on participatory action research) improved the adaptive capacities of women. Incremental adaptation processes will result from the engagement of women in these targeted CSA-oriented activities in risk-/disaster-prone environments. These results will be carefully tracked and documented and used for multiple capacity development, advocacy, and promotional activities.

Participatory and community-based action research can provide opportunities to identify and test emerging risk-based, gender-responsive technological options and social learning methods aimed to derive a mix of economic, environmental and social (including equity) benefits. Research can be designed to help in the surfacing of gender-differentiated disaster and climate change risks; in different ecological zones such as coastal, lowland and uplands, indicators and methods for surfacing the sources of inequities need to be derived. Strategies, mechanisms, and partnerships to mainstream gender-responsive CSA into local development programming need to be tested. Institutional structures and systems, which can facilitate the introduction and eventual mainstreaming of gender-responsive CSA in local development programming must be studied. Design, planning and programming implications for sub-national and national level can be derived via research and development at local levels.

Overall, a wider and more equitable gender sensitivity is now seen amongst policy makers and local government, with a corresponding enhanced and out-scaled uptake on CSA. The research impacts/influences on the institutional infrastructure (at community and local government level) will contribute to improved equity, economic empowerment and social inclusion of farm women and a future generation of young girls/women in rural communities.

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