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Women and Agriculture: Growing More Than Just Food

Around the world, there are at least 1.6 billion women who live in rural areas and depend on agriculture for their livelihoods – more than a quarter of the total world population. Women farmers produce more than half of all the food that is grown in the world, specifically, up to 80 percent in Africa and 60 percent in Asia.ⁱ

Research has shown that when women increase their incomes and have access to more resources, they invest their money in their children’s nutrition, education and health care, creating a multiplier effect that strengthens families and communities over time. Yet, despite the benefits for both agricultural productivity and poverty reduction, many development programs and services do not adequately invest in women’s agricultural productivity. Women receive only about five percent of all agricultural extension resourcesⁱⁱ and own only an estimated two percent of all titled land worldwide.ⁱⁱⁱ

Given women and men’s different roles and access to resources, it is essential that agricultural projects take gender differences into account. Too often, gender is equated with women, but gender is about women *and* men. *Gender* refers to the different roles, resources, rights, opportunities and responsibilities of women and men in a society. Decades of research and experience have shown that these differences between women and men are profound in the developing world. Furthermore, women and men face differing constraints and opportunities—especially in terms of their needs for, and access to, services and programs. Because of historic and cultural barriers, without a focus on gender, women’s needs are most often left out.

“U.S. assistance programs and projects should incorporate assistance to women who often bear an inordinate burden in caring for their family and in earning an income.”
Report to the Members of the Senate Foreign Relations Committee, Global Food Insecurity: Perspectives from the Field.^{iv}

Gender analysis is a tool that looks at the different roles of women and men and how they impact a proposed strategy, project or policy. It ensures that the needs of both women and men are built into development strategies up front so that programs target their resources most effectively, instead of making costly fixes after the fact when projects do not reach their potential. For example, a review of a rice cultivation project in Cameroon shows that without gender analysis, programs fail. Rice in Cameroon is considered to be a male crop and men control all income earned around it, regardless of who performed the



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labor. Recognizing this, women refused to take part in the program, choosing instead to continue growing the more traditional women's crop. Despite earning lower returns from the crop at market, women were able to ensure they would receive income for their work, even if they grew the less profitable sorghum.^v

Clearly, a lack of understanding about the roles that women and men play in a sector as fundamental as agriculture will result in programs falling short of their potential and development dollars will be spent inefficiently. Gender integration is the process by which gender analysis is applied to all steps of development programs and projects. Without proper targeting policies and programs may not reach or impact those drivers of agricultural productivity and development.

In the agriculture sector, four of the most critical areas in which women face more significant barriers than their male counterparts, and where improved and secure access would mark a significant difference in overall food security and economic growth are:

- land and water
- extension services and training
- inputs and credit
- markets

Access to Land and Water

Land and water are fundamental to agriculture, yet the different challenges women and men face in accessing them are rarely fully addressed. For women, it is often particularly difficult to access, own or control land due to legal or cultural restrictions. This problem is widespread – women hold title to approximately two percent of land globally and are frequently denied the right to inherit property.^{vi} In Uganda, for example, women scarcely own any land at all, yet make up almost 75 percent of the agricultural labor force.^{vii} In India, Nepal and Thailand fewer than ten percent of women farmers own land^{viii} despite performing 90 percent of labor for rice cultivation.^{ix}

Even when women have some legal standing for land title, they are often required to have, and therefore are dependant upon, a male relative to co-sign for land or give consent for its purchase. In many rural areas, land is allocated through customary law and tradition and even when women have access through that process it does not provide enough security for dependable income generation.^x This is because when women do not have secure, dependable access to land it hinders their economic independence by limiting their access to credit and inhibiting their ability to invest in the long-term improvements to land needed to increase crop yields.

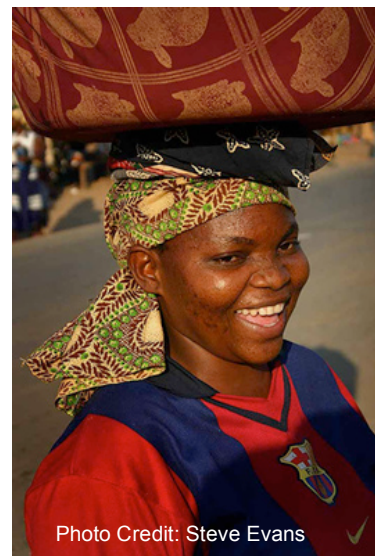


Photo Credit: Steve Evans

Furthermore, when women do not have control over land that they tend for the reasons noted above, they do not have control of the earnings from that land. This matters because women are usually responsible for feeding their family and paying for school fees. In addition to limiting their income, this lack of access to land also dictates which land women are able to farm and which crops they are able to grow, which further restricts their income. Women must frequently use marginal lands located far from settlements to grow food crops that are consumed and marketed locally, as better land tends to be used by men for cash crops. This is a major obstacle to improving the lives of the rural poor whose livelihoods depend on agriculture, since women's earnings are so critical to breaking the cycle of poverty.

