

Reducing the Gender Gap in Agricultural Extension and Advisory Services: How to Find the Best Fit for Men and Women Farmers

MEAS Brief # 2

May 2013

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Agriculture is a fundamental driver of economic growth and poverty reduction for many developing countries. Past efforts at revitalizing the agriculture sector have failed in part because they overlooked the role of women and the negative effects of gender inequalities on productivity. According to *The State of Food and Agriculture* (FAO, 2011), “Women comprise, on average, 43% of the agricultural labor force in developing countries, ranging from 20% in Latin America to 50% in Eastern Asia and Sub-Saharan Africa”. Reducing gender inequalities in access to productive resources and services could increase yields on women’s farms by 20–30%, which could raise agricultural output in developing countries by 2.5–4% (FAO, 2011).

To realize these gains, men and women farmers need access to information, skills and tools to improve yields. However, levels of contact between farmers and extension agents remain relatively low in general, and especially low among women (World Bank, 2010). The strategies and institutions involved in the delivery of extension services must be reformed to offer a better fit for men and women farmers. This summary examines gender relations, as they relate to the content, delivery and usage of extension and advisory services (EAS), to the structure and policies of agricultural development institutions, and to the benefits of

agricultural growth – both for smallholder farmers and the economy at large.

“Extension takes place in complex environments structured a priori by gender relations... Conceptualizing extension as a technical value-free activity is seriously mistaken” (Farnworth, 2010).

Historical Overview – How EAS Have Attempted to Incorporate Gender Issues

Academic and development communities began to take notice of women’s contributions to agriculture after the economist, Ester Boserup, published her groundbreaking work, *Women’s Role in Economic Development*, in 1970. Reports began to emerge, identifying past failures and exploring approaches that actually work.

As stated in the *World Development Report 1982*, “[E]xtension services are often biased toward work with men and neglect the very important role of women as farmers in most parts of the world” (World Bank, 1982), a conclusion supported by other studies and reviews of the period (e.g., Staudt, 1977; Berger, DeLancey, & Mellencamp, 1984). It was found that structural biases in the local selection criteria for extension services, such as minimum land size, literacy, and ability to purchase inputs, excluded women (e.g., Saito &

Weidemann, 1990).

The early ‘Training and Visit’ (T&V) extension systems in the 1970s–90s did not effectively reach all groups, and viewed women as ‘beneficiaries’ rather than as actors in their own right. Although the development of the Farming System Research and Extension approach (FSR/E) initially ignored gender issues as well, this changed in response to a series of research activities and data-sharing opportunities during the 1980s and early 1990s (Feldstein, 2000).

The Agricultural Knowledge/Information System (AKIS) approach was introduced by the World Bank in 2000 and went a long way toward extending the inclusion of gender issues in the research processes and personnel policies. Yet many of the constraints preventing women from accessing EAS remained overlooked. For example, many advisory services expected payment for information – a major challenge for women producers and other disadvantaged groups (World Bank, 2009).

More recently, the Agricultural Innovation Systems (AIS) perspective on agricultural development has emerged, with a broad focus on stimulating innovative behavior and fostering “linkages and partnerships with a wide range of stakeholders along agricultural value chains, including the agribusiness sector” (Anderson, 2007). The AIS perspective is a departure from the simple ‘best practice’ or one-size-fits-all approach toward the customized ‘best fit’ application of service principles, based on assessment of contextual factors (Birner, et al., 2006; Anderson, 2007). Meanwhile, livelihoods approaches have integrated poverty reduction, natural resource management, and other rural development concerns into EAS, strengthening the impact. Neither approach explicitly addresses gender dynamics, but women are viewed as critical actors in agricultural development. This recognition needs to translate into more equitable extension policies and practices. An explicit gender dimension is needed to adequately remove inequalities that impede women from becoming active agents in improving their livelihoods and those of their households (World Bank, 2009).

Box 1: Key concepts and terms

Gender: A social construct that refers to relations between and among sexes, based on their relative roles. Gender encompasses the economic, political, and socio-cultural attributes, constraints, and opportunities associated with being a man or a woman. Unlike ‘sex’, gender is socially constructed, is defined differently around the world, and changes over time.

