Including women and the poor in water management systems

Lead authors: Nicoline de Haan and Fraser Sugden (International Water Management Institute [IWMI]) With contributions from: Barbara van Koppen, Everisto Mapedza, Jayne Curnow, Sonali Senaratna Sellamuttu and Floriane Clement (IWMI)*

Introduction

Providing everyone with access to water is vital to achieving the Sustainable Development Goals (SDGs) on health, livelihoods and economic growth. Providing women and the poor (lowincome earners and those who are landless) with access to water is especially important in rural and urban fringe areas. A series of far-reaching strategic solutions and policies need to promote social inclusion to achieve the SDGs, including to:

- Train and build the capacity of women and marginalized socio-economic groups so that they can have more active leadership roles in water management systems, at household and community levels.
- Train policy makers, planners and those in water organizations to actively consider women and poor farmers' water needs.
- Develop specific technologies and inclusive institutions and policies so women and poor farmers can participate in water use and management systems in the context of prevailing gender norms and local realities.
- Improve women's access and rights to water, through informal channels and legal mechanisms.

Ensure women can access water Ensuring women have access to water for reliable and safe domestic use is a well-recognized issue. However, it is important to move beyond the stereotype that women's water needs are limited to domestic uses, especially if water management is to contribute to achieving SDGs. Women can play a critical role in the productive uses of water in

J.VANDERBLIEK@cgiar.org.

agriculture. This is all the more important in the context of male out-migration (Sugden et al., 2014).

Proactively including women in water management decisions and supporting female farmers increases agricultural productivity. It also helps reduce gender-based discrimination and provides opportunities for women to gain confidence and control over their lives, which enhances their productive potential. Our research shows that:

- Agricultural production rises when male and female producers directly control production factors, such as labor, land, water, irrigation technologies, inputs, credits and markets, and reap the benefits of their efforts.
- Women are as efficient irrigators as men, provided they have equal access to resources and human capital.
- Water management projects can fail if women are excluded (Zwarteveen and Neupane, 1996);
- Women with alternative income opportunities are less vulnerable to exploitation.
- Women can contribute to more sustainable agriculture by integrating their knowledge and experiences on resource management and farming.

Target individuals' needs

Governments and water agencies need to answer the questions: 'Who are the farm decisionmakers?' and 'What are their requirements for improving their livelihoods and wellbeing?' Only then can they ensure that incentives are effective and that they gain the buy-in of the end-users.

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To date, water management interventions typically target a region, or a community. Rarely do they target a household, or an individual in a home. If they do, there is a tendency to target men, who are often not from the poorest households.

Water managers, planners, policy makers and technical staff often do not consider gender or equity concerns to be an important element of planning and implementation. With respects to gender equity, this is of concern, as the number of households where women are the main decisionmakers, including on agricultural water issues, can be considerable, and is increasing due to outmigration of men, as well as the AIDS epidemic. As a result, women are being given new responsibilities in farming, which include managing water to increase production.

There are a number of practical methods and approaches that can be used for targeting and including individuals. These are to:

- Assess the needs, constraints and values of men and women farmers from different socio-economic groups prior to designing or recommending interventions.
- Increase consultation with the men and women affected by water management, especially those most marginalized but likely to benefit.
- Recruit more female workers, and social and technical experts in public irrigation agencies.
- Provide targeted training on inclusivity and gender mainstreaming for members of irrigation and water supply bureaucracies.
- Develop closer links and capacity of water managers to react to the changing dynamics and demands for water in agriculture and gender roles.

Address structural constraints

Constraints to water access and control are often rooted in institutional and social structures. Political and legal issues surrounding water and land constrain access (Zwarteveen, 2008). Societal structures such as norms, class, caste and cultural practices can also hinder increased inclusivity and gender equity within the water sector (Sultana, 2009; Zwarteveen and Neupane, 1996).

Addressing social inclusion in water will require governments and policy makers to make broader structural changes that reform discriminatory institutional policies and practices. Reforms will also need to take into account any informal rights that men and women have secured. Practical solutions to address structural constraints include:

- Challenging those economic and political systems that exclude or restrict women and poor farmers from gaining fair and affordable access to water, both as a resource and as an infrastructure service, through improved understanding and data on how the systems work.
- Creating incentives for water planners so they include gender and inclusivity issues.
- Increasing understanding of institutional and legal aspects of rights to water (Zwarteveen, 1997).
- Experimenting in the collective management of land and water resources, where women and poor farmers can work together to achieve economies of scale.
- Involving women at a higher level within water management committees, beyond solely being members.
- Ensuring that training and resources underpin any social-inclusion measures; the ability of women and poor people to make decisions and manage situations depends on the ability to assert themselves in unfamiliar roles and settings.

Integrate different water uses

Access to water needs to be provided for domestic and income-generation uses for men and women. In the daily reality of poor rural communities, the same water source typically meets multiple needs simultaneously.

Governments and policy makers need to ensure that water schemes are designed for multiple uses. They also need to ensure that trade-offs do not further marginalize particular social groups. For example, large-scale irrigation schemes or hydropower projects add to agricultural and energy production, but they can take water away from fisheries, which are often the domain of the poorest socio-economic groups and women.

There are multiple benefits from irrigation schemes that are well designed for multiple uses. Access to irrigation water that can also be used for domestic uses can save women and men time by removing their need to walk long distances to collect water. Irrigation water can also be used for livestock, fodder, fish, and other incomegenerating activities.

Practical solutions for integrating water uses are to:

- Identify irrigation technologies that are appropriate for women and poor farmers, and that are efficient and provide a high return per land unit.
- Identify technologies and cropping patterns suitable for smaller land holdings.
- Ensure information and training reaches both female and male farmers. This can involve targeting different forums with the same training. In countries where gender segregation is the norm, identify places and times when it is socially acceptable for women to attend meetings.
- Identify 'multiple uses' of water while planning irrigation or other large-scale water management projects to account for different needs. This may include activities

in the domain of women and/or marginal socio-economic groups, such as fishing or collecting aquatic plants.

- Encourage public agencies responsible for different water uses to institutionalize multiple-use water services to enhance the benefits and sustainability of these systems.
- Design water access arrange-ments and technologies that address intersections between gender and poverty, and that target women, marginal farmers and traditionally excluded groups.

Rethink societal structures

Societal structures need to change if we are to the meet the SDGs and eliminate discrimination against women and minority groups in accessing and using water. Specifically:

- Countries need to implement national economic and social policies that include, protect and promote the specific needs and livelihoods of women and minority groups.
- To govern the sustainable use of water resources, countries should implement water technologies and programs that increase access to water for productive use by both women and minority groups.

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