

ASSIGNMENT MODULE 7

Daniele Cervellera

Student of WASH post-graduate diploma (Course Code: PGD002) in The
Strategia Netherlands

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

- (a) Increasing population size**
- (b) The diverse nature of the urban community**
- (c) Infrastructure required for WASH services**
- (d) Governance, in particular the process through which resources for improving WASH services are allocated and utilized.**

The particular challenges for providing WASH services in urban areas arising from these factors include:

a. The increasing population size puts pressure on existing WASH facilities because the number of users increases and the facilities can be overused and consequently breakdown frequently. The rate of increase in population is often many times higher than the rate at which WASH service improvements are actually planned and implemented.

b. In urban settings the challenge is that the people may have different backgrounds of knowledge about WASH and different practices. There are two possible causes of poor WASH situation: the sense of responsibility of the people living in a neighbourhood that are not at the same level, so after they will not follow the good practices of WASH; the other cause can be the nature of the towns where there are a lot of people that are entering and leaving within the same day and the care of the environment where they are moving is low.

c. The WASH services are provided through the infrastructures that have to be enough in number and able to meet the demand. In order to build these infrastructures, it is required a mobilization of funds to plan and implement construction projects. In water supply, it is not so easy to meet the constant growing demand in countries where the population size is expanding. Lack of waste collection, transport and disposal infrastructure add increasing environmental pollution in urban and peri-urban areas.

The dwellers of the slums being predominantly poor are facing a number of problems which they are very common like housing, water, drainage, sanitary along with health problems which are very common in this kind of area (Ramachandrudu, 1997).

d. The governance can be the process that lead the WASH services to a good improvement or the one that make it remain behind, because through it the financial resources are allocated. Moreover, the distribution of resources between the water-related works and the sanitation component is usually not balanced, with the biggest part of the funds going to the first element. There is another possibility that will not support the development of a good WASH situation in the urban settings, that is the concentration of effort in limited areas of the town, or that are not socially inclusive.

Another element that could help the governance part of the management and provision of WASH service in urban setting is the formulation of policies that indicate the rules, limits and possibilities that are available in the urban context (Public Affairs Centre, 2005).

2. What are the major health risks from?

(a) open defecation

(b) allowing food waste and litter to accumulate in a ditch

(c) not washing hands before eating.

(d) Briefly explain how these risks could be reduced.

a. If sanitation is not properly managed, faeces will be found in open areas and then pathogens can be washed into streams, rivers and groundwater. There is the possibility that vectors, like flies, are likely to transmit pathogens from faeces onto food. The ingestion of contaminated water or food causes many diseases, including diarrhoea, dysentery, cholera, typhoid, and infection by intestinal worms and other parasites. The solution of these problems can be the provision of latrines that are well maintained and designed.

b. The practice of accumulating organic waste and food encourages flies and rats to breed, which are vectors of disease. It might be present also excreta in the same piles of waste so the risks will be to contract diseases like cholera, dysentery, diarrhoea, typhoid and infection by intestinal worms and other parasites.

These practices should not be there in case the urban setting has a functional waste management service that ensure wastes are collected and disposed appropriately.

c. Whoever doesn't wash the hands before eating is running a risk for his/her health and handwashing is considered an important aspect of good hygiene practice. Without this, there is the chance of transmitting pathogens into your mouth, which may result in the transmitted diseases through faeces that are mention in the previous answers.

The results of the survey that was conducted in Malawi shows how handwashing still needs to be widespread in all the 4 critical moments (before and after eating, after using the toilet, after cleaning babies).

Table 22: Critical times for washing hands

	City			Total	Percentage
	Mzuzu	Lilongwe	Blantyre		
No response	6	10	1	17	1.4
Before eating	229	508	253	990	84.0
After eating	3	18	16	37	3.1
After using the toilet	43	62	21	126	10.7
After cleaning babies	4	4	0	8	0.7
Total	285	602	291	1,178	100

Table 1: Critical moment for washing hands in a survey in Malawi (Manda, 2009)

d. In order to minimize the risks that are listed here above, each individual should have the possibility to access enough clean water, and everybody should be aware of the benefit of handwashing and good hygiene, wherever the person is living, so in urban, peri-urban or rural environment.

Here below there is a table that shows the mortality rates in the developed and developing country.

