

Institution: London School of Economics and Political Science
Unit of Assessment: 17: Geography, Environmental Studies and Archaeology
Title of case study: A climate change adaptation strategy for the Palestinian Authority
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Significant climate change is forecast for the Middle East by the end of this century, leading to – amongst other things – greater water scarcity and falling agricultural productivity. LSE research resulted in the development of the Palestinian Authority’s first climate change adaptation strategy. This in turn led to the creation of a Palestinian national committee on climate change and, with the implementation of specific recommendations from this research, the strengthening of climate change planning within the Palestinian Authority. The research also shifted regional priorities for the United Nations Development Programme (UNDP), which subsequently included climate change in its 2011-2013 Strategic Framework as a policy priority for development work in the occupied Palestinian territory.</p>
<p>2. Underpinning research (indicative maximum 500 words)</p> <p><i>Research Insights and Outputs:</i></p> <p>Prompted by concerns about negative impacts on Palestinian livelihoods from forecast climate change, the UNDP funded Michael Mason as lead consultant and researcher to undertake a climate adaptation study. The research comprised a <i>climate vulnerability assessment of Gaza and the West Bank</i>. Mason then used the findings of this vulnerability assessment to draft a climate change adaptation strategy for the Palestinian Authority (lead author: Mason).</p> <p>Empirical work for the climate vulnerability assessment took place between December 2008 and August 2009. Methodologically, the research employed participatory vulnerability assessments to identify risk conditions and community responses to climate variability and change. The adaptation strategy (incorporating the vulnerability assessment) was delivered to UNDP in October 2009. Following peer review, it was launched at a UN climate change conference in December 2009 and then published in 2010 as <i>Climate Change Adaptation Strategy and Programme of Action for the Palestinian Authority</i> [1].</p> <p>The underpinning research informing the UNDP report produced three key insights which are also embodied in more conventional academic outputs. These reveal the need to understand the distinctive ways in which climate risk is perceived and managed in (post-)conflict societies.</p> <ol style="list-style-type: none"> The research developed a <i>holistic concept of climate vulnerability</i>, which takes account of the vulnerability of people and environmental systems to the effects of climate change within the context of existing social vulnerabilities – such as poverty or stresses that result from conflict – and their ability to respond to climate change in the short term (coping) and long-term (adaptation) [1, p. 17]. This idea of vulnerability was designed to capture the role of climate stresses in the particular context of a (post-)conflict society [2] – in this case, the existing vulnerability of Palestinian communities to harmful occupational practices, e.g. land appropriation and access/movement restrictions. This notion found favour with participating stakeholders, but challenged understandings of climate vulnerability employed within the donor community that tend to prioritise technical or engineering, over social or legal, solutions [3,4]. In Gaza and the West Bank, <i>conflict-related risks are partly responsible for producing social vulnerability to climate variability and change</i> [2, 4]. In Gaza, where there are severe pressures on water and food availability as a result of the Israeli closure regime, the research identified short-term ‘enforced coping’ (e.g. use of raw sewage for agricultural irrigation, illegal well-drilling) which blocks the development of longer-term adaptive

solutions [1 pp. 35-36; 3]. In the West Bank 85 per cent of agriculture is rain-fed dependent and is similarly sensitive to the combined water stresses caused by military occupation and climate hazards [1 pp. 33-34; 4].

- c) Historic forms of household and community coping by Palestinians in the face of climate hazards offer templates for adaptation to climate change in Gaza and the West Bank [1 p. 80; 2]. There is widespread knowledge of these traditional adaptive practices (e.g., crop and ruminant selections), which provide low-cost climate adaptation opportunities; although not all of these (such as seasonal migration) are viable for Palestinians today. By highlighting how climate stresses are understood in (post)-conflict environments, including their relationship to security priorities [5], the underlying research generated realistic and feasible climate adaptation options [1: 45-47].

Key researcher. Dr Mason has been full time at LSE since 2001.

