

## Lebanon Country Risk Brief

### May 2015

Fragility risks in Lebanon are increasing due to growing internal and external pressures. Spill-over economic and social effects of the Syrian conflict, particularly an increase in the number of Syrian refugees, have fuelled old tensions and created new ones. The government's capacity to meet the basic needs of a growing population is being stretched, particularly in the context of increased competition for livelihoods and access to public services. Areas considered hotspots of vulnerability, e.g. Tripoli and Akkar in the north, where poverty is concentrated, and Beqaa<sup>1</sup>, along the Syrian border, face particular challenges. Fragility manifests itself through increased sectarian violence, erosion of social cohesion, cross-border shelling with both Syria and Israel, and political and economic insecurity. Climatic changes and environmental degradation are compounding existing pressure on natural resources, affecting agriculture, public health, energy and water, critical sectors of the Lebanese economy.

#### **Climate projections in Lebanon:**

By 2040, average temperatures are expected to increase by around 1°C on the coast and 2°C in the mainland. Rainfall patterns, on the other hand, are expected to decrease by 10-20 per cent, negatively affecting surface and groundwater recharge rates and decreasing water availability during the summer season and drought periods (Lebanon Second Communication to the UNFCCC). Increased seawater intrusion, as a result of sea level rise, will further impact water quality in coastal areas, where 70 per cent of the Lebanese population lives (Hoff 2012). **Unless counter measures are adopted, these changes will have diverse negative effects on Lebanon's environment, economy and social structure.**

#### **Compound risks: Links between climate change, fragility and security**

##### **1. Climate change and access to natural resources affecting fragility risks in Lebanon**

Lebanon will feel the effects of climate change primarily through the availability and distribution of water. The country is already experiencing extremely **high baseline water stress** (World Resource Institute 2013). Climate change impacts on water and land resources in conjunction with population growth (from high birth rates and immigration) will compound the knock-on consequences of **land and water mismanagement practices** in Lebanon that contribute to the waste and degradation of these key resources.

Water and Agriculture: **Agriculture is responsible for 60 per cent of total water demand.** It is at risk from water shortages due to water wastage, pollution and expected increases in demand for domestic use, resulting in decreased availability for irrigation. Irrigated crops, which account for 50 per cent of the total cultivated land in Lebanon, continue to be primitively managed, with negative effects on yields (Darwish 2012). Lebanon lacks the necessary regulations to monitor irrigation, groundwater usage and pumping, which leads to uncontrolled groundwater extraction. Regions heavily dependent on irrigated agriculture, such as the Bekka and Akkar regions, are therefore extremely vulnerable to changes in the availability of water. Agriculture is also affected by losses of arable land and rapid land degradation, which is mainly attributable to the absence of land use planning (Darwish 2012). In light of climate change and environmental risk, the critical margin for manoeuvre lies in efficient water and land supply and demand management, as well as better natural resources governance and conservation practices.

Water and public health: Lebanese households, particularly the poor, rely on inferior-quality piped water, **increasing the risks of water- and vector-borne diseases such as typhoid.** Water quality is not only a matter of public health but also has **serious socio-economic consequences.** Health problems related to water consumption often result in an **increase in health care expenditure and absence from work, impacting human productivity and economic growth** as a whole (Ministry of

<sup>1</sup> Meeting Vulnerable Municipalities, July 2013 (UNHCR, UNICEF, and PCM), updated July 2014.

the Environment). In addition to health impacts, poor water quality increases the costs of water treatment<sup>2</sup>, **disfavouring the poorest households who cannot afford potable bottled water**, exacerbating existing inequalities in potable water access and economic security.

## **2. Climate change, water scarcity and energy dependency overburden import-dependent states and contribute to fragility**

Lebanon is dependent on food and energy imports; energy imports account for more than 95 per cent of Lebanon's primary energy needs (Hoff 2012). The country is therefore **particularly vulnerable to energy price volatility and shocks**. Given its concerns with energy security, Lebanon is increasingly looking to **renewable energy** to reduce its high energy import bills. However, Lebanon's commitment to increase its share of renewable energy in power generation to 12 per cent by 2020 will impact water-associated demands (Hoff 2012). Climate change is likely to increase energy demands for cooling, which already account for 20 per cent of total energy consumption in Lebanon. At the same time, climate change is projected to reduce hydropower production potential (Lebanon Second communication to UNFCCC). This illustrates the need to **integrate different visions of adaptation as they relate to water, energy and agriculture policy** in order to address these multiple and interrelated challenges in a unified way.

## **3. Climate change exacerbates the pressure on local resources in Lebanon: Refugee influx, livelihoods insecurity and increased communal tensions**

Lebanon hosts the highest concentration of refugees in recent history. It is estimated that at least 1.13 million Syrian refugees have registered with the UN in Lebanon<sup>3</sup>, amounting to one quarter of the resident population (Security Council Report Lebanon 2014), which already hosts a significant number of Palestinian refugees. The refugee influx is increasing pressure on the delivery of basic services and on access to resources such as water and electricity. It increases the cost of rents, competition for jobs and increasing environmental stress. The competition for economic opportunities and access to basic public services has caused **resentment among host communities toward the refugee population**. The health sector is a case in point, where an over-burdening of healthcare centres and reduced access to basic care for vulnerable Lebanese has led to increased tensions (International Alert 2014).

