

# Bridging the gap: Gender-inclusive policies for a sustainable water future in Pakistan

## Key messages

- Sex-disaggregated data are needed for inclusive planning in the water sector.
- Ensure women and under-represented groups have a voice in water-related decision-making.
- Design processes should address the needs of all groups—including men, women, youth, and persons with disabilities—based on community consultation.
- Develop gender-responsive water infrastructure to provide safe, accessible water sources, sanitation facilities, and storage systems.
- Incorporate Gender Equality, Disability and Social Inclusion (GEDSI) into Integrated Water Resources Management (IWRM) to create effective, inclusive programmes that address the needs of diverse groups.

## Background

Water resources are crucial for Pakistan's socio-economic development, agricultural productivity, and public health. However, the country is facing a growing water crisis. Pakistan is severely water-insecure, with per capita water availability steadily decreasing over the years (MacAlister et al. 2023). Rapid population growth, urbanization trends, and industrial expansion have created a widening gap between water supply and demand.

Despite agriculture dominating the economy, four major crops—wheat, rice, sugarcane, and cotton—account for 80% of the country's total water usage while contributing less than 5% to the Gross Domestic Product (GDP) (Young et al. 2019). Furthermore, Pakistan experiences an annual 4% loss in GDP due to water scarcity and inadequate water management practices (Young et al. 2019). Climate change exacerbates these challenges, resulting in altered rainfall patterns, accelerated glacial melt in the Himalayas, and disrupted river flows. These issues are further compounded by gender disparities in water access and management and a lack of gender-inclusive water policies.



Women are playing a major role in agriculture in Okara, Punjab (photo: Amjad Jamal/IWMI Pakistan).

## Water policy and governance frameworks

Making policy and planning decisions is a complex process which involves extensive discussions and multiple procedures (Mumtaz and Ali 2019). Achieving a specific policy goal requires various analyses to generate feasible alternatives and rational options (de Oliveira 2019). The government of Pakistan has developed various policy frameworks to address water-related challenges and promote sustainable water management across different interconnected areas such as agriculture, climate, and the environment. These national policies provide an overarching framework and blueprint for developing provincial strategies and plans. However, weak governance mechanisms, poor implementation, and insufficient gender considerations are persistent issues in implementing these policies (Table 1). One of the key policies is the National Water Policy (NWP) of Pakistan, formulated in 2018, which provides a comprehensive framework for the integrated development, conservation, and management of the country's water resources. In line with the NWP, the Punjab Water Act (PWA) was enacted in 2019, serving as the primary directive for the government of Punjab to comprehensively manage and regulate water resources within the province.

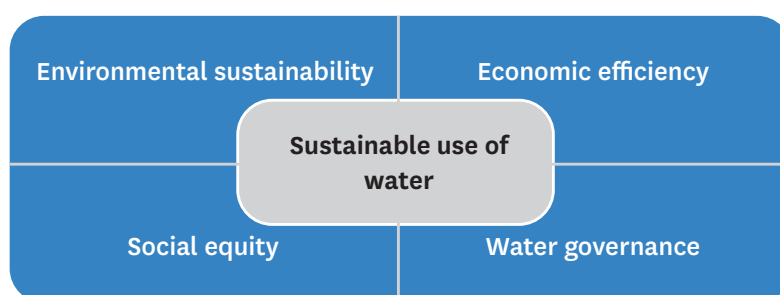
Similarly, the Khyber Pakhtunkhwa Water Act was enacted in 2020 primarily to provide a roadmap for comprehensive management of all water resources in Khyber Pakhtunkhwa and to regulate their use in the interest of conservation and sustainability.

The NWP and PWA emphasise the importance of the Integrated Water Resources Management (IWRM) approach, which aims to manage water resources comprehensively, holistically, and sustainably for all sectors (agriculture, domestic, industrial, environmental, and livestock). IWRM is guided by four key principles: environmental sustainability, economic efficiency, social equity, and effective water governance (Figure 1). These principles ensure responsible stewardship of water resources, optimise resource allocation, promote inclusive access, and enhance governance mechanisms for transparent and participatory decision-making (GWP n.d.).

