Disclaimer: This is not a comprehensive risk assessment but a selection of results and analysis from International Alert’s field research and consultations.

Summary

Jordan remains one of the few stable countries in the Middle-East. Yet, the underlying economic issues that led to protests associated with the Arab Spring and the subsequent toppling of governments and autocratic regimes across the Middle-East and North Africa remain in place. However, Jordanians look north to Syria, southwest to Egypt and west to Iraq, and their experiences of brutal civil wars have tempered the desire for similar rapid change. In this sense, ‘Jordan is stable but in no way should be.’

Jordan faces multiple challenges that climate change will most likely exacerbate:

1. **Water Scarcity** - Jordan’s climate change adaptation priority is water scarcity. Jordan is one of the most water-stressed countries in the world. Population growth, and extremely low water prices, encouraging wasteful consumption are threatening the availability of water resources. Groundwater wells are being exploited at unsustainable rates to meet the needs of both host and refugee communities. Jordan’s severe water scarcity is expected to be worsened by climate change. This is a major constraint on growth and development, as water is critical for productive sectors of the economy such as agriculture. By decreasing agricultural productivity, climate change may intensify food insecurity in Jordan. Climate change could potentially threaten the competition for scarce resources and further exacerbate issues over riparian rights between Israel, the Palestinian Territories and Jordan. This in turn could render existing peace agreements untenable and complicate the negotiation of potential future agreements.

2. **Energy Security** - Energy security is a serious concern since Jordan’s energy resources are limited. Jordan relies on imports for a large share of its oil and gas from relatively few sources. One of the main sources of energy imports is the gas pipeline from Egypt, which has witnessed many interruptions over the past years. The key challenges facing Jordan are therefore to diversify the supply of its energy, develop renewable energy sources, and increase energy efficiency. Historically, Jordan has also faced challenges of balancing energy subsidy removals with rising living costs. In 2011 the issue led to public protests and pressured the Jordanian government to reverse some of its earlier steps of reform and curb further fuel price rises. At present, the IMF is advocating for Jordan to remove subsidies on energy though recognizing the risks of civil disturbance should the cuts be significant.

3. **Humanitarian Responses to the Syrian Refugee Situation** - With the ongoing civil conflict in Syria, Jordan has opened its borders to Syrian refugees and is now host to more than 600,000 refugees, who have either attempted to live in the urban areas of Jordan or have been hosted in refugee camps, Zaatari and Azraq, in the northern part of the country. For the Jordanian government, hosting Syrian refugees is putting a strain on government services, the economy and the country’s scarce water resources. Tensions exist between host and refugee populations over a range of issue including water, food, jobs, livelihood, healthcare, education, and housing.
Risk clusters: Links between climate change, fragility and security

1. Livelihood security and natural resources: Water Scarcity, Climate Change and Agriculture

Water security is a major livelihood challenge for Jordan’s farmers. Highly variable seasonal rainfall is the main source of water in Jordan. Approximately 5 per cent of rainwater infiltrates into the ground and replenishes groundwater aquifers. Given Jordan’s water security challenges from conventional water resources such as rainfall, groundwater, rivers and streams, Jordan is also making efforts to use treated wastewater and desalinated water.

The water sector in the Middle-East is projected to become severely affected by climate change from lower precipitation, further reducing water availability from higher temperatures and from increasing variability. The physical basis for climate change in Jordan is similarly downward precipitation, intense weather events and upward temperature trends. On the issue of precipitation, most climate models for Jordan indicate that while overall precipitation will decline, it will stay within the mean. The implication is that there will be no change to runoff collection in dams, but distribution of runoff due to poor infrastructure will emerge as a challenge. At present, the main drivers of water scarcity in Jordan stem from population pressures, both from natural birth and increasing numbers of refugee populations, poor water infrastructure, economic development and inefficient agricultural practices.

Poor water infrastructure and management is an important area for reform in Jordan, with the government recognising that Jordan loses, on average, 40 per cent of water pumped into its networks. It is estimated that 80 per cent of this lost water is, in fact, stolen. The situation therefore mandates better water management systems and the need to resolve the situation of water theft before desalinated water is pumped into the same networks.

