



AFGHANISTAN HUMAN DEVELOPMENT REPORT 2011

The Forgotten Front: Water Security and the Crisis in Sanitation

Water in Informal Settlements

A Case Study from Kabul

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Acknowledgment

This paper is one of five case studies designed by CPHD and carried out by Cooperation for Peace and Unity as background paper for the third Afghanistan National Human Development Report, *The Neglected Front: Water Security and the Sanitation Crisis*. The case studies have been implemented in Faryab, Wardak, Kunduz and Kabul. They are focused around aid effectiveness within the water sector, water and local conflict, water use in informal settlements, long-term and short-term effects of drought and the Karez management system.

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Informal Settlements in Afghanistan

Informal settlements are a growing concern for Afghans, particularly those returning from Pakistan and Iran and those displaced by ongoing conflicts, as well as a developmental challenge for the Afghan government. The largest informal settlements are around the capital, Kabul, which house approximately 4.5 million people .

The increase in population is driven predominately by conflict related factors, as well as some economic migration to larger cities. A key cause of migration, and the ongoing destitution in the informal settlements, is issues around secure land tenure. One of the most common causes for returnees to live in informal settlements in Kabul is the inability to safely reclaim the land they left when they became refugees, which is often in rural areas. Often their land has been taken over by other families in their communities, commanders or local political figures. This legacy of the Afghan conflict, and the fact that land tenure is a political as well as economic issue in Afghanistan, means that attempts to resolve land tenure issues for informal settlements in cities is as fraught as attempts to reclaim land that has been misappropriated in rural areas .

The issues of the informal settlements and how to address them are not simply technocratic developmental processes. They are deeply linked in to the political economy of Afghanistan where social conflicts, violent conflict, criminality, governance and political activity meet . These issues are reflected in city life, and the political economy of Kabul as Afghanistan's capital .

In Afghanistan only 39% of the population has access to water and only 34% has access to safe sanitation; in Kabul itself only 29% of the population has access to clean water and slum dwellers only have access to dry sanitation systems . The prospects for universal water supply to informal settlements remains far in the future . Existing research suggests that within Kabul, the groundwater and surface water systems that supply the population are already in significant deficit (since at least 2008), and this will increase substantially by 2015 . The challenges to providing clean water to the formal, let alone informal, settlements in Kabul remain significant.

Social mechanisms for accessing water largely fall into three categories: the first one is family members providing cash or water supplies to poorer relatives; the second one is neighbourhoods collectively paying for water collection from entrepreneurs who have access to water points in the city; and lastly the use of children to collect water from water points . Small scale research seems to indicate that these forms of coping mechanisms use a significant proportion of household income and resources, and as a result families are at significant risk of failing to meet their water needs if their household is affected by a crisis, such as a financial shock which about 19% of the population experience (NRVA 2005). Expenditure on water can be exorbitant, with one report indicating a family spending \$2 (100afs) every few days for 5 gallons of water . Attempts to resolve the water provision issue are hampered by the more general issue of insecure land tenure. Informal settlements with no right to land have in effect no right to demand services from the government because the government views the slums as illegal dwellings .

Informal Settlements in Kabul

The size of the IS in Kabul are significant. Though there has been no formal mapping of them, it is estimated that 60% to 80% of Kabulis live in informal settlements . The informal settlements' population is made up of various groups of whom a majority have migrated to Kabul over the last 30 years. Many are former refugees who were living in Pakistan and Iran, or Internally Displaced People (IDPs) who have, as a result of conflict or drought, been forced to leave their home towns and villages. A second group comprises economic migrants who have moved to the capital city as a result of many social and economic pressures in search of work. A third group is a result of the natural population growth that has occurred. A final, and most recent group, are IDPs from the ongoing conflict, such as families from Sangin, Helmand province,

who have been displaced by fighting .

