Equal Harvests:
How Investing in Agricultural Development can Empower Women
ACKNOWLEDGEMENTS

Author: Carol Thiessen, senior policy advisor at Canadian Foodgrains Bank

Designer: Courtney Klassen

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Canadian Foodgrains Bank is a partnership of 15 Canadian churches and church-based agencies working together to end global hunger.

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ACRONYMS

**ABN:** African Biodiversity Network  
**CFGB:** Canadian Foodgrains Bank  
**DFATD:** Department of Foreign Affairs, Trade and Development (Canada)  
**DFID:** Department for International Development (UK)  
**FANRPAN:** Food, Agriculture and Natural Resources Policy Analysis Network  
**FAO:** Food and Agriculture Organization of the United Nations  
**FFS:** Farmer Field School  
**FMNR:** Farmer-managed Natural Regeneration  
**ICT:** Information and Communication Technology  
**IFAD:** International Fund for Agricultural Development (United Nations)  
**IFPRI:** International Food Policy Research Institute  
**LPG:** Liquefied Petroleum Gas  
**OECD:** Organization for Economic Co-operation and Development  
**OPHI:** Oxford Poverty and Human Development Initiative  
**PMO:** Prime Minister’s Office (Canada)  
**SFHC:** Soils, Food and Healthy Communities  
**WARM:** Women Accessing Realigned Markets  
**WEAI:** Women’s Empowerment in Agriculture Index  
**WHO:** World Health Organization  
**UN:** United Nations  
**USAID:** United States Agency for International Development
EXECUTIVE SUMMARY

Women play a critical role in agriculture and rural livelihoods in developing countries. When they thrive as farmers, their families and communities also thrive. Yet for too long women have experienced unequal access to the necessary resources needed to reach their full potential as food producers and valued members of society.

Canada and other donors can deliver substantial benefits to women and their communities with a strong commitment to investing in agriculture that improves women’s access, ensures their agency and supports their collective action.

The Role of Women in Agriculture

Women make up 43 percent of the agricultural labour force, providing paid and unpaid agricultural labour in addition to household duties and supplementary income-generating activities. This adds up to approximately 16 hours a day of women’s work, significantly more than men who contribute a smaller proportion of work to unpaid activities.

Women face multiple barriers that constrain their ability to thrive on the farm. They lack access to key resources including land, livestock, agricultural inputs, labour, finance, and energy for cooking and heating. Women’s lack of time and education are further impediments to agricultural productivity. Additionally, they often lack say over farming decisions and control over income. Too often, gender-based violence threatens community food security by compromising women’s health, freedom of movement, productivity, and their capacity to make decisions.

Empowering Women through Agriculture

Given equal circumstances, women farmers are just as efficient as their male counterparts. With the same access to resources, women could increase yields on their farms by 20-30 percent, raising agricultural productivity by 2.5-4 percent in developing countries. Additionally, eliminating gender discrimination would reduce the number of food insecure people in the world by 12-17 percent. Empowering women would also contribute towards poverty reduction, economic growth, and climate change resilience. Crucially, women’s empowerment is vital in its own right.

Empowering women in agriculture can be achieved through:

- **Improving women’s access:** Women need fair, equitable and gender-sensitive access to necessary resources including land, water, agricultural inputs, labour, financial services, knowledge, appropriate technology and markets.

- **Ensuring women’s agency:** Women should be empowered to define their own goals, make their own decisions, and direct their own farming stories. Men should be sensitized to women’s need for autonomy.

- **Supporting collective action:** When women come together in groups, they are far more likely to achieve access and agency. Their collective voice carries more authority. They have better access to the resources they need to flourish as farmers and are more likely to be emboldened to stand up for their human rights.

The Case for Investment in Gender-Sensitive Agriculture

Women in agriculture hold vital keys to food and nutrition security. They grow crops and raise livestock that feed their families and communities—and fuel local economies. They carefully manage environmental resources and help build climate resilience through their intimate knowledge of seeds, wild foods, local water resources, and more. They are family caregivers—providing for their children, ill family members, and the elderly.

These economic, environmental, and social contributions are stunted when women’s equality is overlooked. To overcome the obstacles which too many women farmers face, new investments in agricultural development are needed. These investments should be gender sensitive, and include specific actions to facilitate gender equity. Only then will women be able to seize the opportunities they deserve.

“Closing the gender gap in agriculture would produce significant gains for society by increasing agricultural productivity, reducing poverty and hunger and promoting economic growth.”

(FAO, 2011)
INTRODUCTION

It seemed so simple. Support smallholder farmers in improving legume harvests, and better household food and nutrition security would follow. But a ground-breaking food and nutrition project in northern Malawi found there was a vital missing link: women’s empowerment.

The Soils, Food and Healthy Communities organization emerged from a long-term collaborative research and development project involving, among others, Western University (London, Ontario), University of Malawi, Presbyterian World Service & Development, Canadian Foodgrains Bank and the Government of Canada. Initially, the project team focused on legume diversification as a means to improve food security, soil fertility and child nutrition (SFHC, 2015). They quickly realized that increased legume production wasn’t translating into improved household food security because women had little say in decision-making. Men, who were less likely to prioritize family nutrition, were controlling crop use and sales (Bezner Kerr, et al, 2016).

So, project leaders began incorporating participatory village discussion groups into the project. Men and women met separately to discuss agriculture and nutrition, as well as gender issues, then came together to share ideas. The project also promoted women’s active participation in farmer-led research groups (Bezner Kerr, et al, 2016).

The results? Participating communities reported that husbands and wives were increasingly making decisions together regarding their farm and household, as well as sharing household labour, with men taking on more tasks such as child care and laundry. Furthermore, the communities now experienced greater farmer capacity and food security (Bezner Kerr, et al, 2016).

This project demonstrates just how important empowering women and addressing their inequality is in engendering long-term change through agricultural development.

Around the world women play a critical role in agriculture—they work alongside their husbands as farmers, provide much paid and unpaid agricultural labour, and operate their own farms. At the same time, their central role in caring for children, running households, and providing supplementary income is integral for well-functioning farms and rural livelihoods.

When women flourish in these roles, their families and communities flourish as well. Empowering women farmers (see Box 2) will lead to increased and more reliable agricultural productivity, poverty reduction, and food and nutrition security, and will reduce risks from climate change. “Equality for women would be good for agricultural development, and agricultural

Box 1: Shared Responsibilities

Recipe Days are a key way for both men and women in the Soils, Food and Healthy Communities project to participate in collective cooking, sharing of recipes, eating and discussions, with topics including the often touchy gender issues.

As men have become more comfortable attending Recipe Days, they have increasingly joined in pounding, cooking and presenting the dishes to the group, with much enthusiasm and laughter (Patel, et al, 2014).

At the age of 60, Wilson Zimba appreciated the new agricultural techniques he learned around growing legumes, which positively impacts his family’s health and nutrition. But he says he appreciates learning about household relations too. He and his wife now share household responsibilities, and they enjoy preparing nutritious recipes they learn at the project’s Recipe Days (SFHC, 2015).

Another male participant said: “Nowadays I can help my wife, although at first most of the work was done by her. I can prepare food when my wife is busy with other household work. I even prepare the bed when my wife is cooking” (Patel, et al, 2014).

A woman participant said: “Every work that was considered as women’s now can also be done by men. When I am busy or sick, my husband helps with child care and feeding. The work is done by both of us. Our voice [of women] is also accepted in the families” (Bezner Kerr, et al, 2016).

