



Gender and Water Governance: Reducing the Challenges to Women's Participation in Irrigation Management in the Context of Climate Change

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KEY MESSAGES

- In keeping with Integrated Water Resource Management (IWRM) and Participatory Irrigation Management and Development (PIMD) principles, women have long been actively involved in water and irrigation management. Yet many women still have a more narrow experience and less expertise than men do. Their full participation is also hampered by the double-workload of both reproductive and productive roles, and socio-economic and cultural barriers.
- The number of women in the principal and leadership roles within farmer water user communities (FWUCs) remains low despite the gender mainstreaming and women empowerment activities that have been taking place at local level. Men dominate the most important positions in the FWUC committees while women rarely hold decision-making authority. Women have similarly restricted access to and control over family and common property resources.
- Men and women farmers are facing more and more climate-related impacts: better water

governance, irrigation expansion and local support are crucial to help them to adapt to the impacts of climate change and build livelihood resilience.

- Non-FWUC members (notably female-headed households) and those whose rice fields are located far from canals are most vulnerable to climate related hazards, in particular the increased frequency of flood and drought.
- The integration of gender perspectives into the planning and implementation of climate responses at all levels and across sectors would be significant since it would empower women and enhance their rights, access to, and control over, resources needed to mitigate and adapt to the effects of climate change.

THE PROBLEM

Recognising the need to maximise the participation of local-level stakeholders in water management to improve irrigation systems and thereby also increase rice production, improve livelihoods and build climate resilience, IWRM and PIMD principles have long been integrated into national

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development policy and plans (MOWRAM 2005, 2007). However, the numbers of women assigned a position on FWUC committees are reportedly still low and men still dominate. This relegates women to passive and subordinate roles, effectively excluding them from direct involvement in irrigation water management and climate-adaptation activities, and hinders their access to and control over resources needed to cope with the adverse impacts of the changing climate.

Adverse effects of climate change are already evident, and the associated impacts will continue to have critical implications for water security, agricultural crops, livestock, ecosystems, physical infrastructure, human health and human settlements, and will exact a toll on human life. In many of these contexts, women and children are more vulnerable than men. This is primarily because their livelihoods are heavily dependent on natural resources and therefore more susceptible to climate shocks, they possess fewer assets to fall back on, have less access to and control over key livelihood resources, and tend to be physically weaker and therefore more prone to infectious diseases (WEN 2010). Thus, women tend to have relatively limited adaptive capacity to cope with climate-related hazards.

THE CASE STUDY

The study sites were restricted to ten irrigation schemes in three provinces – Kampong Chhnang, Kampong Thom and Pursat (PST). Ten focus group discussions (one in each scheme) were conducted. In addition, 11 key informant interviews were held with stakeholders such as FWUC leaders, farmers, village leaders and commune council members, the staff of provincial departments of Women's Affairs (PDWA), Water Resources and Meteorology (PDWRAM), Environment (PDE), and Agriculture, Forestry and Fisheries (PDAFF) (for details, see Nang and Ouch 2014).

FINDINGS: CHALLENGES WOMEN ARE FACING

Lack of Opportunity for Active Participation

The government has integrated IWRM and PIMD principles in national water policy and

plans and identified these approaches as core strategies to promote local participation in agriculture water management. Women actively participate in FWUCs and understand the current issues surrounding water governance such as the determination and collection of irrigation service fees, the use of collective savings, and the need to maintain canals and dams: sometimes, women deal with these issues better than men do. However, the numbers of women assigned responsibility in FWUC committees are reported to be still low.

Various factors hinder women's full participation in public work and decision-making processes. There are multiple demands on their time, for example. In addition to farming and running their own home businesses, women are primarily responsible for household tasks. At the same time, the manual work involved in water resources management is physically demanding, requiring strength and endurance. Full participation also needs commitment and experience in related issues such as irrigation management, agriculture, infrastructure development, gender issues, disaster risk management and mitigation, and climate change adaptation. Women's limited knowledge and skills in these issues are potential obstacles to participation. Due to this, the number of women in decision-making positions on the FWUC committees generally remains low: among the 43 committee members of the ten studied FWUCs, only nine were women. Men hold most of the leadership positions in FWUCs; they provide technical input, take overall management roles and make the final decisions while women mostly hold positions as treasurers and accountants. These unequal numbers and uneven power relationships have relegated women to passive and subordinate roles in which they are not directly involved in irrigation water management.

