



AFGHANISTAN HUMAN DEVELOPMENT REPORT 2011

**The Forgotten Front: Water Security and
the Crisis in Sanitation**

Short-term and Long-term Effects of Drought

Case Studies from Faryab and Wardak

Contents

Acknowledgment.....	3
Drought Vulnerability.....	4
Drought in Wardak.....	6
The Effects on Agriculture and Livestock.....	6
Conflict and Drought.....	7
Effects on Women and Children.....	8
Labor Migration.....	8
Hopeless Drought and Endless War.....	9
Drought in Faryab.....	10
The Effects on Agriculture and Livestock.....	10
Conflict and Drought.....	11
Effects on Women and Children.....	11
Labor Migration.....	12
Conclusion.....	13
Bibliography.....	14
End Notes.....	16

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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The views expressed in the papers are the sole responsibility of CPAU and the authors and are not necessarily held by Center for Policy and Human Development and Kabul University.

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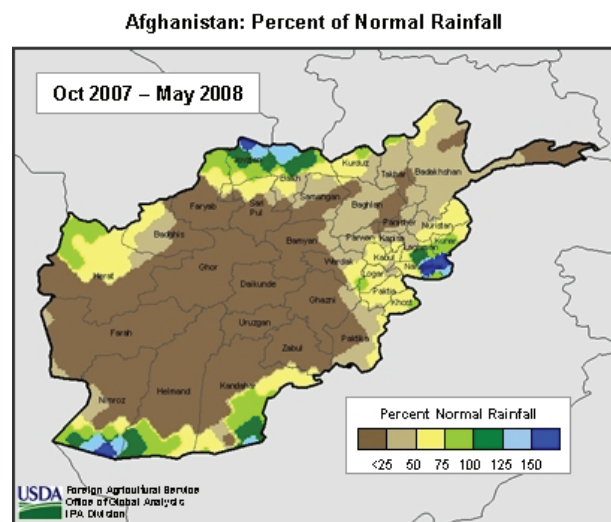
“Water for land is like blood for the body, without blood the body will not get what it needs and it will therefore be lifeless. Without water the land will not get what it needs and it will therefore also be lifeless” Said Amin

Drought Vulnerability

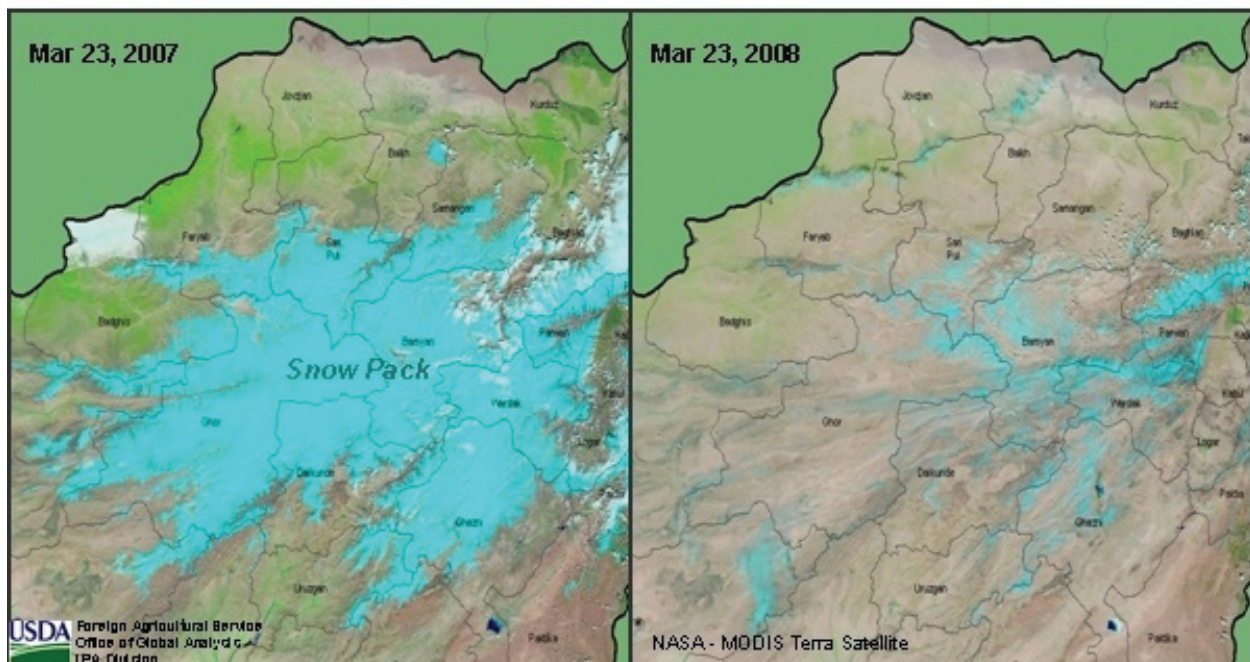
Drought, often defined as “a continuous interval of time during which the actual moisture supply at a given place is consistently less than normally is expected”, is a common occurrence around the world. From the period of 1991 until 2005 about 1 billion people were affected by drought, mostly in developing countries. During the same period, 66,601 people died due to drought and drought-related disasters such as extreme temperatures. It has also caused about \$ 106.60 billion worth of economic damage around the world.