Photo Credit: Laura Classen

1 The UK’s Department for International Development (DFID) has segmented farm and rural households into five levels of a pyramid: landless households, subsistence farms, emergent small-scale commercial farms, small-scale commercial farms, and medium to large commercial farms. Subsistence farms comprise 30-50 percent of developing country farms. Subsistence farmers primarily grow food for their own consumption, have some engagement with markets, and usually derive their livelihoods from a variety of sources, including primarily agricultural production. They struggle to turn farming into a profitable business (DFID, 2015). For the most part, this paper focuses on women in subsistence farming in developing world contexts, with some comments also specific to women in landless households. However, many of the issues are shared with women in all levels of farming.

2 Women’s empowerment is vital for good agricultural development. At the same time, agricultural development can play an important role in empowering women. This paper focuses on the latter.
development should also be good for women” (FAO, 2011).

Most importantly, women’s empowerment is important in its own right—because women are equal to men and have the right to be treated as such everywhere in the world.

It is important to recognize that poor and vulnerable men, whether in subsistence roles or as paid labourers, may also face disempowerment in agriculture. They too must overcome obstacles to thrive. But this paper focuses on the much more pervasive and harmful barriers that constrain the ability of women to thrive on the farm.

This paper will discuss these barriers and argue that appropriate agricultural development can unleash women’s potential as productive farmers and valued members of society. There is no quick fix to the inequity women face. It is a product of complex and longstanding norms, values, religious beliefs and laws (Bread for the World Institute, 2014). But this paper will offer three key, overlapping, principles to improve women’s lives through agriculture development:

1) Improve women’s access to necessary resources,
2) Ensure women’s agency, and
3) Support collective action.

This paper, the fourth in a series, will further argue that strong public investments in gender-sensitive agriculture are necessary to spark this transformation in the lives of women in agriculture.

The first paper in this series (CFGB, 2015) argued that investment in agriculture can reduce poverty and stimulate economic growth. A second paper (CFGB, 2015a) made the case for the importance of investing in nutrition-sensitive agriculture. A third paper (CFGB, 2015b) argued that investing in sustainable agriculture is necessary to support smallholder farmers in addressing serious environmental risks, including climate change. This final paper adds the necessity of empowering women farmers in order to achieve more resilient agriculture, improved food security and overall well-being.

The Canadian government has made a strong commitment to do its part to reduce poverty and inequality in the world, and has committed to implementing the 2030 Agenda for Sustainable Development. This agenda includes ambitious new targets on achieving gender equality, eliminating hunger and malnutrition, ending poverty, promoting sustainable economic growth and decent work for all, and combatting climate change and its impacts. Empowering women is integral to reaching these important goals. For the hundreds of millions of women and girls who live and work on farms, appropriate investments in agricultural development can pave the way towards gender equality and improved livelihoods, transforming their lives and the lives of others.
**WOMEN’S ROLES ON FARMS**

Rural women in developing countries frequently have at least two major responsibilities: farm work and household work, including childcare. Many add a third responsibility of improving family livelihoods through a variety of supplementary income-generating activities, such as brewing alcohol or constructing rural infrastructure (Carr & Hartl, 2010).

Across the developing world, women work approximately 16 hours a day, including caregiving and household chores—significantly more than men (FAO, 2011). And a greater proportion of women’s work is spent on unpaid activities (Carr & Hartl, 2010).

**Farm Production**

On average, women make up 43 percent of the agricultural labour force in developing countries. This ranges from women being responsible, on average, for 20 percent of the workforce in Latin America to 50 percent in Eastern Asia and sub-Saharan Africa. However, women are less likely than men to define their farm activities as work so this percentage may be low (FAO, 2011). They also work longer hours than men, on average, so even if their work force percentage is lower, they may contribute more time to the sector. The amount of time women actually spend working in agriculture varies greatly depending on the crop, production phase, age and more (FAO, 2011).

Women’s roles on farms are often well-defined. While there will be differences across countries and regions, women generally are responsible for planting, weeding, harvesting, and post-harvest activities such as threshing, winnowing and grinding (Carr & Hartl, 2010). As well, they have traditionally been the savers of seed, ensuring genetic and crop diversification (ABN & The Gaia Foundation, 2015). Women are additionally responsible for home gardens, and minor crops with a focus on home consumption. They are also likely to care for poultry and small ruminants, such as goats (FAO, 2009).

This paper focuses primarily on crop and livestock production. However, it should be recognized that women play important roles in small-scale and industrial fisheries, especially in post-harvest processing and marketing, as well as in forest management (FAO, 2009).

Men tend to be responsible for land preparation and usually own and manage large animals, such as cattle (Carr & Hartl, 2010; FAO, 2009). They are more likely to grow more profitable cash or export crops. In Malawi, for example, tobacco, the main cash crop, is grown on three percent of women’s farm plots, compared to 10 percent of men’s plots (UN Women, et al, 2015).

Many women find paid work on commercial farms, either to supplement their own farm income or as landless labourers. Agriculture is the main source of rural employment for both women and men in many parts of the world (see Figure 1) (Fontana & Paciello, 2010). For women this work tends to be more precarious and for lower pay than for men (BRIDGE, 2014).

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**Box 4: Complexity of Women’s Empowerment**

It is important to recognize that the empowerment of women through agriculture is complex, and to be successful requires understandings and actions that go beyond agricultural interventions. That’s why this paper discusses issues such as the burden of unpaid household work, household energy sources, gender violence, and education barriers.

Other important issues include poor public services, which are a structural barrier to women’s empowerment. Improved public services could reduce women’s burden of unpaid care and make an immense difference to women’s overall well-being, including on the farm. These could include public financing of child care services, better health clinics, improved community services for the elderly, and other forms of social protection targeted at women. Improved physical infrastructure, such as rural electrification, is also important (Fontana & Paciello, 2010).

Long-term change requires challenging power relationships, from household levels to global institutions, and emboldening women’s collective voice in civil society and government (Bread for the World Institute, 2014; CARE USA & Food Tank, 2015).

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**FIGURE 1:** Rural employment by gender and employment status, 2000 (percent of the adult population)

A number of factors are changing gender roles on farms. Environmental degradation, including the impacts of climate change, and lack of opportunities in rural areas are causing increasing migration of mainly men off farms in search of other work. This is leading to an increasing feminization of agricultural work (IFAD, 2014). Increased drought, deforestation, and other environmental changes are increasing women’s workload on farms (Carr & Hartl, 2010).

**Unpaid Household Work**

In addition to farm work, women provide 85-90 percent of the time spent on household food preparation in many countries. They are usually responsible for child care and other household chores as well, such as cleaning, collecting fuel and hauling water (FAO, 2011). In general, men spend far less time on unpaid household work. In Tanzania, for example, the amount of time women spend on both household maintenance and care is three times more than men on average. The difference is even starker for food preparation. Women spend, on average, two hours per day cooking compared to 18 minutes for men (Fontana & Natali, 2008).

As with women’s role in food production, environmental changes are increasingly forcing women to travel longer distances to collect water and firewood. Furthermore, the burden of caring for elderly family members and those suffering from diseases, such as HIV/AIDS, also falls to women (Carr & Hartl, 2010).

**BARRIERS WOMEN FACE IN AGRICULTURE**

Despite women’s important role in agriculture in developing countries, the conditions under which they farm are far from equal to their male counterparts. Multiple barriers prevent them from reaching their full potential as food producers and valued members of society.

**Access Barriers**

The roles and status of women in agriculture range widely across countries, and vary by ethnicity, age, social class, and religion. Yet there is a surprisingly consistent gender gap in women’s access to a range of resources and other opportunities and supports needed to flourish as farmers (FAO, 2011). Much research has looked at the discrimination women experience in accessing these resources.

