



جمعية ديبين للتنمية البيئية

Dibein Association For Environmental Development

HOUSING AND LAND RIGHTS NETWORK

Habitat International Coalition

Cairo, 9 December 2022

Transmitted by email: ohchr-registry@un.org and therese.arnesen@un.org

Prof. Michael Fakhri and Ms. Thèrese Arnesen
Office of the High Commission for Human Rights
Palais des Nations
Geneva, Switzerland

Dear Prof. Fakhri and Ms. Arnesen:

It is our pleasure to provide the attached input to the upcoming report of the Special Rapporteur on the right to food report to the Human Rights Council's fifty-third session on the adverse impact of climate change on full realization of the right to food.

This submission by Housing and Land Rights Network – Habitat International Coalition and Dibein Association for Environmental Development (Jordan) is in response to questions provided in the Special Rapporteur's call for inputs and focuses on the situation in the Middle East/North Africa region, with particular emphasis on Jordan and Palestine.

We trust that you will find the attached information useful, and we remain available for any questions.

In the meantime, please be assured of our highest consideration.

Yours sincerely,

Joseph Schechla
Coordinator
HIC-HLRN

Response to the call for inputs to the Special Rapporteur on the right to food report on the adverse impact of climate change on the right to food
Submitted by Housing and Land Rights Network – Habitat International Coalition and Dibeen Association for Environmental Development (Jordan)

1. Concrete examples

The Middle East and North Africa (MENA) is the region most vulnerable to unequal social distribution of resources, which leads to protracted conflicts and crisis that aggravate economic and social grievances, raise food prices and cause hunger. External wars also have exacerbated food insecurity and supply-chain disruption. Poor management of land and water add to agricultural sector challenges in the context of climate change, and related food-policy culture is still unidimensional, focusing only on production and supply,¹ without considering the right to food's normative content, the exploitative conditions of agribusiness, or needed remedies to other structural obstacles to realizing the human right to food and nutrition. Inequitable and discriminatory land governance in the national sphere is officially ignored, while landless and impoverished people can experience hunger even when food is available in the market. In the Arab region, 28% of people (78 million) feel insecure about their land rights.² Climate change and multiple crises exacerbate these anomalies, while holistic and human rights-based approaches to food security remain elusive.

Jordan:

Climate change is expected to affect Jordan's quantity and quality of water resources. In Jordan, rainfall will decrease by 15%, according to the average scenario, or as high as 21% according to the worst-case scenario. Some springs and underground water sources have dried up over the past years, and their capacity has decreased by about 50%. Jordan would see a steady increase in temperature by 1.5–2.5°C and an increase in dry seasons and heat waves. Although the rainfall rate is expected to decline in Jordan, rains are increasing in their severity, leading to floods that may affect Jordan's sustainable development and fragile ecosystems.³

Land use and the change in the use of agricultural and forest land in Jordan have a significant impacted food amid climate change. The National Adaptation Plan 2021 determined that the steady increase in land use for construction and urbanization limits opportunities to adapt to climate change and to create strong environments and ecosystems that can face future threats in the absence of an integrated land use law to date.

The agricultural sector is highly vulnerable to climate change, and adaptation efforts are constrained by inadequate resources. It is widely documented that the agricultural industry is vulnerable to both climate change and variability. The common assumption is that temperature and precipitation fluctuations will have an effect on plant development and agricultural productivity. In many developing nations, it is anticipated that climate change will also lead to changes in agricultural systems, which would increase the pressure on rural communities to adjust to these changes and strengthen their adaptive capacities. The problem is made worse by the fact that Jordan had a high rate of population expansion as a consequence of waves of refugees from neighboring countries (West Bank, Iraq and Syria).

Agricultural food systems are hampered by a shortage of good quality irrigation water and inefficient water use, compounded by the effects of climate change. Rainfed agriculture in Jordan is one of the sectors most vulnerable to climate change, as the available water and land resources are limited and most of the country's land is arid. Over the past decade, 40 % of rainfed farmland has been lost and currently 33 % of cultivable land lies idle. For example, in the Yarmouk River basin, rain-fed agriculture is very susceptible to climate change in the form of increasing air temperature and reduced precipitation. Increased air temperature showed detrimental effects on barley production, whereas decreased precipitation had unfavorable effects on both wheat and barley.

