



## Individual-Measurement for Inclusive Climate Resilience: Strengthening Gender Equality, Disability and Social Inclusion

*Revealing Resilience is an initiative that champions the use of inclusive data and measurement tools to strengthen gender equality, disability and social inclusion in climate resilience and sustainable development. Funded by the Australian Government through the Department of Foreign Affairs and Trade (DFAT), it is led by the University of Technology Sydney-Institute for Sustainable Futures with the International Women's Development Agency's flagship program Equality Insights.*

### Key points

- People experience climate impacts and resilience differently, shaped by factors such as gender, age, disability, and the intersection of these.
- Climate resilience, poverty, and inequality are typically measured at the household or community level, which masks important individual differences.
- Measuring climate resilience at the individual level reveals who is most impacted, who has lower or higher capacity to adapt, and the ways individuals exercise agency, access essential services, and build resilience.
- Individual-level data reveal differences both within and between social groups, and provide key insights into lived realities and people's perceptions of their resilience, across a range of different dimensions.
- Individual measurement and insights enable leaders, policymakers, and practitioners to design more effective, inclusive, responsive, and targeted strategies and programs.
- A range of validated individual measurement tools are available, as well as support to use and integrate these insights into programs and data systems.

### Data for inclusive climate resilience

Around the world, climate hazards are increasing in intensity and frequency, undermining livelihoods, safety, and social and economic progress. But these hazards are felt unevenly. People experience climate impacts and resilience differently, shaped by gender, age, disability, and the intersection of these, as well as socioeconomic circumstances and geography.



In this context, data and measurement approaches play a central role in advancing inclusive climate resilience. Individual measurement provides a nuanced understanding of how people experience climate impacts and resilience, enabling the design of effective and targeted strategies that respond to varying needs, capacities, and circumstances.

Individual measurement reveals who is most impacted in a changing climate, who has lower or higher capacity to adapt, and who faces compounding risks, as well as the ways individuals exercise agency, transform their livelihoods, access essential services, and build resilience.

## Levels of measurement

Data on sustainable development and climate resilience can be collected and analysed at different levels:

- **Individual-level** data captures information from a single person about their individual characteristics and experiences
- **Household-level** data groups information about people living together often from the 'head of household' about household characteristics and experiences as understood by the 'head of household'
- **Community-level** data often brings together experiences collected through collective participatory approaches for whole communities or sub-groups, or the aggregation of household data
- **Regional- or national-level** data aggregates information about many individuals or households

When individual-level data is collected from multiple people in the same household, it can provide information about individual circumstances, household circumstances, and differences and disparities inside households.

Individual-level data can be analysed to provide important insights about intersectional inequalities and within-household differences, including those shaped by gender, age, disability, and other factors. This data is important for understanding differences that exist both within households, and between different social groups.

Measuring at an individual level can provide insights into subjective resilience, or someone's perception of their ability to cope with, adapt to, and recover from climate shocks. Insights about agency and adaptive capacity can also be revealed through individual-level measurement. This includes the ways people act and organise to redress differences in their vulnerability to climate impacts and capacity to build resilience.



Global commitments have been made to strengthen resilience, reduce vulnerability, and promote climate-resilient development, with climate policies and frameworks increasingly integrating principles of gender equality, disability, and social inclusion (GEDSI). Individual-level data is essential to monitor and realise these commitments, and inform responsive planning and action at global and national levels.

## Limitations of household-level data

Despite the need for granular insights about individuals, most data on climate resilience are collected at the household or community level, masking important individual differences.

Household-level data is often collected only from 'heads of households' who tend to be men, and can obscure differences experienced by individuals living in the same home such as differences in income, decision-making power, and control over resources.

When policy and decisions rely on climate resilience data collected from the household-level, they risk reinforcing existing inequalities or failing to meet the needs of different groups. Household-level data can also obscure the experiences and diversity of children, older people, women, people with disability, and marginalised individuals.

## The value of individual-level data to guide policy and programs

Individual measurement is crucial for inclusive and evidence-based planning and action, enabling the development of targeted, equitable, and effective resilience strategies. It also helps to tell human stories about climate resilience, demonstrating what is at stake, and what is possible.

In addition to objective aspects of resilience, such as whether individuals can access early warning information or have continued water supply and sanitation after a disaster, individual measurement can capture subjective resilience, or people's perceptions of their resilience, as well as their lived realities and the factors that shape how they adapt and build resilience. These subjective aspects include a wide range of dimensions including perceived ability to prepare, recover or adapt, decision-making power, levels of anxiety or stress, sense of safety, and exposure to environmental risks, among other dimensions.

By providing a more complete picture of people's lived experiences and adaptive capacities, individual-level insights are a foundation for meeting technical needs and addressing the structural influences that shape people's resilience and development pathways.