**Land:** Whether access to land is measured as ownership or the ability to manage land, women have less access than men. They represent less than five percent of all agricultural land holders (the person who has management control) in North Africa and West Asia, and represent only 15 percent of agriculture land holders in sub-Saharan Africa. The percentages are somewhat higher in Latin America, where more than 25 percent of agricultural land holders in some countries are women (see Figure 2) (FAO, 2011).

Women’s land holdings also tend to be smaller than men’s land holdings. A comparison of 16 countries that looked specifically at female-headed households found they own and operate plots that are on average 22 percent smaller than their male counterparts. In Benin, for example, women’s holdings average one hectare compared with two hectares for men. In Burkina Faso, male-controlled plots are on average eight times larger than female-controlled ones (World Bank, 2011).

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**Box 5: Status of Women**

The status of women globally has advanced on a number of fronts, but much more is needed for women to achieve full equality.

**Education:** Many more girls are in school now than 15 years ago. About two-thirds of developing countries have achieved gender parity in primary education, while just 36 percent of developing countries have achieved it at the secondary level, with the worst inequity in Oceania, sub-Saharan Africa and Western Asia (UN, 2015).

**Poverty:** Women face a greater risk of living in poverty. A recent study found that women are more likely to live in poverty in 41 out of 75 countries with data. This is especially true for separated women, widows and single mothers (UN, 2015).

**Health:** Since 1990, maternal health has improved substantially, with a 45 percent decline in the maternal mortality ratio. But only half of pregnant women receive the recommended amount of antenatal care, while one-quarter of women still deliver their babies without access to skilled care (UN, 2015).

**Employment:** Women’s access to paid employment continues to grow, but at a slow pace. As of 2015, about 50 percent of all working age women participate in the labour force, compared to 77 percent of men. Globally, women earn 24 percent less than men, with the largest disparities in Southern Asia and sub-Saharan Africa (UN, 2015).

**Political representation:** Since 1995, the global average proportion of women in parliament has nearly doubled, from 11 percent to 22 percent. Women represent 18 percent of government ministers in the world, only a small increase in the last 10 years. Parity in political representation remains a distant goal (UN, 2015).
Even when land rights do exist for women, the reality for many women is still shaped by customary law and social norms, which limit their ability to own or inherit property. Finally, it should be noted that women have long depended on access to common property resources for animal fodder, fuel and food. But these common lands are increasingly being privatized and degraded, leading to further barriers for women (ActionAid International, et al, 2012).

**Livestock:** Livestock is a key asset. Livestock provides power for plowing, land clearing, transportation and animal source proteins/foods. It also represents a large part of the family's assets—a source of income and insurance that can be sold in times of need. Male-headed households typically own more livestock than female-headed households. In Bangladesh, Ecuador and Pakistan, for example, men's livestock holdings are more than three times larger than women's holdings (FAO, 2011). Inadequate access to safe energy sources presents a significant time and health barrier for women in indoor air pollution was linked to 4.3 million deaths in 2012 in households cooking over coal, wood and biomass stoves (WHO, 2014). The World Health Organization (WHO) estimates that smoking (including second-hand smoke) (Cecelski & Matinga, 2014). In some countries, women are only half as likely as men to use fertilizers on their farms (FAO, 2011).

**Inputs:** Women often lack access to fertilizer, improved seeds, tools, and machinery, such as irrigation equipment and plows, which could increase their productivity (UN Women, et al, 2015). In some countries, women are only half as likely as men to use fertilizers on their farms (FAO, 2011).

**Water:** More than one billion people do not have access to safe water. Another 2.6 billion people (40 percent of the world’s population) lack proper sanitation. Women suffer the most from these deprivations. They spend more time walking to collect water and more time caring for family members suffering from water-borne diseases (Carr & Hartl, 2010). Many women face discrimination in accessing irrigation water, as user group membership is often limited to land owners or heads of households, or is simply unaffordable for women (Quisumbing & Pandolfelli, 2010).

**Energy:** Approximately three billion people in the world still rely on solid fuels, such as wood and coal, for cooking and heating. In the majority of places, women and girls do most of the fuel collection, which has security risks, is time-consuming and difficult. It often requires that they carry 20 kg or more on their heads for distances up to 12 km.

Moreover, the health risks of cooking with solid fuels on open fires or traditional stoves are substantial. In 2010, household air pollution from solid fuels was the third leading risk factor for global disease burden after high blood pressure and tobacco smoking (including second-hand smoke) (Cecelski & Matinga, 2014). The World Health Organization (WHO) estimates that indoor air pollution was linked to 4.3 million deaths in 2012 in households cooking over coal, wood and biomass stoves (WHO, 2014). Inadequate access to safe energy sources presents a significant time and health barrier for women in agriculture, with serious food and nutrition security implications for households.

**Farm Labour:** Many women struggle to access adequate labour to operate their farms. Female-headed households often have fewer people in the household who can contribute unpaid labour, and face discrimination in hiring labour to help on their farms. This may be because they lack financial resources to hire outside help, or have limited voice and agency (UN Women, et al, 2015; FAO, 2011).

In Malawi, women use about 10 percent less labour per hectare than men on the land they own, and much of that labour is provided by children. Some farm activities are traditionally performed only by men in many places, such as plowing...
and spraying. Lack of access, or delayed access, to male labour for these undertakings can seriously compromise productivity (FAO, 2011).

Moreover, poor health and nutrition can constrain women’s ability to provide their own labour to achieve greater agricultural productivity (Quisumbing & Pandolfelli, 2010).

Finance: Many women lack access to savings, credit and insurance. A study of farm credit schemes in Africa found that women had just 10 percent of the loans (FAO, 2009). Women generally have less control over fixed assets, such as land, which can be used as collateral for loans. Even when women do receive loans, they may not retain control over them. One study found that half of loans taken by women were used for men’s productive activities. Lack of access to adequate finance services substantially limits women’s ability to take risks, innovate and invest in their farms (FAO, 2011).

Markets: In a survey of 16 countries, female-headed households were found to sell less of their agricultural commodities in markets than men in almost all countries (World Bank, 2011). Traditional roles may limit women to petty trading and local markets, while men are more likely to engage in regional and international markets (ActionAid International, et al, 2012). Other impediments to market participation include lack of market information, cultural taboos, care responsibilities at home, and lack of appropriate facilities, such as sanitation for women, at markets (IFAD, 2014; BRIDGE, 2014).

Time Barriers

Women’s lack of time serves as a serious impediment to their ability to flourish as farmers. As this paper has already noted, many women have triple responsibilities in their rural livelihoods—farm work, household work, and other income generating activities—and spend far more time at it than men.

Many women in rural areas lack the basic tools to reduce their time constraints and drudgery. For example, women in Senegal can take much of a day processing pearl millet with mortar and pestle just to prepare one meal (BRIDGE, 2014). Studies from Kenya, Uganda and Tanzania show that children and women in rural areas fetch water four times a day on average. Each trip takes approximately 25 minutes (FAO, 2011).

A woman farmer facing extreme time poverty cannot seize new farm opportunities, participate in community-based organizations, invest in other income-generating activities, or generally thrive (IFAD, 2014).

Decision-making Barriers

Women in most developing countries lack say over farming decisions, including control over income derived from farming. This is true even when they own the assets. Data from 19 countries in sub-Saharan Africa found that only 33 percent of women in rural areas had final say over large household

Box 6: The Power Problem

Nkasauka Nthala (pictured above) is a convert to conservation agriculture. In three years she has seen yields from her tiny 0.16 hectare plot of maize leap by 166 percent compared to conventional plots. Yet her plot remains small despite its higher productivity.