Palestine:

Climate change impacts that affect Palestine include decreased precipitation, significant warming, atypical extreme weather events, sea level rise, more frequent droughts and increased desertification, changes in the economic viability of crops, increased water requirements for crops, a decline in grazing ranges and livestock, and higher food prices. Climate changes lead to greater water scarcity, reduced agricultural productivity, decreased food and water security, and saline water intrusion.

In the water sector, climate change will exacerbate the effects of Israel's current control on regional water sources. For those dependent on the coastal aquifer (as much as 95/4% of all water) in Gaza,⁴ these conditions are more severe due to three external factors: unnatural population density due to Israel's waves of ethnic cleansing and refugee flows,⁵ Israeli agricultural colonies depleting Gaza's freshwater basins through 2005,⁶ and Israel's thorough pumping/diversion of the Jabal al-Khalil aquifer's flow that otherwise would recharge the coastal aquifer.⁷

Across historic Palestine, Jewish National Fund (JNF) forestation projects conceal the evidence of depopulated villages and terrace agriculture of the dispossessed and evicted indigenous Palestinian people. Under Israel's Planning and Building Law, planting any coniferous trees triggers Israel asserting ownership over "national lands." JNF and Israel Land Authority (ILA) conduct plantings as a means of preventing Palestinian occupancy, construction or agriculture as "illegal" on any plot with a coniferous tree as a "forest reserve" with no public oversight. About 100,000 hectares of open areas in Palestine have undergone Israeli afforestation for various reasons at various times.⁸

Moreover, the non-native evergreens absorb more of the sun's heat than the natural landscape, altering the natural microclimate and ecosystem, and are unsustainable without costly and unsustainable irrigation of seedlings.⁹ Drought like the one that hit the region in 2010 showed that as much as 80% of such plantations could be lost in a single weather event. Beyond the environmental consequences, the link between JNF "reforestation" and the serious crime of population transfer by denying land for agriculture and housing to Palestinians and implanting settler colonies in their place has come to the global scrutiny.¹⁰ And the ambitious premise of creating "green walls" in incompatible climates is coming under critical interrogation by environmentalists more generally.¹¹

The forest fires in the hills around Jerusalem in August 2021 demonstrated vividly how climate change shares a complex relationship among with this environmental engineering, colonization and food sovereignty. The forests, once denuded, revealed the centuries-old terraced agriculture of the indigenous villages depopulated since 1948.¹²

The Palestinian agricultural communities are the most vocal about the combined impacts, as their livelihoods have been transformed by a combination of Israeli occupation practices and climatic change. Farmers have had to devise adaptive measures to overcome these factors, such as crop variation, water-saving irrigation methods and the adoption of traditional approaches to agriculture. However, farmers realize the complexity of adopting and implementing such strategies. The Israeli occupation has designated more than half of the agricultural land in the Jordan Valley as closed military zones. Consequently, Bedouin communities who depend heavily on pastureland and livestock have had to adapt to limited access to ever-shrinking areas and natural resources. Relying on rainwater for their agriculture and animal husbandry means that they are highly vulnerable and at risk due to climate change, amid fluctuating rainfall and temperature changes. They are especially exposed to climate injustice, as compared to the situation of Israeli settlers, who enjoy a reliable water supply and support of their agricultural production.¹³

2. Summary of relevant data

Across the region, the number of hungry and undernourished people in the region reached 69 million people in 2020, an increase of 4.8 million from 2019,¹⁴ with approximately 53.4 million people facing hunger in countries and areas affected by conflict.¹⁵

Jordan:

Food Stability Indicators:

- Over the past decade, 40% of rainfed farmland has been lost, and 33% of cultivable land now lies idle.
- The climate change vulnerability index was at 0.05 in 2019, indicating that Jordan is not significantly affected by weather-related disasters, along with the sea-level rise and loss of agricultural productivity. However, this does not mean that Jordan is completely safe from all climate change impacts.
- Food production variability remained consistently small between 2010 and 2016 (about US\$ 6,400 per capita) as Jordan is not a major food producer, while the most productive agriculture is irrigated.
- Food supply variability (increased significantly from 50 kcal/capita/day in 2010 to 55 kcal/capita/day in 2017. Considering the current ADESA, this is a safe margin of variability.¹⁶

