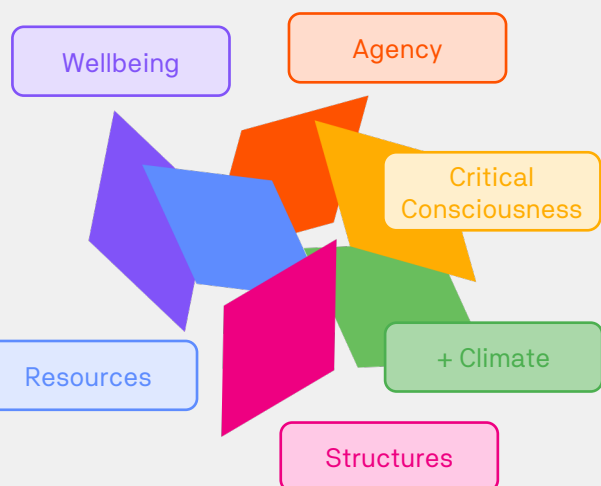


Piloting two innovative climate modules with the WASH-GEM

Summary Brief

January 2024



What is the WASH-GEM? The WASH-GEM is a quantitative measurement tool that explores the diverse experiences of gender equality by both women and men. Through structured interviews, the WASH-GEM quantifies gendered experiences and changes across five conceptual domains. Across the five domains, the WASH-GEM has 16 themes - reported on scales of zero-to-one. Four themes are WASH-related and 12 focus on gender equality in society more broadly. Ultimately, the WASH-GEM seeks to explore how changes in WASH can lead to changes in gender equality in society more broadly - aiding in the monitoring and evaluation of gender-transformative WASH programs, projects, and policies.

In 2022, the Institute for Sustainable Futures in partnership with SNV piloted two modules alongside the Water, Sanitation and Hygiene – Gender Equality Measure (WASH-GEM) to explore the connections between climate change and gender equality in gender-transformative WASH programming. The pilots took place with over 2,400 respondents in Bhutan, Laos and Nepal.

Module 1

A bespoke set of scales to compare the subjective resilience of women and men related to four types of climate events (floods, drought, landslides and severe storms).

Pilot Results: From the 7 tested items (questions), a reliable 5-item set of scales was developed to evaluate subjective resilience between four selected climate events. The scales were well correlated with each other – indicating that future iterations of the climate module could select one climate event (rather than four) to explore subject resilience.

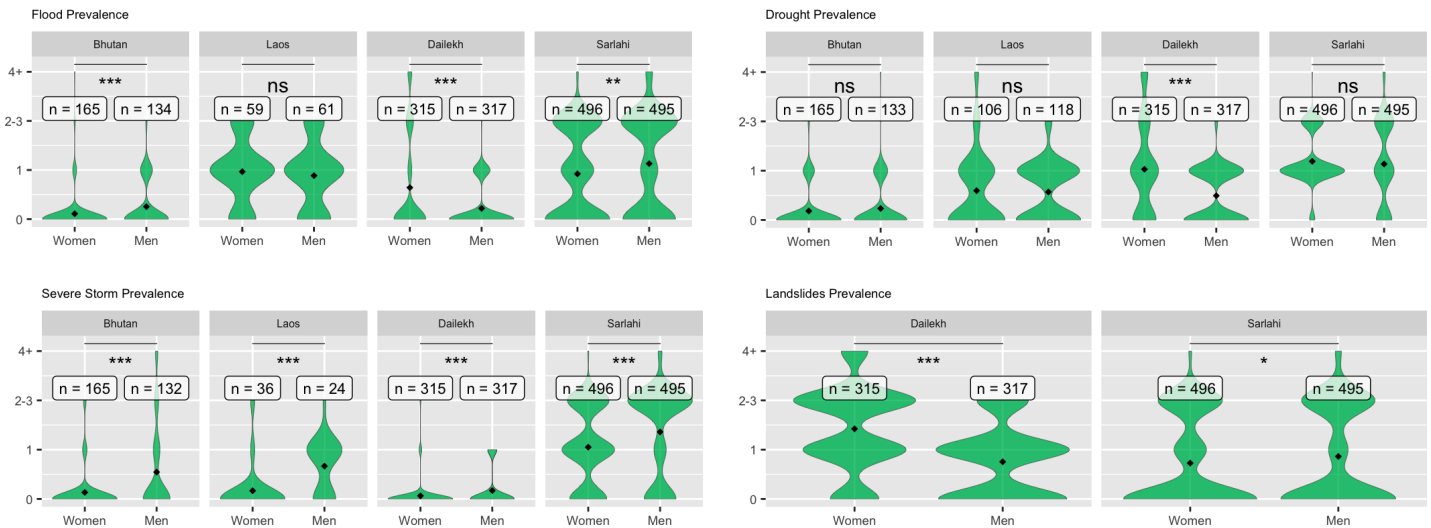
Module 2

A selected set of WASH-GEM items to compare experiences during normal times and during climate events.