**These risks are particularly concentrated in rural areas of Lebanon**, which have the highest concentration of Syrian refugees and where local Lebanese populations are already facing food, water and livelihood insecurities. For instance, north Lebanon and the Bekaa region host two thirds of the country's refugees. These are Lebanon's poorest regions and are particularly **exposed to climate and environmental risks, such as floods**. In fact, Syrian refugees tend to be concentrated in the flood prone areas of the region (UNHCR 2014). However, because many of the northern host communities have reached their absorptive capacity and have become hostile environments due to strained economic conditions and increased sectarian tensions, **Syrian refugees tend to move into southern and western Lebanon looking for economic opportunities** (USAID 2014). Supporting livelihoods and well-being for both refugees and host populations in Lebanon is a key strategy for peacebuilding efforts.

## **4. Degrading security situation in Lebanon**

Since 2011, due to the Syrian war, the security situation has been deteriorating. Increased poverty and unemployment, lack of infrastructure and social security are providing a fertile ground for effects from the **Syrian conflict to spill over into Lebanon**, leading to deadly clashes between supporters of the Syrian regime and supporters of the Syrian rebels. With Hezbollah fighting in Syria alongside the regime forces and the Syrian army bombing border villages and mountains to target rebel groups, a series of suicide bombings and explosions commenced in July 2013, targeting Beirut and Baalbek neighbourhoods, which are seen as Hezbollah strongholds (Wannis 2014).

The potential escalation of the conflict between Israel forces and Hezbollah represents yet another security threat for Lebanon. Military operations have destructive impacts on Lebanese households particularly in the south, along the Lebanese-Israeli border. Fears of conflict escalation reaching a level violence similar to the war in the summer of 2006 are real and remain.

---

<sup>2</sup> Ecodit has calculated the costs of the health impacts of water pollution at US\$7.3 million per year and the costs of excess bottled water consumption at about US\$7.5 million (Lebanon State of the Environment Report Ministry of Environment/LEDO)

<sup>3</sup> Actual numbers are likely to be much higher

The impact of conflict on peoples' livelihoods and critical assets complicate efforts to break the cycle of violence. The **recruitment of socio-economically vulnerable people by extremist groups** in Lebanon (mainly along the Syrian border) is worrying, as it is leading to increased paramilitary capacity outside the authority of the state, thereby increasing fragility (Security Council report 2014). A recent study shows that **for most Lebanese, poverty is the main reason for insecurity, followed by unemployment** (Mercy Corps 2013). This highlights the importance of promoting sustainable livelihoods and socio-economic opportunities in building stability and peace in Lebanon.

### **Conclusion:**

Bold governmental actions are needed on social, economic, and environmental fronts in order to minimize climate change and fragility risks. In order to tackle the long term detrimental impact of the interplay of conflict, climate change and environmental degradation, **Lebanon must look beyond the short and medium term stabilisation objectives and address longer-term drivers of insecurity.** Policies and interventions designed in each critical sector (environment, security and humanitarian assistance) should be targeted to create benefits for the Lebanese population and refugees, especially those most affected by the Syrian crisis.

Written By:

**Clémence Finaz**, Research Associate with International Alert's Environment, Climate Change and Security Programme

### **References:**

- Darwish, Talal 2012: Country Study on Status of Land Tenure, Planning and Management in Oriental Near East Countries, Case of Lebanon. Food Agriculture Organization (FAO): Rome.
- Hoff, Holger 2012: Regional Technical Cooperation Programme Adaptation to Climate Change in the Water Sector in the MENA Region (ACCWaM). Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ): Cairo.
- Hovig, Wannis 2014: Perceptions of security and insecurity in Lebanon. Background Paper November 2014. Beirut: International Alert Lebanon.
- International Alert 2014: Conflict Sensitivity Institutional Capacity Assessment: Primary Healthcare Sector in Lebanon Assessment Report, Conflict Sensitivity Checklist and Indicators for Community Perceptions. London: International Alert.
- Mercy Corps 2013: Things fall apart: Political, economic and social instability in Lebanon. 1 – 24. Retrieved 10.04.2015 from <http://www.mercycorps.org/research-resources/political-economic-and-social-instability-lebanon>
- Ministry of the Environment, Lebanon, 2011: Lebanon's Second Communication to the United Nations Framework Convention on Climate Change.
- Ministry of the Environment, Lebanon: State of the environment Report. Chapter 8. Retrieved 20.04.2015 from [http://www.unep.org/dewa/westasia/Assessments/national\\_SOEs/west%20asia/Lebanon/Chap8Water.pdf](http://www.unep.org/dewa/westasia/Assessments/national_SOEs/west%20asia/Lebanon/Chap8Water.pdf)
- Security Council 2014 : Report Monthly forecast October 2014. Retrieved 16.04.2015 from [http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/2014\\_10\\_forecast.pdf](http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/2014_10_forecast.pdf).
- UNHCR 2013: Lebanon: Vulnerability and conflict map: Intervention priorities (October). Unpublished map.
- UNHCR 2014: Interagency information sharing Portal, regional overview, Syria Regional Refugee Response. 30 May 2014. Retrieved 10.04.2015 from <http://data.unhcr.org/syrianrefugees/regional.php>
- USAID 2014: Office of Transition Initiatives- Lebanon fact sheet June 2014. Retrieved 15.05.2015, from [http://www.usaid.gov/sites/default/files/documents/1866/OTI%20Lebanon%20Factsheet%20June%202014%20\(1\).doc](http://www.usaid.gov/sites/default/files/documents/1866/OTI%20Lebanon%20Factsheet%20June%202014%20(1).doc)
- World Resources Institute 2013: Aqueduct Water Risk Atlas. Retrieved 5.04.2015 from <http://www.wri.org/resources/maps/aqueduct-water-risk-atlas>.