3. Specific measures

Jordan:

At the national level, the Supreme Council for Civil Defense assumes the authority to deal with disasters through Civil Defense Law No. 18) of 1999, amended in 2003, but the Council lacks appropriate financial and administrative support to operate more effectively.¹⁷

Palestine:

Israeli (JNF and ILA) evergreen plantings are conducted under the heading of “agroforestry” and do not go through the regular planning process. Appealing to Israel’s High Court of Justice,¹⁸ the Society for the Protection of Nature in Israel (SPNI) argued that the plantings are not agriculture, but forestry plantings and, therefore, should be subject to the standard planning process. The court did not decide on the specific arguments of SPNI, but emphasized the need for a supervisory mechanism for plantings, in order to protect natural species.¹⁹ The state then decided to establish a “coordinating committee” to approve plantings, headed by the ILA, and includes representatives of the Ministry of Environmental Protection, the Ministry of Agriculture, the Planning Administration and the Israel Nature and Parks Authority.

Within the Israeli-occupied jurisdiction of the West Bank and Gaza Strip, the Palestinian Authority prioritizes adaptation to the adverse impact of climate change. Palestine has adopted adaptation actions in 12 sectors, including the water, agriculture, food, industry, local government, energy, gender, health, tourism, and transportation sectors. In the water sector, these include developing rainwater harvesting technologies. Agriculture sector adaptation includes adopting climate-smart agriculture practices.

4. Examples of promising practices

Jordan:

Soil and water conservation to boost agricultural water availability might be seen as an essential climate change adaptation tool. Also, the selection of drought-tolerant genotypes with shorter growing seasons should be considered as an adaptation approach to mitigate the negative effects of climate change.

Although the current conversion of agricultural land to urban land use may be helpful to the water budget, since municipal water requirements are lower than irrigation-water requirements, this conversion would indirectly raise water demand, since greater agricultural production would be required to provide food security. As a result, strengthening adaptive ability at all levels would still be required to progress toward transcendence. Jordan's adaptation strategies include a wide range of initiatives aimed at reducing water shortages; however, all initiatives should aim to close the supply-demand imbalance.²⁰

Multiple crises, including the Syrian refugee influx over the past ten years and the Corona pandemic, have contributed to increasing the negative impact of increasing poverty and unemployment, which have heightened the need for a national food security strategy.

The Jordanian government established a Food-security Council to work alongside the National Committee for Food Security and help mitigate the country's vulnerability to global food crises and climate change. Jordan launched its 2022–24 executive plan in late August, part of the 2021–30 National Strategy for Food Security. It cites climate change as affecting all the components of Jordan's food security and food systems, as evidenced by increases in water scarcity, drought frequency, and accelerated land degradation. These will ultimately take a toll by causing decreasing production and productivity, especially for small and subsistence farmers who mainly depend on rain-fed agriculture and extensive semi-intensive livestock raising.

Among seven mitigation factors of the action plan is to build resilience to climate change and its impacts. Its sub-objective 1 seeks to achieve the maximum potential of local food production: and enhance incomes of farmers and producers by introducing climate-smart agriculture, adapting to climate change, capitalizing on renewable energy resources, and preserving biodiversity.

A guiding principle of the renewed Natural Disaster Risk Reduction 2022–30 is to develop, strengthen and implement relevant policies, plans, practices and mechanisms needed for coherence across sustainable development and economic growth, food security, health and safety, climate change and variability, environmental management and disaster risk reduction agendas. It notes that disaster risk reduction is essential to achieve sustainable development and that food security constitutes a national concern linked to water security, energy security, climate change, urbanization and increases and fluctuations in global prices.

