Reflect & act

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OVERVIEW

IIED Climate Change Group

Project name:
Dryland resilience building under a difficult and changing climate — the Bekaa Valley, Lebanon

Project leader:
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Time frame:
April–December 2016

Budget:
£115,000

Objective:
To balance long- and short-term agendas for human needs, water resource stewardship and climate change mitigation and adaptation planning in Lebanon's Bekaa Valley, through better understanding and local–international partnership building.

PROJECT SUMMARY

Planners must balance short-term human needs for water and sanitation with longer-term consideration of water resource stewardship, climate change and sustainable development. In Lebanon's Bekaa Valley, finding this balance has been further complicated by the arrival of displaced populations that, in some areas, have doubled the number of people who need water services and energy supplies. In consultation with local and national actors, IIED's co-investigators are reviewing water availability and demand estimates, projections and tracking systems for displaced, transient and resident populations in the Bekaa and associated institutional dimensions. Preliminary findings highlight both major challenges and major opportunities at the local level.

CHANGE IN ACTION

Humanitarian responses to a crisis sometimes aggravate environmental pressures, and weaken local and national institutions needed to transform challenges into opportunities. The

Balancing water stress and human crises in the Bekaa Valley

Co-investigators explore ways to build resilience in the drylands amid a changing global climate

In 2016, IIED launched a nine-month investigation to explore the interest of actors in the Lebanese environment, water and energy sectors to collaborate around building resilience in the drylands. Preliminary findings showed significant environmental challenges and concerns in need of research. There is also scope to explore how public investments could tackle water, energy, environment, climate change and humanitarian objectives in a more integrated way.[1] Based on these initial findings and interest, IIED continues to explore the shared challenges with local, national and international stakeholders and actors.

A multi-faceted crisis

The Bekaa Valley, a fertile land corridor separating the Mount Lebanon and Anti-Lebanon Ranges, is administered as two governorates called Baalbek/Hermel and Bekaa. According to the UN, nearly half a million refugees were living in these governorates as of June 2015. Other categories of 'stateless' people may also be present, including past 'guesstimates' of 50,000 Bedouin who have never had access to services due to registration difficulties.

Even before the arrival of displaced people, poor access to water in Lebanon was affecting public health, the economy, local institutions and efforts to mitigate climate change. Given the pervasive water shortage, informal entrepreneurs began supplying water through trucks, private wells, bottles and portable containers. But this service is often delivered at a higher cost and lower quality than the public water systems.

To make up the shortfall in water supply, particularly for isolated, low-income families, the publicly-managed Bekaa Regional Water Establishment (BRWE) used to pump around 50 mm^3 annually for customers in the Bekaa area. Despite the large expenditure of energy and emissions for pumping, it only delivered half of the pumped water due to transmission losses. This only met a fraction of the population's water needs.

Before the Syrian crisis, the impact of poor water availability on health was costing the Lebanese people US$7.3 million per year, whereas excess bottled water consumption cost about US$7.5 million. At the national level, the opportunity costs of inadequate public water supply and the cost of environmental degradation were estimated at 1.3 per cent and 1.1 per cent of gross domestic product (GDP), respectively. Since the increase in population in 2013, fuel costs have increased, fears about environmental degradation have multiplied and governance challenges have deepened.

With the huge influx of refugees, the population in some parts of the Bekaa Valley has more than doubled, exacerbating challenges in the water sector. This has been followed by a rapid expansion in the presence and activity of international agencies and donor-funded initiatives. But under the difficult and changing dryland climate of the Bekaa, well-informed and integrated planning for water, energy and ecosystems has become more complicated and elusive than ever.

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international community needs to support well-informed, credible and coordinated strategies that can guide local, national and international agendas over both the short- and long-term. There are considerable opportunities to build synergies through the management of water, energy and ecosystems, simultaneously mitigating and adapting to the effects of climatic changes, even in the driest of environments. Decision makers should be enabled to address shared challenges in the drylands, including the needs of people. Deferring humanitarian and development issues until people are forcibly displaced to other regions will only further marginalise them. Reflection and action with national and local institutions in the dry and marginalised areas can help foster a common sense of shared resources and futures, even amid competing demands and humanitarian imperatives.