Afghanistan is particularly vulnerable to drought. It is facing water scarcity as a result of decades of war which has destroyed the water infrastructure of the country, and climatic issues that impact the two primary livelihood strategies, agriculture and livestock, both dependent on the availability of water. About 55% of all households in Afghanistan are engaged in agriculture and about 68% of all households own some form of livestock. Afghanistan’s vulnerability to drought goes further due to the weak or non-existent government institutions, creating a gap in the ability to develop and/or implement coherent and effective responses to potential droughts.

Afghanistan has experienced drought several times during the last 10-15 years. However the drought following the below normal rainfall in 2007/8 caused the worst drought conditions the country has seen for the past decade. It is estimated that the drought caused a 55% reduction in wheat production while the production of barley was estimated to have dropped



Central Afghanistan: Winter Snow Pack Comparison



by 67% . The low rainfall levels were joined by well below normal snow fall. The viability of agriculture in Afghanistan is dependent upon the level of snow fall in the mountains which produces meltwater in the spring. Around 86% of all irrigated land in Afghanistan derives its water from rivers and streams originating from the mountains .

The situation was aggravated by disruptions in regional grain trade, in the form of export bans and illegal taxation , increased conflict on major trade routes along the Pakistan border, and increases in global food prices . This resulted in a severe decline in the availability of wheat, causing a 200% increase in the retail price of wheat in most markets . During the same period the price of livestock decreased by 40%-70%, due to a combination of high wheat prices and a lack of grazing land . It was estimated that around 4.5 million people in Afghanistan would have required food aid due to the drought .

The negative effect of drought on the two primary livelihood strategies in Afghanistan, agriculture and livestock, has further repercussions as it causes widespread under and unemployment , and is the main threat to household food security . There is also some evidence of the link between drought, unemployment and young people joining armed groups . Other evidence shows that the low and middle income households are those most severely affected by drought . In Helmand and Kandahar, female headed households were particularly identified as the most vulnerable to drought, as their main income is provided by child labor and women begging for money .

When in January 2010 Afghanistan received low levels of rain and snow fall, it created wariness among the people of a potential drought . There were also news articles published about the risk of a potential drought due to the low levels of rain and snow fall . These reactions emphasize the fear and seriousness of drought in Afghanistan.

“The drought is worse than the 30 year war. At least you could escape the war but there is no way to escape the drought” Mahmud Zarif, Zartsang Village,

Drought in Wardak

The province of Wardak is located in the central region of Afghanistan; it is mostly a mountainous and semi-mountainous area. It has a total population of about 549,200 people . The main language spoken in Wardak is Pashtu (70%) followed by Dari (27%). 73% of all households in Wardak have access to some form of agricultural land around 83% of the agricultural land is irrigated . Livestock ownership, although in decline, is still a key livelihood strategy in Wardak . The case study was conducted in Sayydabad bazaar, Aman Khel, Shekanak, Sheik Azim Si Si and Zarsanga village. They are located in central Sayydabad.

