

Strategia Netherlands Online Studies
Course; Post graduate diploma in Water
Hygiene and sanitation

Assignment 6

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Assignment 7

1. Describe the particular challenges of providing WASH services in urban settings arising from each of the following factors.

The challenges providing WASH service in urban setting includes:

Much more needs to be done to provide urban communities with WASH services of sufficient quality and quantity. The government of, with support from international and local organizations, plans and implements interventions in urban areas to expand existing systems or invest in new infrastructure. (An intervention is any action intended to improve a situation.) For example, Ethiopia set out to achieve 98% access to water in urban areas by the year 2015 as part of its Growth and Transformation Plan I (2010–15) and significant progress has been made. However, improving WASH services to the desired level of coverage continues to be extremely challenging.

Challenges related to population size and characteristics

WASH service upgrade and expansion is slower than the rate of population growth, which puts pressure on the existing systems. As the services are shared by many more people, they quickly become inadequate and may break down.

Urban communities come from different backgrounds and have varying economic status. They are likely to be very mixed and include people from different ethnic groups and religions. Moreover, most people living in urban areas move frequently in and out of town. They may not feel they are part of a community or care very much about the place where they live. These characteristics make it difficult to raise awareness and understanding of basic service issues and pose significant challenges for mobilising people to change their behaviour and actions. You will learn more about the challenges involved in engaging and mobilising such communities and implementing behaviour change to promote good sanitation practices.

Challenges related to infrastructure

The key challenge to meeting the increasing WASH service needs in urban areas is the availability of adequate resources, including finance and human resources that can provide and maintain the necessary infrastructures. The infrastructures required are:

- ✓ Water supply system
- ✓ Storm water drainage system
- ✓ Solid waste collection, transportation equipment and disposal sites
- ✓ Liquid waste (including faecal sludge from latrines) transportation and disposal sites

- ✓ Waste recycling or reuse equipment and facilities.

Water supply systems include developed water sources, treatment plants, storage reservoirs, and a network of distribution pipes delivering water to users. Growing population numbers and economic activity in urban areas mean that:

- ✓ Large amounts of investment are required to expand the capacity of these systems to meet the water needs of the population adequately. Mobilising sufficient funding is often difficult.
- ✓ Water sources, especially groundwater, may become depleted over time because of high extraction rates.
- ✓ Waste from industrial activities increases the threat of contamination of water sources.

Sanitation services include infrastructure for collection and safe disposal of liquid and solid waste. The amount of waste increases with the population size. Industrial activities also add to the type and composition of wastes generated. You may have noticed the excessive waste accumulated in different parts of urban areas.

Wastes from residential areas and from industries often require treatment before being safely discharged into the environment. Faecal sludge from latrines or toilets needs to be transported, treated and disposed of safely. Most towns do not have a proper treatment facility or a suitable disposal site. In emerging towns, where agricultural processing is a growing trend, industrial wastes, for example from coffee processing plants and hide processing factories, are causing an additional burden. Wastes from such industries are often released into the environment without treatment. Again, mobilising sufficient finance to expand services in a timely manner is critical to managing these situations, but is difficult.

Challenges related to governance

The term governance is used to represent many interrelated areas in government systems and refers to such things as the ways decisions are made and strategies are developed. Here, the focus is on responsibility and accountability of local governments in decision making to improve and effectively manage WASH services. Accountability means an obligation or willingness by an organisation or individual to account for their actions and accept responsibility for them.

You have read that finance is a key resource needed to improve WASH services. Appropriate allocation of public funds between WASH and other sectors, such as roads, is a governance issue. Within the WASH sector, most of the budget goes to water-related works and the sanitation component is usually left

with very little. Even the small proportions of resources available are spent on financing major infrastructure in urban centres where most of the rich families reside. This may mean that tax collected from the larger community is only benefiting a selected few, which is not considered fair.