She and her neighbour Zione Mbewi explain why. One big reason is lack of decision-making authority within their family. Mbewi had hoped to expand her maize plot to include soybeans and groundnuts which would have helped the family’s food and nutrition security. Her husband had other ideas. He refused to give her more land. In fact, now that she’s enriched her conservation agriculture plot with mulch and manure he wants to take it over and plant the cash crop tobacco on it.

Photo & Excerpt from a story by Laura Rance

FIGURE 4: Time spent by women and men on productive and reproductive activities

purchases (OECD, 2012). The poorer the household, the more control men tend to have over women’s income, whether in farm households or elsewhere. In Malawi, 13 percent of married women in the richest fifth of the population have no control over their earnings, compared to 46 percent who lack control in the poorest fifth (World Bank, 2011).

Lack of options for employment also limits women’s decision-making power. A poor woman entering the agricultural labour market has little bargaining power. Vulnerability may force them to sell their labour below market rates or accept unsafe or demeaning conditions (Fontana & Paciello, 2010).

**Education & Knowledge Barriers**

Lack of education poses a serious impediment for women in their pursuit of agricultural livelihoods. More than two-thirds of the world’s illiterate people are women, many living in rural areas (BRIDGE, 2014). The quality of human capital, such as educational attainment, available in a household is strongly correlated with agricultural productivity, nutritional outcomes and income levels. While the gender gap in education is closing (see Box 5) female heads of households in rural areas across developing countries continue to lag behind. In rural areas, female heads of households sometimes have less than half as much education as male heads (see Figure 5) (FAO, 2011).

It is not simply the lack of formal education that stands as a barrier for women. Many women lack valuable information needed to make good farm decisions. Agricultural advisory services are regularly biased towards men. According to the FAO, only five percent of all extension services are directed towards women. They may target women only with information relevant to home gardens and poultry, for example. Or they will focus on technology that is too expensive or culturally inappropriate for women. Or trainings may require more literacy than what many women have (Petrics, et al, 2015). These problems are compounded by the fact that only 15 percent of the world’s agricultural extension agents are women (FAO, 2009).

Furthermore, cultural taboos may prevent women from travelling to trainings or they simply do not have time to participate. A survey of women rice farmers in Thailand found that while they lacked basic pest knowledge and pesticide skills, most of these farmers were unwilling to participate in training courses because they conflicted with their other household demands (Fontana & Paciello, 2010).

**Gender-based Violence**

Violence against women and girls may not be recognized by many as a barrier to women’s full participation in agriculture. But many women in developing countries do see it as a direct threat to community food security because it harms women’s health, restricts their freedom of movement, imperils productivity and limits capacity to make decisions (Ravon, 2014). And in many places, gender-based violence is endemic. For example, an estimated one-third of women in South Asia experience violence in their lives (IFAD, 2014). Violence harms women’s well-being in all aspects of life, including in agriculture. Moreover, the relationship between gender-based violence and food and nutrition security can become circular as violence may both lead to increased food insecurity, and increased food insecurity can provoke more violence against women (BRIDGE, 2014).

Economic empowerment can either contribute to increased domestic violence or support a reduction in violence. A study in Bangladesh found that increased female empowerment through savings or credit groups led to more domestic violence in more culturally conservative settings, but not in less conservative ones (Hughes, et al., 2015).
THE VALUE OF WOMEN’S EMPOWERMENT THROUGH AGRICULTURE

Overcoming the enormous barriers many women face as agricultural producers and labourers would substantially improve women’s lives and contribute to a host of broader development goals. As the FAO has stated: “Closing the gender gap in agriculture would produce significant gains for society by increasing agricultural productivity, reducing poverty and hunger and promoting economic growth” (2011).

Agricultural Productivity

Given equal circumstances, women farmers are just as efficient as men. But currently their productivity lags far behind men’s productivity in general. FAO research shows that if women had the same access to productive resources as men, they could increase yields on their farms by 20-30 percent. This could raise total agricultural productivity by 2.5-4 percent in developing countries. Gains could be even higher in those countries where more women are involved in agriculture (FAO, 2011).

Another study has measured the value of agricultural produce per unit of cultivated land for men and women and found a gender gap that ranges from 4-25 percent, depending on the country. This gap, in turn, can become self-perpetuating, as lower yields lead to less investment in land care and improvement, resulting in over-cultivation and land degradation—and even lower yields subsequently (UN Women, et al, 2015).

Access to just one resource, albeit a very important one, can have huge implications for women. Between 1980 and 2009, cereal yields rose by 60 percent in countries where women have equal rights to land, compared to only six percent in countries where women have few rights to land. Even when other reasons for the yield increase were examined, the relationship between women’s access to land and yields held (OECD, 2012).

One example of the impact improved access to land can have comes from Rwanda, where an evaluation of a pilot land tenure regularization program found that when land access for women improved, there was an increased investment in soil conservation measures. Women with formalized land rights almost tripled their investments in soil conservation (Ali, et al, 2014).

<table>
<thead>
<tr>
<th>Country</th>
<th>Year/season</th>
<th>Crops</th>
<th>Average gender difference in productivity (%)</th>
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<tr>
<td>Nigeria (Osun State)</td>
<td>2002/2003</td>
<td>Rice</td>
<td>40</td>
</tr>
<tr>
<td>Benin (Central)</td>
<td>2003-04</td>
<td>Rice</td>
<td>21</td>
</tr>
<tr>
<td>Ghana</td>
<td>2002 and 2004</td>
<td>Cocoa</td>
<td>17</td>
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<tr>
<td>Malawi (National)</td>
<td>1998-99</td>
<td>Maize</td>
<td>11-16</td>
</tr>
<tr>
<td>Kenya (Western)</td>
<td>2004/05</td>
<td>Maize</td>
<td>19</td>
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<tr>
<td>Kenya (Subnational)</td>
<td>1989-90</td>
<td>Maize, beans, and cowpeas</td>
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<td>Ethiopia (Central Highlands)</td>
<td>1997</td>
<td>All farm outputs</td>
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</tr>
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</table>

Food and Nutrition Security

There is a clear correlation between countries that have a high gender gap and those with high levels of hunger (IFAD, 2012). The FAO found that eliminating gender discrimination would increase yields by 20-30 percent, thereby reducing the number of hungry people in the world by 12-17 percent. This could add up to 100-150 million people achieving food security (FAO, 2011).

Closing the gender gap means improved well-being for the whole family. When women control additional farm income in food insecure households they are more likely than men to spend it on food, health, clothing and education, with positive social and economic benefits (FAO, 2011). On average, women invest 90 percent of their income in their families, compared to 30-40 percent for men (UN Foundation, 2012; CARE USA & Food Tank, 2015). Research shows that when women control household income, a child's likelihood of survival increases by 20 percent (FAO, 2009). In South Asia, a study found that if women and men had equal status, the under-three child underweight rate would drop by approximately 13 percentage points, raising more than 13 million children out of malnutrition. In sub-Saharan Africa, equal status would lead to a reduction of 1.7 million malnourished children under three (Smith, et al, 2003).

For more on agriculture’s role in improving nutrition, please see Growing Nutrition: How investing in agricultural development can improve nutrition (CFGB, 2015a), an earlier paper in this series.