The conditions in the informal settlements are dire, and access to safe housing, drinking water, reliable electricity or other services such as health and education is exceptionally difficult . One of the critical issues within the informal settlements is access to basic services. Probably the most important, in terms of survivability, is access to clean water. Current water supplies to informal settlements areas in Kabul are ad-hoc and rely largely on social coping mechanisms. The water provision issues are made more critical by the fact that many informal settlements in Kabul are on mountainsides, and therefore getting access to water supplies often involves the use of significant time and/or money . As a result of the poor water supply across Kabul, but particularly in the informal settlements areas, there is also a burgeoning informal economy in water collection and delivery which often involves children .

The Challenges

From case studies in Deh Mazang, Zor Abad and the IDP camp in Qargha we have been able to identify four of the major challenges faced by the inhabitants of the above mentioned areas.

- Accessing water
- The Micro Economy of accessing water
- Water as a source of conflict
- The effects on children

However it has to be noted that not all the challenges are faced in the same way or to the same degree by all the inhabitants of the above mentioned areas.

Accessing water

The inhabitants of the case study areas have various means of accessing water for domestic use. According to our respondents, wells are the primary source of water followed by water points, the Karez system, access to water via donkeys and water tankers. These various methods of accessing water have various positive and negative aspects attached to them.

Wells have the positive aspect of giving access to free and clean water to the surrounding area. But they also have the negative aspect of not being a viable choice for the households further away, and the long queues at the wells are time consuming and a cause of tension and conflict. The water points are a part of the pipeline systems built by the base of the mountain in Deh Mazang. Much like the wells the water points give access to free and clean water

but have the same negatives aspects attached, additionally the water is also only available every other day for about 6 hours. Getting access to water through a Karez has the benefit of being free but it also has the negative aspect of not being available in all areas and all respondents using a Karez as a source of water had to walk between 30 min up to 2 hours in order to access it. The use of donkeys in order to access water is a consequence of the long distances to wells and/or water points. The use of donkeys has the positive aspect of making it easier for households located higher up on the mountain side to access water. It has the negative aspect of being expensive (15-50 AFS per/barrel, 20-25 litres) and limited in that the donkeys can only



A boy loading his donkey from a water point in Deh Mazang, Source: Deh Mazang, Jan 2010

carry water so far up the mountain; it also runs the risk of creating potentially dangerous debt relationships between the households and the donkey entrepreneurs. Water tankers have the capacity to bring large amount of clean water but it is the most expensive alternative, ranging from 800-1000AFS per tanker which holds about 5000 litre of water .

The Micro Economy of Water

“I spend about 8000 AFS every month in order to get enough water for my family” Eng Mohammad Pazir Wardak, Zor Abad

Water is a relatively expensive commodity in the case study areas and the costs vary depending on the means of accessing water and the distance to the closest water point. As mentioned above a barrel of water can cost from 15-50 AFS, the cost is tied to the distance associated with fetching the water: the longer the distance the higher the cost. The cost of water per se is not the only economic pressure faced by the household in the case study areas. In some households during water days the male members stay home in order to fetch water. These male members of the households are usually also the primary income earners and thus have to forgo a potential day's income due to their water situation. The diseases caused by the lack of clean water also put an economic pressure on households in the form of the need to pay for medical care and loss of potential work days.

Water as a Source of Conflict

“Many conflicts take place between families here. We don't have enough water and this sometimes leads to violence” Abdul Ali, IDP Camp, Qargha

Scarcity of such an essential and basic commodity as water would logically be a potential source of conflict among the affected communities and individuals. In the case study areas conflict related to water is a common occurrence. At the IDP camp there are conflicts related to water within the communities and between different communities.

The scarcity of water and the uncalculated areal placement of the water points have created a form of territorialisation. The families located closest to the water points have laid claim to the water points as their own; this attempt at monopolizing an already scare resource has caused conflict and violence within the IDP community. Due to the scarcity of water the IDPs are forced to seek out water sources outside the camp. The additional water sources available are located in the nearby apartment blocks. However the IDPs are not always given access to the water sources by the inhabitants of the block, thus creating conflict between the two communities .