Gender roles: The socially defined tasks, responsibilities, and behaviors that are considered appropriate for men and women. These, too, are context-specific and can change over time.

Gender relations: The ways men and women interact with one another and come to be recognized as men and as women. In many places, gender relations embody and justify unequal power relations.

Gender analysis: The systematic gathering and analysis of information on gender differences and social relations to identify and understand the different roles, divisions of labor, resources, constraints, needs, opportunities, and interests of various groups, including men and women, girls and boys, and transgendered persons, in a given context. It aims to clarify how gender roles and relations create opportunities for or obstacles to achieving development objectives.

Gender integration: The process of using evidence to make informed decisions on how to address gender equality and female empowerment systematically across USAID initiatives, ongoing programs and projects, performance monitoring and evaluations, and procurements.

Sources: Adapted from USAID, 2010, and USAID, 2012.

Why Address Gender Issues in Agricultural Extension?

Table 1 outlines a range of compelling reasons for addressing gender issues, from the ‘business’ perspective, focusing on improved efficiency and outcomes, and from the ‘development’ perspective, emphasizing the importance of eliminating inequality. While the specific arguments differ, they support the same conclusion: addressing gender inequalities in EAS is important and will produce more broad-based and sustainable outcomes.

Table 1. Making the case for gender equality in EAS

The business case	The development case
<p>Greater impact on skills and productivity: When men are viewed as the ‘real’ farmers, EAS do not necessarily flow to the appropriate individuals (e.g., women may manage certain tasks and crops), thus reducing the impact on agricultural production and marketing.</p> <p>➤ <i>Hiring women extension officers and targeting women as well as men will increase the impact of EAS.</i></p>	<p>Strengthen food security and poverty reduction: Adopting improved agricultural inputs and practices helps to increase productivity, which boosts food availability and increases producers’ and processors’ incomes.</p> <p>➤ <i>Providing EAS to women and taking a ‘farming for the family business’ approach ensures that all household members can benefit from this.</i></p>
<p>Sustainable flow of quality goods: Many agricultural workers are women. But if they see others (e.g., their husbands) reaping all the economic benefits then they have few incentives to improve productivity, and may even withdraw their labor. This threatens the supply of materials necessary for a functioning value chain.</p> <p>➤ <i>Creating incentives for women to participate in the value chain can help ensure a sustainable supply of quality products.</i></p>	<p>Removing discrimination: Gender inequalities are often the result of discriminatory beliefs and practices that restrict women’s (or men’s) full participation in agriculture and related careers. This goes against international commitments to equal opportunity and creates inefficiencies in human capital and productivity.</p> <p>➤ <i>All humans have the right to live free from discrimination that reduces their access to education, skills, and employment opportunities.</i></p>
<p>Creating new business opportunities: Women are often not taken seriously as buyers and suppliers in agricultural value chains. They may be sidelined as chains become more formalized, and they may be reluctant to participate in chains controlled by men.</p> <p>➤ <i>EAS can help women to enter value chains as suppliers of key inputs and services or to start production or processing of new products.</i></p>	<p>Improving household nutrition. Women’s contributions to household food production, including livestock and vegetables, help to increase essential micronutrient intake for family members, especially children.</p> <p>➤ <i>Studies have established a strong relationship between women’s control over earnings and greater investments in children’s health and education.</i></p>

How to Find the ‘Best Fit’ for Men and Women Farmers?

Gender gaps in access to EAS persist partly because the institutions that deliver EAS face gender-related barriers. These barriers will be discussed in turn in sections A to E.

A. Defining the EAS audience – who is a farmer?

Who should be eligible to receive extension information? Doss (2002) proposed three ways to define ‘farmers’, but each definition poses challenges for providing equitable EAS.

