

# Gender and water security in Burkina Faso: lessons for adaptation



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## Key findings

- Residents of Burkina Faso's Nouaho sub-basin are exposed to water-related hazards such as inadequate quantities of water, poor sanitation, and flooding, which are exacerbated by climate change.
- Gender roles and cultural norms related to water, such as divisions of labour, affect entitlements to water availability, affordability, accessibility and quality, producing differentiated risks for residents.
- Long-term adaptation to water security risks is constrained by gender discrimination, particularly related to participation in local decision-making.
- Adaptation planning in the WASH sector must go beyond technological solutions, and empower women and marginalized groups, in order to address water security risks that will be intensified by climate change.

In many countries, traditional divisions of labour mean that women conduct the majority of unpaid work related to the collection, transport, and management of water supplies for drinking and other domestic uses<sup>1</sup>. A gender lens thus provides important insights into the differentiated risks from climate change impacts on the water cycle, due to strongly gendered norms and practices linked to water.

Women's work on water limits time for other activities, including paid work, education or leisure, which can impact the wellbeing of the entire household. Women and girls also face different sanitation needs than men, due to social taboos and stigmas, as well as biological factors. In addition, social norms within households and communities can lead to women having less of a voice in decisions over the use of water, or the management of facilities<sup>1</sup>. These gender and power relations result in differing water security for individuals, even when they live in the same household or community.

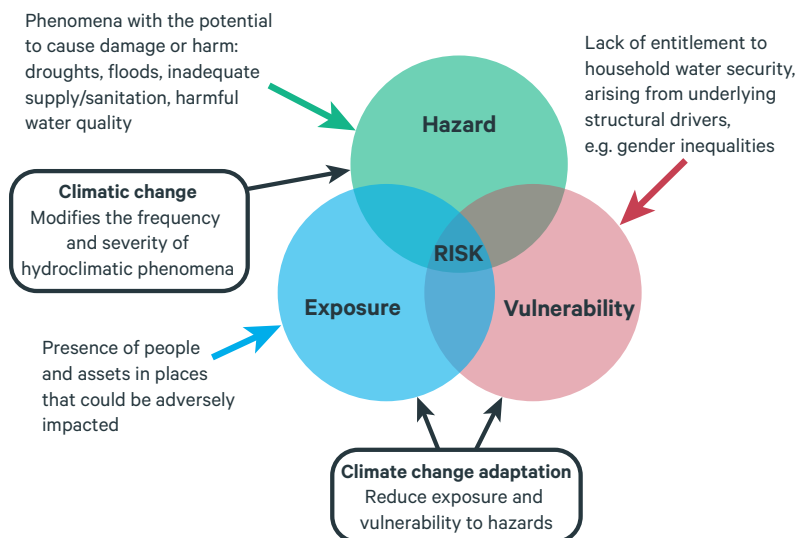
Although women often bear the burden of gender-based inequalities related to water use at the household level, not all women are equally disadvantaged, and not all men equally advantaged. Other factors such as age, ethnicity, religion, socioeconomic status, and occupation may interact to influence inequality. Identifying disparities among different groups is critical to formulating inclusive policies and to ensuring progress towards water security in the face of climate change.

Photo (above):

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This brief explores gender-differentiated water security risks in Burkina Faso, with the aim of informing the development of adaptation strategies in the water, sanitation and hygiene (WASH) sector.

**Figure 1. Risks are produced by interactions between exposure to hazards such as inadequate water quantity or quality, and vulnerabilities**



Adapted from REACH figure<sup>5</sup>

## Understanding water security risks within a household

Water security is a concept used by researchers and practitioners to describe the complex global water challenges facing society. Although there are different perspectives on how to define water security, many understandings are multi-dimensional and attempt to integrate several conceptual domains, such as meeting human needs while sustaining ecosystem functions. Water security analyses commonly apply concepts of vulnerability, risk and adaptation to assess water security in the face of a range of threats<sup>2</sup>.

At the household level, the WASH sector has so far narrowly focused on infrastructure assessments. In light of climate change, the sector should better consider social and environmental factors to identify household water security risks. Such risks are produced from the interactions between a hazard, exposure,

and vulnerabilities (Figure 1). In this study, exposure refers to the presence of people and assets in places that could be adversely impacted. Vulnerability is conceptualized as a lack of entitlements to household water security – such as adequate water availability, quality, accessibility, and affordability – that arise from underlying structural drivers such as gender inequalities.