While these principles recognise the importance of gender equality and women's empowerment in water management, their implementation mechanisms need to be strengthened, and gender considerations must be more effectively mainstreamed, particularly within Pakistan's water policies.

**Table 1.** Gender consideration in water-related policies in Pakistan.

Policy	Reference to Gender	Consideration of gender
National Water Policy 2018	Only one clause (18.3) mentions women's participation in domestic water supply and water hygiene, and it lacks details on the mechanism for implementation.	Gender-neutral (no clear roadmap for women's inclusion)
Punjab Water Act 2019	No focus or discussion of gender/social inclusion in the entire policy document.	Gender-neutral (no acknowledgment of different gender needs and vulnerabilities)
National Climate Change Policy (NCCP) 2021	A separate section on gender recognises how women are impacted differently by climate change and their vulnerabilities across all social domains.	Gender-aware/gender-sensitive (acknowledges different gender needs and works within existing social, gender, and cultural norms; does not attempt to transform social structures)
Khyber Pakhtunkhwa Water Act 2020	Only clause 3(a) of the Act considers the needs of people with disabilities, but there is no mention of provisions for women in the rest of the document.	Gender-neutral (no acknowledgment of different gender needs and vulnerabilities)



**Figure 1.** Integrated Water Resources Management (IWRM) approach.

Source: Cap-Net n.d.

## Importance of gender-inclusive policies

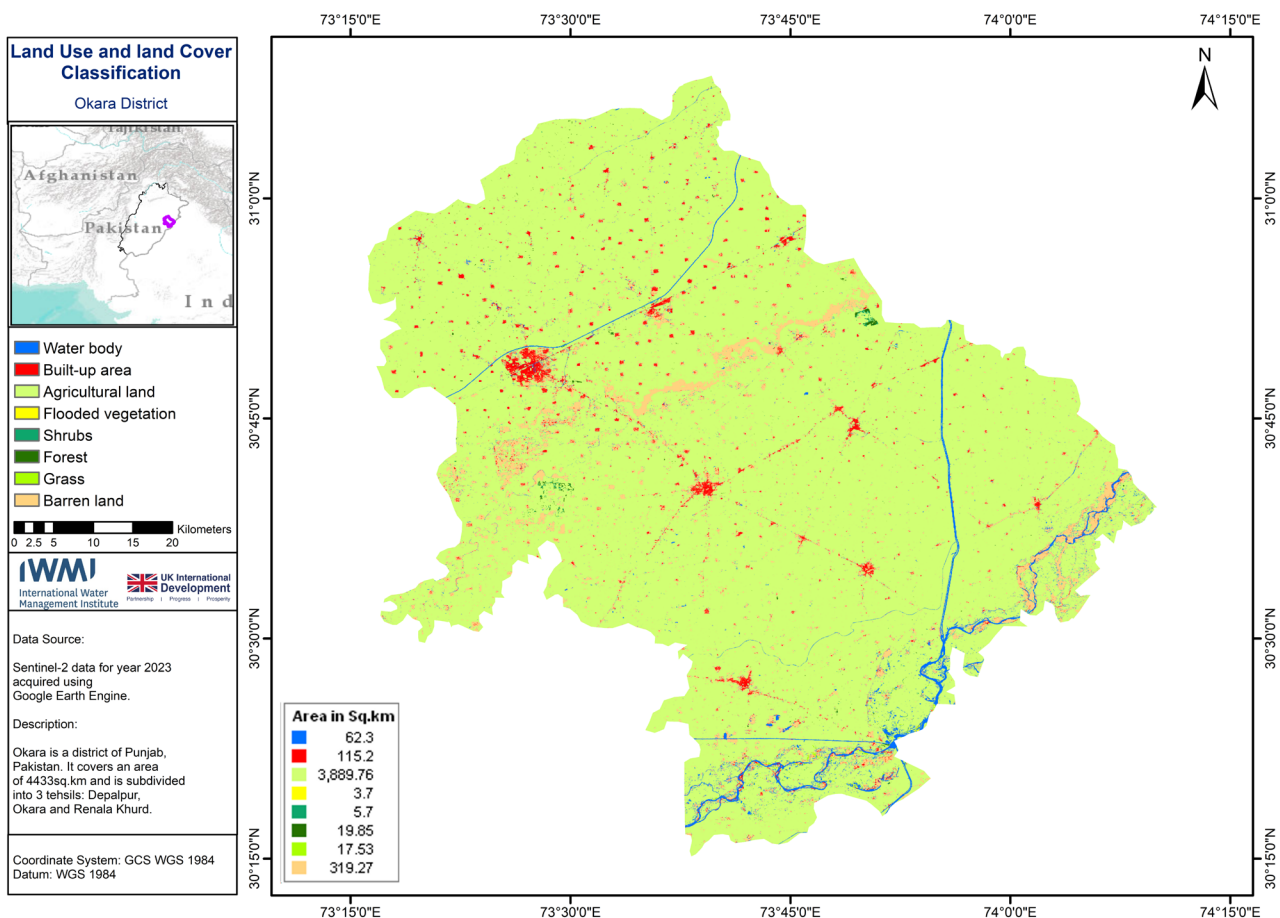
Gender inclusivity is paramount in water policy planning due to its implications for social equity, economic development, and environmental sustainability. While both women and men have an equal stake in the use and management of water resources, inequalities persist in terms of participation, contributions, and access to benefits from water resource management. Women and girls often bear a disproportionate burden when faced with inadequate water and sanitation services, adversely affecting their health, education, and employment prospects. These challenges also negatively impact children’s health, nutrition, and educational outcomes (Pouramin et al. 2020; UNICEF and WHO 2019; WHO and UNICEF 2017).