Access to water for productive use is intrinsically linked with access to land.^{xi} Without adequate water for crops and cultivation, growing seasons are shorter and land becomes less fertile and less able to support meaningful food or income generation. Accordingly, projects that have focused on improving irrigation have also had direct benefits for women. In addition to providing necessary water for crops in drier areas, they also reduce women's workloads by hours a day, allowing women to engage in other, more productive livelihood activities.^{xii}

Women are generally responsible for providing water for both household and agricultural needs in addition to their full time farming duties. In most of the world women and girls spend several hours a day, up to 25 percent of their time, collecting and carrying water.^{xiii} A lack of secure, dependable and easy access to water leads to limited irrigation and therefore to lower crops yields. But more profoundly, it places major restrictions on women's productivity. The time burden imposed on women by insufficient access to water constrains their capacity to engage in agricultural activities and thus, the market economy.^{xiv}

Rights to land and water can and will increase a woman's bargaining power within the household, which results in increased allocation of household resources to women and their children. This means an increase in the overall household welfare.^{xv} A crucial goal for rural agricultural development programs must be to address the gendered aspect of access to water for farming and irrigation and secure control over land for food production and income growth. Ensuring that water and land for growing crops are available to women and men equally, and that women hold secure rights to both the land and to the production from the land, is fundamental to long-term agricultural growth and thus, economic sustainability and poverty reduction.

Access to Extension Services and Training

The vast majority of women living in poverty in the developing world depend on agricultural work as their main source of income and food for their families.^{xvi} It is very difficult for these farmers to innovate because of the cost associated with those risks. Proper and ongoing training helps ease those costs and risks. For example, trying a new crop can be daunting if farmers are unfamiliar with the correct techniques for growing it, but if an expert is able to show them, it becomes a smaller risk. It is crucial to

ensuring new technologies and techniques are passed onto farmers to increase yields, nutrition, food security and incomes.

While the majority of farmers in the developing world are women, an overwhelming proportion of the extension agents who provide that training are men. The result of this is that the people who are actually doing most of the farming are often not able to access vital extension training. In fact, only 15 percent of the world's agricultural extension agents are women, and women receive only five percent of all extension services globally.^{xvii}

There are several reasons extension services are not reaching women.

- In many communities and cultures, interaction between men and women is restricted and therefore, women are not able to attend trainings with men.
- Women's days are filled with household chores, childcare and fetching water in addition to their extensive farming duties. These time burdens make attending trainings difficult.
- Women's specific needs in agriculture are often ignored or unknown to men, and male agents do not take these factors into account. This makes it difficult for women to discuss techniques or crops they prefer or traditionally use. Male agents rarely have a full understanding of the rights, roles and responsibilities women face while performing agricultural activities and women often are not fully able to voice their concerns and ideas.
- There are unsustainably low numbers of women involved in formal agricultural education who can become extension workers or researchers themselves. Only three percent of the 22 million students in developing countries around the world are engaged in the study of agricultural science at the tertiary level. Of those, only 38 percent are female – a proportion too low to adequately serve the large number of women farmers.^{xviii}
- Finally, across the developing world, literacy rates among women lag significantly behind men.^{xix} Without basic education and literacy, women will be unable to read simple instructions. The impact this has on agricultural productivity is tremendous. When farmers are unable to read and understand instructions on fertilizers or seed packages, directions on how to use tools or technologies, or even read a weather report, then it is their crops and subsequently their families who will suffer.