Economic Impacts

The impact of women’s empowerment through agricultural development has economic implications too. A recent UN/World Bank study found that the cost of the gender gap in Malawi was $100 million per year, $105 million in Tanzania and $67 million in Uganda. Closing that gap would reduce poverty both directly, as many poor people work in agriculture, but also indirectly, as higher agricultural production could increase income for people employed in other sectors linked to agriculture, with economy-wide benefits (UN Women, et al, 2015).

Climate Change Resilience

Women are more vulnerable than men to climate change because their unfair access to necessary farming resources, their reduced ability to migrate for work and the discriminatory division of labour within households make it much more difficult for them to adapt (Kakota, et al., 2011). For many women, their inferior social status prevents them from using their first-hand knowledge of weather patterns, crops, health and so on to make decisions that would be beneficial for their households and broader communities (Ravon, 2014).

The more women are granted equal rights, including access to resources, information and power, the more resilient they and their families will be to climate change impacts (CARE USA & Food Tank, 2015). Moreover, valuing and restoring women’s traditional roles as safe guarders of seed diversity as well as diversity-based farming systems will better enable ongoing adaptation to climate risks (ABN & The Gaia Foundation, 2015). For example, through the Gene Campaign in India, women’s self-help groups conserve agricultural biodiversity and increase resilience by collecting and multiplying varieties of legumes, oilseeds and vegetables. This preservation work is reducing vulnerability for whole communities (ActionAid International, et al, 2012).

Because it is 2016

Finally, it must be said that empowering women, and transforming existing gender inequities, is good in and of itself. Even if there were no greater economic or productive value from reducing the agricultural gender gap, it would still be an important goal. Women are not simply instruments to achieve important developmental goals. Women need to be empowered, and their contributions and knowledge valued, because they are equal to men. It is the human right of women to be both food secure and free from discrimination (CARE USA & Food Tank, 2015; BRIDGE, 2014).
HOW TO EMPOWER WOMEN THROUGH AGRICULTURE

Effective agricultural interventions can play a transformational role in women’s lives. Done well, they can be the catalyst for increasing women’s status in their homes, communities and wider society. For this to happen, understanding context is critical. So too is listening closely to what women prioritize and need, valuing their knowledge and input, and incorporating that understanding into agricultural project design and implementation. It will also be important to work with men—alone and together with women—to sensitize them to the issues facing women and to ensure their buy-in and collaboration on solutions.

Empowerment will not simply happen as a natural outcome of agricultural programming. “If responses to hunger and malnutrition are to both enable food and nutrition security and contribute to gender equality and women’s empowerment, a commitment to gender transformation is non-negotiable” (BRIDGE, 2014).

Access

Farmers everywhere need secure and stable access to productive resources, including land, water, inputs and labour. This is especially true for women. The hurdles they face, as discussed earlier, especially impede their access to these resources. Strengthening women’s access to a range of resources, rather than a focus on a single resource, will have more chance of success (Quisumbing & Pandolfelli, 2010).

Land:

Access to land is a fundamental requirement for farming, and increasing women’s access to land should increase farm productivity (FAO, 2011). Women will have greater incentives to invest in land improvements, have better access to financial services, be more likely to make farm decisions, and actively participate in long-term farm planning (Landesa, 2012).

Access to land has been shown to raise the status of women, reduce their dependence on men for survival, and give them greater influence within their households and community. A study in Nepal found married women who own land are significantly more likely to have a final say in household decisions than those who don’t own land (Allendorf, 2007).

To be effective, land rights for women must be recognized both legally and socially. Agricultural interventions should work closely with communities to better understand the gender dimensions of land ownership and local barriers to women’s land access. It is vital to speak to women about their property rights, as well as work with men, who are often powerbrokers (Scalese, 2009). Depending on the context, development practitioners may want to work to see women’s customary rights better enforced, or work to improve or implement legal frameworks for secure land tenure (FAO, 2011; BRIDGE, 2014). Another practical step may be to consider leasing or purchasing land for women (Scalese, 2009).

However, there are some cautions. Schemes to enact property rights have sometimes ended up excluding women, for example, as formal rights are extended to their husbands, or corruption benefits more powerful elites (De Schutter, 2015; FAO, 2011). Moreover, even with ownership, women may still not control farm assets (OECD, 2012). Schemes to extend land title should be rolled out slowly, with corresponding efforts to strengthen the rights of smallholder farmers, especially women (De Schutter, 2015).

Box 7: Women Accessing Realigned Markets

Using community theatre, women farmers in Mozambique and Malawi have been empowered to advocate for policies and practices that would improve their access to assets, such as knowledge, seeds, fertilizer, credit and technology (Best Climate Practices, nd).

Women Accessing Realigned Markets (WARM), which ran between 2008 and 2012, was piloted by the Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN), with funding from the Bill and Melinda Gates Foundation.

Participants performed plays that highlighted their farming challenges and actively participated in the policy dialogues that followed. WARM also trained agricultural researchers and development experts to better understand the needs of women farmers. As a result, women have been able to voice their concerns with national decision-makers and community leaders. Women farmers who were trained in policy advocacy are playing more active roles in farmer organizations (Best Climate Practices, nd).
**Water:**

Improving their access to water will improve women’s productivity, and thus their status. Piped water supplies, rain water harvesting, solar pumps and other community-owned and operated water schemes will help empower women by reducing the required time to fetch water—if gender is taken seriously in their design and management. This will require women’s full participation on local water user associations, and fair user fees that don’t exclude very poor women (Carr & Hartl, 2010).

**Inputs:**

Improving access for women to inputs, such as fertilizers, improved seeds or tools, may empower them. For example, selling fertilizer in smaller than 50 kg bags, or introducing fertilizer-for-work programs may improve women’s access (Quisumbing & Pandolfelli, 2010). But there are cautions here as well. Input subsidy programs are costly, can have a negative environmental impact and have traditionally benefitted large-scale farmers much more than small-scale farmers (Dethier & Effenberger, 2012).

**Labour:**

For women to thrive on their farms, they need better access to farm labour. This may require awareness and sensitization campaigns to encourage better support from male household members. Cash vouchers could be used to enable poor women farmers to hire labourers (UN Women, et al, 2015).

The alternative is to introduce labour-saving agricultural technologies that reduce their need for outside labour. These could include energy-efficient cook stoves that require less firewood and free up more time for other farm chores, while also reducing indoor air pollution (UN Women, et al, 2015).

Women also need their specific nutritional needs addressed, such as their requirement for substantially more iron than men (Burgess, 2004). Improvements in nutrition will help women address their own labour needs, and support women’s empowerment (UNICEF, 2014).

**Financial Services:**

Women need much better access to financial services. When women have access to loans, for example, they help households diversify and raise incomes—but only if they control the subsequent assets (FAO, 2011).

Necessary actions to close the financial services gap begin with improved financial literacy so that women can make good financial farm decisions. Women farmers should be actively engaged in the design of new financial products, such as insurance.

Other interventions could include improving women’s access to cellphones. Cellphones could allow them to directly transact business without mediators, open their own bank accounts, and get market prices in real time, if they have basic numeracy and literacy skills (Annan & Dryden, 2015). A bank in Malawi has offered another useful innovation. It offers a

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**Box 8: Empowerment Through Radio**

Sumata Yussif, a groundnut farmer in northern Ghana, faithfully tunes into Time with Farmers, a weekly radio show that gives useful input on the farming challenges she faces—and helps her raise those issues with her husband.

“[The radio program I listen to] has helped me discuss more with my husband to make decisions about the farm and what practices we will use. We enjoy discussing and set time aside to listen; then ... we begin to talk. I am excited and happy because if we come to a consensus and can discuss, it makes us get money and we can take care of our children,” said Yussif.