At the western outskirts of the IDP camp, the inhabitants want a water point to be constructed here. This would reduce the necessity to collect water at the apartment blocks Source: IDP Camp Jan 2010

There are other social conflicts being created related to the water situation. In Deh Mazang the local plastic pipe project has created a sense of betrayal and injustice among the respondents in the community. The plastic pipes are drawn from households with water points to supply households without access to water further up the mountain - the households receiving these pipes had to pay 5000-7000AFS. Additionally

the households receiving the pipes are also charged for the water they use, but there are no meters installed at their end so they do not know how much water they have used and thus what they are paying for. They have agreed to this out of desperation and lack of alternative options .

These households in Deh Mazang feel cheated by those with access to the water point and feel abandoned by their wakil (selected liaison to the GoA) because he started and supported this project . Among the respondents in Deh Mazang this has caused a change in the perception of “us and them”, potentially resulting in social divisions and mistrust within the community and between the inhabitants and the wakil (Focus Group, Deh Mazang, Jan 2010).

The third and most common type of conflict is between the children. The majority of the respondents indicated that the most of the conflicts and violence were between the children standing in line at the water points or the wells, which sometimes leads to conflict between families.

The Effects on Children

Among the respondents in the case study areas the children, especially in the poorer households and the ones located further away, are identified as the primary victims of the bad water situation . The most significant impact of the time taken to collect water is the negative effect this has on school attendance rates. Further, the poor water quality causes sickness among the children that also makes it difficult for them to attend school

on a regular basis. Lack of water also means that they cannot wash themselves or their clothes; this can cause more illness but it also happens that children get teased for being dirty by other children in school, a concern of the respondents .

In the case study areas the children have the primary task of fetching water. For a child this activity can be dangerous, time consuming and can cause conflict leading to violence with other children. The task of fetching water is particularly dangerous during winter when the steep passages up the mountain sides become muddy, icy and slippery. Among the respondents the task of fetching water was identified as the primary cause of children missing out on school. The time consuming nature of fetching water monopolizes the children’s time, making it difficult for them to make time for any other activities. As mentioned above the queues involved in fetching water is a source of conflict among the children. It also causes great physical stress on the children .



Children next to a water point, waiting for the water to come Source: Deh Mazang, Jan 2010

Deh Mazang

The area of Deh Mazang is located in the western part of Kabul city, close to the Afghan Parliament. The people of Deh Mazang come from all parts of Afghanistan and have been there 3 to 4 generations. The original settlements started at the base of the mountain but as the population started to grow the people were forced to settle further up the mountain .

Accessing water in Deh Mazang

The main sources of water in Deh Mazang are the wells and the water points associated with the pipeline system at the base of the mountain. The people settled further up the mountain side rely on donkeys bringing water from the base of the mountain or on their children to perform the same task. Accessing water is particularly difficult for the households located furthest up the mountain side; the option of donkeys or children is not available as they cannot climb to such heights in such terrain. The only two options available is to have the donkeys carry the water to a certain point and from there the male members of the household will have to carry it rest of the way, or alternatively hire water tankers which can drive up the mountain side .



The area of Deh Mazang, Jan 2010

Water as a Source of Conflict in Deh Mazang

The water situation and the economic pressure faced by the households along the mountain side create a form of desperation which makes them vulnerable to different forms of exploitation. As mentioned above the local plastic pipe project has caused social tension in the affected community. Alongside the above mentioned reasons, the poor quality of the pipes is yet another factor which makes the respondents feel cheated. The respondents complained about the fact that plastic pipes of such low quality were drawn over ground; they explained that children play with the pipes and break them; and that they did not expect the pipes to make it through a “real winter”.