- **Head of household:** Despite increasing recognition that farming is a family business, in many societies the ‘head of household’ is still defined as the primary farmer and the only appropriate recipient of agricultural EAS. Many institutions continue to operate under the perception that “women are not farmers” (World Bank, 2010). Women’s contributions may be viewed as merely ‘helping’. Often information is assumed to flow freely between spouses, such that supplying men with agricultural information is sufficient, even about tasks that women are responsible for (Fong & Bhushan, 1996).
- **Land owner:** Historically, extension services were designed for farmers who owned or had

access to land (Meinzen-Dick, et al., 2010). Globally, women's land ownership lags behind men's: women make up roughly 15% of agricultural land holders in sub-Saharan Africa, 20% in Latin America, and 10% in southern and southeastern Asia (FAO, 2011). This disparity is a stumbling block for EAS programming where lack of secure access to land precludes women from receiving services or making decisions about improved agricultural practices. Lack of land ownership limits women in many important ways (see Box 2).

Box 2: Strengthening women's access to land

A complicated set of social, legal and customary norms confer access to, use of, and ownership of land. Women generally have less access to land than men. Besides limiting women's access to EAS, this disparity is a barrier to improving development outcomes. Deininger (2003) argues that strengthening women's land rights is central to increasing agricultural productivity and leads to greater human capital investments in the household.

According to research from around the world, the positive effects of strengthening land rights for women include:

- increased investment in soil conservation and fallowing their land (leading to increased productivity);
- increased control over income and access to credit for women;
- increased bargaining power in the household for women; and
- reduced domestic violence.

Sources: Katz & Chamorro, 2003; Quisumbing & Maluccio, 2003; Goldstein & Udry, 2005; Panda & Agarwal, 2005; and Deininger, Ayalew, & Yamano, 2006.

- **Farm income earner:** EAS is sometimes supplied to farmers based on the destination of their crops: market or household. Cash crops are often viewed as 'men's crops', and food crops as 'women's crops', despite evidence of variability in control over the income from crops and broad collaboration between men and women on the production, processing, and marketing. Unfortunately, EAS technology

packages sometimes reinforce these gender stereotypes.

Considering these issues, Rubin (2010) proposed "[a]n approach that accepts any individual who calls him/herself a 'farmer'". This approach challenges EAS providers to meet farmers' needs on the basis of their ever-evolving activities and preferences.

B. Using available tools – EAS techniques and methods

EAS services rely on a number of techniques and methods to deliver programming: individual or group visits, meetings, use of model farmers, demonstration plots, information and communication technologies (ICTs), and farmer field schools. These many modes of service delivery combined with the plurality of EAS providers (i.e., public, private, and non-governmental organizations) make it possible to reach many types of farmers with different needs in a range of settings. The following points outline some gender considerations for selecting EAS techniques and methods.

- **Using farmer groups to deliver EAS:** To make the most efficient and effective use of limited resources, EAS programs have long used community meetings, community-based organizations (CBOs), producer associations and dairy cooperatives to enhance their reach. Generally, fewer women than men participate in such groups (World Bank, 2010). Membership or participation may be limited to land owners, one person per household, or people of a particular age group, education level, or civil status; criteria that may exclude women and other resource-poor farmers. Strategies to make producer association membership more equitable can include opening registration to spouses and additional family members, or targeting women specifically. In Tanzania, the Karagwe District Cooperative Union, in partnership with Twin, a UK-based fair trade organization, sets quotas for women participants at capacity-building workshops: 40–45% are women (Chan, 2010). Modifying the membership criteria of some groups may require advocacy and approval at

the community, district, or state levels. However, even when women participate, gender norms may prevent them from speaking out in the presence of men, and they are often excluded from leadership positions due to biases about their skills (World Bank, 2010). It may be more effective in some places to work through existing women's groups with their information-sharing networks. Extension officers should ascertain which mode of delivery will work best in a particular context (Box 3).

Box 3: Working with women's groups – will this increase women's participation and improve outcomes?

Mixed-sex groups: By participating in mixed-sex groups, women can tap into men's networks, resources, and information, which are often wider than women's. Research on forestry governance reveals that women's participation in mixed-sex groups is associated with better decision-making and improved resource management.

Single-sex groups: Single-sex groups have been shown to build confidence among women. Free of norms that influence how men and women interact with each other, and without men dominating the discussion, women can work together to find solutions, and develop leadership skills.