Approximately 68% of women are employed in the agriculture sector in Pakistan, highlighting their significant role as agricultural water users. Despite this, women, vulnerable groups, and broader social considerations are often excluded from decision-making and planning processes related to water use and management. While technical aspects of water projects, such as building new infrastructure or installing new technologies, are essential, they often overlook the social dimensions and impacts of these projects. Fundamentally,

water use, management, and governance are rooted in complex political, social, and power relations. Meaningful water assessment can only be achieved by integrating considerations of gender equality, disability and social inclusion.

## Study context

Through the Foreign, Commonwealth and Development Office (FCDO)-funded Water Resource Accountability in Pakistan (WRAP) programme, the International Water Management Institute (IWMI) aims to enhance water resource management capacities at the federal, provincial, and district levels in Pakistan. The programme aims to ensure the inclusive implementation of key policies such as the National Water Policy 2018, the Punjab Water Act 2019, and the Khyber Pakhtunkhwa Water Act 2020. The WRAP programme focuses on enhancing the enabling environment for water sector reforms through better accountability, monitoring, and narrative setting. The project’s pilot study area is the District of Okara in the Punjab Province (Figure 2). The IWMI Pakistan team conducted a baseline gender assessment across the district’s three tehsils<sup>1</sup>: Okara, Renala Khurd, and Depalpur. The Okara District is predominantly agricultural, producing major crops such as wheat, rice, sugarcane, maize, and cotton, with livestock farming also contributing significantly to farm output.



**Figure 2.** Land use and land cover (LULC) map of the Okara District.

<sup>1</sup> A tehsil is an administrative subdivision of a district, typically made up of several towns and villages, in countries such as Pakistan and India.