The Micro Economy of Water in Deh Mazang

The economic effects on the households vary depending on the location of the



The plastic pipes, draw over ground Source: Deh Mazang, Jan 2010

household along the mountain side. The households located further down the mountain side can hire donkeys at a cheaper price than households located higher up; also the alternative of giving the children the task of fetching water is more viable and thus more exercised. This means that the male members of households located higher up the mountain side will have to spend more time on fetching water and thus forgoing potential income-generating work. In Deh Mazang there are also debt relations being formed between the households and donkey entrepreneurs, shifting the power balance towards the entrepreneurs who can cut off the water supply if they are not paid.

The Effects on Children in Deh Mazang

The children in Deh Mazang face a number of problems due to the water situation in the area. The children have the main task of fetching water; this is a highly time-consuming activity, it can take from 20 min up to 2 hours, depending on the terrain and the queues, children miss out on school due to this task. Fetching water also means queuing at the wells/water points which causes conflict and can lead to violence between the children, which can further escalate into conflict among the families. The most dangerous part of the task of fetching water is getting the water up the mountain to the households, especially during wintertime when the passages are icy, muddy and slippery. Children slipping and breaking bones while carrying water to their homes is a common occurrence in Deh Mazang. Fetching water on a daily basis also causes physical stress on the children; they suffer from back and shoulder pain as well as exhaustion. The economic challenges faced by the households in relation to their water scarcity have also forced some children to seek income-generating employment which makes it difficult for them to attend and pass school.

Raz Mohammad is the son of a widow with 7 other younger brothers and sisters. He is enrolled in 11th grade, but due to their economic situation he is forced to work as a tailor and he has the primary task of fetching water in his household. He has failed five subjects due to his lack of time to attend school and focus on his studies.

Source: Interview, Deh Mazang Jan 2010

Zor Abad, Qargha

The inhabitants of Zor Abad are mostly returnees from Pakistan and Iran who settled down in the area around 4-6 years ago. There are various reasons for why these people moved to Kabul, including the search for employment, others have lost their home in their place of origin, and some have migrated due to the bad security situation in their home provinces. The GoA has claimed all the land at the base of the mountain, and all the structures on that land have been razed, which has forced the inhabitants to settle further up the mountain side.

Accessing water in Zor Abad

The main sources of water in Zor Abad are wells and the Karez systems, and the people located further up the mountain hire donkeys to fetch the water from the wells located further down. In Zor Abad the challenge of accessing water is more focused on the time it takes to reach the water source and the quality of the water obtained and maintained. According to the respondents in Zor Abad it takes an average of 1-2 hours in order to access water. Among the case study areas, the inhabitants of Zor Abad have a greater challenge



Raz Mohammad and a CPAU researcher

accessing good quality water. The wells and Karez which are being used are not covered and get polluted by constant Khak Bad (small sandstorms). Clean water is available via water tankers but maintaining good quality water is difficult due lack of storage capacity.

The Micro Economy of Water in Zor Abad

In Zor Abad the economic pressures from the water situation are more indirect. Hiring donkeys to fetch water is cheaper in Zor Abad than in Deh Mazang (15-30AFS per/barrel) . Although there are some households who can afford to pay for water tankers most households do not . The indirect economic pressures come from the cost related to treating the sick household members, especially the children. Male members of the households who get sick face the additional cost of losing out on potential income.

The Effects on Children in Zor Abad

As elsewhere, in Zor Abad children have primary task of fetching water. Due to the amount of time it takes to access water sources, the ability of children to attend school becomes greatly diminished. The bad quality of water is also a cause of sickness which further diminishes children's capacity to attend school. The children also get into conflict amongst themselves while fetching water; frequently the children who live higher up the mountain side get bullied by children who live further down.

Tawab Mohammad Wahdat is in 5th grade. He is a normal young boy who likes to play with his friends and fly drone. The dirty water has made him sick, he has contracted Saldana , he has been sick for 6 months now. He does not like to go to school because the other boys make fun of him.