According to local respondents the area has been suffering from drought for 10-15 years and it is subject to chronic food insecurity . The drought has had many negative effects on the area: it has limited agricultural activities, reduced the number and value of livestock, created conflict within communities, has had various negative effects on women and children, as well as caused unemployment and labor migration. Perhaps the most notable negative effect of the drought is the sense of hopelessness it has created among the inhabitants. According to the local respondents, living in a situation where there is a constant worry about how to find the next litre of water takes a hard toll on the human psyche .

“In the past every household in the village had cows but now only five households have cows.” - A Farmer in Aman Khel Village

The Effects on Agriculture and Livestock

“The land is our only income,” -A recurring phrase among the respondents in Sayydabad

According to the local respondents the drought has had a significant negative effect on the agricultural activities in Sayyadabad; around 70% of the irrigated land has been rendered useless . The drought has forced people to reduce the variety of crops they grow and the size of their harvest. In the past the people of the area used to rotate between potatoes, wheat, clover and rice, but due to the drought they have been forced to reduce that variety to certain types of crops called lallmi . Lallmi wheat requires less water and is therefore used as a coping strategy by the farmers. The negative part is the yield it produces. According to the local farmers a 70 kg sowing of regular wheat would produce a yield of around 2100 kg, while 70 kg of lallmi wheat would produce a yield of around 420 kg, which means an 80% reduction in productivity . Another negative consequence is the further degradation of the land through its use for a single type of crop. There are people who have been growing nothing but wheat on the same land for about 6-7 years, thus reducing the quality of the land .

The drought in Sayyadabad has driven people further into poverty and the poorer households are those most affected . Households with more financial opportunities have been able to dig deep wells and pump water to their lands. This however is not a solution; there are cases where the running cost of water pumps has surpassed the profit from the harvest .

The drought has also had a negative effect on livestock ownership in Sayyadabad. The main reason for the decline in livestock ownership is identified as the inability of the local inhabitants to provide for the livestock . This inability is caused by three factors: the first factor is the decline in grazing land, the second one is the reduction in clover production, and finally the lack of financial capacity to address the problem . The inability to provide for the livestock has forced people to sell their livestock at below normal market prices. For example, the price of a sheep is reported to have dropped from 2500AFS to 800AFS during peak drought periods . In Aman Khel village and in Sheik Azim village the level of livestock has been reported to have dropped from 500-600 to around 50 .

Conflict and Drought

The scarcity of water following the drought has naturally resulted in conflict over the distribution of the remaining water available. The evidence indicates a classic case of conflict over water between upstream and downstream communities. It also shows the difficulty of establishing and maintaining social water management systems. Shekanak village in Sayyadabad had no conflict over water prior to the drought. According to the local respondents, the sharing of the water in the nearby river is the cause of the water related conflict. There is a dam at the top end of the river and the upstream community is pumping water from it. The pumping of water means that less water is made available for the downstream community. This conflict has escalated to violence several times and one person has so far died. Prior to the drought, there was no need for a social mechanism which would manage the distribution of an abundant resource. When the drought occurred, there were no mechanisms in place to fairly distribute and manage this distribution, thus resulting in conflict.

An old man had died from natural causes but he could not be buried because there were no able young bodies to bury him. People were brought from another village for the digging of the grave and the burial. -Zartsang Village, Sayyadabad

Effects on Women and Children

There was no evidence of a significant worsening of the children's situation due to the drought in the case study area. There was no evidence of child labor or children who could not attend school due to some issue related to drought. However, children were suffering from diseases such as diarrhea due to the lack of access to clean water .

Building an understanding of the effects of drought on the women in the area is a difficult task. Due to cultural reasons it is difficult to gain access to the women, or credible information concerning women. However the respondents in Sayyadabad were keen to talk about the effects of drought on mothers. It is assumed among the respondents that the mothers have a closer relationship with the children than do the fathers; in that light, they felt strongly that mothers are suffering psychologically due to their inability to properly feed their children (Focus Groups and Interviews, Sayyadabad Wardak, Jan 2010). There are two reasons for why the children are not fed properly. Firstly, the worsening economic situation has meant that there is less food available in the household. Secondly, the cultivation of a single crop has reduced the variety of food consumed, meaning that the nutritional value of the food available has also dropped significantly. This has impacted both the children who are old enough to feed themselves, as well as the nursing babies as mothers are unable to produce nutritious milk.