## Methodology

IWMI's gender assessment in the Okara District employed a mixed methods approach, which involved a baseline survey and qualitative interviews with farming communities and government institutions, including representatives from the Irrigation and Agriculture departments. The survey comprised 405 households randomly selected across the district, and eight focus group discussions (FGDs) and interviews were conducted. This policy brief presents the findings from the baseline gender assessment and offers recommendations for policymakers to better integrate GESI considerations into water resources management in Pakistan.

## Findings

A total of 402 respondents were surveyed, including 199 men and 203 women. The majority of households are headed by men (88%), while only 11% are headed by women. Men are the primary breadwinners for 96% of households. Only 30.8% of households include literate family members; consequently, illiteracy still prevails among one or more members within a considerable proportion (69.2%) of households. Approximately 40% of female-headed households have attained only a lower primary level of education (Figure 3).

Agriculture is the primary source of livelihood for the surveyed population, with most female-headed households closely tied to agriculture. Women dedicate 2–3 hours per day to agricultural activities, household chores, and livestock management. Despite their significant contribution to the agriculture sector, women's role in decision-making remains minimal—only 3% of decisions are made by women (IWMI Forthcoming). With regard to decision-making on how household income is spent, most households have men making the decisions (70%) over women (30%).

The survey highlighted that more than three-quarters of households use 20 liters of water daily for drinking. The primary source of drinking water is groundwater, abstracted through tube wells and boreholes. However, during FGDs, it was emphasised that groundwater is often brackish and unsuitable for consumption. In such cases, households must collect water from filtration plants or public standpipes. Female-headed households, in particular, reported spending 15–30 minutes per day collecting water from public taps or standpipes (see Figure 4), while male-headed households take less than 5 minutes to collect water from various sources (see Figure 5).