	Developed		Developing	
	Number (000)	Rate per 100,000	Number (000)	Rate per 100,000
TOTAL DEATHS	8033	885	45,897	922
Infectious and parasitic diseases	122	13.4	9680	194.5
Respiratory infections	309	34.0	3198	64.3
HIV/AIDS	32	3.5	2253	45.3
Diarrhoeal diseases	7	0.8	2212	44.4
Childhood diseases	10	1.1	1640	33.0
Tuberculosis	18	2.0	1480	29.7
Malaria	0	0.0	1110	22.3
Other diseases	55	6.0	1002	20.1
Maternal conditions	2	0.2	491	9.9
Peri-natal conditions	53	5.8	2102	42.2
Nutritional deficiencies	23	2.5	467	9.4
II. Non-communicable conditions	7024	773.7	24,693	496.2
Malignant neoplasms	2020	222.5	5209	104.7
Cardiovascular diseases	3592	395.7	13,098	263.2
Respiratory diseases	391	43.1	2604	52.3
Digestive diseases	322	35.5	1461	29.4
Diseases of the genitourinary system	139	15.3	626	12.6
Neuropsychiatric disorders	225	24.8	495	9.9
Diabetes mellitus	161	17.7	439	8.8
Congenital abnormalities	36	4.0	478	9.6
Other conditions	98	10.8	213	4.3
III. Injuries	498	54.9	5266	105.8
Unintentional	327	36.0	3166	63.6
Road traffic accidents	142	15.6	1029	20.7
Other accidents and injuries	185	20.4	2137	42.9
Intentional	172	18.9	2100	42.2
Self-inflicted	130	14.3	818	16.4
Violence	38	4.2	698	14.0
War	4	0.4	584	11.7

Table 4.1
Mortality rates, world,
1998

Table 2: Mortality rates, world. (UN Habitat, 2003)

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

The peri-urban areas and the slums have a high density of population and they have some common characteristics that make challenging the provision of sustainable WASH services. These elements are the absence of many infrastructures, poverty, the structure of the settlement that mostly is illegal and with an unplanned pattern.

The lack of infrastructures is a serious problem because only through the roads it is possible to reach different zones of the area and so to build infrastructures. The challenge is simply to access to different places and the cause is the density of informal houses.

This links to the patterns of the settlements where the settlement is not planned and the result is the chaos: the present obstacles does not allow interventions as a road construction, the installation of an underground piped system or the construction of public latrines with proper access for sludge removal. The construction of latrines is also affected by the same lack of space.

Moreover, the settlement of the slum areas and sometimes also of the peri-urban have no legal status, and this is a serious challenge because for instance the connection to a piped system requires a legally owned premise.

The third element that obstruct the access and the utilisation of WASH services is the economic possibility of the communities living in these areas to afford some WASH-related expenses. So even in the case where improved services will be built, the poor will no be able to pay for those services.

Despite the management of the sanitation aspect is public, the burdens fall unevenly between the poor and the rich: the first will receive the consequences locally in case of inadequate management of sanitation, while the rich people usually have piped water and piped system for the black and grey water (Trémolet & Binder, 2013).

Open defecation and poor latrine emptying contaminate the neighbourhood, a poorly built pit latrine or septic tank contaminates the groundwater, and a flush toilet releasing untreated sewage contaminates the water for downstream users. In principle, a well organised community with appropriate norms can address such problems, but, without collaboration from a public utility or well-developed and regulated latrine emptying, communities are unlikely to handle the ultimate

disposal of faecal sludge safely. This creates problems for the city and beyond. (McGranahan et al., 2016).

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

The involvement of the stakeholders in the phase of planning and implementation of the project is a key aspect for the success and sustainability. The challenges that may be faced have to be understood and overcome.

The first element that can be mentioned is the lack of coordination among organizations and different sectors and this led to a duplication of effort, contradiction or inconsistency.

Another problem is the gap in communications that caused challenges in the development of effective and comprehensive plan.

The engagement of stakeholders from the communities where the project will be implemented presents some challenge since it might not be well represented. Sometimes the low-income communities have not been considered and involved in a participative manner because of prejudices and underestimated. All the categories need to be represented, including the vulnerable people like the one with disabilities, or others that may not participate in meetings like women and it is important that they are involved in the development of the programmes.

Another challenge that is associated with the engagement of the stakeholders comes from the fact that the WASH sector is cross-sectorial because including water, sanitation and hygiene are present in different sectors and as well the offices of the government that are involved are different. So, to define which is the bounder between one sector and another is not easy, and this can be the ground of problems.

In case the multi-disciplinary approach is adopted it might become a strength since the contribution from different people with different background can enrich the development of the WASH sector, without leaving behind any part of it. 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. An important aspect is that the self-interests are partially put aside and a collaborative synergy is created among the stakeholders (Feldman, 2007).

Another aspect that should be considered is that sanitation actors are often relegated because the topic is too frequently at the bottom of the agenda, so there is the need to raise its profile and including the stakeholders of this area (UN Habitat, 2003).

The stakeholders of the local government that should be involved in order to limit this type of challenges are the Water Office, Health Office, Finance Office and Education Office.

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