Labor Migration

Labor migration to Iran is the most common coping strategy used in Sayyadabad. The poverty and unemployment resulting for the drought has forced families to send their sons away, primarily to Iran. According to local respondents there are villages in Sayyadabad where you would not be able to find as many as 3 young men because they have all been sent away. Migration can potentially have a positive effect on the household because it provides an alternative source of income, but it can also have a negative effect on the individuals and cause conflict which can escalate into violence. Locals identified the usage and sale of drugs as one of the two major problems with labor migration to Iran. According to one respondent a clear majority the labor migrants start selling drugs and/or using drugs . When the labor migrants return, they bring back their drug habits with them and spread it further through the community. The second major problem with labor migration is the potential conflict with human traffickers. A lot of these people do not have the financial capacity to send their sons to Iran. Thus smugglers offer the option of moving the labor migrants into Iran without requiring any cash up front; instead they will require the labor migrants to work for them for a certain period of time in Iran. However if the labor migrant is caught by the Iranian police and is deported prior to repaying his 'debt' to the smuggler, a conflict awaits him back home in his village. This dependency on the smugglers can be dangerous due to the power imbalances between the two parties.

Hopeless Drought and Endless War

"The drought forces the people into the war, either on one side or the other." -Anonymous, Sayyadabad, Jan 2010

Unemployment is identified as the major driving factor for the conflict in Afghanistan; specifically, evidence suggests that unemployed young men are vulnerable to mobilization into armed groups . In Sayyadabad these findings are supported by the local respondents. One respondent identified two reasons for why young men joined the armed conflict: firstly young men join armed forces such as the ANA and armed opposition groups such as the Hizb-i Islami and the Taliban in order to access an additional source of income; the second reason is due to the negative psychological effects of the drought . Men have the primary duty of providing for the household; young men in particular are expected to carry the bulk of this responsibility. According to local respondents the long term reality of having to constantly worry about finding water and finding a viable source of income have caused a sense of hopelessness among the inhabitants . The respondents further explained that the young men join the Taliban as a means of escaping this reality and this responsibility.

"I have lost 300 sheep, I could not feed them and because everyone was suffering from the drought, no one wanted to buy my sheep. I had to let them starve to death." Abdul Wahid, Tashler Gozar, Faryab

Drought in Faryab

"If the drought continues we will have to leave this country", Qorban Bai, Dai Saidan Village

The province of Faryab is located in the northern region of Afghanistan. It has a total population of about 915,800 people ; the main languages spoken in Faryab is Uzbeki (53.5%) followed by Dari (27%) and Pashtu (13%). 51% of all households in Faryab have access to some form of agricultural land , of which 73% is rainfed .

The case study was conducted in Afghan Kot, Dai Saidan, Imam Sahib Tashler Gozar Paain and Tashler Gozar Bala village, located in Maimana and in the district of Pashtun Kot. According to the local respondents the province has been experiencing a drought for the last 7 years with the previous year as an exception . According to FEWS NET in 2008 the whole province was hit by acute drought. The drought has had many negative effects on the area. It has limited the agricultural activities in the area, reduced the number and value of livestock, has had various negative effects on women and children, caused unemployment, and labor migration.



The Effects on Agriculture and Livestock

Agriculture is the main livelihood strategy in Faryab and it has been negatively affected by the drought. While there was no evidence of farmers being forced to change the crops they grow, the crops produced have been of low quality . This has made it difficult for the farmers to sell the product at a profitable price at market.

According to the local respondents, livestock ownership has declined due to the drought. Livestock market prices have decreased by 60%-70% in the Faryab. In the past the value of one sheep was around 200 kg of wheat; currently the value of the same sheep has dropped to less than 50 kg of wheat . As in Wardak the drought has made it difficult for the inhabitants to care for the livestock. Farmers have been forced to let their livestock starve because they could not feed them and could not find a willing buyer for them .

The respondents in Faryab seemed to be more worried about their livestock losses than their agricultural losses . The farmers have also spent additional money in their attempts to feed their livestock; there are examples of people buying food for their livestock creating additional costs mounting up to 1500-1800AFS .