Education levels of male and female heads of households

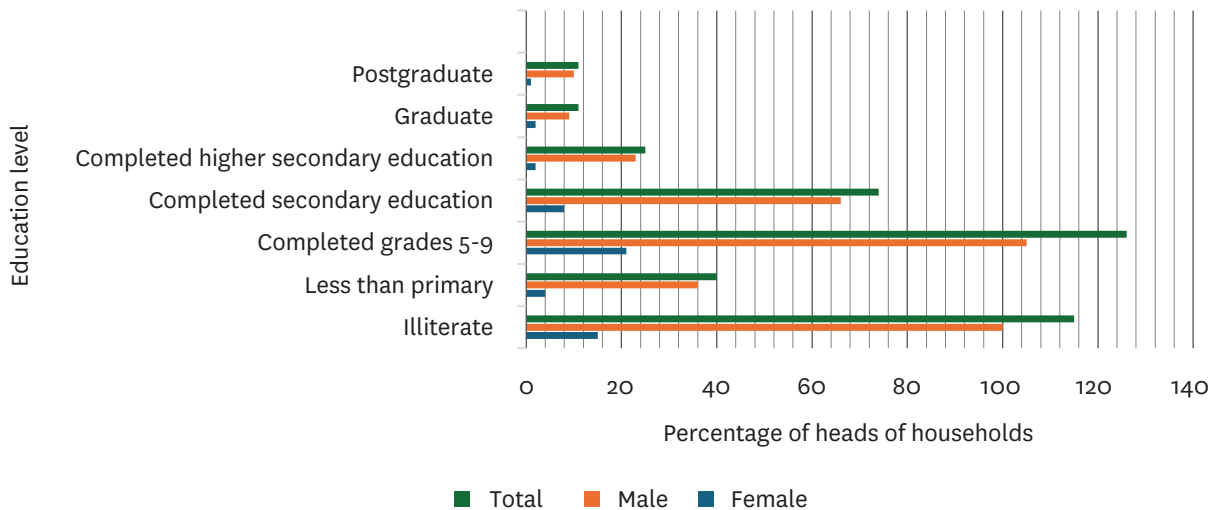
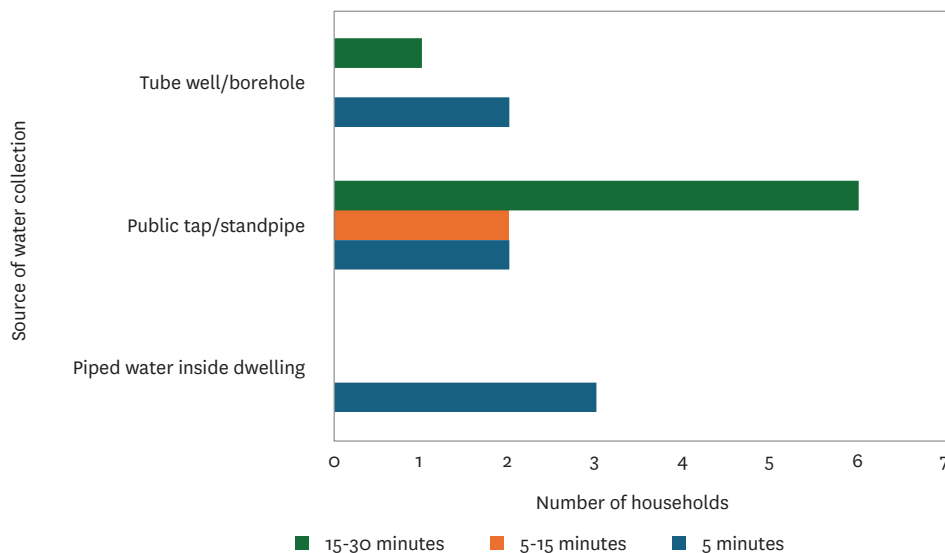
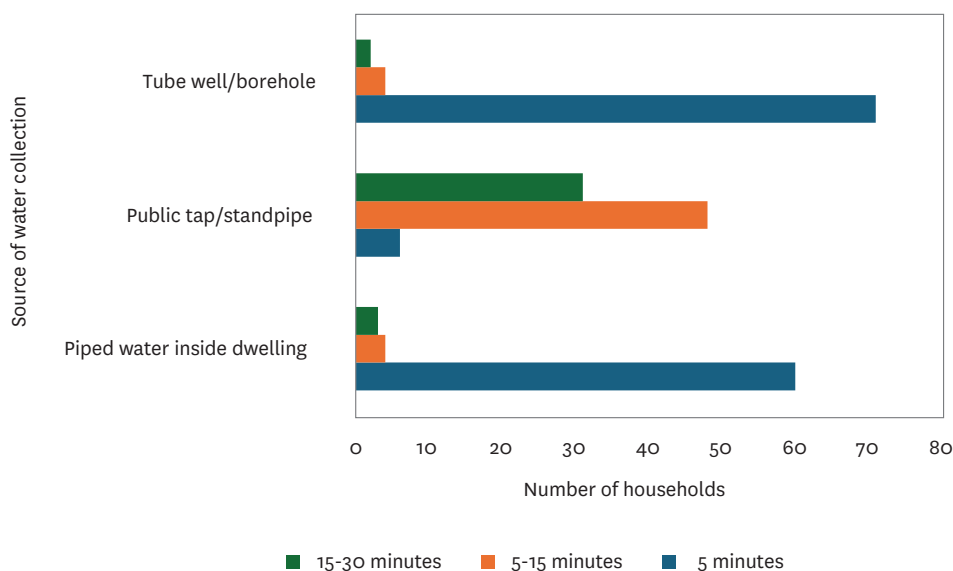


Figure 3. Education levels in male- and female-headed households.



**Figure 4.** Water collection time for female-headed households.



**Figure 5.** Water collection time for male-headed households.

## Key challenges

Key informant interviews (KIIs) revealed that government institutions lack a gender-sensitive vision in their planning and implementation processes. The specific needs of women and children are not considered within their planning frameworks. Another significant gap identified is the absence of sex-disaggregated data in the agriculture and water sectors of the Okara District—data that are crucial for informing policymakers and institutions to ensure the integration of GESI in planning.