Time with Farmers is part of a larger climate adaptation project supported by Canadian Feed The Children, Farm Radio International and the Canadian government.

Excerpt from a story by Sylvie Harrison/Farm Radio International. Photo credit: Sylvie Harrison/Farm Radio International
biometric smart card that enables illiterate customers with no official government identification to open and manage their account using fingerprints for identification. It requires a very low minimum opening deposit. This has been a boon for many women (Quisumbing & Panolfelli, 2010).

Knowledge:

Women farmers face serious discrimination in access to knowledge, starting as young children when they are more likely to be pulled out of formal education and continuing into adulthood, when other forms of knowledge transfer, such as extension services, often fail to consider their specific needs and interests.

1. Formal Education. Although ensuring girls are able to attend formal schooling is not an agricultural intervention, quality public education is significant for developing self-confidence in women, helping them farm better, and improving the food and nutrition security of their families. Between 1970 and 1995, women’s education is estimated to be responsible for almost half of the total reduction in child malnutrition (Smith & Haddad, 2000). Education has also been linked to lower maternal mortality rates, lower rates of infant mortality, and lower poverty rates—all of which impact agricultural livelihoods (Bread for the World Institute, 2014).

In rural labour markets, improved access to quality education will help reduce some of the wage gap between female and male farm labourers, and help expand the opportunities women have (FAO, 2011).

Poverty may have a circular effect on agriculture, as poverty often prompts farm families to pull girls from school to work on the farm. This in turn, can impact long-term poverty on the farm. Agricultural interventions that improve livelihoods, coupled with increased valuing of education for all, could significantly empower women.

2. Extension Services. Women farmers need access to reliable, gender-sensitive farming information. Women may opt out of trainings that are targeted towards “farmers” because they don’t see themselves as real farmers, despite their important role in agriculture (Petrics, et al, 2015). Governments, non-governmental organizations, communities and women themselves must value women as farmers. This is the starting point for improving knowledge acquisition (ActionAid International, et al, 2012).

Redressing women’s lack of access may mean hiring more female extension agents or sensitizing male agents to rural women’s realities. In addition, it may mean improving the quality of information provided to women, such as introducing gender-sensitive technology and extension materials (FAO, 2011). In all cases, implementers should structure advisory services in ways that are sensitive to women’s time constraints, limited ability to travel longer distances, literacy levels, land ownership patterns, and other needs. Use of pictures, video, and plays can help women with low education and literacy levels better grasp training material (Petrics, et al, 2015).

Farmer field schools (FFS) or farmer-to-farmer exchanges can deliver rural advisory services in a more participatory way, and can effectively improve women’s access to knowledge, provided their design takes gender roles and needs into consideration. An FAO study of 10 years of farmer field schools in Kenya found that including a gender dimension led to increases in women’s access to resources and markets, as well as more collaborative decision-making in the household (Pletics, et al, 2015; FAO, 2011).

Information and Communication Technology (ICT)-based applications show promise for knowledge transfer, as many are low cost, may not require high levels of literacy, and can be offered in local languages. In practice, however, women still have less access to ICTs. A study in 17 African countries found significant gender differences in access to and use of Internet services. While mobile phones are increasingly owned and used by
both men and women, men still have more access than women (see Figure 7). More women had access to radios than to other technologies, although men spent more time listening to the radio. Removing these disparities, such as through community radios, will help empower women (Petris, et al, 2015).

3. Research and Development. Finally, the quality of gender-sensitive information available relies, at least in part, on research and development that has gone before it. Women should be included in designing research on issues that affect their lives, including agricultural research.

Women on average make up 23 percent of agricultural research staff, and only 14 percent of managers, according to a study of 64 countries between 2003 and 2008. This means men make the majority of decisions about agricultural research agendas, priorities and policies. More should be done to increase the number of women agricultural researchers, including at upper management levels, and ensure women’s perspectives are taken into account in all agricultural research projects (Petris, et al, 2015).

**Technologies and Techniques:**

Agricultural development should improve women’s access to farming technology and techniques that address their specific needs, whether that be smaller physical stature than men or time constraints. These technologies and techniques must be more efficient in practice to warrant investing in them, be context sensitive, culturally acceptable for women, and meet a priority need. This means involving women in their design (BRIDGE, 2014). Moreover, women need both the knowledge and the financial means to access them (Carr & Hartl, 2010).

1. Agricultural production. Research shows that gender-blind technological innovations are not, in fact, gender neutral. In practice, they can reduce men’s work burden while increasing the burden women bear. In Syria, for example, mechanization almost exclusively targeted male tasks, such as field preparation, which allowed men to pursue non-farm jobs. Labour demand for women, however, remained stable or increased (Abdelali-Martini & Dey De Pryck, 2014). In contrast, in India, the introduction of a mechanical sheller benefited women on their farms. They could process approximately 14 times more groundnuts, with much less physical effort, than those shelling them by hand (FAO, 2013).

Women will only benefit if technological advancements increase productivity without increasing demands on their time—or ideally, while also reducing time demand—and they can access at least some of the additional income derived from increased productivity (Petris, et al, 2015). The introduction of agricultural technologies should take into consideration the impact on agricultural labour demand, as this could reduce employment possibilities for women (Carr & Hartl, 2010).

Examples of technologies that can empower women include improved hoes, planters and grinding mills, and food processing equipment that can enable women to earn more income with less time and effort (Carr & Hartl, 2010).

Practices such as conservation agriculture may also benefit women. Conservation agriculture involves minimal soil disturbance through reduced or no tillage; use of cover crops, mulch and crop residues; and diversified crop rotations. Analysis of CONCERN Worldwide’s conservation agriculture program in Malawi found that

**Box 9: Community Leadership in Bangladesh**

Mariam Begum is a guiding light in her village in northwestern Bangladesh. She sells her organically grown vegetables in the market for a premium price, saves seeds for dozens of varieties of rice and vegetables for future use, and sits on her town council.

It wasn’t always so. Fifteen years ago, Begum, then just widowed, was struggling to provide for her children. Then she signed up for a training in chemical-free agriculture with UBINIG, an indigenous Bangladeshi organization, which has received Canadian government funding. Now she is thriving as a farmer, and has signed up more than 250 other villagers to farm the UBINIG way. “I am proud that people consider me as a lighthouse in the community,” she said.

With files from Josiah Neufeld
Photo credit: Paul Plett
throughout the year, conservation agriculture reduced the labour demand for women compared to conventional agriculture. Significantly, conservation agriculture allowed land preparation to be spread over a longer time period, resulting in a less intensive labour calendar. The analysis also found women engaged in conservation agriculture were less reliant on working off-farm to supplement their incomes, had increased food security, and experienced heightened social standing (CONCERN Worldwide, 2013).

Other analyses are less positive, suggesting that, in some cases at least, conservation agriculture may lead to more labour requirements for women, depending on factors such as use of herbicides (CIMMYT, 2013).

In all cases, conservation agriculture projects, as with all techniques, must be designed and implemented with the full participation of women to ensure benefits help achieve gender equality, not just production increases (Halbrendt, et al., 2014).

2. Domestic chores. Finding ways to lessen women’s burden of household chores could have huge knock-on effects on agricultural productivity, and overall well-being. This is true not just for women on family farms, but also for women seeking agricultural employment on other farms. One of the most important factors constraining women’s ability to find paid work is their heavy burden of unpaid work (FAO, et al, 2010). More broadly, introducing care-related infrastructure and services can help reduce the burden of care (see Figure 4).

