Briefing Note No. 13

Afghanistan Climate-Fragility Risk Brief

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Afghanistan is a country where conflict and natural hazard-induced disasters interplay (Harris et al. 2013) and is one of the countries in the world most vulnerable to the impacts of climate change (UNEP News Center 2012). Droughts and flash floods are occurring at a faster pace, climate-related agricultural losses are increasing, and arable land and water resources are becoming scarcer. With a legacy of instability and conflict, the Afghan government's limited capacity[1] to cope with those impacts makes it harder for the population and for the country to bounce back from decades of war and escape the vicious cycle of poverty and fragility. Thirty-six percent of Afghans still live below the poverty line, and the country has one of the lowest average life expectancies (60 years) in Asia (UNDP 2014). Even though attention has focused on the insurgency[2] against the government, violent conflict over access to natural resources has played a key role in the protracted conflict situation. Disputes over access to land are the most common cause of violent conflict in the country. Climate change, particularly through its associated impacts on land and water resources, is exacerbating some of the root causes of the existing conflict.

Climate projections in Afghanistan

The country is heavily reliant on unpredictable snow and rainfall for water supply. Long-term trend analysis has shown a decrease in average annual precipitation between 1960 and 2008, and an increase in average annual temperature by 0.6° C during the same period. This trend is projected to intensify over the coming decades (World Bank 2015). The worsening climatic conditions in Afghanistan will continue to impact its socio-economic development (SEI 2009).

Compound risks: Links between climate change, fragility and security

1. Climate change and land degradation exacerbating land-related conflict

In Afghanistan, **land is the main source of livelihoods** with up to 80 percent of the population involved in farming or herding, or both, and a large proportion engaged in subsistence agriculture. The **combined pressures of decades of conflict and warfare, repetitive droughts, and the absence of controlled and sustainable land-use management** have significantly harmed the environment and left Afghanistan highly vulnerable to land degradation and desertification (NAPA 2009). The widespread loss of forest and vegetation cover has exposed soils to serious erosion, increasing the risks of disasters such as floods and landslides. A UNEP post-conflict environmental assessment dating back to 2003 identified the **complete collapse of local and national forms of governance as the most serious issue responsible for long-term environmental degradation** in the country (UNEP 2003). **Growing demand for land** driven by rapid population growth and the huge influx of returning refugees exacerbates this trend. Combined with fast-paced environmental degradation[3] compounded by climate change effects, the likely result is **increased competition over land both in rural areas** (for agriculture) **and in urban centres** (Brown and Blankenship 2013). This in turn risks exacerbating tensions, triggering grievances and feeding instability.

A peacebuilding study in Afghanistan reported **that disputes over access to land are the most common cause of violent conflict in the country** (Waldman 2008). Poor governance of natural resources and uncertainties around land ownership and tenure are of major importance in conflict over land access. For example, **entrenched inter-ethnic conflict between the settled Hazara and the nomadic Kuchi in the central highlands of Afghanistan has been fuelled by an overlap of legal rights held by the Kuchi and historical rights held by the Hazara** (UNEP 2009). Both groups are dependent on high-altitude grazing land to support livestock, and they compete for access to this land,

[1] The NAPA/NCSA process identified the significant lack of expertise within all relevant government departments, which severely limit the capacity of the Afghan government to undertake climate change adaptation planning, as a major challenge. Climate change is not presently regarded as a national priority (NAPA).

[2] The on-going conflict in Afghanistan emerged from a combination of several sub-conflicts. It involves an insurgency comprised of the Taliban and their associates, narcotic-orientated conflict, localised disputes motivated by opposition to local officials, and intra-state war between militias due to inflammation of regional tensions caused by international interventions (Barakat et al. 2008).

[3] It has been estimated that three quarters of the country is vulnerable to desertification (UNEP 2013).

increasingly resorting to violence to restrict the access of the other resource-user group. Discriminatory policies have for decades aroused resentment on each side, with different administrations backing one side or the other. **There is increasing concern that the dispute has the potential to develop into a wider conflict** (UNIFTPA 2012). The degradation of grazing land productivity and vegetation cover[4] will increase hardship for pastoralists, forcing them to seek grazing at higher elevations (UNEP 2003). With no clear and equitable land tenure system or dispute resolution mechanisms in place, this may sustain the conflict by reinforcing the perception of inequalities in the ownership of land, along with ethnic tensions over access to land.

In addition**,** the possible ramifications of **refugee return** have raised concerns. Since **2002, more than 5.8 million Afghan refugees have returned home** (UNHCR 2015). The uncertainty around land rights and the lack of consensus as to how to manage the refugee returnee situation has driven local tensions and aroused local resentment toward incoming refugees blamed for "grabbing land" (Brown and Blankenship 2013).

2. Water-related disasters, agriculture sector at risk and livelihood insecurity trigger instability

Agriculture is a major contributor to the economy (28% of GDP) and provider of jobs and livelihoods in the country with 85% of the population depending directly or indirectly on the agriculture and livestock sector (World Bank 2015). In Afghanistan, the majority of food and market crops are rain-fed and therefore highly climate-sensitive. But **irrigated agriculture is also at risk**, as already degraded aquifer resources are expected to be further depleted by the impacts of climate change on water availability. Because of a deficient irrigation system, irrigated agriculture is considered highly vulnerable to the impacts of climatic hazards, as are **livestock herders and dryland farmers**. Around 8% of Afghanistan's irrigated land[5] lies either fallow or uncultivated because it does not receive sufficient water to ensure cropping for all seasons (SEI 2009).