Pilot Results: From the 12 tested items, eight showed statistically different results between men and women's responses. However, after reviewing the results at the country and district levels (which were less clear cut), the research team recommends selecting a subset of themes that can be asked in their entirety. These themes could include social capital, household influence, and WASH-wellbeing.

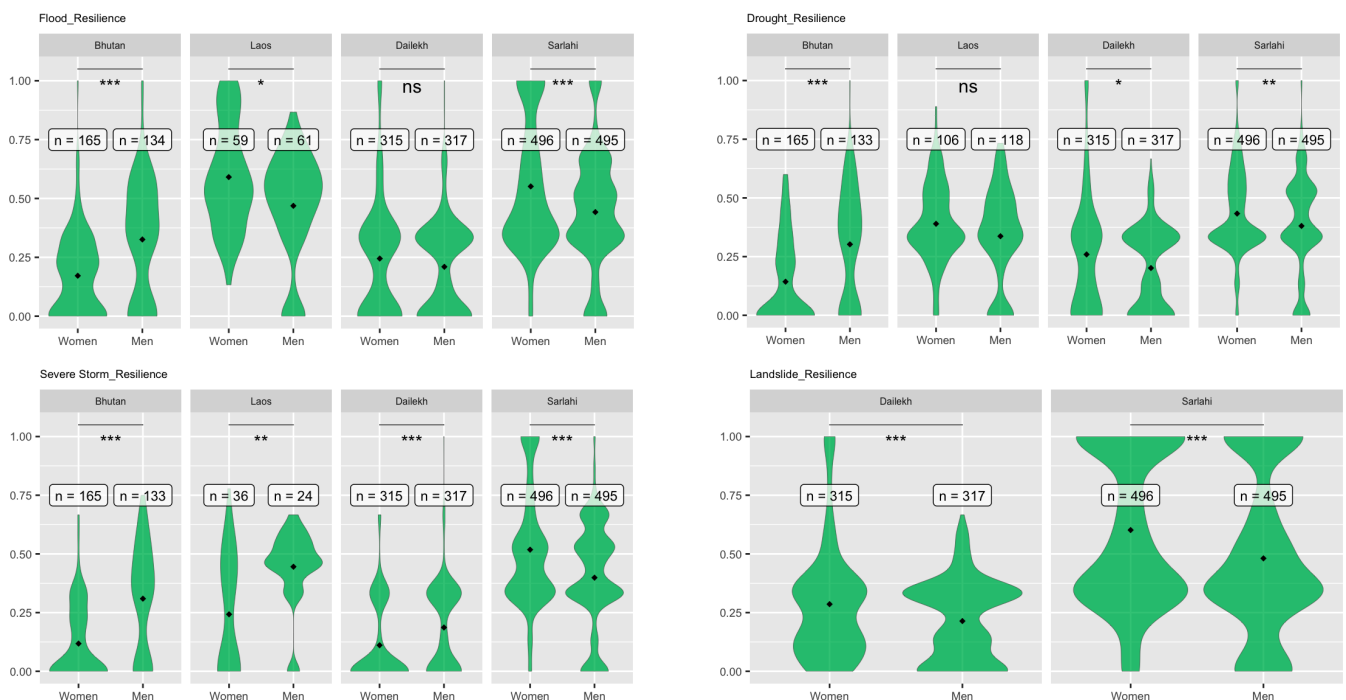
Perceived frequency of climate events

These [violin plots](#) indicate the perceived frequency of four selected climatic events within the last two years. The plots indicate the statistical significance of the difference between women and men's responses in four locales – Bhutan, Laos and two districts in Nepal – Dailekh and Sarlahi. While the frequency of climate events is something that can be identified using secondary climate sources, as can be seen by our data, there are differences between how women and men perceive climate events – and most significantly with relation to severe storms.