Water shortage will have a particularly devastating impact on the rural poor, whose primary income is from water-dependent agriculture. Agriculture accounts for approximately 60 per cent of Jordan’s water use though a high proportion of the water used is on low value crops. The biggest challenge is water efficiency and water quality for agricultural production, including productive utilization of grey water. Jordan also needs to scrutinize what agricultural goods are being exported, as this often is a cheap way of exporting water out of the country. Equally, Jordan imports more than 70 per cent of its food, and so there is also a need to look at how water is used more effectively to reduce food

2. Governance and state institutions: Political Stability, Subsidies and Energy Import Dependence

Jordan faces substantial fiscal challenges, with the budget deficit 6.8 per cent of GDP (EBRD). In 2011, the government responded to popular protests by increasing social spending (fuel subsidies and wages) and cutting taxes. Subsidies almost tripled in 2011 to US$1.3 billion. The bulk of the subsidies were for the energy sector, with energy subsidies jumping from 1.3 per cent of GDP in 2010 to over 6 per cent in 2011 (EBRD). As a result Jordan accumulated substantial domestic and foreign debt. Subsequent decrease in fuel and electricity subsidies as well as planned reductions in subsidies towards the second half of 2012, led to increases in inflation. However, events of the Arab Spring led the government to increase subsidies, public sector wages and social expenditures. At present, the IMF is advocating for Jordan to remove subsidies on water and energy though recognising the risks of civil disturbance should the cuts be significant. Parliament itself is under pressures to resist additional cuts to subsidies for fear of social unrest.

Closely linked to the issue of subsidies is the issue of energy security. The government recognizes the need to reduce energy import dependence as one of its priorities. Jordan’s faces high energy import bills and the frequent power cuts resulting from shortfalls in supplies particularly from Egypt that has imposed cuts in supplies in recent years. As resources are strained in Egypt, energy security is increasingly linked to water security. For example, huge amounts of energy are necessary to deliver clean and safe water, which includes pumping water through pipes, lifting groundwater from underground sources, and treating wastewater. With water scarcity increasing in Jordan, additional energy is required to
pump water across longer distances or to produce water through alternative means, such as desalination.

3. Humanitarian Responses to the Syrian Refugee Situation

With the ongoing civil conflict in Syria, Jordan has opened its borders to Syrian refugees who have either attempted to live in the urban areas of Jordan or have been hosted in refugee camps, Zaatari and Azraq, in the northern part of the country. For the Jordanian government, hosting Syrian refugees is putting a strain on government services, the economy and the country’s scarce water resources. Tensions exist between host and refugee populations over a range of issue including water, food, jobs, livelihood, healthcare, education, and housing. There are perceptions, whether factual or not, that refugees are making life more expensive.

The majority of refugees in Jordan are residing in host communities dispersed across the country. Those living in urban areas in Jordan are struggling to cope with inadequate housing, lack of access to employment opportunities, high debts, rising living costs and limited educational prospects for their children. The influx of Syrian refugees is also impacting Jordanian host communities, who are often faced with similar challenges such as increased accommodation and living costs, and limited access to strained public services.

Opportunities for Syrian refugees to work are limited as the government is concerned with the implications of providing economic and livelihood opportunities to the refugees. There is a zero tolerance policy on paper, which is, in part, responding to the perceptions of host populations. Being banned from working, some Syrians take up black market jobs for low wages. This is creating a situation where pay for Jordanians is being pushed down too.

Tensions also exist between Syrians and Jordanians over the issue of water. Both the Syrian refugee camps, Zaatari and Azraq, have been built on ground water reserves. In the case of Zaatari, 40 per cent of the camp’s water needs are serviced by these groundwater reserves. Consumption of water in the Zaatari camp is roughly 5000 cubic metres per day, which is currently being financed by donors. NGOs ensure that the water needs of the camps are met by financing and paying higher rates for water than locals, creating tensions between host and refugee communities.