These obstacles essentially make any information transfer or learning from extension services merely a filtering down process that reaches women indirectly, if at all.^{xx} As a result, women who do the majority of household food cultivation usually only have access to lower levels of information, technologies and techniques, which in turn, lowers yields.^{xxi}

These barriers can be surmounted if gender analysis is applied to projects before they are developed and implemented, allowing extension trainings to truly focus on the needs of people using them. Studies have shown that these gender targeted extension services are critical for increasing agricultural yields and can be done a relatively low cost, if coordinated within a broader agricultural development framework.^{xxii}

While the specific recommendations should be based on a particular country or context, there are several crosscutting solutions. Recruiting, hiring and training more women extension agents and then developing and implementing programs with a full understanding of the gender roles in a community is a necessary change. Further, improving extension services must include fostering opportunities for women farmers to have open dialogue with agents and with each other to best share information critical to the food security of their families; holding meetings at times and locations that are more convenient for women to attend; increasing attention paid to crops women harvest; and increasing services for women, such as basic education and childcare, at agricultural training centers. This will ensure that extension trainings will be designed and implemented with the needs of those who use the services at its center.

Access to Inputs and Credit

Equal access to inputs, such as credit, tools, fertilizers and technological advances, is fundamental to increasing food security and incomes. Women's access to inputs can be the difference between not being able to sow a crop and growing enough food to feed their family. Currently, the limited availability of credit hampers women's ability to purchase necessary inputs. In sub-Saharan Africa women are able to access only one percent of credit in the agricultural sector.^{xxiii} And even when inputs are more readily available, they tend to be taken up by men in the community.^{xxiv}

Lack of access to improved tools, animals and machines to increase labor productivity is a major constraint on women farmers in much of the world. Although technologies exist to improve productivity, most are adopted in relation to tasks more commonly performed by men, without sufficient attention to developing and disseminating tools specifically suited for women's farming. In fact, many tools used by everyone were not created with women's body frames in mind or with the understanding of how women and men perform similar tasks differently.

Even when tools which are better suited for women are available, such as light weight, long handled hoes, most women farmers are unaware of them or do not have the money to purchase them. Thus, they continue to slowly and painfully weed by hand, using short-handled hoes, which decreases their speed and productivity.^{xxv} Compounding the problem, men are more likely to have money and are therefore more often in control of purchasing better tools, but they often opt not to in order to save money, as women can perform the tasks manually at no additional costs to them. While this saves money in the short term, it decreases yields over the long term because it greatly increases women's labor burden, slows their work speed and decreases their ability to do other farm tasks.^{xxvi} If women's specific needs are not taken into account in terms of tools and tasks, the slower pace of farming and lack of efficacy reduces yields for everyone.

While many microfinance programs are directed towards women, mainly due to their high rates of repayment, several factors continue to create barriers for women in accessing larger amounts of credit, particularly at the small and medium sized

enterprise level. The seasonal nature of many crops creates a time lag that makes repayment and new loans more difficult to schedule and manage. Also, the transaction costs for credit in the most rural areas, where women are more likely than men to be engaged in agriculture, make the accessibility of credit a more difficult. While this affects both women and men, combined with all the other barriers women face in accessing credit, along with the fact that they make up the bulk of rural farmers, this creates a greater obstacle for women to access credit overall. Also, as women tend to be poorer than men, the basic interest payments and transaction costs associated with loans present a larger barrier to them than to men – with less money and security overall, making those payments is more difficult, resulting in less credit being lent to women. Further, lack of well-defined property rights also puts women at a disadvantage in pursuing credit, as many lenders require legal land tenure for loans.^{xxvii}

To overcome these barriers, gender integration throughout all types of financial services is required. Not only would it serve to provide a more holistic range of credit and other financial safety net mechanisms for women farmers, but it would foster a greater ability for women to negotiate on and control the purchase of their inputs and tools and therefore their production and economic security.

Women and Inputs: By the Numbers

- In Kenya, if women farmers were given the same level of agricultural inputs and education as men, they could increase their yields by more than 20 percent.^{xxviii}
- In Burkina Faso, shifting existing resources between men and women's plots within the same household could increase output by up to 20 percent.^{xxix}
- In Tanzania, a reduction of the time burdens placed on women could increase the household cash incomes of smallholder coffee and banana growers by ten percent, labor productivity by 15 percent and capital productivity by 44 percent.^{xxx}
- In Zambia, if women enjoyed the same overall degree of capital investment in agricultural inputs, including land, as men, outputs could increase by up to 15 percent.^{xxxi}
- As a result of continued access to credit, family assets in Andhra Pradesh, India have tripled from 2000-2006, mainly as a result of an increase in women-run enterprises.^{xxxii}

Access to Markets

To ensure that agriculture does more than merely feed families, but also becomes a source of income generation, farmers must have markets to sell their crops. Local, national, regional and international markets provide a continuum of opportunities for the sale of agricultural products, but there are barriers at each of these levels.