The National Climate Change Policy (2013–20, slated to extend to 2030) is a key piece of legislation that informs various subsequent strategies and plans for a climate-resilient, low-carbon Jordan; the Third National Communication on Climate Change (2014) builds on the National Climate Change Policy with specific objectives, proposed actions and projected impacts. The Green Growth National Action Plans support the NDC Action Plan and Sustainable Development Goals.

Additionally, in 2016 the Jordan Ministry of Agriculture launched its third National Strategy for Agricultural Development for 2016–25 as part of general national development efforts under Jordan Vision 2025. The recently updated National Water Strategy 2016–2025 prioritizes lowering the %age of water lost or unaccounted for in the system. Achievement of this goal would maintain Jordan's continued resiliency in the face of extreme water scarcity. Other relevant policies include the Special Programme for Food Security, the Forest Strategy, the National Strategy and Action Plan to Combat Desertification, Comprehensive Food and Nutrition, Drought Mitigation, Poverty Alleviation, and the National Agenda. Nevertheless, there is currently no comprehensive policy to protect natural resources in Jordan²¹

5. Examples and promising practices of international and multilateral cooperation

Jordan:

Jordan has pledged to abide by the goals and objectives contained in the Sendai Framework for Disaster Risk Reduction, but this is hampered by the lack of comprehensive information on risks that can be accessed by decision makers. The legislative and policy framework for disaster risk management is still incomplete, in addition to the overlap and lack of clarity in defining roles and responsibilities among institutions at the national level.²²

Following the 2021 United Nations Food Systems Summit Jordan developed a road map to improving the efficiency and sustainability of its food systems,²³

The World Bank promotes Climate-smart Agricultural Investment Framework as part of Jordan's Action Plan. The framework is based on the four components of CSA planning and implementation: (i) situation analysis, (ii) prioritizing interventions, (iii) program design, and (iv) M&E.²⁴

Palestine:

Palestine's nationally determined contribution (NDC) to Paris Agreement implementation has identified specific climate actions that are implementable in case the means for implementation can be secured from international resources, especially technology transfer, capacity building, and finance. The estimated financial resources needed to fully implement the NDC are US\$14 billion for all adaptation and mitigation actions until 2040. NDC implementation began with a US\$23-million grant from the Green Climate Fund for a water banking project in northern Gaza implemented by the French Development Agency in partnership with FAO, the Palestinian Water Authority and Ministry of Agriculture. Concept notes for projects in seven sectors are under preparation in 2021.²⁵

6. Additional information

Jordan:

Climate-smart agricultural increases productivity in an environmentally and socially sustainable way, strengthens farmers' adaptation and resilience to climate change, and supports mitigation efforts. In recent decades, there has been a steady decline in average annual rainfall across West Asia. Changes in precipitation amounts and patterns and increased temperatures are straining crop and livestock production in Jordan. Climate change will place significant stress on Jordan's poor and vulnerable population. In addition to causing setbacks in terms of food security, climate change may also pose problems for the further development of Jordan's agricultural sector, which is increasingly dependent on value chains and export markets. A robust and broad-scale package of development initiatives can help Jordan's agricultural sector address current and future climate change impacts, meet food demand, and advance the growth of agribusiness under climate change. This document outlines a portfolio of potential investments to support Jordan's agricultural sector in addressing climate change through CSA.

CSA Action Plan builds on the experience of the World Bank and its partners in assessing the impact of climate change on food systems. Jordan's Action Plan to identify CSA investments follows the Climate-Smart Agricultural Investment Planning Framework. The framework is based on the four components of CSA planning and implementation: 1. situation analysis, 2. prioritizing interventions, 3. program design, and 4. monitoring and evaluation.²⁶

Endnotes:

- ¹ FAO promotes four dimensions: 1: Physical availability of food, 2: Economic and physical access to food, 3: Food utilization stability of the other three dimensions over time. FAO, “An Introduction to the Basic Concepts of Food Security,” *Food Security Information for Action Practical Guides*,” FAO program, 2008. <https://www.fao.org/3/al936e/al936e00.pdf>; while the human right to food’s normative contents: Availability, acceptability, accessibility, and cultural appropriateness, in addition to the process human rights to information, participation, freedom of expression, peaceful assembly, security of person, and the economic, social and cultural rights of adequate standard of living and protection of the family, among others. CESCR, General Comment No. 12: right to food, E/C.12/1999/5, <https://undocs.org/E/C.12/1999/5>.
- ² Shahd Mustafa, *Perceptions Data Reveal Patterns of Tenure Insecurity in the Middle East and North Africa*, urbanet.info (March 2021, <https://www.urbanet.info/perceptions-data-reveal-patterns-of-tenure-insecurity-in-the-middle-east-and-north-africa/>
- ³ Comprehensive National Report on Climate Change, cited in “Jordan Environment,” *Al Arabi Aljadeed*, January 2020.
- ⁴ United Nations Environmental Program (UNEP), “State of Environment and Outlook Report for the occupied Palestinian territory 2020”, p. 66, <https://wedocs.unep.org/bitstream/handle/20.500.11822/32268/SEORP.pdf?sequence=1&isAllowed=y>.
- ⁵ Janet L. Abu Lughod, “The Demographic Transformation of Palestine,” in Ibrahim Abu Lughod, ed., *The Transformation of Palestine* (Evanston: Northwestern University Press, 2971); Beryl Cheal, “Refugees in the Gaza Strip, December 1948–May 1950,” *Journal of Palestine Studies*, Vol. 18, No. 1, Special Issue: Palestine 1948 (autumn, 1988), pp. 138–57, <https://www.jstor.org/stable/2537600?seq=1>; and on the 1951–53 ethnic cleansing and confinement of the Naqab population, see Anthony Coon, Steven Kahanovitz, Miloon Kothari, Rudolfo Stavenhagen, *The Goldberg Opportunity: A Chance for Human Rights-based Statecraft in Israel* (Cairo: HIC-HLRN, 2010), <http://hlrn.org/img/publications/FFM%20Naqab%202010.pdf>.
- ⁶ Anders Jägerskog and David Phillips, “Managing trans-boundary waters for human development” (Washington: World Bank, January 2006) pp. 14–15, https://www.researchgate.net/publication/43244516_Managing_trans_-_boundary_waters_for_human_development.
- ⁷ Human Development Report 2006: Beyond scarcity: Power, poverty and the global water crisis/the global water crisis (New York: UNDP, 2006), p. 217, <https://www.undp.org/publications/human-development-report-2006#>.
- ⁸ Alon Rothschild, transl. from Hebrew by Esther Lachman, *From “Improving Landscape” to Conserving Landscape: The need to stop Afforestation in Sensitive Natural Ecosystems in Israel and Conserve Israel’s Natural Landscapes* (Tel Aviv: Society for the Protection of Nature in Israel, May 2019), p. 24, https://natureisrael.org/cms/uploads/Publications/Afforestation_Ecology_Damage_SPNI_2019.pdf.
- ⁹ Society for the Protection of Nature in Israel, *From “Improving Landscape” to Conserving Landscape: The need to stop Afforestation in Sensitive Natural Ecosystems in Israel and Conserve Israel’s Natural Landscapes*, May 2019, https://natureisrael.org/cms/uploads/Publications/Afforestation_Ecology_Damage_SPNI_2019.pdf.
- ¹⁰ Cnaan Liphshiz, “Munich’s Jewish Museum calls Negev forests ‘settlement policy,’ sparking outcry,” *Times of Israel* (12 July 2019), <https://www.timesofisrael.com/munichs-jewish-museum-calls-negev-forests-settlement-policy-sparking-outcry/>; “KKL-JNF and its Role in Settlement Expansion,” *Peace Now* (2 April 2020), <https://peacenow.org.il/en/settler-national-fund-keren-kayemeth-leisraels-acquisition-of-west-bank-land>.
- ¹¹ Fred Pearce, “Why Green Pledges Will Not Create the Natural Forests We Need,” *Yale Environment 360* (16 April 2019), <https://e360.yale.edu/features/why-green-pledges-will-not-create-the-natural-forests-we-need>.
- ¹² Hanin Majadli, “An Israeli Forest to Erase the Ruins of Palestinian Agricultural Terraces,” *Opinion, Haaretz.com* (24 August 2021), <https://www.haaretz.com/opinion/2021-08-24/ty-article-opinion/premium/an-israeli-forest-to-erase-the-ruins-of-palestinian-agricultural-terraces/0000017f-e825-df5f-a17f-fbf72170000>.
- ¹³ *Minority and Indigenous Trends 2019: Focus on climate justice* (London: Minority Rights Group International, 2019), pp. 167–68, https://minorityrights.org/wp-content/uploads/2020/08/2019_MR_Report_170x240_V7_WEB.pdf.
- ¹⁴ *Near East and North Africa – Regional Overview of Food Security and Nutrition 2021: Statistics and trends*, FAO, Cairo, 2021.at: <https://www.fao.org/documents/card/en/c/cb7495en/>
- ¹⁵ *Ibid.*
- ¹⁶ Average daily energy supply adequacy, as reported in FAO. *Rural transformation-key for sustainable development in the near east and North Africa: Overview of Food Security and Nutrition 2018* (Cairo: Food and Agriculture Organisation of the UN (FAO), 2019), <https://www.fao.org/3/ca3817en/ca3817en.pdf>; and FAO, IFAD, UNICEF, WFP, WHO and ESCWA, *Regional Overview of Food Security and Nutrition in the Near East and North Africa 2020 - Enhancing resilience of food systems in the Arab States* (Cairo: FAO, 2021), <https://doi.org/10.4060/cb4902en>.
- ¹⁷ National Strategy for Natural Disaster Risk Reduction, 2019–2022 (NSNDRR).
- ¹⁸ Case number HCJ 8391/15.
- ¹⁹ *Ibid.*, p. 32.
- ²⁰ Jawad Taleb Al-Bakri, Mohammad Salahat, Ayman Suleiman, Marwan Sufian, Mohammad R. Hamdan, Saeb Khresat and Tarek Kandakji, “Impact of Climate and Land Use Changes on Water and Food Security in Jordan: Implications for Transcending ‘The Tragedy of the Commons’,” *Sustainability*, Vol. 5 (2013), 724–48, <https://www.mdpi.com/2071-1050/5/2/724/>
- ²¹ Ibrahim Badran, Awni Taimeh, Hamed Takruri, Fayez Abdulla, Hadeel Bader, Mohammad M. Khasawneh, and Ghaith Zreigat, researcher Zein Soufian., “Strategic Review: Achieving Sustainable Development Goal 2 (Zero Hunger) in Jordan by 2030,” (2018), https://docs.wfp.org/api/documents/WFP-0000104937/download/?_ga=2.148580343.1703306510.1560093169-591208273.1534415095.
- ²² NSNDRR, *op. cit.*.