Priorities for Action: Recommendations

Recommendations for G7 foreign policy makers

1. Addressing the refugee issue in Jordan is a keystone for keeping order in the region and therefore deserves more attention from the international community and more support. For example, on the situation of Syrian refugees, Jordan receives only 30 per cent of the real cost of hosting the refugees.

2. Support for both Jordanians and refugees is vital. Jordanians from low income groups and those that come from poorer regions of the country should also receive, as much if not more, assistance and resources as the refugees. With the refugee situation, poor Jordanians particularly feel they are losing out. Tensions exist between Jordanians and refugee populations over water, food, jobs, livelihood, healthcare, education, housing etc. Perceptions exist that refugees are making life more expensive. The refugee camps (Zaatari and Azraq) are built on ground water reserves, in a context where the rest of the country face water rationing. There is a perception among Jordanians that donors have limited understand of the difficulties faced by implementing agencies, particularly humanitarian organizations, when they require 70 per cent funds to go to refugees and only 30 per cent to host communities. The international community needs to therefore have a better sense of the conflict context in the region and the potential threats to peace that exist in Jordan.

3. Creating incentives for private sector to address water security issues - There is a need to change incentives to draw in the private sector to help address water scarcity challenges in the country. Water distribution is inefficient, the tariff system encourages
waste. For efforts to address water scarcity issues through strategies such as desalinisation, which involves heavy financial investments, involving the private sector to provide financing and ensure transparency and efficiency in water distribution processes, could help address some of the challenges of finding alternative water sources and ensuring better water management.

4. The G7 should see Jordan as more of a developing country than a developed one and provide mentoring and technical capacity support. For instance, there is a need for more sophisticated technologies that enable more efficient usage of water. Jordan's neighbours such as Israel have better technologies (desalinisation, irrigation, rainwater harvesting for example). G7 can support with resourcing of these but also by providing technical capacity support e.g. capacity building for engineers.

5. To ensure policies and interventions are relevant to the context and the needs of communities, donors should make sure the government is cooperating with civil society and that there are bottom-up consultative processes.

National or regional recommendations/priorities

1. **Regional stability: ending the war in Gaza** - Jordan is perceived as a “buffer state” between Israel and its regional adversaries, between the Sunni Gulf States and the “Shi’a Crescent,” and as a receptive host to waves of refugees amid regional turmoil, including Palestinians, Iraqis and now Syrians. 60 per cent of Jordanians are of Palestinian origin which means that the situation in Gaza has significant political repercussions for Jordan.

2. **Regional stability: restricting the spillover threat of IS** - The civil wars and associated state weakness in two of Jordan’s immediate neighbors Syria and Iraq presents new challenges for Jordan including the possibility of expansion of IS into a potential safe haven in a third country should they be overpowered in Syria and Iraq as well as internal developments of associated insurgency.

3. **Regional water cooperation** is integral for Jordan's stability and security given the transboundary nature of Jordan's main water sources. Climate change, as a shared threat, and as an issue beyond the capacity of a single country to deal with can incentivize and encourage countries to work together. However, given the current political landscape in the Middle-East, climate change as one factor in the changing availability of water resources available to Jordan and its neighbours, is likely to present an obstacle to peace, and necessitates regional cooperation.

Thematic recommendations/priorities

**Direct support to agriculture** – In Jordan, where a hotter and drier future is inevitable and where water scarcity continues to remain a significant threat, the government will need to respond decisively and effectively to droughts, become more successful at promoting better water management policies and practices and necessarily have to reform some of its agricultural policies that allow for water to be cheaply exported out of the country through the export of low value crops. Jordan receives almost no external funds or support for agriculture reform. However, supporting agriculture reform is a priority, given the importance of agriculture to food security as well as the implications of agricultural practices on water security of the country, and should be reflected as such in donor assistance to the country. Failure to reform agricultural practices that are water-intensive will lead to risks to food security and may exacerbate the already volatile socio-political conditions in the country and contribute to domestic and/or regional political instability.