Rather than simply selecting either type of group to best meet women's needs, a gender-equitable EAS should be flexible and adapt to current local conditions. Single-sex groups may be necessary in contexts with a high degree of gender segregation. Mixed-sex groups can be divided into smaller groups on the basis of gender or other social variables for certain activities. Extension agents must be able to assess the gender dynamics and deploy the right techniques in various contexts.

Sources: Colverson, 1995; Kariuki & Place, 2005; Acharya & Gentle, 2006; Gotschi, Njuki, & Delve, 2009; and Agarwal, 2009 and 2010.

- **Accommodating time and mobility constraints:** With a double or triple burden of responsibility for productive, household, and community activities, women generally have little free time. Carefully designed EAS will identify strategies for disseminating information at times and places convenient to women. For example, a series of short training

sessions, at a location that minimizes travel time. Offering childcare on site may be vital, and in some countries or regions provision may need to be made for male chaperones to accompany women (though not participate in training).

Box 4. Innovative uses of ICTs to reach women farmers

The Sustainable Tree Crops Program in Ghana mainly targets illiterate and semi-literate women cocoa farmers for training via farmer field schools and video viewing clubs. A 10–15 minute video is shown on a topic relating to integrated crop and pest management, accompanied by a discussion. Out of 56 video clubs, 32 were women-only while the remainder were mixed-sex.

M-Kilimo is the Kenya farmer helpline, developed by Kenya's largest call center and business processing operator, KenCall (www.m-kilimo.com), with support from the Rockefeller Foundation. Farmers can speak to a real person for agricultural expertise and advice. In its first 18 months of operation, M-Kilimo reached 25,000 farmers. An estimated 43% of callers are women.

The Women of Uganda Network (www.wougnnet.org) engages with existing informal local communication networks, using information channels that are familiar to women – radio, extension officers, and word-of-mouth. Women's groups are given a mobile phone to call extension officers or share information between groups, and a radio to listen to local agricultural radio shows. They are encouraged to spread the word.

Digital Green (www.digitalgreen.org) in India works with men and women farmers to produce and screen locally adapted agricultural extension videos (8–10 minutes each). The farmers participate in identifying appropriate content, filming agricultural techniques, and disseminating messages to other farmers in approximately 1000 villages. More than 40% of the videos are produced by women and more than 70% of those viewing them at screening events are women.

Sources: Manfre, 2011, and organizational websites.

- **Adapting to differing levels of education and literacy:** Although the global literacy rate for adult and young women has increased over the past decade to 70% and 87%, respectively, significant disparities persist at the regional level (United Nations, 2010). In some countries

in sub-Saharan Africa and southern central Asia, the gender gap in adult literacy is as high as 24 percentage points. Where networks exist, ICTs can be used to reach diverse populations in remote locations (see Box 4). Audio- and video-based technologies provide alternatives to text-based (literacy-dependent) content. Providers of ICT-based EAS services, however, should take into consideration women's relative lack of financial resources and lack of access to ICTs (Manfre, 2011).

C. Human resources for EAS - capacity, staffing, and management

Institutional structure and organizational culture determine whether men and women will be treated equitably. An institution that delivers EAS must have the skills and resources (both financial and human) to address the differing needs of men and women farmers. Extension agents must also create equal opportunities for women and men to contribute to and shape the institutions responsible for EAS and agricultural education and research.

- **Agricultural education and research:** Institutional biases create a leaky pipeline of women leaving the agricultural science disciplines in secondary and tertiary education. Poverty in developing countries keeps many girls out of school. Even in countries with gender parity at the primary level, disparities persist in higher education. Around the world, women are underrepresented among agricultural students, scientists and extension agents, especially in developing countries (UNESCO, 2003; Beintema, 2006). Women who do enter the profession often face discrimination and barriers to career advancement.
- **Recruiting women extension agents:** A 1993 FAO evaluation of 24 extension programs in Latin America, Africa, and Asia concluded that the presence of women extension agents was a factor in increasing women farmers' participation in extension activities (FAO, 1993). The Swiss Agency for Development and Cooperation recommends women-to-women extension for better transfer of information to

women farmers (SDC, 1995). Data from several African countries indicate a low proportion of women extension officers. For example, in Mali, there was reportedly only one woman among the 302 management-level extension officers (Akeredolu, 2008a), but the situation was better in Uganda, with women well-represented in agricultural higher education and extension work (Akeredolu, 2008b).