Women's access to markets is particularly limited by several factors. First, markets cannot be reached without adequate and usable transportation infrastructure, especially in very rural areas. Seventy percent of rural farmers in sub-Saharan Africa live more than a 30-minute walk from an all-weather road. Women farmers have additional

concerns, such as safety and cultural norms, which must be factored into their travel and transportation of goods. Women and men favor different types of transportation and use infrastructure differently and this must be taken into account when projects are designed. Equal access to improved transportation and better infrastructure to facilitate bringing crops to markets will relieve women's time burden and allow women to more fully engage in the market economy.^{xxxiii}



Yet, most projects do not take this into account, and infrastructure is more likely to be an obstacle for women than for men. If women are unable to reach markets because roads or public transportation are unsafe or inefficient for them to use, they will be less likely to use them at all. This decreases their access to markets and thus, their opportunities to engage in the economy and increase incomes.

Second, the cost of fully participating in the market place is often out of women's reach. Because of women's limited access to credit, they are usually at a disadvantage in renting or reserving market stalls to sell and store their goods, or buying the materials to produce in bulk quantities for national or international markets, limiting their ability to adequately utilize markets to sell their crops for income and properly store the excess for future use. Third, women are likely to be excluded from the process of making and selling higher value products. For example, without proper advice or training, women are more likely to sell raw fruits at market than to sell higher priced processed and packaged specialty jams made from the same fruit. Women are less likely to receive basic business skills and training on marketing and quality standards, as well as access to credit to carry out these upgrades. This creates barriers to women's entry into markets and into more lucrative value added products.^{xxxiv}

Another obstacle women face in accessing the market place relates to cultural norms. For example, in some South Asian countries, powerful social norms restrict women's movement in public, so women must have access to socially acceptable and gender segregated places to sell their goods or rely on men to serve as their link to markets.^{xxxv} In Bangladesh, a successful approach to improving women's access to markets focused on building not just separate stalls for women to sell their goods, but also separate toilet and water facilities, taking into account the physical needs of women shopkeepers. Women were also provided with targeted and gender-sensitive information on trade licensing, business procedures, taxes and tolls and facility operation and maintenance.^{xxxvi}

Ensuring women have access to local markets is vital to increasing their economic stability and their family's food security. Therefore, there must be a focus on increasing women's access to markets by providing women with an opportunity to sell their goods to their neighbors, those throughout their country and people across the globe. These solutions should include providing safe and effective infrastructure and transportation from villages to markets, taking into account the needs of all who use them; allowing for safe and useful space at markets for women to sell their goods; and, providing gender-

specific training on issues such as business skills, marketing, packaging and international standards necessary for exporting.

Further, the private sector, along with donor development projects, should engage directly with women growers and producers, especially with organized groups like rural women's cooperatives, to find out the needs of those growing and selling products. This way, they can provide the most appropriate training and assets that will enable women farmers to have the important information they need to effectively enter the market place. The investments made in advancing opportunities on the farm level, when matched with secure access to markets, will enable women to increase their productivity and food security for their families, leading to increased incomes for themselves and their families.

Gender Integration: The Key to Success

Gender analysis reveals that while women play critical roles in agriculture, they face greater barriers than men to increasing their productivity and income. Furthermore, around the world, women are the primary agents in providing for the wellbeing of their families and communities. Barriers to access in agriculture, the sector that forms the foundation of the economy for the rural poor, have severely limited women's ability to foster sustainable agricultural growth. The global economic crisis has exacerbated these inequities, diminishing many of the previous gains women farmers had experienced in this sector. It is crucial to address the needs of both women and men farmers through gender integration in all aspects of agricultural development and each link of the agricultural value chain. This will ensure the people who are tasked with growing food have the essential capabilities needed to improve nutritional status, food security and economic sustainability around the world.^{xxxvii}

ⁱ IFAP and Women Farmers. <http://www.ifap.org/en/issues/historywomen.html#box2>

ⁱⁱ IFAP and Women Farmers.

ⁱⁱⁱ Steinzor, Nadia. 2003. *Women's Property and Inheritance Rights: Improving Lives in a Changing Time*. Women in Development Technical Assistance.