Labour-saving technologies could include introducing water sources in villages and fuel-efficient stoves for cooking. In Kenya, women who used an Upesi fuel-efficient stove reported they spent 10 hours less each month on collecting fuelwood, and used 40 percent less fuel than traditional three-stone fires (FAO, 2011). In Yemen, women who had appropriate access to water and gas stoves spent about 52 percent of their time in productive farm activities compared to 24 percent for women who didn’t have this access (Petris, et al, 2015). Importantly, a switch to fuels, such as LPG, could significantly improve health and decrease deaths as well (Cecelski & Matinga, 2014).

Agricultural development that helps improve access to appropriately designed simple transport devices, such as wheelbarrows and carts, can reduce the time women spend collecting fuelwood and water (Carr & Hartl, 2010).

Again, agricultural practices may also positively impact domestic chores. Agroforestry, which integrates trees into crop and/or livestock systems, can diversify farm outputs and rural diets, while also reducing the time and labour needed by women to collect firewood (Dawson, et al, 2013).

Farmer-managed natural regeneration (FMNR) involves the regeneration and management of trees and shrubs from tree stumps, roots and seeds in fields. In addition to environmental and food security benefits, FMNR has been a time boon to Sahelian women by greatly improving the supply of fuel wood, allowing them to reallocate the time formerly spent on collecting fuelwood to other activities (Garrity, et al, 2010).

Furthermore, women’s labour demands would decrease if men were sensitized to more equally share household chores. “Unfortunately, women’s willingness to share men’s breadwinning responsibilities has not been matched by men’s willingness to share unpaid caregiving responsibilities” (Bread for the World Institute, 2014). Transforming these gender roles requires initiatives that challenge both men and women to examine and rethink their ideas of what is an equitable division of labour (Bread for the World Institute, 2014).

Box 10: PRADAN Self Help Groups

Indian non-governmental organization, PRADAN, has long worked to help rural communities improve their economic livelihoods. But over time, PRADAN realized its income generation projects weren’t enough to support women who faced discrimination or violence. It set in motion a much more transformative goal of supporting women in taking charge of their own lives.

PRADAN started the Gender Equality Project in 2010 to fuel larger social and political empowerment for women. Targeting 80,000 women, PRADAN mobilizes women through Self-Help Groups, which then network with local institutions. They tackle issues of discrimination, such as ensuring girls are able to attend school. The group discussions and activities further help transform women’s sense of self-worth and open up spaces for public participation.

Not only has this approach empowered women, but it has also changed the way PRADAN itself works overall, putting much more power and initiative to lead groups in the hands of the women themselves (PRADAN, nd).
**Markets:**

Most women farmers, even at the subsistence level, will access markets at least minimally. Agricultural interventions that seek to empower women should consider women’s access to and participation in markets. This starts with timely, reliable and accessible market information. Women must be able to make informed decisions about the purchase of necessary inputs and the selling of their production (ActionAid International, et al, 2012). Information and Communication Technology-applications can help with increasing access to this information.

Women need freedom and time to attend markets, both local and distant. Interventions that address markets should also address gender norms that prevent women from fairly seizing market opportunities (Quisumbing & Pandolfelli, 2010).

Finally, support for women-friendly value chains, through financial and technical services, has the potential to empower women. But women farmers risk losing control of their products as value is increased. More research is needed into how to integrate women into value chains in ways that increase their well-being, not jeopardize it (Quisumbing, & Pandolfelli, 2010).

**Women’s Agency**

Women’s agency—the right and capacity of women to make their own choices, including making their own decisions—is a theme that runs through this report. It is an important component to all the access issues addressed above. But it is important enough to mention on its own as well.

Agricultural interventions can strengthen women’s autonomy and decision-making power, including over resources, by increasing market opportunities, access to land, and reducing labour for women (Herforth, et al, 2012). The resulting increase of income will likely increase their bargaining power and say in household decisions (FAO, 2013).

But this is not a guaranteed outcome unless women actually retain control over the assets (all the resources that a person controls or owns) generated (FAO, 2011). Research examining a number of agricultural interventions that promoted high value agriculture found that gendered use, control and ownership of assets affect how household members benefit. When men own the assets, they are more likely to capture the majority of the benefits (Quisumbing, et al, 2015). Women’s control of assets should be considered in the design, implementation and evaluation of projects (Johnson, et al, 2016).

The development organization CARE has been working with the nutritious pigeon pea in parts of Africa with substantial productivity gains. However, they estimated that only three in 10 women get to keep the proceeds from the pigeon pea—even though they provided the labour. In response, CARE and other development organizations are incorporating complementary interventions to increase women’s autonomy, such as through engaging husbands and wives in structured conversations about

**Box 11: Co-operative Leadership in Cuba**

Idania Cedeño used to think her only skills lay in working in the fields. Then a gender equality project, Engendering Change, helped her see her greater leadership potential. From 2009-2014, Oxfam Canada and a local partner, with support from the Canadian government, worked with May 17th, an agricultural production cooperative in Cuba, to empower women farmers. The training included community-based co-ed training on violence against women and promoted women’s increased participation in co-operatives.

The project not only gave Cedeño the confidence to take on a big new challenge, but it also helped change the co-operative’s structure and culture to be more inclusive of women. She was elected as president of May 17th. Since then she has helped transform a once-moribund organization into a thriving co-operative.

“Overall, the gender equality project not only gave me tools to succeed—it transformed me!” said Cedeño. “During the workshops in the cooperative’s “gender classroom” we learned about violence, worked to increase our self-esteem and build empowerment. I became a different person.”


Photo credit: Miguel Gutierrez—Editorial de la Mujer, Cuba
household expenditures and responsibilities. There is some evidence that this is leading to more collaborative ways of sharing the income derived from women’s work (Gates, 2014).

There is no quick and easy way to transform social norms, but these structural barriers to equality need to be addressed for long-term change (Gates, 2014). To do so, agricultural project designers should not only explicitly incorporate women’s agency into their designs but also involve local women farmers in every step of the design process. In so doing, women can gain agency, including over what kind of farming they wish to practice, and with what intended outcomes (De Schutter, 2015).

**Collective Action**

When women join together in groups, they are better able to overcome gender discrimination than they can as individuals. Their collective voice carries more authority than individual voices. Encouraging collective action in agriculture is a key step to empowering women. Groups, whether they be producer organizations, co-operatives, or savings and credit groups, will support women’s need for improved access and agency.

Women’s-only groups can build women’s self-confidence. In some places, such as South Asia, women are more comfortable meeting on their own, believing men will simply impose their opinions and priorities in mixed groups. Women’s groups provide a safe place to learn new skills, discuss and design their own solutions to farming challenges, raise consciousness, make decisions on financial issues and give women a voice (IFAD, 2014). For many women these groups provide their first opportunity to influence community decisions—for improved individual and community resilience (IFAD, 2012).

Further, women’s producer groups, in particular, can help strengthen women’s bargaining power in both producing and selling goods. They may allow better leverage for accessing training, credit and leasing land. They also have great potential to produce higher value crops, sell higher volumes and offer competitive prices (BRIDGE, 2014). They also help women maintain control over the additional income they earn. Meanwhile, worker unions can help women negotiate fairer and safe conditions as farm labourers (FAO, 2011).

An assessment of smallholder livestock production in Mali found that grassroots organizations, particularly women’s cooperatives, could significantly impact the improvement of livestock enterprises. Women’s cooperatives showed the highest levels of entrepreneurial motivation and were most likely to test new ideas, such as testing new dairy products for sale in their communities (Cibils, et al, 2015).

