

World Water Day 2022 - Factsheet on Groundwater and Self-Supply



Authors

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What is the theme of World Water Day 2022?

In 2022, the theme is groundwater. The central narrative of the campaign, launched in the preceding months by UN-Water at www.worldwaterday.org and on social media, ‘Groundwater – making the invisible visible’ is based on the fact that groundwater is the world’s largest source of freshwater and that it feeds into vital systems (such as drinking water supplies, sanitation, farming and industry, and ecosystems) but that it is largely out of sight. “Groundwater may be out of sight, but it must not be out of mind.”

What happens on World Water Day?

On the day itself, the *UN World Water Development Report* is released, focusing on the same topic as the campaign and recommending policy direction to decision makers.

What is self-supply?

The term ‘self-supply’ refers to the provision of water through the initiative of households, and usually at their own expense. Self-supply often complements public supply services or private provision alternatives where inadequate. Self-supply is a universal phenomenon in low-, middle- and high-income countries but, for decades, it has largely been ignored by authorities, donors and implementing agencies.

What is the link between groundwater and self-supply?

Around half the world’s population depend solely on groundwater for their daily needs. Groundwater sources constitute the most common form of self-supply globally, while rainwater collection is dominant in selected countries and regions¹.

How many people rely on self-supply, and how many rely on self-supply from groundwater?

Globally, more than a billion people rely on self-supply water sources. In South Asia, Southeast Asia, and the Pacific, more than 760 million — or 31% of the population — rely on self-supply for their drinking water, with the number of users estimated to be increasing by more than 9 million each year². In Sub-Saharan Africa, some 46 million rural people and 125 million urban people rely on private groundwater sources, equivalent to 7% and 33% of the rural and urban population, respectively³. And, just as importantly, looking into the future, 155 million people in rural Sub-Saharan Africa, representing over 20% of the rural population currently drink water from unimproved groundwater sources³. In urban areas in continental Africa, the number of people supplying themselves with groundwater estimated at 150 million people, representing 32% of the urban population⁴.

Why is self-supply crucial?

- It is estimated that 66% of Water, Sanitation and Hygiene (WASH) sector financing comes from individual household contributions (UN GLAAS report 2021). This makes households the biggest source of investment, in fact more than official development assistance (ODA), government funding, philanthropy and international cooperation combined⁵.
- Self-supply water sources are usually close to the homestead or on premises. They therefore offer advantages in terms of availability, accessibility, and convenience. This is particularly important for women and girls who often shoulder the burden of collecting water far from their homes.
- Self-supply water sources can reach to the service level of ‘safely managed’, the highest level of service provision as defined by UNICEF/WHO (Joint Monitoring Programme) and the SDGs.
- For remote households and communities, self-supply may be the only viable option for a long time to come. A case in point is that self-supply is very common today in rural areas, even in high-income countries – e.g., 45% of the rural population in the USA relies on private wells⁶.
- Self-supply increases resilience to climate change by providing diversity of water sources – especially when complementing other service options⁷. Globally groundwater is the most common form of self-supply¹, and it is generally more resilient against climate change shocks than surface sources.
- Self-supply can improve livelihoods by allowing households to access water for multiple uses – for example for agriculture or small businesses in addition to domestic use.

Why is supporting self-supply effective?

- Supporting self-supply can be a way of ‘working with the grain’ of local societies and economies to create incremental but lasting improvements in water services.
- Self-supply is a proven way of unlocking household investment for water supply access that is suitable especially where public supplies are inadequate or non-existent.

- Self-supply does not absolve the State from its human right to water obligations but supporting it can make public funding go much further, reaching left-behind groups⁸.
- Supported self-supply is fully compatible with the human rights-based approach⁹.

What is needed to make self-supply fulfil its potential?

- In most countries, rural economies have developed hand-in-hand with their water supplies, but the process can be speeded up in weaker economies by improving the availability of affordable technologies, advisory services, microfinance, a skilled private sector, and sometimes by incentives or subsidies.
- Delivery of these support services which help families ensure the quality and sustainability of their water sources largely through their own initiative is called supported self-supply.

What can we all do to help self-supply reach its potential?

- **WASH professionals:** Recognize the role of individual households in upgrading WASH service levels, support the collection of evidence on the multiple impact of self-supply, support initiatives of market intelligence, capacity building, exchange, and learning.
- **Government entities:** Recognize the role and importance of self-supply (e.g., include self-supply in monitoring efforts, recognize it in policies and standards), build expertise in institutions, establish an enabling environment for local private sector actors to thrive, and build capacities.
- **Academia:** Include technologies and approaches adequate for individual household supply (or small groups) in research projects, include self-supply as an approach, investigate enabling and hindering factors for WASH entrepreneurs to establish a business and thrive, look into the multiple benefits generated by self-supply.
- **Funding agencies:** Include self-supply components in projects, focusing on kick-starting market-based mechanisms, promotion, capacity building, market intelligence, research and evaluations.
- **Implementing agencies** (NGOs, UN agencies, etc.): Integrate self-supply components in projects of WASH, rural development, market development and livelihood improvement; pilot and showcase technologies that can be taken up by individual households and small groups.

More resources for World Water Day and self-supply:

- [World Water Day 2022 website](#)
- [UN World Water Development Report 2022](#)
- Book: *Self-Supply Filling the gaps in public water supply provision* (2021), by S. Sutton and J. Butterworth.
- [Wikipedia entry on self-supply in water and sanitation](#)
- [Rural Water Supply Network's \(RWSN\) thematic website on self-supply](#)



Groundwater used to water a vegetable plot. Image by R Haanen.

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8. Olschewski, A. (2016): Review of Self-supply and its support services in African. UNICEF/Skat Foundation.
9. Grönwall, J.; Danert, K (2020). Regarding Groundwater and Drinking Water Access through A Human Rights Lens: Self-Supply as A Norm. *Water*, 12, 419.