

Moving Unsubsidized Self-supply Forward

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You wait ages for one – and then two come along at the same time! Not buses in this case, but sessions tackling facets of Self-supply. Whether in the US or Sub-Saharan Africa, people often choose to improve water supplies themselves, complementing the efforts of public agencies, and it is helpful to understand the supporting systems that can improve and expand Self-supply.

At the 2019 UNC Water and Health conference in Chapel Hill, NC, Self-supply came in two sessions. The first - “Self-Supply: Towards Affordable Water for All “ - showcased the role of Self-supply in achieving Sustainable Development Goal 6.1 and focused on possible barriers and opportunities to scale the approach. This session was convened by IRC WASH, Mercer University and Millennium Water Alliance. The second session led by WaterAid, the SMART Centre Group and EOS International (Emerging Opportunities for Sustainability) focused on experiences with training artisans and communities in Nicaragua.

To capture a little flavor of the first session, this blog provides some key points from the presentations and the engaging participant discussion. We heard that:

- Self-supply is suited to rural dispersed areas and is already practiced by many families
- It is an alternative to the hand-out model of NGOs
- Self-supply serves approximately 14% of households in the United States where households must maintain their own wells and are responsible for water quality testing
- It is an old approach but is now easier than before with a range of new, affordable technologies such as manual drilling, locally produced pumps, etc.
- Users often access unsubsidized Self-supply by two methods:
 - they get a loan
 - they start small and work up the Self-supply ladder, with users managing this by using their new nearby water source for economic purposes and generating more income for water supply improvements, with the end goal of a fully protected and safe source.
- Self-supply can be increased by supporting activities from NGOs and governments that do not include direct subsidies [An Ethiopia example, steps and learnings can be found here under Self-supply Resources: <https://mwawater.org/resources/more-resources/>]
- A supply chain for artisans and materials is critical and supply must be linked to demand.



Figure 1: Examples of Self-supply in the United States which continues in practice today.



Figure 2: Examples of Self-supply in developing economies which are historical and on-going.

Why talk about Self-supply in the United States?

- Self-supply is not a new approach as rural and peri-urban people have historically invested in affordable water and sanitation in the USA and other high-income countries – and many still do today. There are lessons to learn!
- Private sector actors provided water and sanitation products and services – competition and mass production reduced costs. Most retailers offered financing, which helped people move up the ladder.
- Government in the US supported self-supply in many ways, including research, education, promotion, training, financing, and extension services.
- Like everywhere else in the world, most rural and peri-urban Americans were farmers and/or raised livestock; **self-supply water is not just for domestic supply – it is often used productively for increased incomes!**

The participant discussion voiced concerns with Self-supply:

1. Social justice and equality issues when those in the most rural and dispersed (often less wealthy areas) are the ones expected to fund their own water points. In many contexts, people who already have a water supply got it with a subsidy of \$20 to \$30 per capita for the capital expenditures such as borehole or pump. Thus, it seems the poorest and hardest to reach should have a “right” to a similar subsidy.
2. Water quality, particularly on the first steps of the Self-supply ladder, and related to microbial contamination, proximity to sanitation facilities and geogenic contaminants from ground water such as fluoride, arsenic, salinity, etc.
3. Water resources management if thousands of Self-supply wells are implemented
4. Unregulated implementation of poor quality facilities, unknown distance from sanitation facilities, and potentially high groundwater usage
5. Land tenure questions
6. Lack of recognition as an improved source in monitoring

Aspects to **support moving to scale** that were discussed included:

1. Making sure a regulatory environment exists and is practiced
2. Ensuring supply chains and access to water treatment supplies (e.g. filters or chlorine)
3. Incentivizing by making sure results count toward SDG 6 ladder
4. Supporting availability and knowledge of technologies that make self-supply affordable
5. Continuing innovation around self-supply related technologies
6. Ensuring that suitable training is available for households, artisans, manufacturers of self-supply technologies and supplies
7. Implementing monitoring of Self-supply

The session concluded with some highlights from a forthcoming book on Self-supply in sub-Saharan Africa by Sally Sutton. Her research, based on analysis of new household surveys, suggests about 10% of rural households (range 6-14 % across 8 countries) use improved self-supply on premises as their main source for drinking water. These levels of improved self-supply are higher than was earlier believed, and are an underestimate as they exclude sharing. If rural improved access is taken as 50%, a realistic figure, this means household investments are responsible for about one fifth of access. Food for thought, and maybe we will be seeing more self-supply sessions coming along.

The conveners would like to thank Dr. Sally Sutton, Jake Carpenter, and Gardachew Tiruneh for their contributions to the evolution of this session and the participants (from five continents!) who attended and engaged early on a Friday morning at the end of long week.