*“We need more boreholes to resolve the problem of inadequate water supply, because often we don’t even have water for showering, and even doing the dishes or laundry. Even the dug well dries up from time to time.”*

- Female respondent, 38

*“The temperature has increased, the ground is dry and when we dig a well, water access isn’t simple.”*

- Male respondent, 36

## An up-close look at Nouaho sub-basin

This study focused on the Nouaho sub-basin, which is part of the Nakanbé (White Volta) basin in the Central East region of Burkina Faso. This sub-basin is within the Sudano-Sahelian zone, with semi-arid conditions and a pronounced wet and dry season; it has high climate variability, experiencing both droughts and floods. In this region, the non-profit group WaterAid is leading the development of community-led disaster plans, infrastructure upgrades, and local water use and rainfall monitoring, with the aim of enhancing capacity to respond to climate change threats. This study investigated how exposures and vulnerabilities to WASH-related hazards and how adaptive capacities are differentiated by gender. We conducted focus group discussions and surveyed 450 respondents (239 males and 212 females).

### Gendered risks linked to water scarcity and variability

Respondents reported several water-related hazards that are exacerbated by climate variability and change. They included unsafe water and sanitation, and extreme events such as droughts and floods. Inadequate quantity of water was one of the most common hazards reported. Our findings illustrate how water-related gender relations affect water availability, accessibility, quality and affordability, producing differentiated risks for residents in the sub-basin.

Inadequate quantities of water for domestic use – such as drinking, cooking, hygiene, and cleaning – result in long wait times, reduced accessibility, and, in some cases, the use of dug wells as secondary sources. In the case of water collection for household use, 92% of respondents said this work is principally done by adult women, and 23% said this is done by girls under 15 years old (some respondents reported multiple people were responsible for this work). These groups are thus most directly impacted by reduced water availability and associated accessibility challenges in the dry season. Men and boys under 15 years old also participate in water collection for household use to a lesser degree; 4% of respondents said that men were the principal collectors and 3% said that role went to boys. The median time to a water point is 5 minutes across seasons; when wait time is added, however, the median time spent is approximately 25 minutes during the rainy season and 70 minutes during the dry season. Women participating in focus groups reported that men are aware of these constraints, but that gender norms surrounding this work meant that men do not participate in water collection for household use.

Accessibility and availability of water for domestic use is intertwined with watering livestock, a responsibility that falls to both females and males. In the survey, 33% of respondents reported it was the responsibility of boys under 15 years old, 31% said it was adult women, 27% said it was adult men, and 9% said it was girls under 15 years old. Water for household use and livestock comes from the same water points during the dry season, when water availability is lowest. Men and boys are thus also vulnerable to limited accessibility, but respondents reported that men have greater control over negotiations for access at water points. Some women respondents face greater accessibility challenges, as they are involved in water collection work for domestic and productive uses, including livestock, and off-farm, income-generating activities (such as shea butter production and food production). These gender inequalities in domestic water chores are amplified during shocks such as droughts; increased pressure on seasonally limited water supplies, for example, can increase the time required for household water collection. In focus groups, women conducting water collection for domestic and productive purposes reported that they are over-burdened and have limited time.

Most respondents (86%) use boreholes – considered an “improved” water source – for drinking and domestic uses year-round. However, 10% of respondents use an unprotected well for these uses; because cultural norms put women in domestic and cleaning roles, this increases their exposure to contaminated water. In addition, poor sanitation is prevalent in the sub-basin, with a high level of open defecation (reported by 66% of respondents), that can have greater health impacts for women and girls; inadequate menstrual hygiene, for example, increases the risk of urogenital infections<sup>3</sup>. Respondents further reported that flooding destroyed household structures. This may increase contamination in areas without sanitation facilities, or where sanitation facilities are damaged by flooding.