-
- ²³ World Bank. *Jordan - Climate-Smart Agriculture Action Plan: Investment Opportunities in the Agriculture Sector's Transition to a Climate Resilient Growth Path* (Washington: World Bank Group, 2021), <https://documents1.worldbank.org/curated/en/099105005092240188/pdf/P16068202548b20c10b2940571353a64afa.pdf>.
- ²⁴ Evan Girvetz, Caitlin Corner-Dolloff, Christine Lamanna, and Todd Rosenstock, “‘CSA-Plan’: Strategies to Put Climate-Smart Agriculture (CSA) into Practice,” *Agriculture for Development*, No. 30 (2017), 12–16, https://cgspace.cgiar.org/bitstream/handle/10568/81374/Ag4Dev30_2.pdf?sequence=1&isAllowed=y; cited in World Bank, Ministry of Agriculture and Ministry of Environment of the Hashemite Kingdom of Jordan and Partnership for Market Readiness (PMR), *Climate-Smart Agriculture Action Plan for Jordan* (Washington: World Bank, 2021), <https://documents1.worldbank.org/curated/en/099105005092240188/pdf/P16068202548b20c10b2940571353a64afa.pdf>.
- ²⁵ Hadeel Ikhmais, “Climate Change in Palestine,” *This Week in Palestine*, No. 276 (April 2021), <https://thisweekinpalestine.com/climate-change-in-palestine/>.
- ²⁶ World Bank. 2021, *op. cit.*