Afghanistan experiences frequent **water-related disasters**, including periodic droughts and intense flooding, putting the agriculture sector and related jobs at further risk. Recurring 'natural' disasters, including drought, floods, landslides, earthquakes, and avalanches, affect approximately 250,000 Afghans each year (USAID 2014). In 2009 alone, floods killed nearly 1,200 people and affected almost 29,000 households, with significant economic damage (Brown and Blankenship 2013). In 2011, a prolonged drought affected the north, northeast and west of the country, affecting more than 3 million people. Through increased evapotranspiration, reduced river flows and water tables, and changes in rainfall patterns during peak cultivation seasons, **droughts have a severe impact on agricultural productivity** (SEI 2009; NAPA 2009), with cascading negative effects on the overall GDP and on household income and food security. During periods of drought, wheat yields have been observed to decline by 40-55 per cent on average, while up to 70 per cent of Afghan households are affected by livestock losses (CPHD 2011). Because of climate change, **droughts are expected to become the norm by 2030**.

The prospect of lower water availability makes water-intensive staple crops such as wheat less attractive to farmers, who will likely **turn to less thirsty crops, particularly opium poppy**, which provides roughly three times the income per hectare (Brown and Blankenship 2013). Afghanistan is still the world's largest producer of opium (90% of global supply) and hashish, and the trade in opiates accounts for 16% of GDP. Many studies have highlighted **the link between drug production and trade in Afghanistan and the protracted conflict and security situation.** The opium trade provides huge revenues to traffickers and anti-government insurgents, and contributes to maintaining the status quo of poor governance (Brown and Blankenship 2013). **By increasing the attractiveness of poppy production, worsening climatic conditions are exacerbating this source of instability and insecurity in Afghanistan**.

3. Livelihood insecurity, conflict and displacement rural-urban migration, urbanisation, youth and instability in Afghanistan

Afghanistan is still a rural agrarian country, although its **urban centres are expanding** rapidly. Due to the combined effects of economic development, conflict and disasters, the urban population has been growing at a rate of 5.7% since 2001 (Hall 2014), and the population of Kabul has multiplied by more than 13 since 2001, from 300,000 to roughly four million in 2013 (Brown and Blankenship 2013). In addition, huge numbers of **returning refugees are putting further strain on urban centres** that are

[4] Due to human activities such as uncontrolled over grazing and deforestation, and climate change and variability impacts on soil quality and vegetation cover.
[5] Irrigated land in Afghanistan represents 3.3 million ha compared to 4.5 million ha for rain-fed agriculture.

not equipped to deal with such an increase in residents. The lack of infrastructure for shelter, water, health and electricity provision makes overcrowded urban areas hotspots of vulnerability and poverty. **Over the past three years, the economic situation of urban households has deteriorated, with approximately 78.2% of urban households living below the poverty line** (Hall 2014). People living in unplanned and illegal settlements represent 70% of Afghanistan's urban population (CPHD 2011). **Coping with a growing youth and urban population represents a huge challenge for the Afghan government, adding to the deep economic and social uncertainties facing the country**. Indeed, with one of the youngest populations in the world – children under 15 represent almost 50% of the total population (ILO 2012) – the incapacity of the government to ensure sustainable employment prospects, particularly to young men, can be a source of frustration and a specific conflict driver (Fetzek and Vivekananda 2015).

4. Climate change, poor water management and transboundary water issues fostering regional tensions

Afghanistan is not considered a "water stressed" country. But like land, **water resources are pressured both on the supply and demand side**. Climate change will accelerate glacier and snow melting patterns (the main source of most of Afghanistan's surface water), **with an impact on water flow and availability, particularly during the summer season**. On the demand side, a growing population will increase **demand for domestic and agricultural water use**, further straining water availability. Due to years of **conflict, under-investment in water infrastructure, and poor water management**, the irrigation network and storage capacities are deficient and responsible for huge water losses, resulting in low agricultural productivity (Brown and Blankenship 2013). As agriculture consumes 95% of all of the water used in the country, the critical room for manoeuvre lies in improving water wastage management (SEI 2009).

River basin management is critical for reducing diplomatic and regional tensions around water allocation, in particular around the Helmand River at the Afghan-Iranian border**.** Water is a precious resource for the region's development, and any changes in water use or availability in Afghanistan will affect downstream countries including Iran, Pakistan, Uzbekistan, Turkmenistan and Tajikistan. **Water shortages will increase pressure on each riparian country to secure its water resources to achieve economic development goals**. By affecting water flow and water usage, climate change may exacerbate regional tensions around the allocation of water (SEI 2009). For example, dam construction projects in Afghanistan on rivers shared with Iran have led to strong protest from Iran, fearing a reduction of water flow downstream. "*According to some observers, Iran is simultaneously attempting to destabilize the region by providing financial support for armed insurgent groups that are directly targeting reconstruction projects such as the Kajakai Dam"* (Deghan et al. 2013, cited in Brown and Blankenship 2013), which contributes to protracted instability and insecurity in Afghanistan.

Conclusion

Afghanistan faces huge development and poverty reduction challenges as well as its ongoing conflict. Disasters and conflict reinforce each other in Afghanistan and have displaced thousands of people still in need of humanitarian aid (more than 654,000 people remain internally displaced by conflict, USAID 2014). The protracted humanitarian crisis has rendered the country extremely dependant on international aid; the total amount of aid for 2010/2011 amounted to approximately US$15.7 billion, which is close to overall GDP (ILO 2012). Better natural resources management and investment in resilient water infrastructure are key to overcoming major development challenges in Afghanistan. These can yield the triple benefits of improved economic opportunities, increased resilience to shock and stresses, while also acting as a peacebuilding tool.

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