^{iv} Report to the Members of the Senate Foreign Relations Committee. 2009. *Global Food Insecurity: Perspectives from the Field*. GPO 47-215

^v Alderman, Harold et. al. 1995. *Gender Differentials in Farm Productivity: Implications for Household Efficiency and Agricultural Policy*. FCND Discussion Paper No. 6 Washington D.C.: World Bank

^{vi} Steinzor, Nadia. 2003.

^{vii} Tripp, A. 2004. *Women's Movements, Customary Law, and Land Rights in Africa: The Case of Uganda*. African Studies Quarterly, 22 March.

^{viii} FAO. Gender and Food Security: Agriculture. <http://www.fao.org/gender/en/agrib4-e.htm>

^{ix} FAO. Gender and Food Security: Division of Labor <http://www.fao.org/Gender/en/lab2-e.htm>

^x The World Bank. 2008. *Gender and Agriculture Sourcebook*.

^{xi} IFAD: Gender and Water http://www.ifad.org/gender/thematic/water/gender_water.pdf.

^{xii} IFAD: Gender and Water.

^{xiii} WaterAid America. http://www.wateraidamerica.org/what_we_do/the_need/water.aspx

^{xiv} Kohsia, Prabha and Pearl, Rebecca. January 2003. *Untapped Connections: Gender, Water, and Poverty*. WEDO. http://www.wedo.org/files/untapped_eng.pdf.

^{xv} The World Bank. 2008. *Gender and Agriculture Sourcebook*.

^{xvi} Mehra, Rekha and Mary Hill Rojas. 2008. *A Significant Shift: Women Food Security and Agriculture in a Global Marketplace*. ICRW.

^{xvii} IFAD Rural Poverty Portal. <http://www.ruralpovertyportal.org/web/guest/topic/home/tags/gender>.

^{xviii} The World Bank. 2008. *Gender and Agriculture Sourcebook*.

^{xix} UNICEF. 2007. State of the World's Children. Figure 2.5 http://www.unicef.org/sowc07/docs/sowc07_figure_2_5.pdf/

^{xx} Mehra, Rekha and Mary Hill Rojas. 2008.

^{xxi} The World Bank. 2008. *Gender and Agriculture Sourcebook*.

^{xxii} The Chicago Council on Global Affairs. 2009. *Renewing American Leadership in the Fight Against Global Hunger and Poverty*.

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- ^{xxiii} Mehra, Rekha and Mary Hill Rojas. 2008.
- ^{xxiv} IFAD. 1999. *Assessment of Rural Poverty in West and Central Africa*. Rome: West and Central Africa Division.
- ^{xxv} The World Bank. 2008. *Gender and Agriculture Sourcebook*.
- ^{xxvi} The World Bank. 2008. *Gender and Agriculture Sourcebook*.
- ^{xxvii} The World Bank. 2008. *Gender and Agriculture Sourcebook*.
- ^{xxviii} Gelb, Alan. 2000. *Gender and Growth: Africa's Missed Potential*.
<http://siteresources.worldbank.org/EXTAFRREGTOPGENDER/Resources/genderFindings197.pdf>
- ^{xxix} Gelb, Alan. 2000.
- ^{xxx} Gelb, Alan. 2000.
- ^{xxxi} World Bank. 2005. *Gender and Shared Growth in sub-Saharan Africa*. Briefing Notes on Critical Gender Issues in Sub-Saharan Africa <http://siteresources.worldbank.org/EXTABOUTUS/Resources/GenderGrowth.pdf>
- ^{xxxii} The World Bank. 2008. *Gender and Agriculture Sourcebook*.
- ^{xxxiii} WaterAid America.
- ^{xxxiv} Mehra, Rekha and Mary Hill Rojas. 2008.
- ^{xxxv} Rojas, Mary Hill. *Agriculture: Gender Makes A Difference*. ICUN. The World Conservation Unit.
- ^{xxxvi} Asian Development Bank. 2003. "Integrating Gender into World Bank Financed Transport Programs—Case Study: Bangladesh, Third Rural Infrastructure Development Project (RDP 21)." Prepared by: Dr. Hafiza Khatun.
<http://siteresources.worldbank.org/INTGENDERTRANSPORT/Resources/BangladeshThirdRural.pdf>.
- ^{xxxvii} UNICEF. *The State of the World's Children 2007*. <http://www.unicef.org/sowc07/>