3. References to the research (indicative maximum of six references)

1. UNDP (2010) *Climate Change Adaptation Strategy and Programme of Action for the Palestinian Authority* (Jerusalem: UNDP) [Mason is lead author and report is based on two internal unpublished research reports authored by Mason]
<http://www.papp.undp.org/en/newsroom/publications/pdf/other/climatechange.pdf>
2. Mason, Michael (2011) 'The ends of justice: climate vulnerability beyond the pale', in David Held, Marika Theros and Angus Fane-Harvey (eds.) *The Governance of Climate Change: Science, Politics and Ethics*, Cambridge: Polity, ISBN: 978-0745652016 (hbk.); 978-0745652023 (sbk.), 256pp, pp. 162-182. <http://eprints.lse.ac.uk/36656/>
3. Mason, Michael, Mark Zeitoun and Rebhy El Sheikh (2011) 'Conflict and social vulnerability to climate change: lessons from Gaza', *Climate and Development*, Vol. 3, No. 4, pp. 285-297. DOI: 10.1080/17565529.2011.618386
4. Mason, Michael, Mark Zeitoun and Ziad Mimi (2012) 'Compounding vulnerability: impacts of climate change on Palestinians in Gaza and the West Bank', *Journal of Palestine Studies*, Vol. 41, No. 3, pp. 1-16. <http://eprints.lse.ac.uk/44808/>
5. Mason, Michael (2013) 'Climate change, securitisation and the Israeli-Palestinian conflict', *The Geographical Journal*, Vol. 179, No. 4, pp. 298-308. DOI: 10.1111/geoj.1200

Evidence of quality. [1] is a major international report by a UN agency. [2] is published in an edited volume with a well-respected book publisher; [3-5] are published in peer-reviewed journals.

4. Details of the impact (indicative maximum 750 words)

The Nature of the Impact:

The research was central in: (i) the creation of a Palestinian national committee on climate change; (ii) the implementation of climate change policy recommendations within the Palestinian Authority; and (iii) the inclusion of climate change adaptation as a priority in the 2011-2013 Strategic Plan for UNDP's Programme of Assistance to the Palestinian People.

The underlying research has been recognised by the Intergovernmental Panel on Climate Change (IPCC) as providing lessons for the management of climate risk in (post-)conflict environments (Fifth Assessment Report, Working Group II draft contribution). Palestinian media reporting of the underlying research covers both its core findings on climate vulnerability and its policy impact [A,B].

Links Between Research and Impacts:

(i) Creation of Palestinian National Committee for Climate Change

The UNDP report, informed by the underpinning research, noted that climate risk management should be a priority for the Palestinian Authority, advising the creation of a national committee to combat climate change. The specific recommendation was that the remit of an existing National Committee to Combat Desertification could be broadened to include climate change [C p. 53]. In practice, authorised by Cabinet decree, a new National Committee for Climate Change composed of 21 members (both governmental and non-governmental experts) was created. Its first meeting took place on 24 August 2010.

The national political importance accorded to the research is clear from references to it by Palestinian Authority Prime Minister Salam Fayyad at a 2009 UN climate change conference [D,J]. He affirmed the *holistic concept of climate vulnerability* developed by the underpinning research, noting that conflict-related conditions are responsible for producing some aspects of Palestinian vulnerability to climate change. Senior environment ministry representatives attest to the report being 'a catalyst' for the formation of the National Committee for Climate Change [F], and also that it has provided policy content for committee discussions on climate adaptation and mitigation [F, G].

(ii) The implementation of climate policy recommendations within the Palestinian Authority

The UNDP report, informed by the underpinning research, featured concrete proposals on institutional capacity-building [C pp. 51-58]. Central to these was the recommendation that the climate change responsibilities of the national Environmental Quality Authority (now Ministry of Environment) should be organisationally and technically strengthened [C p. 55]. As a result of this call, a Climate Change Unit was established in the ministry [F]. Its terms of reference closely mirrored technical recommendations in the UNDP climate adaptation strategy, notably proposals on climate modelling, vulnerability mapping and the development of a drought early warning system [C pp. 50-51, 55].