Conflict and Drought

There was no evidence of conflict related to drought in Faryab. Besides some conflict between children fetching water, no other water related conflicts have been reported . An explanation could be the concentration of rainfed agriculture in the area. Rainfed agriculture does not need social collaboration around water

distribution and/or management which is so often the cause of water conflict in communities that are predominantly dependent on irrigated agriculture.

Effects on Women and Children

“The women are suffering mentally from the lack of water and money. They do not have enough food for their children and it is very difficult for a mother to see her children starve.” Rahman Bai, Afghan Kot Village

The women in Faryab are facing many of the challenges faced by women in Wardak; they also have a low quality diet and do not produce enough milk to nurse their babies. According to the local respondents the women are suffering mentally because they cannot feed their children .

The children in Faryab however seem to face a different reality than the children in Wardak. The children are mainly suffering from a decline in economic opportunity. According to the respondents the drought has forced children to drop out of school or it has prevented them from properly attending school . On the one hand the worsening of the economic situation of the household has made it difficult for the parents to properly supply their children for school . On the other, the worsening economic situation has also forced children to either get jobs or help out on the farm. In both cases the children have not been able to attend school. A possible explanation for why children in Faryab have been forced to enter the labor market while the children in Wardak have not is the level of the degradation of the economy. Faryab has experienced a relatively shorter period of drought which means that the labor markets might not have been degraded to the same level and there might still be some potential to generate income.

Labor Migration

“If the drought continues we will all become immigrants. We were 600 families in the village but now only 400 are left.” Mohammad Alim, Tashler Gozar Village As in Wardak the, labor migration to Iran is the most common coping strategy among the respondents in Faryab. There is evidence of the same kind of drug related problems as in Wardak. According to the local respondents a clear majority the labor migrants start selling drugs and/or using drugs. When the labor migrants return, they bring their drug habits with them and spread it further around the community. However there was no evidence of potential conflict related to the migration. In Faryab the issue around the migration was more economic. According to some of the respondents people have to find buyers for their livestock in order for them to be able to migrate to Iran .

Conclusion

Drought has been a common reality for people around the country for the last several years. However the effects of the drought differ, depending on the area and the duration of the drought. Wardak has been experiencing a drought lasting 10-15 years. Faryab on the other hand has been experiencing a drought lasting about 7 years with one good year in between.

In Wardak where the drought has been more persistent, the effects have escalated from the economic sphere into the social and psychological sphere. People’s positive outlook on the future has been negatively affected and there is evidence of social degradation such as increased drug use. There is also evidence of psychological deterioration such as joining armed opposition groups as a means of escaping their reality. In Faryab where the drought has been relatively less persistent, the effects have primarily stayed in the economic sphere. An exception is potentially the negative psychological effects on mothers who cannot feed their children and the increased drug use.

Among all the respondents in both Wardak and in Faryab, dams were suggested and requested as a more efficient and human form of dealing with drought.