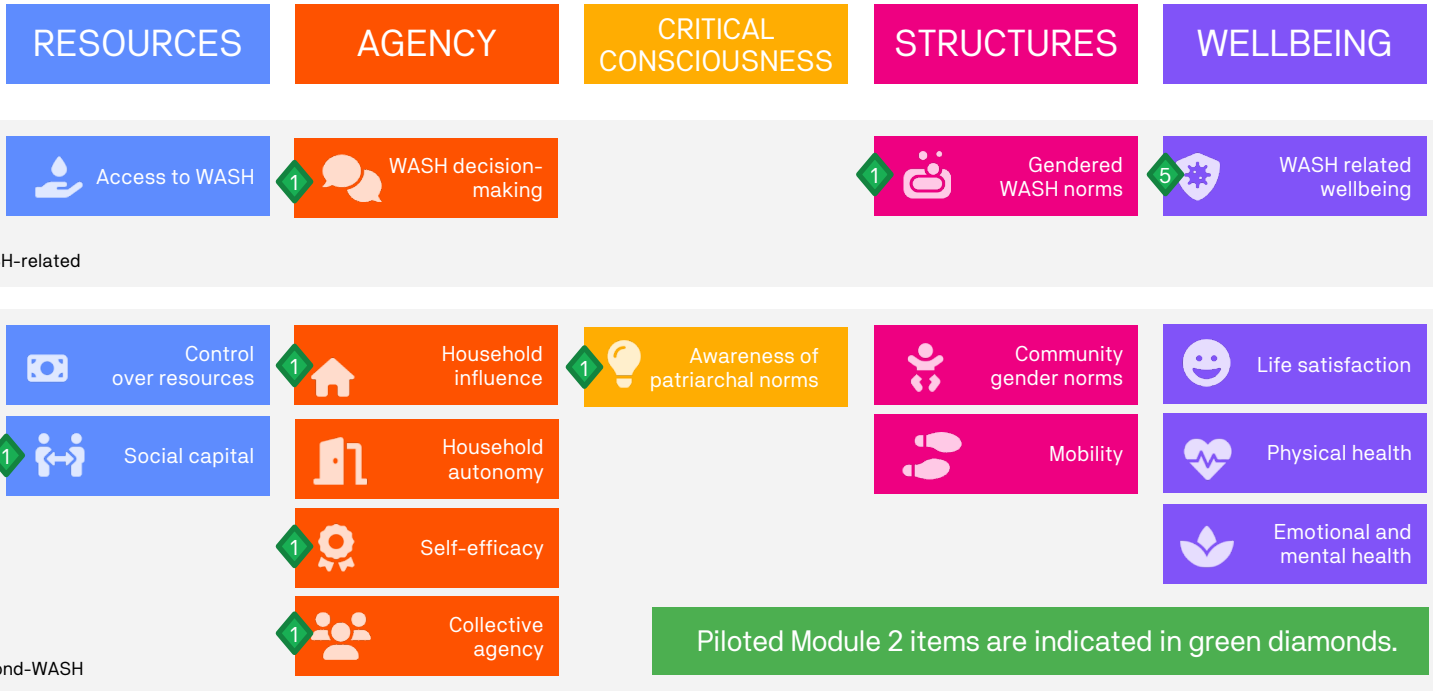
Subjective resilience scores

As part of the pilot, the team utilised factor analysis and scale development techniques to identify a reliable 5-item resilience scale (average of scores across five questions). Violin plots of each calculated resilience scale (flood, drought, storm, and landslide) illustrate the gendered nature of this subjective resilience. Overall, there were statistically significant differences between women and men scores for all four scales. However, the trends were not the same in all locales. In Bhutan, men had higher self-reported resilience across all four scales. In Sarlahi (southern Nepal), women had higher self-reported resilience than men, which aligns with other WASH-GEM studies in the district. In Dailekh (hilly Nepal) and Laos, the trends changed with the different climate events.



p-values: ns = not significant, * < 0.05, ** < 0.01, *** < 0.001; Landslides only explored in Nepal

Comparing WASH-GEM items under severe events

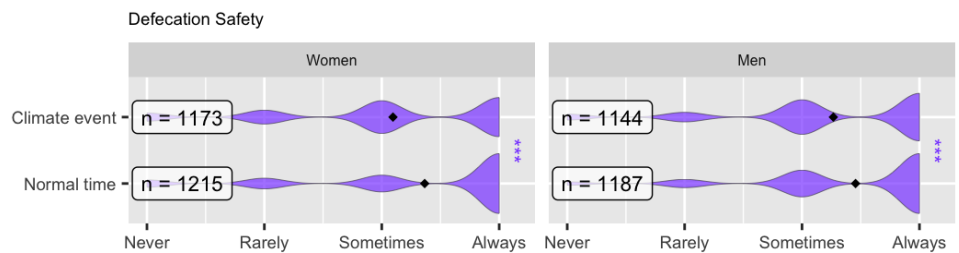


In Module 2, the team tested 12 items (questions) that are already in use within the WASH-GEM. Each of these 12 items was asked twice – once as normal, and once including the phrase {during server weather events or disasters}. These results are then compared by gender and country. While this worked for several of the items, the majority of compared items did not show statistically significant differences between ‘normal’ time and during climate events. As such this module should be adapted before any future use.

Two examples are provided below.

Example 1: How often do you feel safe when accessing the toilet or other defecation arrangements, {during severe weather events or disasters}?

Both women and men reported being significantly less safe using their defecation space (toilet, latrine etc.) during server weather events.



Example 2: How confident are you in your ability to solve problems faced in your household {during severe weather events or disasters}?

Both women and men reported being significantly less confident in solving household problems during server weather events.