The fees to water user associations are similar across the sub-basin, but affordability depends on negotiations within households. A majority of respondents (59%) viewed men as responsible for paying household costs, for a variety of reasons, including a religious obligation, social norms that view men as the head of household, or women’s lack of income. Women, meanwhile, are largely responsible for collecting water. These gendered responsibilities, however, are not universal. About 21% of respondents said that women have a larger responsibility than men for paying water costs, because men had migrated or had no money, or because women are seen as responsible for water issues. In some cases, off-farm activities provide women with income for household expenditures, such as water fees. This is particularly important during environmental shocks, such as droughts, that impact household income from agriculture and livestock.

### Gender-differentiated capacities to adapt to water security risks

To deal with inadequate quantities of water, women use coping strategies such as getting up very early or building up water reserves within the household. While respondents reported that women have limited control over household income, they also said women have the largest say in determining water uses within households (77% and 19% of responses indicated women or the couple make decisions, respectively). However, in focus groups, women reported conflicts or instances of domestic violence linked to intra-household water use, such as not having enough water available for showers.

Such coping strategies are short-term. Long-term adaptation to water security risks requires adaptive capacities, determined by factors such as the agency to decide changes, access to assets, flexibility, learning, and social capital<sup>4</sup>. But women are rarely involved in the decision-making roles in community water associations, and instead have roles related to ensuring good hygiene conditions of the borehole. In focus groups, women were perceived by both male and female participants as having a limited ability to communicate with decision-makers about these issues, and thus to take on the types of roles that offer greater opportunities to have a voice in decisions. These differences in the agency men and women have in household and community decision-making and in control over assets can play an important role in making choices and investments for adapting to water security risks. Thus, adaptation planning requires explicit consideration of constraints facing certain groups. In addition, a majority of male (75%) and female (73%) respondents indicated their household has no or limited influence in the decisions of local authorities to resolve water-related problems, indicating limited accountability and empowerment to voice concerns to service providers. Although women have lower

*“The question of water is a major preoccupation, because the men and the animals use water from the same water point, and often you spend half the day collecting water.”*

- Female respondent, 22

*“Since the women have income-generating activities they figure out paying for water.”*

- Male respondent, 71

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agency in the use of household income, a larger proportion of respondents said that women (49%) compared with men (27%) conduct off-farm income generating activities. This can provide assets as well as flexibility to adapt during periods of environmental shocks, such as poor harvests. However, this is not a silver bullet, as women often use the same boreholes – from the same limited water sources – for off-farm activities as they do for domestic ones.

Obtaining information about household water security risks and possible adaptation options may occur through a range of informal and formal learning processes, such as WaterAid's capacity-building activities in several villages in the study site. In the Nouaho sub-basin, few respondents had formal education. However, listening to the radio was a common practice: 67% of respondents reported that men listen to the radio at least once a week, and 56% reported the same for women. This indicates a possible way to disseminate information related to adaptation planning. Learning interventions require attention to disparities, as women have lower education attainment and listen less often to the radio than men. For instance, women may have different needs than men in adaptation training to successfully create disaster plans and monitor water conditions.

### Key policy implications

Addressing water security risks requires a more holistic approach that goes beyond “climate proofing” WASH infrastructure. The implementation of adaptation activities presents opportunities to ensure the needs of marginalized groups are taken into account, and to strengthen gender considerations in the implementation of WASH services. This approach would achieve synergies with Sustainable Development Goals 1, 5 and 10 (No Poverty, Gender Equality and Reduced Inequalities).

Policy recommendations are highlighted:

- Climate change will intensify gendered water security risk. It is crucial that WASH interventions address water-related gender norms that reinforce inequalities, such as unequal distribution of unpaid work.
- What's measured matters. Indicators that capture disparities between different groups are necessary in order to track progress towards SDG targets for “universal” water access, and towards Burkina Faso's national plan for drinking water (*Programme National d'Approvisionnement en Eau Potable*) that is centred on the human rights lens.
- Adaptation strategies related to climate change, such as WaterAid's community-based, capacity-building interventions, should address gender disempowerment, as this discrimination determines who has a greater voice in household and community decision-making.
- Informal learning, such as peer-to-peer networks, offers opportunities to strengthen adaptive capacity and empower women, and could be tested in scaling-up interventions implemented by WaterAid in Burkina Faso, and in other contexts.

### Endnotes

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