Bibliography

- Bhalla, N. (2010, January 12). Millions in Afghanistan at risk of drought, aid workers say. AlertNet, http://www.alertnet.org/db/an_art/55867/2010/00/20-153738-1.htm.
- Bhattacharyya, K., Azizi, P. M., Shobair, S. S., & Yasin, M. M. (2004). DROUGHT IMPACTS AND POTENTIAL FOR THEIR MITIGATION IN SOUTHERN AND SOUTHERN AND. Colombo: International Water Management Institute.
- CSO. (2010). Population Data. Central Statistics Organization.
- FEWS NET. (2007). Labor Markets, Livelihood Strategies, and Food Security in Afghanistan. Famine Early Warning Systems Network.
- FEWS NET. (2008). Northern Afghanistan Drought Impact Assessment. Famine Early Warning Systems Network.
- ICRC. (2010, January 13). Afghanistan: war-hit civilians face drought risk, <http://www.icrc.org/web/eng/siteeng0.nsf/html/afghanistan-update-130110>.
- Jackson, A. (2009). *The Cost of War: Afghan Experiences of Conflict, 1978 – 2009*. Kabul: Oxfam International.
- Ladbury, S. (2009). TESTING HYPOTHESES ON RADICALISATION IN AFGHANISTAN: Why do men join the Taliban and Hizb-i Islami? How much do local communities support them? . Kabul: Cooperation for Peace and Unity.
- Mueller, V. A., & Osgood, D. E. (2007). *Long-term Consequences of Droughts in Brazil*. New York: Center on Globalization and Sustainable Development, The Earth Institute at Columbia University.
- NRVA. (2007/08). *A profile of Afghanistan*. Kabul: Jehoon Printing Press.
- NRVA. (2005). *The National Risk and Vulnerability Assessment 2005: Afghanistan*. Kabul: MINISTRY OF RURAL REHABILITATION AND DEVELOPMENT AND THE CENTRAL STATISTICS OFFICE.
- Qureshi, A. S., & Akhtar, M. (2004). *A SURVEY OF DROUGHT IMPACTS AND COPING MEASURES IN HELMAND AND KANDAHAR PROVINCES OF AFGHANISTAN*. International Water Management Institute.
- Swanström, N. L., & Cornell, S. E. (2005). *A Strategic Conflict Analysis of Afghanistan*. Stockholm: Central Asia-Caucasus Institute and Silk Road Studies Program.
- United Nations International Strategy for Disaster Reduction. (2005). *Strategy for disaster reduction*. <http://www.unisdr.org/disaster-statistics/impact-affected.htm>.
- USDA. (2008b). *AFGHANISTAN: 2009/10 Wheat Production Outlook Uncertain*. United States Department of Agriculture: Foreign Agricultural Service.
- USDA. (2008a). *AFGHANISTAN: Severe Drought Causes Major Decline in 2008/09 Wheat Production*. United States Department of Agriculture: Foreign Agricultural Service.

END NOTES

1. (Qureshi & Akhtar, 2004)
2. (United Nations International Strategy for Disaster Reduction, 2005)
3. Ibid
4. Ibid
5. (Swanström & Cornell, 2005; Jackson, 2009)
6. (NRVA, 2007/08)
7. (Bhattacharyya, Azizi, Shobair, & Yasin, 2004)
8. (Focus Groups and Interviews, Faryab and Wardak, Jan 2010)
9. (USDA, 2008a)
10. (USDA, 2008b)
11. (USDA, 2008a)
12. (FEWS NET, 2008)
13. (USDA, 2008b)
14. Ibid
15. (FEWS NET, 2008)
16. (USDA, 2008a; USDA, 2008b),
17. (FEWS NET, 2007)
18. (Qureshi & Akhtar, 2004).
19. (Ladbury, 2009; Focus Group and Interviews, Wardak, Jan 2010)
20. (Mueller & Osgood, 2007)
21. (Qureshi & Akhtar, 2004)
22. (Bhalla, 2010; ICRC, 2010)
23. (CSO, 2010)
24. (NRVA, 2005),
25. Ibid
26. (FEWS NET, 2007)
27. (Focus Groups and Interviews, Sayyadabad Wardak, Jan 2010)
28. (FEWS NET, 2007)
29. (Focus Groups and Interviews, Sayyadabad Wardak, Jan 2010)
30. Ibid
31. Ibid.
32. Ibid
33. Ibid
34. Ibid
35. (Focus Groups, Sayyadabad Wardak, Jan 2010)
36. Ibid
37. Ibid
38. Ibid
39. Ibid
40. Ibid
41. (Ladbury, 2009)
42. (Focus Groups and Interviews, Sayyadabad Wardak, Jan 2010)
43. (Focus Groups, Sayyadabad Wardak, Jan 2010)
44. (CSO, 2010)
45. (NRVA, 2005)
46. Ibid
47. (Focus Groups and Interviews, Faryab, Jan 2010)
48. Ibid
49. (FEWS NET, 2008)
50. (Focus Groups, Faryab, Jan 2010)
51. (Interviews, Faryab, Jan 2010)
52. (Focus Groups and Interviews, Faryab, Jan 2010)
53. Ibid
54. Ibid
55. (Interviews, Faryab, Jan 2010)
56. (Focus Groups, Faryab, Jan 2010)