1. Water policies require accurate data to identify the specific water needs of different gender groups. However, there is often a lack of disaggregated data, making it

difficult to fully understand the challenges women and men face in accessing water resources. Furthermore, data disaggregated by age, ethnicity, education level, and other factors could provide insight into how intersecting social identities affect power and decision-making related to water access and use.

2. Women are generally excluded from decision-making processes related to water policies, limiting their ability to influence policies that affect their lives. This is due to various factors, including cultural norms, inadequate education and training, limited access to resources, and a lack of awareness of their rights. A key finding from the survey showed that women’s participation in decision-making is only 3% in agricultural activities.

3. In female-headed households, women and girls spend approximately 2–3 hours daily on agriculture and household chores and bear the additional burden of collecting drinking water. Women reported spending, on average, 30 minutes to collect water from public sources or standpipes. Notably, only 9% of male respondents acknowledged that women and children suffer the most from water shortages.

*During the FGD with farmers, a young girl shared her experience of water collection: “I wish I could be a boy, so I can sit on the motorcycle and get water in 5 minutes, but I am a girl, and my mother doesn’t allow us to sit with anyone on a motorcycle so I have to walk to get drinking water.” (FGD with the Water Users Association, Okara)*

4. Deep-rooted patriarchal beliefs generally view men as the primary breadwinners, thereby justifying their higher wages regardless of the nature or amount of work done by women. Women in rural settings often lack the agency or platforms to negotiate their wages. Their limited access to workers’ unions and inadequate awareness of their rights further restrict their ability to demand fair pay. Agricultural tasks are usually gendered, with women assigned ‘easier’ tasks, which are subsequently deemed as less valuable, leading to reduced compensation with more labour.

*“We work as family farmers from morning till evening during wheat and cotton harvesting. Still, we receive lower wages than our male family members because the landowner claims we work more slowly.” (FGD with women farmers)*

5. District and provincial agricultural and water departments lack a clear understanding of GESI concepts and their relevance to IWRM. During interviews, many department representatives posited that women neither understand technical training nor feel comfortable attending meetings due to cultural and social norms. Hence, the inclusion of women in water-related decision-making and planning is not seen as a priority. Women farmers also reported being excluded from discussions and training opportunities when agricultural extension workers visited their areas.

*“Nobody or any department has ever visited or spoken with us. All male officers come and discuss with male household members.” (FGD with women farmers)*

6. There is often a limited understanding of the gender dynamics that affect water access and use, which can result in policies that do not adequately address the distinct needs of women and men. Policies such as the National Water Policy (2018) and the Punjab Water Act (2019) do not mention gender or social inclusion. This omission has led to a significant disconnect in designing and implementing policies in an inclusive manner.

## Recommendations

Based on the findings from the gender analysis, the following recommendations are proposed to improve gender and social inclusion integration for gender-responsive agriculture and water planning:

1. Policymakers should have access to sex-disaggregated data on water access and use to identify the specific needs and challenges of women and men. This data should inform the development of gender-responsive water policies and programmes.
2. Policymakers must ensure that women have a meaningful voice in decision-making processes related to water policies and programmes. This can be achieved by establishing women’s groups, consultations with women’s organisations, and including women in water user committees and other decision-making bodies.
3. Policymakers should promote the development of gender-sensitive water infrastructure that meets the specific needs of women and men. This includes providing safe and accessible water sources, sanitation facilities, and water storage systems. All community groups should be consulted during feasibility studies and community needs assessments, and infrastructure design should consider gendered needs.
4. The agriculture and water departments are male-dominated, with most technical staff being men. As such, gender sensitivity training should be mandated for all staff, with a specific focus on GESI concepts and how to integrate GESI into IWRM. When departmental staff are sensitised to social and gender issues within communities, they are better equipped to design improved programmes and interventions that consider and respond to the needs and challenges of all groups.



Women are the backbone of the agriculture sector in Punjab (photo: Amjad Jamal/IWMI Pakistan).

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