## Tools for individual resilience measurement

A range of validated tools that collect individual-level data are available, providing insights that strengthen evidence-based climate resilience or sustainable development.



MEASURE	DESCRIPTION
<b>ACROSS SECTOR</b>	
Equality Insights	<p><u>Equality Insights</u> is a quantitative and gender-sensitive measure of multidimensional poverty. It collects individual-level data to reveal how poverty and inequality vary based on gender, age, disability or other characteristics. It considers 15 dimensions including energy, environment, food, health, sanitation, time use, and water, and measures exposure to natural hazards through the environment dimension. The tool also assesses assets, providing insight into financial circumstances. Two survey modalities are available a longer face to face survey and a phone-based survey.</p> <p>An initiative of the International Women's Development Agency (IWDA), Equality Insights builds on earlier work under the name Individual Deprivation Measure.</p>
Qualitative Methods Toolkit (qualKit)	<p>The <u>qualKit</u> is a curated set of qualitative monitoring and evaluation tools to explore gender equality or social inclusion-related changes associated with WASH programs. It includes methods such as micronarratives, photovoice, stories of transformation, positive deviance, q-sorting methodology, life histories and more. Many of these methods can be utilised to elicit, analyse, and communicate individual-level experiences and perspectives.</p> <p>The qualKit was developed by the University of Technology Sydney (UTS) and Water for Women.</p>
Individual Self-Evaluated Resilience Score (iSERS)	<p><u>iSERS</u> is a validated subjective resilience score that measures individual subjective experience of climate resilience with respect to climate events such as floods, droughts, landslides, and severe storms with an emphasis on intra-household differences. It was adapted from the household Subjective Self-Evaluated Resilience Score and piloted in Bhutan, Lao PDR, and Nepal.</p> <p>The measure has been adapted and validated as an individual measure by UTS.</p>
<b>WATER, SANITATION AND HYGIENE (WASH)</b>	
Water, Sanitation and Hygiene Gender Equality Measure (WASH-GEM)	<p>The <u>WASH-GEM</u> is a novel quantitative measure designed to assist practitioners and researchers in exploring gender outcomes associated with water, sanitation and hygiene (WASH) programs for women and men. The conceptual model for the WASH-GEM was developed through a collaborative process. It was informed by a review of relevant literature and through engagement with practitioners and specialists in the fields of gender, WASH, and international development.</p> <p>The tool has been tested and refined through three rounds of collaborative piloting in Cambodia and Nepal, and more recently adopted and adapted in other country contexts. It was developed by UTS.</p>
Individual Water Insecurity Experiences (IWISE) Scales	<p>The <u>IWISE scales</u> are validated tools to quantify how often people around the world encounter problems with the access, use, and reliability of water for domestic use. The IWISE-12 asks about how often people experience 12 common water-related disturbances to emotional well-being or disruptions in daily activities. The shorter IWISE-4 is based on a subset of four experiences.</p> <p>The IWISE scales were developed by Northwestern University.</p>



Sanitation Quality of Life Index (SanQol-5)	<p>The <u>SanQol-5</u> is a validated index that measures people's experience of sanitation with five questions about privacy, disgust, safety, shame, and disease.</p> <p>It was developed by a team at the London School of Hygiene &amp; Tropical Medicine in the United Kingdom and the Instituto Nacional de Saúde in Mozambique.</p>
<b>FOOD AND AGRICULTURE</b>	
Food Insecurity Experience Scale (FIES)	<p>The <u>FIES</u> is an experience-based metric of food insecurity severity. It is used to estimate the percentage of a population that faces difficulties in accessing enough safe and nutritious food for normal growth and development, and an active and healthy life.</p> <p>It was developed by the United Nations Food and Agriculture Organisation (FAO).</p>
Gender Equality for Food Security Measure (GE4FS)	<p>The <u>GE4FS</u> measure combines the FIES and a gender equality component, comprising 18 mostly yes/no questions that cover five dimensions of empowerment: decision-making ability, financial self-sufficiency, freedom from violence, reproductive freedom and unpaid labour.</p> <p>It was developed by the World Food Programme and Gallup Inc, with statistical contributions from the FAO. IWDA was part of the Technical Advisory Group that supported the measure's development.</p>

## Additional resources

Revealing Resilience aims to increase visibility and awareness of inclusive data innovations to inform and strengthen global development and climate adaptation. For further information about individual measurement tools developed by Revealing Resilience project partners, please see:

- [Tool Summary – Equality Insights](#)
- [Tool Summary – Individual Self-Evaluated Resilience Score](#)
- [Tool Summary – Water, Sanitation and Hygiene Gender Equality Measure](#)



*Learn more about Revealing Resilience*