Source: Interview, Zor Abad Jan 2010



Tawab, Zor Abad Jan 2010

IDP Camp, Qargha

The IDP camp in Qargha is inhabited by IDPs from Helmand; the respondents in the case study originated from Sangin Qala, Nad Ali and Musa Qala. There are around 770 families living in this camp, they have been forced to relocate to the camp due to the bad security situation in their respective places of origin. Among the respondents, the duration of time they have lived in the camp varies from 6 months up to 2 years .

Accessing Water at the IDP Camp

The main sources of water the IDP camp are the water points set up by UNHCR. There are 3 water points at the camp and they are refilled twice a day. There are also 2 wells available at the camp but they are not functioning . The third alternative for accessing a water source is to fetch water from the wells at the neighbouring non-IDP communities. Critically the IDPs cannot typically afford to pay for water; for example there was an attempt to start supplying the camp with water by donkey entrepreneurs but the lack of purchasing power made this economically unviable.

Water as a Source of Conflict at the IDP Camp

Many conflicts take place between the community members. The families furthest away from water points usually come here to get water, but there is not enough water for all the families. It creates conflict and once three people were injured with knives over the water. Sayed Nabi, IDP Camp

According to the respondents the water available at the IDP camp is inadequate; every family gets about 2 barrels (around 40-50 litres) of water per day . The inadequacy of water is combined with the uncalculated placement of the water points; all three of the water points (and the poorly functioning wells) are located in the eastern parts of the camp. This has led to a form of territorialism which has created an “us” versus “them” . Due to the territorialisation and claiming of the water points mentioned above, the people located further away from the water points are seen as intruders when using the claimed water point at the IDP camp.



A water point at the IDP camp Source: IDP Camp Jan 2010

Accessing water in the nearby apartment blocks is as mentioned above prone to conflict but it is also a difficult and time consuming task. The IDPs are not always allowed by the inhabitants of a block to access water at that site, so they are forced to go to another blocks in hopes of getting access to water .

The Effects on Children at the IDP Camp

As has been the general trend from the case study areas, at the IDP camp the children have the primary task of fetching water. Due to the limited number of water points, there is a great concentration of children on each water point. This causes long queues which are time consuming and prevent the children from attending school as well as causing conflict which often escalates to violence among the children. Fetching water from neighboring non-IDP communities gets the children into conflict with children from that community. It can also be a highly time consuming task depending on their ability to find an apartment block willing to allow them access to the water; according to the respondents on average it can take them 30 min to an hour . The children also suffer from back pain, shoulder pain and exhaustion as a result of carrying heavy loads of water on a daily basis.

Conclusion

The water situation in the informal settlements in Kabul differs based on the settlement as do the challenges faced by the inhabitants of the various settlements. The economic pressures faced by the various communities and their households differ from one another but in Deh Mazang and Zor Abad the households located further up face higher costs and these households are usually the poorer ones. The types of conflict related to water also differ based on the various settlements, although the conflict over water among the children is a characteristic they all share. In Deh Mazang there are disturbing signs of exploitation arising from the poor water situation in the area, which could lead to social and political disturbances. At the IDP camp, the inadequacy of water available is a potent source of conflict and violence among the community and between communities.

In all of the case studies areas, there was consistent evidence that children tended to suffer most. The task of fetching water is the primary source of the problems faced by the children, it is time consuming, prone to conflict and violence, it causes physical stress and exhaustion, and it can be very dangerous especially during winter when the passages are muddy, icy and slippery.

The various settlements have their own suggestion of how to remedy their problems:

Deh Mazang: As a short term solution the inhabitants of Deh Mazang wanted to supply the children with better shoes and build better paths up the mountain. As a long term solution the inhabitants wanted to build a water reservoir at the top of the mountain which could supply the all the households with water .

Zor Abad: As a short term solution the inhabitants of Zor Abad wanted financing for building more wells, and covering them up with hand pumps. In the long term they wanted water reservoirs and electricity in order to pump the water to all the households .

IDP Camp: The inhabitants of the IDP camp recognized that their long term solution would be for them to be able to go home. In the short term they wanted to build more water points better spread around the camp .

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