KEY LESSONS LEARNT & INNOVATIONS

- Improving national- and local-level systems needed for resilience in the drylands requires a strategic focus on shared water and environmental challenges under a difficult climate, effective collaboration, and sustained effort — despite the crisis-driven nature of international and national agendas.
- Humanitarian interventions in Lebanon's Bekaa Valley are generating new capacities, information and coordination: local government offices are gaining staff and expertise, surveys on access to water and other services are generating new databases, and structures for coordination are emerging.
- An international collaboration to build long-term resilience as well as short-term responses in the drylands of the Bekaa should marry support for local institutions to engage communities in understanding options for water, energy and environmental management with the environmental, scientific and technological expertise that is available on the ground.

PARTNERS' VIEW

There are so many knowledge gaps and strategic challenges. Why not target your research agenda to the short and long term challenges surrounding the BWE Master plan?

Roy Yazbek, Technical Advisor
Council for Development and Reconstruction on Secondment to Bekaa Water Establishment

UKaid from the British people

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Caroline King-Okumu/IIED

Homes of residents and displaced people in the town of Qabb Elias (houses, flats and bright blue tents all side by side together). Thursday 19 May 2016.

A shared vision?

IIED has begun exploring interest for a more comprehensive approach to strengthen resilience in dryland regions, such as the Bekaa. The co-investigators have undertaken scoping missions and discussions with the staff of ministries, local government, UN, public water service providers, private operators, researchers and humanitarian organisations.

Initial findings reveal positive changes. Humanitarian interventions in Lebanon's Bekaa Valley are generating new capacities, information and coordination among institutions: local government offices are receiving new seconded staff and expertise, surveys on access to water and other services are generating new databases, and some caza-level[2] hydrologic studies are being commissioned. Human needs and vulnerabilities are being documented at the local level in ways previously impossible. With continued international support, Lebanon may achieve a transition from annual crisis planning to a five-year crisis response planning cycle. For the longer term, national climate change adaptation is also under discussion and may include sub-national- and local-level planning. National water resource planners, commentators and specialists now need to bring together these short- and long-term agendas.

Lebanon's national government recognises the need to convene stakeholders and actors in the water sector, building information bases and developing credible strategic plans for both the long- and short-term. Unlike neighbouring countries, however, Lebanon also gives local governments a prominent complementary role. International engagement and support is also strong. Still, more coherent collaboration is needed to integrate responses to the humanitarian crisis, water resource stewardship and climate change in the Bekaa, especially at local level. Cross-scale linkages connecting local needs, responses and information systems to national and international support are important.

Next steps

Improving national- and local-level planning and information systems needed for resilience requires local, environmental, scientific and technological expertise. A locally owned process could help Lebanese institutions and international partners to assemble all of the pieces for a cohesive strategy. Moreover, it could also enable Lebanese actors to share experiences with interested neighbours and partners.

IIED's co-investigators have mapped out three promising entry points to enable Lebanese partners to tackle both short- and long-term humanitarian, water and environmental challenges in the context of a changing climate: enhancing information management (particularly around water stress[3]); increasing local participation (through strengthened institutional, human and financial capacities); and investing more creatively in adaptation and mitigation at the water-energy-environment nexus (to simultaneously enhance access to water and economic activities, while also pursuing low-carbon development pathways). These require continued discussion with national and local stakeholders and actors.

[1] www.iied.org/participatory-investment-planning-for-environment-water-energy-arid-uncertain-environments

[2] Administrative division (better transliterated as Qada after Ottoman system). It is not a watershed or other topographic boundary, and does not correspond to subsurface hydrogeological conditions.

[3] SDG suggested indicator 6.4.2 with suggested definition: percentage of total available water resources used, taking environmental water requirements into account.