

## Assessing gendered roles in water decision-making in semi-arid regions through sex-disaggregated water data with UNESCO-WWAP gender toolkit

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Global climate change is expected to exacerbate current and future stresses on water resources from population growth and land use, and increase the frequency and severity of droughts and floods. Women are more vulnerable to the effects of climate change than men not only because they constitute the majority of the world's poor but also because they are more dependent for their livelihood on natural resources that are threatened by climate change. In addition, social, economic and political barriers often limit their coping capacity. Women play a key role in the provision, management and safeguarding of water, nonetheless, gender inequality in water management framework persists around the globe.

Sharp data are essential to inform decisions and support effective policies. Disaggregating water data by sex is crucial to analyse gendered roles in the water realm and inform gender sensitive water policies in light of the global commitments to gender equality of Agenda 2030. In view of this scenario, WWAP has created an innovative toolkit for sex-disaggregated water data collection, as a result of a participatory work of more than 35 experts, part of the WWAP Working Group on Sex-Disaggregated Indicators (http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/water-and-gender/un-wwap-working-group-on-gender-disaggregated-indicators/#c1430774). The WWAP toolkit contains four tools: the methodology (Seager J. WWAP UNESCO, 2015), set of key indicators, the guideline (Pangare V.,WWAP UNESCO, 2015) and a questionnaire for field survey. WWAP key gender-sensitive indicators address water resources management, aspects of water quality and agricultural uses, water resources governance and management, and investigate unaccounted labour in according to gender and age.

Managing water resources is key for climate adaptation. Women are particularly sensitive to water quality and the health of water-dependent ecosystems, often source of food and job opportunities. Extreme climatic events like floods and droughts could severely impact the status of water resources and dependent ecosystems and the sustainability of household activities and local economies, given the absence of gender sensitive preparedness to hydrological and meteorological extremes. This paper describes the application of the WWAP Gender Toolkit to water data assessments in semi-arid region of the Stampriet transboundary aquifer shared by Botwana, Namibia and South Africa, in the framework of the "Groundwater Resources Governance in Transboundary Aquifers" - GGRETA project, led and executed by the UNESCO International Hydrological Programme (IHP), and financed by the Swiss Agency for Development and Cooperation (SDC). The tests in the field proved the reliability of WWAP gender toolkit and selected gender-sensitive indicators in the freshwater assessment. Further analysis could inform on the gaps and needs for climate adaptation practices. Field data identified socially-determined differences in roles, and confirmed the prevalent role of women in managing freshwater for drinking and sanitation purposes within the household boundaries, while decision-making for water allocation and use (with implications on hydrological risk) for agriculture and livestock purposes, is broadly under men's responsibility.