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GLoWSPROS presents problems and potential solutions that have been developed in the context of the capacity building programme Guided Learning on Water and Sanitation (GLOWS) in Ethiopia. This programme adopts a problem based approach in which participants together with community members identify key water, sanitation and hygiene (WASH) problems and possible solutions. In this process they receive external support from staffs from Technical and Vocational Training Centres (TVETC), Water and Health Bureaus and staff from core partners in the GLOWS programme. As a result of this process WASHCOs and Kebele leaders initiate actions that help to improve their WASH conditions, sometimes adopting very creative solutions for their problems. To make this wealth of experience available to others short write-ups are developed called GLOWSPROS (GLOWS Problems and Solutions), to help others to learn from this experience.

Coverage differs from use which may be misleading

Introduction

Governments are putting a lot of emphasis on water supply coverage. But the statistics that arise from this may be misleading as the people that, in theory, have access to an improved water source may differ considerable from the people that actually use improved water facilities. This type of facilities includes household connections, public standpipes, boreholes, protected dug wells, protected springs, and rainwater collection (WHO/ UNICEF, 2012). The emphasis on coverage has helped to expand the number of water supply systems and in many locations has given people the opportunity to get better access to water but it has also important limitations as many systems are working sub-standard or not at all for long periods of time.

The main challenges

The statistics on water coverage may be quite misleading. Having access to an improved water supply system does not actually secure that this system is providing potentially safe water or water at all. The water may be polluted for example by infiltration of contaminated water if there is no pressure in the pipes or people may contaminate the water themselves during collection and use. Another well-known problem is that sustained functioning of the systems is often not secured and systems may be out of operation for a long time. What is less emphasized is that they may provide substandard service for example because of poor maintenance which may lead to unnecessary waste of time waiting for water and loss of energy because of reduced pumping efficiency. It may also imply additional cost for consumers buying water from water vendors.

Standing in line waiting for water

A less known problem is that coverage figures often do not give the real picture of the situation. They are based on a theoretical calculation which in Ethiopia is as follows. First the population within a radius of 1.5 km is assessed as this is the maximum distance which determines whether a person counts as having access. If X is the number of people than this is compared with the total number of population of the community or Kebele concerned (Y). This gives a first coverage figure $C_{distance}$=100*X/Y which is less than 100 % if part of the population lives further away than 1.5 km. Then the capacity of the system is being assessed being the volume of water it can provide. This is divided by 15 l/p/d being the volume of water that is indicated by the Ethiopian government as the minimum quantity a person in a rural area is granted under the current definition of access. This gives an additional figure Z being the maximum number of people that can get 15 l/p/d from the system. Then it is checked which part of the population with access because of distance (X) actually can get 15 l/p/d (Z). If Z is smaller than X the coverage $C_{distance}$ is further reduced by multiplying it with Z/X.

So let's take an example. If a borehole is able to provide only 5 l/p/d for a community of 500 people and they all live within a distance of 1.5 km the actual coverage is 100*5/15 = 33 %. This figure implies that on paper an important need exists to increase the capacity of the system or to add another system. It needs to be checked however if this is really the case. Suppose that other water sources like open wells are available throughout the year. People then may decide to take just the water they need for drinking and cooking from the borehole as they need to pay for this water and satisfy their other needs with 'free' water from the other sources. In this case it can be argued that we in fact have 100 % coverage instead of 33 %, as the users have 5 l/p/d of water from an improved source and the rest they take from the other sources.

Often people take water from different sources

A second example is showing the opposite. A community of 4000 population has a water coverage of 98 % because 2 % of the population lives more than 1.5 km away. The borehole has a capacity to supply 15 l/p/d to 4500 people. Hence in this case the priority to provide additional water sources is not high. This borehole however is used by water vendors who come from other communities and as a result the real number of people using this borehole is perhaps twice as high which implies that based on actual use the coverage is lower.

Possible solution

An important part of the solution is to accept that different water systems may exist in a community and may be used for different purposes. They may even compete with each other because community members may not be willing to pay for water if they can get it free from another source, or perhaps only use 'paid' water for drinking and perhaps food preparation.

This implies that exploring theoretical coverage as a basis for planning entails an important risk. It is therefore imperative to truly help the WASHCOs to take their responsibility in facilitating water supply. They need to analyse the actual use of water from the different water systems and explore their performance and use this as a basis for bottom-up planning and action. The WASH assessment promoted under GLOWS is a very good tool for such a process.

This note was prepared by Jan Teun Visscher and Abebe Demissie Chukalla from MetaMeta and reviewed by Desta Dimtse from RiPPLE. It was financially supported by UNICEF through SNV Ethiopia.

Further information on GLOWS PROS can be obtained from: glows@metameta.nl.