AGWATER SOLUTIONS

Improved livelihoods for smallholder farmers

PROJECT GENDER FOCUS

Men + Women + Water = Greater Poverty Fighting Benefits

Using gender mapping and analysis to boost benefits from agricultural water management projects and investments

Agricultural Water Management (AWM) investments that enhance both women's and men's productivity are likely to yield the greatest gains in agricultural growth and poverty reduction, as well as narrow the 'gender gap'. To achieve this requires an understanding of the different roles women and men play in agricultural production systems.

In some systems, women and men have separate farming enterprises, each making decisions for their own fields, gardens or livestock. In others, agricultural production is a joint enterprise between men and women, with both having some say in decisions. And in still others, men dominate and women take part as unpaid labor or not at all. Knowing who makes the decisions and how labor is organized allows for better targeting of technology dissemination strategies and more effective AWM solutions. It also reveals where there are opportunities to unlock women's productive potential.

Currently, too little information is available on the gendered organization of farming. The AgWater Solutions project is helping to fill this gap by mapping the estimated prevalence and scale of the various gendered farming systems in the six project countries and elsewhere in sub-Saharan Africa. The project is also developing a portfolio of technological intervention approaches suited to the different systems and tools and recommendations for investors, implementers and researchers, to help them incorporate gender considerations into AWM technology investment and dissemination strategies.

Why considering women's role is critical for crafting AWM solutions

- Women perform much of the agricultural work in sub-Saharan Africa. And, in many areas, a significant proportion of farm decision-makers are women.
- Women often lack the resources that men have, but when they are given equal access to resources and control over outputs, women farmers are as productive as their male counterparts.
- New technologies may increase women's workloads, yet women often do not have a say in adoption.
- AWM interventions that increase women's incomes are likely to have greater benefits for family welfare than those that target only men, since women tend to spend a higher proportion of their incomes on food, school fees, and health care for their children.
- AWM technologies can impact domestic water availability—positively or negatively—and thus reduce or increase the burden of carrying water, which is most often shouldered by women.

Gender-mapping to guide solutions

Because gender relations and issues vary widely, there can be no blanket strategy for gender-sensitive introduction of AWM technologies. Yet there are patterns that allow project designers and technology investors to develop context-specific strategies that can be implemented at scale. The AgWater Solutions methodology looks at who makes the decisions and has control over the resources and outputs of intra-household production sub-units and classifies sub-units as female-managed, male-managed or jointly managed. These sub-units may include enterprises such as field cropping, homestead gardening, livestock keeping and forestry.

Using production sub-units, rather than households or farms, as the unit of analysis respects the diversified livelihood strategies pursued by most smallholders and reveals otherwise hidden opportunities to improve women's productivity and incomes. For example, in a given area, although men may dominate field cropping and cattle herding, women may have control over homestead gardens and chickens.

Based on the prevalence of female-, male- and jointly-managed sub-units, the aggregate agricultural production system of a specific area can be classified according to the dominant pattern as female, male, mixed, or joint (see Table 1).

Table 1: Gendered classification of farming systems

Type of farming system	Definition	Implications for interventions
Female	The majority of farm decision-makers are women	Solutions will only work if they target women
Male	The majority of farm decision-makers are men	Solutions should consider the impact on work loads and decision-making power of female unpaid family laborers; and reach out to the minority of women who are farm decision-makers (de facto and de jure female headed households and entrepreneurial women)
Mixed	Both women and men control production sub-units and are farm decision-makers in their own domains	Solutions should target both men and women, and ensure that both are represented in project institutions
Joint	Most sub-units are jointly managed by women and men, who both have a say in decisions	Solutions should consider the division of tasks, benefit both men and women, and ensure equitable benefits and representation in project institutions

Unlocking women's productive potential

The analysis of the gendered organization of farming not only raises gender awareness but also enables design of appropriate intervention strategies. The AgWater Solutions project will analyze and document best-practice strategies for the different farming systems. Great opportunities to improve women's productive potential and incomes lie in targeting female and joint farming systems.

In female farming systems: Interventions will only succeed if they primarily target women and ensure that women's own access to rainfed or irrigated land, technologies and forward and backward linkages (e.g., to input and output markets) is improved.

In mixed farming systems: Technology adoption processes need to target both women and men as farmers in their own right. Technologies need to suit farm size, crops, and site of both male- and female-managed sub-units. Ideally, in such systems, men and women farmers will have secure land rights and equal access to information, credit facilities, and marketing linkages.

In joint farming systems: The challenge is to shape the process of technology adoption in such a way that women and men become co-owners of the new technologies and equally share in the burdens and benefits.

In male farming systems: Carefully designed interventions can encourage a shift towards more productive and wealth-creating jointly managed farming. Here, the introduction of measures such as women's inclusion in services and implementation strategies, joint land titling and men's sensitization can gradually result in genuinely joint enterprises that benefit both women and men. Women's organization in women-only groups and the use of activities in which women are relatively strong, such as micro-credit, as entry points can support this shift to jointly managed production.

In all farming systems: Opportunities of multiple water uses, in particular for domestic water provision to homesteads should be tapped. Strengthening women's land rights gives women greater decision-making power over resources and outputs.

Key points for investors and implementers

When introducing AWM technologies or developing solutions, taking into account the gendered nature of the farming systems and targeting both men and women can:

- Improve the chances of uptake.
- Result in solutions that meet needs and priorities of men and women, which are sometimes quite different.
- Ensure that all household members, including women and children, benefit.
- Expand the nature of the benefits, for example by not only increasing income but also improving health through improved domestic water supply, enhanced nutrition or more money spent on health care.
- Result in higher gains in household income and productivity overall, since it fulfills the productive potential of women as well as men.

Project outputs

- **Intra-household analysis** of AWM intervention adoption/disadoption, constraints and impacts.
- **Evidence-based menu of AWM solutions and targeting strategies** to suit different gendered farming systems.
- **Map for Africa** of estimated prevalence and scale of female, mixed, joint and male farming systems (for better design and targeting of solutions).
- **Generic tools and methodologies for assessing** the gendered organization of farming and potential impacts of AWM solutions.

AgWater Solutions is a three year research program funded by the Bill & Melinda Gates Foundation. Its objective is to identify investments in agricultural water management with the greatest potential to improve incomes and food security for poor farmers and to develop tools and recommendations for policy makers; donors and other investors; NGOs and government agencies working in water, agriculture, and rural development; and smallholder farmers themselves. The research is being carried out in six countries in sub-Saharan Africa and South Asia: Burkina Faso, Ghana, Ethiopia, Tanzania, Zambia, and India. Partners include six international organizations – with expertise in research, implementation, and outreach – as well as many national and regional partners. See **http://awm-solutions.iwmi.org/** for more information.