In some communities the socio-cultural norms surrounding interactions between men and women make it necessary to recruit more women into EAS in order to reach women farmers. In Nigeria, there has been greater emphasis on hiring women extension agents, but disparities persist. In contrast, a survey in Tanzania found that 35% of men preferred to work with male extension agents and 40% of women preferred to work with female extension agents, while 34% of both male and female respondents had no preference, as long as the agent provided the necessary assistance (Due, Flavianus, & Temu, 1996).

Similarly, a study in Ethiopia found that both men and women farmers were less concerned about the sex of the extension agent than about the agent's sensitivity to gender issues, and men farmers expressed willingness to seek advice from women agents (Cohen & Lemma, 2011). It remains unclear whether or not women extension officers are necessary for improving women farmers' access to EAS and rates of technology adoption. Nevertheless, a major focus of EAS needs to be on identifying strategies to better meet and respond to gender responsive needs; increasing the numbers of women extension agents can be one of those strategies. (Box 5)

- **Building the capacity of staff members:** Delivery of equitable services will require training extension agents on gender sensitivity and local socio-cultural dynamics, in addition to agriculture-related topics. Extension agents should be equipped to design gender-responsive participatory visits, and to provide instructions on useful strategies, such as labor- and time-saving technologies.

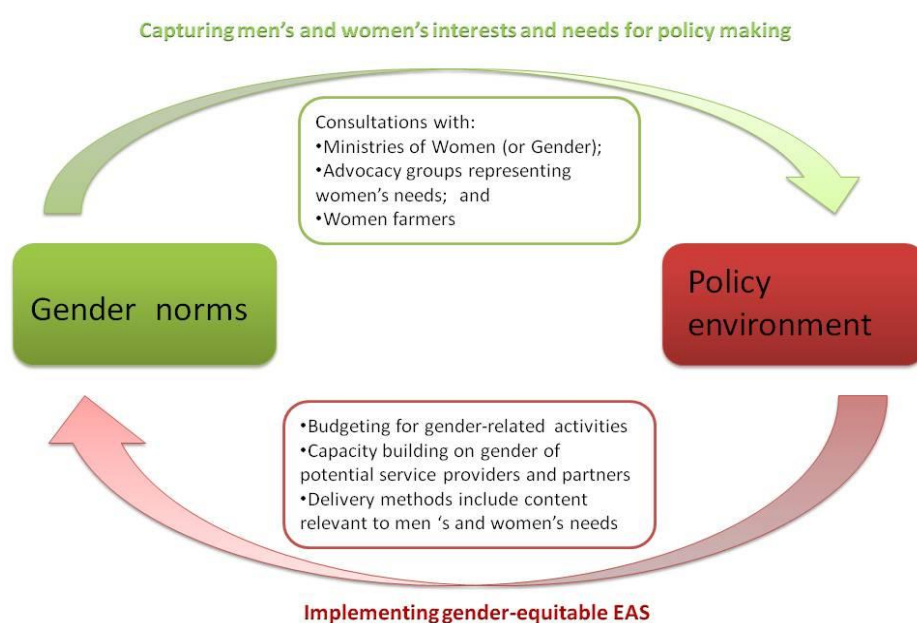
<p>Box 5: Challenges to recruiting and retaining women extension officers:</p> <ul style="list-style-type: none"> • small numbers of women in agricultural research and education; • inability of their spouses (or other family members) to relocate to remote locations; • sexual harassment or threats to security in some locations; • cultural restrictions on women's mobility or interactions with men; and • little opportunity for advancement or professional development. 	<p>Strategies for overcoming the shortage of women extension officers:</p> <ul style="list-style-type: none"> • quotas for women's participation in EAS delivery organizations; • deployment of unmarried recent graduates who may view a two-year field placement as a career boost; • incentives, such as higher salaries and good housing; and • use of a bottom-up approach – recruiting women farmers who are active in the community (including those with lower literacy levels and no academic qualifications) and training them to provide EAS.
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D. Policy and enabling environment for gender-equitable EAS

Global and national-level efforts to raise awareness about gender inequalities and women's roles in development have brought in language and policies aimed at gender mainstreaming in government ministries, policies and plans. Many countries have established ministries of gender or women,

assigned gender focal points to line ministries, or developed national gender policies. Unfortunately, these efforts have often been ineffective, and in the worse cases have served to further isolate women. As shown in Figure 1, existing gender norms shape the policy environment, and, in turn, the policy environment determines how gender differences are addressed in programs and policies.