Most Vulnerable to Climate Change Impacts

Men and women farmers in all three provinces noted that they are facing more natural disasters and climate-related impacts, particularly floods, windstorms, high temperatures, vector-borne diseases and droughts. High temperatures bring increasing numbers of pests like worms, grasshoppers, small caterpillars and brown

leafhoppers that can destroy many hectares of rice in just one night. As well as reducing crop growth and yield, high temperatures are also linked with increased incidence of illness particularly in children. Floods (followed by windstorms and prolonged drought) are seen as serious climate issues by rural people. Farmers reported that the amount, frequency and duration of rainfall had changed, i.e. rainfall duration was sometimes shorter, longer or delayed. In many study areas, the prolonged drought of one to three months in 2012 meant there was no rain from mid-May to mid-August. Rice crops were damaged or failed, rivers and streams began drying up, and grass (for feeding animals) withered. Drought also caused extreme problems for people living far from irrigation schemes because the water in canals or drainage systems was insufficient. Farmers needed to spend a lot on pumping water (pump hire and diesel fuel) for their fields, but some did not have the right equipment, and their paddy crops were damaged. The most vulnerable were the poor, children, and women-headed families/widows. Field observations show that natural disasters affect men and women almost equally; however, women's ability to cope with specific impacts of climate change, particularly increased temperatures, is lower than that of men.

Factors Affecting Access to Key Livelihood Resources

The empirical data indicates that access to, and control over, livelihood resources (human, natural, physical, financial and social) are key to combating climate change impacts. For example, financial resources are needed for the development, management and maintenance of irrigation systems, reservoirs, flood protection dams and rural infrastructure. Human resources are required to provide targeted and timely technical advice and support. They are also needed to monitor and enhance women's awareness of the associated issues, to boost their participation and representation in decision-making roles, and to build their capacity and resilience. Local community and authorities play important roles in supporting women to realise their rights and expand their roles.

At subnational level, the provincial departments, the Committee for Disaster Management,

the Cambodian Red Cross, NGOs, women's networks, commune or village women's help groups and volunteers, actively provide support for people facing climate-related disasters. Such help includes the identification of safe locations for evacuation, the provision of seeds and fertiliser, training and field demonstrations to help farmers to recover. Men, women and marginalised groups have equal rights to these services. However, geographical location and the lack of adequate irrigation systems mean that some farmers lack sufficient access to reliable water supplies to grow their crops, and this results in water shortages. Water scarcity, in turn, causes water use conflicts and crop losses. Furthermore, in some of the schemes studied, poor rural women and female-headed farm households whose rice fields were far from main canals were unable to cope during natural disasters, despite the existence of help mechanisms. Generally, they own small plots and lack both human and financial resources. Although there are mechanisms to advance gender mainstreaming and women's empowerment (some undertaken by government institutions, local social groups and NGOs), knowledge (particularly that of women) and socio-cultural norms still hinder the process of gender mainstreaming and women's empowerment in rural areas.

RECOMMENDATIONS

The below recommendations aim to provide to all involved institutions, local communities and authorities, managers and practitioners, development partners and academics the basis for further consideration to help determine future policy directions and actions to remove the challenges facing women.

Minimise Women's Challenges

- Reinforce the capacity of women through FWUCs and other local social groups following IWRM and PIMD principles and community-based adaptation frameworks, and review/reform existing rules (community internal rules, election criteria and by-laws) and regulations that may hinder the participation of women or their representatives.
- Ensure that new policies and development programmes or projects take into account

gender-specific differences and promote the active participation of women at all levels.

- Strengthen water governance by addressing its economic, social, gender, environmental and political dimensions to ensure that water resources and irrigation systems are managed in a transparent, participatory, equitable and accountable manner.
- Encourage women to become involved in agricultural extension services and climate change adaptation activities, and expand irrigation systems to secure water availability, to reduce water stress and user conflict arising from water scarcity, and to control floodwater.

Improve Gender Mainstreaming

- Establish appropriate policy and guidelines that enable women and men (girls and boys) to have equal opportunities in resource allocation and management and to share their views and concerns in decision-making.
- Enhance gender considerations across sectors in order to give women the education, skills and capacity needed to participate in an equal manner with men.
- Provide equal opportunities for men and women to control their livelihood resources, to have their voices heard and their challenges removed. Particular attention should be given to the development of a comprehensive gender equality strategy that will ensure that men and women have equal social, economic, decision-making and political opportunities.
- Strengthen collaboration among state, private and civil society organisations to review and reform existing unequal structures in FWUCs and other local social groups. Practical strategies should be formulated and people motivated to strengthen or create more gender equity in social, economic and livelihood development and climate change response.

Promote Women's Participation

- Provide equal access to and control over common property resources for rural women since their livelihoods mainly depend on those resources; for women working in FWUCs, local authority, national and provincial

departments and other social groups, suitable opportunities to participate and exercise their rights and obligations in leadership roles and decision-making processes should be seriously considered.

- Increase women's ability to gain professional skills and on-the-job training (based on practical and strategic needs) and to take part in capacity development programmes in agricultural production and diversification, irrigation management, operation and maintenance, gender equality, disaster management and climate change adaptation.
- Motivate competent women to share experiences, skills and information that would empower and enhance the knowledge and capacity of other women.
- Integrate the principles of gender equality and women's empowerment into all sectors and regularly monitor ongoing water and irrigation development and climate change adaptation programmes and projects to ensure that pro-poor and gender issues have been taken into account.

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