

Research impact: making a difference

Helping the Palestinian Territory adapt to climate change

LSE research helped the Palestinian Authority develop a climate change adaptation strategy sensitive to Palestinian goals and the vulnerabilities associated with military occupation

What was the problem?

Significant climate change is forecast for the Middle East by the end of this century, leading to greater water scarcity and falling agricultural productivity. Without pre-emptive action, the effects will be particularly severe in the occupied Palestinian territory, where the people — and the area's environmental systems — are already vulnerable to the stresses that result from military occupation and conflict. These stresses include poverty and harmful occupational practices such as land appropriation and restrictions on access and movement.

What did we do?

In 2008–9, the United Nations Development Programme funded LSE Associate Professor Michael Mason to undertake a climate adaptation study for Gaza and the West Bank. Its purpose was to assess the area's vulnerability to climate change and to draft a climate change adaptation strategy for the Palestinian Authority.

Mason's research revealed the distinctive ways in which climate risk is perceived and managed in conflict and post-conflict societies. Among its main insights, the study generated a holistic concept of climate vulnerability that considered the effects of climate change on people already under stress from conflict and their ability to respond to climate change in the short term (by coping) and over the longer term (by adaptation).

This notion of climate vulnerability found favour with participating stakeholders but challenged the traditional response of the donor community, which tended to prioritise technical or engineering solutions over social or legal ones.

More specifically, the research found that conflict-related risks exacerbated people's vulnerability to climate variability and change. In Gaza, for instance, Israeli restrictions on movement exerted severe pressures on water and food availability. Short-term coping mechanisms, such as using raw sewage for agricultural irrigation and drilling illegal wells, blocked the development of longer-term adaptive strategies. The West Bank was similarly sensitive to the combined pressures of military occupation and climate on water supply, with 85 per cent of agriculture being watered by rain.

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The research also generated realistic options for adapting to climate change based on the Palestinians' historic approaches to coping with climate hazards at the household and community levels, such as the low-cost option of selecting suitable crops and livestock. However, the study also found that not all historic measures continued to be viable, e.g. seasonal migration was no longer an option for a population whose movements were restricted.

What happened?

Mason's research fed directly into a report from the United Nations Development Programme to the Palestinian Authority recommending that the management of climate risk be treated as a priority. Following peer review, the report was launched at a United Nations Climate Change Conference in December 2009 and subsequently published.

In response, the Palestinian Authority created a new National Committee for Climate Change composed of 21 members (both governmental and non-governmental experts), which held its first meeting on 24 August 2010. The report was used to provide policy content for the committee's discussions on adapting to and mitigating the effects of climate change.

Drawing on Mason's research, the UNDP report also featured concrete proposals to strengthen the capacity of the Palestinian Authority's institutions to respond to climate change, both organisationally and technically. Central in this call for capacity-building was the Environmental Quality Authority, which became the new Ministry of Environmental Affairs and which established a Climate Change Unit responsible for climate modelling, vulnerability mapping and developing a drought early warning system, as proposed in UNDP's climate adaptation strategy.

As Mason's research had revealed, measures to overcome climate-change vulnerabilities in Palestine's water infrastructure and agricultural sector needed to reflect political and technical realities. A joint UNDP-Ministry of Environmental Affairs project piloted a range of such measures, including drought-tolerant crops and encouraging greater use of treated wastewater and harvested rainwater. This work was funded by the Government of Belgium.

On a wider scale, the LSE research influenced the actions of international and non-governmental organisations working in the occupied Palestinian territory and supported Palestinian participation in the UN climate change convention. Its most significant impact outside of the Palestinian Authority was on the United Nations Development Programme (UNDP), which revised its regional priorities to include climate change in its 2011-13 Strategic Framework for development work in the occupied Palestine territory.

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Climate change continued to feature as a focus area in the UNDP's Consolidated Plan of Assistance 2012–14, which summarised the findings and key recommendations of the climate change adaptation strategy. Mason's research concerning the contemporary relevance of the Palestinians' historic forms of coping with climate hazards informs current UNDP work with marginal Bedouin communities living in the most restricted Israeli-controlled zones in the West Bank.

This development work demonstrated that the traditional knowledge and agricultural practices of the Bedouin people could support livelihoods in semi-arid environments. It also fed into a wider UNDP project on protecting and developing agricultural land in the West Bank.

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