There is much progress still to be made on this front. Men generally control and manage producer organizations. A World Bank/IFPRI study found that in Ethiopia only two percent of women belong to an agricultural cooperative, compared to 13 percent of men. Men are five times more likely than women to hold a leadership position within cooperatives (Petrics, et al, 2015).

Membership entry rules that may include fees or ownership of assets can exclude women from some groups, such as rural producer organizations. Length and time of meetings are another deterrent for women (FAO, 2011). Other forms of organizations, such as community-based self-help groups, church groups, savings and loans associations, may be more accessible for many women (Petrics, et al, 2015).

Mixed groups can also play an important role in women’s empowerment, depending on the context. They can be more effective when joint action is required, such as in natural resource management or disaster risk reduction. This may require sensitization of men on the benefits women will bring to the group. Otherwise, women may face threats and even violence in taking on new roles (IFAD, 2014; BRIDGE, 2014).
THE NEED FOR INVESTMENT IN GENDER-SENSITIVE AGRICULTURE

Women in agriculture hold vital keys to food and nutrition security. They grow crops and raise livestock that feed their families and communities—and fuel local economies. They carefully manage environmental resources and help build climate resilience through their intimate knowledge of seeds, wild foods, local water resources and more. And they are family caregivers—caring for their children, their ill family members, and the elderly.

Yet despite their central role in agriculture and rural livelihoods, this paper has shown that far too few rural women thrive as farmers and as equal members of society. To overcome these obstacles, investments in agricultural development must fully integrate gender-sensitivity, including specific actions to facilitate gender equity, in their programs. Then women will be able to seize the opportunities they deserve.

The first paper in this series, Money in the pocket, food on the table (CFGB, 2015), argued that governments should invest more in agriculture to reduce poverty and promote economic development. It recommended targeting smallholder farmers, especially women, for these investments to have lasting long-term impacts. And it suggested focussing on public goods, such as rural infrastructure, research and extension services; food crops; and risk management tools. A second paper, Growing Nutrition (CFGB, 2015a), demonstrated the importance of ensuring these investments improve nutrition. The third paper, Sustainable Harvests (CFGB, 2015b), argued that these investments should also support farmers in transitioning to more sustainable agricultural practices—practices that conserve natural resources and ecosystems and boost their resilience.

In the same way that investments in smallholder farmers, public goods, food crops and risk management should take into account nutrition and environmental goals, so too women’s specific needs, priorities and ways of farming should be carefully integrated into all agricultural investments.

In September 2015, 193 governments launched the global goals for sustainable development. The goals include a target to achieve zero hunger within 15 years (Global Goals, 2015). This ambitious target has no hope of success if half the world’s population is not equally supported in their agricultural endeavours.

Aid for Agriculture

Meeting the goal of zero hunger will not just involve better targeting of agricultural investments but also substantially increasing overall investment in agricultural development.

A new report from Brookings Institution (Kharas, et al, 2015) argues that ending rural hunger, specifically, is realistically attainable within 15 years but it will require sustained and strategic funding commitments. The UN Food and Agriculture Organization (FAO) estimates that a total of US$50.2 billion in additional public resources are required to meet global food security needs in the next 10 years alone. That number will rise higher with the necessary need to help farmers address environmental risk factors, such as climate change (FAO, 2012).

Some of those investments will come from developing countries themselves. Indeed, many African countries have prioritized agricultural spending, but most do not have the resources available to reach the necessary investment levels. On average, sub-Saharan African countries only spend $23 per rural capita on food and nutrition security, compared with $100 for all other developing countries. This must cover everything from rural roads to irrigation, research and extension services (Kharas, et al, 2015). The private sector, including farmers themselves, has a valuable role to play too. But developed countries, through their aid programs, also need to step up their constructive role in supporting agricultural development in the poorest countries. As the Brookings report argues: “In order to achieve the global goal..."
of food and nutrition security, these countries are likely to need considerable outside funding, notably in the form of official development assistance” (Kharas, et al, 2015).

Support for agriculture in overseas aid budgets has tended to fluctuate significantly depending on global food prices. Once price spikes subside, the urgency is lost, and government attention is drawn towards other causes (Kharas, et al, 2015).

This has been true too for Canada. The global food price crisis in 2007-08 drove a renewed commitment from donors towards agriculture. At L’Aquila, Italy in July 2009, G8 governments (along with other donor countries) pledged US$20 billion towards agricultural aid over the next three years. That commitment increased to US$22 billion the following year (FAO, 2012). Canada substantially boosted its aid for agriculture following L’Aquila, rising to an average of approximately CDN$450 million per year between 2008-09 and 2010-11 (DFATD, 2015). But since 2011, Canada’s aid for agriculture has declined substantially, down 30 percent from the L’Aquila commitment (DFATD, 2015a).

The new Canadian government has committed to playing a renewed and constructive role on the global stage. Moreover, it has promised to refocus Canada’s development assistance on helping the poorest and most vulnerable people (PMO, 2015). At least 70 percent of all food insecure people live in rural areas—and most of them are involved in agriculture for their livelihoods (FAO, 2005). Food production remains the most basic and essential of human activities. Improved agricultural livelihoods, especially for women, will be vital for helping the poorest and most vulnerable.

Furthermore, this new government has pledged to champion the human rights of women (PMO, 2015). As this paper has argued, gender equality in agriculture is imperative for food and nutrition security, as well as economic growth, climate resilience and the well-being of women and their families.

Now is the time for a renewed commitment to aid for agriculture—agriculture that is gender-sensitive, environmentally sustainable, and nutrition-focused. Only then will women and men everywhere flourish.

**CONCLUSION**

When women farmers thrive, their households thrive. Their communities are more likely to flourish. And their countries benefit. Kofi Annan, then Secretary General of the United Nations, said it clearly: “Study after study has shown that there is no effective development strategy in which women do not play a central role. When women are fully involved, the benefits can be seen immediately: families are healthier; they are better fed; their income, savings and reinvestment go up. And what is true of families is true of communities and, eventually, of whole countries” (Annan, 2002).

When women in agriculture are empowered, their agricultural productivity rises dramatically. This, in turn, helps reduce poverty and spur economic growth. It leads to much improved food and nutrition security. It enables greater resilience to climate change and other environmental risks. And, it improves women’s status in their homes, communities and wider society. Women’s empowerment is vital in its own right.

For far too long, however, women have faced insurmountable hurdles in their agricultural endeavours. Lack of education has provided a poor foundation for productive farming. Then they are discriminated against in accessing key resources for farming. They are heavily burdened by unpaid household work, such as childcare and food preparation, which leaves them with little time for critical farm work. And they lack autonomy—with little control over decisions, including use of income derived from agriculture.

Canada and other donors can deliver substantial benefits for women and their communities with a strong commitment to investing in agriculture. Canada should restore agricultural aid to $450 million/year, the average yearly level it attained between 2009 and 2011.

Donor dollars for gender-sensitive agriculture will have greatest impact if they focus on three key pathways to women’s agricultural empowerment:

- Improve women’s access. The need for fair, equitable and gender-sensitive access to necessary resources covers the whole gamut of women’s role in agriculture: land, labour, financial services, knowledge, appropriate technology and techniques, and markets.
• Ensure women’s agency. Women should be empowered to define their own goals, make their own decisions, and direct their own farming story. Men should be sensitized to women’s need for autonomy and shared responsibilities.

• Support collective action. When women come together in groups, they are far more likely to achieve the first two pathways. Their collective voice carries more authority. They have better access to the resources they need to flourish as farmers. And they are more likely to be emboldened to stand up for their human rights.

It is women’s time to flourish. When transformation happens for women farmers it will be for the good of all.
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