The underpinning research identified both the Palestinian water infrastructure and the agricultural sector as especially sensitive to climate variability and change, but concluded that these vulnerabilities are partly produced or exacerbated by the Israeli-Palestinian conflict (section 2). This finding informed the politically and technically realistic selection of climate adaptation measures, such as greater use of treated wastewater/water harvesting and an increased uptake of drought-tolerant crop selections [C pp. 41-47]. These adaptation options are being implemented on a pilot basis under a joint UNDP-Ministry of Environment project (2012-2015) funded by the Government of Belgium [H, J].

(iii) The inclusion of climate change adaptation as a priority in UNDP's 2011-2013 Strategic Plan

The underpinning research influenced international organisations and NGOs working on environmental issues in the occupied Palestinian territory [G, I], and also supported Palestinian participation in the UN climate change convention [F, J]. Its most significant decision-making impact, outside of the Palestinian Authority, has been on UNDP. Climate change was not previously part of UNDP's strategy for the occupied Palestinian territory but, because of the report [C], it is now a priority under its 2011-2013 Strategic Plan [J] and features as a focus area in its Consolidated Plan of Assistance 2012-2014, which summarises the findings and key recommendations of the climate change adaptation strategy [E p. 28]. The research finding that *historic forms of household and community coping by Palestinians in the face of climate hazards provides lessons for climate change adaptation* (section 2) informs current UNDP work with marginal Bedouin communities in heavily restricted Israeli-controlled zones ('Area C') in the West Bank [J]. This development work demonstrates that the traditional knowledge and agricultural practices of the Bedouin provide livelihood options appropriate to semi-arid environments. It also feeds into a wider UNDP project on agricultural land protection and development in the West Bank.

Wider Implications: it is likely that livelihoods in Palestine will be significantly and negatively impacted by human-induced climate change. Research in this Unit has informed policy outputs for protecting livelihoods in a planned and deliverable manner.

5. Sources to corroborate the impact (indicative maximum of 10 references)

All Sources listed below can also be seen at: https://apps.lse.ac.uk/impact/case_study/view/11

- A. *Alhayat Aljadedah* news-site (Daily Palestinian newspaper), 10 February 2012 [in Arabic] <http://www.alhayat-j.com/details.php?opt=3&id=162161&cid=2494>
- B. *Palestine News Network* 'New Paper Probes Effects of Occupation on Environment' 06 July 2012. [also published in German and French] <http://english.pnn.ps/index.php/national/2113-new-paper-probes-effects-of-occupation-on-environment>
- C. UNDP (2010) *Climate Change Adaptation Strategy and Programme of Action for the Palestinian Authority* (Jerusalem: UNDP) <http://www.papp.undp.org/en/newsroom/publications/pdf/other/climatechange.pdf>
- D. *Statement of Palestinian Prime Minister Salam Fayyad, UNFCCC COP 15*, Copenhagen, December 16, 2009. [speech transcript also available] http://unfccc2.meta-fusion.com/kongresse/cop15_hls/templ/play.php?id_kongresssession=4150
- E. UNDP (2012) *Development for Freedom: Consolidated Plan of Assistance 2012-2014* (Jerusalem: UNDP) <http://www.undp.ps/en/newsroom/publications/pdf/other/devforfreedom.pdf>
- F. UNFCCC National Contact Point – Minister's Advisor for Climate Change, Ministry of Environment Affairs, Palestinian Authority, Ramallah, West Bank [testimonial letter available, dated 3rd July 2012] This source is confidential.
- G. Goriäch, B. et al. (2011) *Occupied Palestinian Territory: Country Report* (Berlin: Ecologic Institute): section 7. Source files: <https://apps.lse.ac.uk/impact/download/file/1067>
- H. UNDP (2013) 'The Government of Belgium and the United Nations Development Programme sign an Exchange of Letters in Support of Climate Change in the occupied Palestinian territory' 03 May, Jerusalem. <http://unispal.un.org/UNISPAL.NSF/0/257927AB34C131F285257B64004D7F0C>
- I. Regional Water and Habitat Advisor for the Middle East, International Committee of the Red Cross, Amman, Jordan. This source is confidential.
- J. Natural Capital Team Leader, UNDP Programme of Assistance to the Palestinian People, Jerusalem, Israel [testimonial letter available, dated 21st October 2013] This source is confidential.