Effective operation and management of urban WASH facilities is another challenge related to governance. In principle, WASH facilities are managed by service providers, such as water utilities and micro- and small enterprises (MSEs). These groups are expected to recover costs for operating and maintaining the facilities but their performance is often below expectations. Service providers may not listen to the needs and complaints of user communities. Where services are not provided to the expected standard, the community's motivation and willingness to pay the tariffs is reduced. This affects the capacity of the service providers to manage the WASH facilities and is a major challenge for governance.

- ✓ Increasing population size – places pressure on existing WASH facilities due to the increased number of users and often leads to generally reduced access levels and frequent breakdown. The rate of increase in population is often many times higher than the rate at which WASH service improvements are actually planned and implemented.
- ✓ The diverse nature of the urban community – promoting safe hygiene and sanitation practices is difficult if the community is very mixed and the people do not share a sense of responsibility for their neighbours or environment.
- ✓ Infrastructure required for WASH services – mobilising sufficient funds to plan and implement infrastructure projects is difficult. In water supply, meeting the growing demand of the continuously increasing population size is a challenge. Lack of waste collection, transport and disposal infrastructure adds to increasing environmental pollution in urban and peri-urban areas.
- ✓ Governance, in particular the process through which resources for improving WASH services are allocated and utilized.

2. What are the major health risks from? Briefly explain how these risks could be reduced.

The major health risks based on the magnitude of health hazards are as follows:

- ✓ Open defecation: If faeces are deposited in open areas then pathogens can be washed into rivers and groundwater. Also flies are likely to transfer pathogens from faeces onto food. Many diseases are caused by ingesting contaminated food or water, including diarrhoea, dysentery, cholera, typhoid, and infection by intestinal worms and other parasites.

- ✓ Allowing food waste and litter to accumulate in a ditch: If food and other organic waste are allowed to accumulate it will encourage flies and rats to breed, which are vectors of disease. It is possible that piles of waste will also contain excreta.
- ✓ Not washing hands before eating or at 5 critical moments: Hand washing before eating is an important aspect of good hygiene practice. Without this there is a risk of transmitting pathogens into your mouth, which may result in the faecally transmitted diseases.
- ✓ In addition to that, eating unwashed fruits and vegetables could be one of the health risks where faeces that contains germs can easily ingested and results to diarrheal disease.
- ✓ Drinking contaminated water is also health risks to human.
- ✓ The risks could be reduced by ensuring everyone has access to sufficient water to make it easy to wash hands routinely and by introducing community programmes to inform people about the benefits of hand washing and good hygiene.

3. Describe three specific challenges posed by peri-urban areas and slums for improving access and utilization of WASH services.

- ✓ Poverty: Communities are usually very poor and cannot pay for improved services.
- ✓ Lack of infrastructure: These areas have little or no infrastructure and often there are no access roads. In the absence of access roads, bringing WASH services to residents of slum areas is impossible or very challenging.
- ✓ Unplanned settlement patterns: These are a key feature in peri-urban and slum areas. This makes it difficult to provide basic infrastructure, including WASH services. Roads, water supply networks and public latrines with proper access for sludge removal are lacking. The settlement pattern also hinders attempts to plan interventions that can improve the situation.
- ✓ Illegal settlement: People living in slum areas and at times in peri-urban areas have no legal status, which automatically makes it impossible to improve the WASH situation. For example, utilities provide connections to legally owned premises but most slum dwellers do not have these rights. The case of latrine construction is similar.

4. Explain three challenges associated with engaging stakeholders in planning and implementing urban WASH projects.

There are many challenges associated with community involvement that you might come across when planning and implementing urban WASH projects. They include:

- ✓ Lack of coordination between different sectors and organisations makes it difficult to make effective plans. Poor communications between different organisations adds to the problem.
- ✓ It is difficult to reach all members of a community especially those on low income, people with disabilities and other vulnerable groups. Women may not be able to participate in meetings but it is important that they are involved in WASH developments.
- ✓ Working across disciplinary and sector boundaries presents challenges because different ways of working must be brought together cooperatively, but this is not always easy to achieve.

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