Figure 1. Gender and policy environment



Source: Authors' work.

Many countries have revised their agricultural development policies to be more equitable, after recognizing that gender inequalities are a critical constraint to growth. The Government of Ghana, for example, in its Food and Agriculture Sector Development Policy, states the need to work toward gender equality in the agriculture sector, with all policies and programs to be designed from a gender perspective, “to ensure relevance of information to men and women and equitable access to services” (Republic of Ghana, 2007). Despite such mandates, implementation often lags behind. Whether due to lack of staff, funding or authority, or weak inter-ministerial linkages, large-scale national efforts often fall short. Furthermore, interest groups with links to the policy-makers can influence the content and implementation of those policies. Concerted efforts are therefore needed to ensure inclusion of women’s voices, interests, and needs along with those of men. Ultimately, strong political will is necessary to mainstream gender and change organizational culture, goals, and patterns of resource allocation (Kardam, 1997).

E. Performance and impact

A number of tools are available for measuring the quality of extension services. To capture both men’s and women’s opinions on EAS, efforts must be made to reach them at convenient times and places, and to use methods that are appropriate to their literacy and numeracy levels. Furthermore, indicators need to be sex-disaggregated and capture multiple levels of impact, including both household- and individual-level indicators. Indicators need to highlight differences between men and women in adoption rates, labor, time use, income, and productivity. Disaggregation of indicators to measure women’s participation in extension activities are only the beginning; outcomes and impacts also need to be measured to determine the extent to which this participation is meeting women’s needs and leading to a meaningful and gender-balanced change in farming practices, livelihoods and well-being. Furthermore, indicators must capture the impact on gender disparities, such as whether the gap between men and women receiving agricultural EAS is being reduced.

Principles for Gender-Equitable EAS

These principles provide guidelines for designing demand-driven and gender-equitable EAS services. This list presents potential entry points for collaboration among farmers, service providers, donors, and policy-makers in the building of a more equitable EAS system. Beyond this, specific actions will need to be designed based on assessment of the local socio-cultural context, and in consultation with farmers.

- **Increase the proportion of women extension officers.** No single strategy is likely to produce the desired results; a combination may be needed. The use of ICTs in extension services may offer new opportunities.
- **Equip all extension officers with the knowledge and skills to address men and women farmers equitably.** To reach more women producers and entrepreneurs, male and female extension agents should be equally responsible for and capable of reaching both men and women farmers (although in some places local cultural norms permit same-sex contacts only).
- **Adapt gender-responsive techniques and methods to the local context.** Appropriate methods for reaching men and women farmers equitably will differ between and within countries. EAS providers need to be prepared to choose methods based on local gender and social norms that influence women’s time, mobility, and education.
- **Deliver cross-sectorial programming.** It is equally important to support collaborative household strategies between men and women. Programs that link agricultural extension with nutrition and health education or microcredit opportunities, for example, can be very effective.
- **Collect sex-disaggregated data.** The lack of sex-disaggregated data collected by national statistical units, ministries, and donor-funded projects severely limits the ability to assess the effectiveness of EAS programs.

- **Evaluate the impact of extension services on reducing gender disparities in agricultural productivity.** The shift from top-down and technology-driven approaches to demand- and market-driven approaches is meant to create more responsive service delivery. This should translate into women farmers being able to shape service delivery to meet their needs. Greater investments need to be made to systematically evaluate the results and to identify the strategies that have been most successful.

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Adapted manuscript prepared by Jane Patten, Green Ink, and Brent M. Simpson, Michigan State University, MEAS Series Editor. The full document is available at <http://www.meas-extension.org/meas-offers/best-practice>.

The brief was made possible by the generous support of the American people through USAID. The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States government.

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May 2013

