

Climate Change in Palestine



By Hadeel Ikhmais

The year 2016 heralded a remarkable transformation for Palestine when it became party number 197 in the United Nations Framework Convention on Climate Change (UNFCCC). In the early morning hours of December 13, 2015, during the 21st Conference of Parties (COP) of the UNFCCC in Paris, H.E. Ambassador Dr. Riyad Mansour, Permanent Observer of Palestine to the United Nations, submitted the instrument of accession to UN Secretary General Ban Ki Moon. On March 17, 2016, Palestine became a state party to the UNFCCC. H.E. President Mahmoud Abbas signed and ratified the Paris Agreement on April 22, 2016, in New York. Palestine was one of the first countries to do so. The COP 21 marked a historic climate agreement that showed our responsibility as part of humanity and a responsible state in the global fight against climate change.

Shortly after becoming a party to the convention, Palestine was able to chair the Group of 77 and China, the largest negotiation group in the climate change intergovernmental process. Najla Latif pointed out: “Less than four years after being recognized as a state party at the United Nations’ climate change negotiations, Palestine is now leading the UN’s largest group of developing nations.”ⁱ

The active role of Palestine in climate change was marked ten years ago, however, before joining the convention, when a strategy for adaptation to climate change was developed in 2010. The Climate Change Adaptation Strategy and Program of Action for the Palestinian Authority has identified water and food security as the most vulnerable issues in Palestine with knock-on implications for all sectors. The Israeli occupation substantially reduces Palestine’s adaptive capacities in many issues, thereby compounding climate vulnerabilities. These capacity limitations are most prevalent in Area C, which covers 61 percent of the West Bank, and in the Gaza Strip, but the Israeli occupation also increases vulnerabilities everywhere else all over Palestine.ⁱⁱ



■ Winter in Gaza. Photo courtesy of UNDP/PAPP by Shareef Sarhan.

Being particularly vulnerable to the impacts of climate change, with severe implications for its economy, living standards, and environment, Palestine is committed to ensuring that its emissions pathway is in line with the objective of UNFCCC and the Paris Agreement and aims to stabilize greenhouse gas (GHG) emissions at a level that limits the ongoing temperature increase to less than 2°C relative to pre-industrial levels. In its National Determined Contribution, submitted in August 2017, Palestine committed to reduce its GHG emissions by 12.8 percent by 2040, relative to the business-as-usual levels under a scenario where the Israeli occupation continues (status-quo scenario), and by 24.4 percent by 2040 under a scenario where the Israeli occupation ends (independence scenario). This reduction is conditional on international support.ⁱⁱⁱ

The climate change impacts that affect Palestine include decreased precipitation, significant warming,

The total estimated cost of the State of Palestine’s adaptation actions included in the National Adaptation Plan for all sectors amounts to US\$ 3.544 billion.

more frequent extreme weather events, and a rise in the sea level. These could lead to greater water scarcity, reduced agricultural productivity, decreased food and water security, and saline water intrusion. Specifically, the impacts on the agricultural sector will include 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. For the water sector,



■ Floods in Gaza. Photo courtesy of UNDP/PAPP by Shareef Sarhan.

In 2011, emissions from the waste sector amounted to 751.7 Gg of CO₂ eq. Emissions of CH₄ dominated, followed by N₂O. Emissions of CH₄ arose from waste decomposition and wastewater treatment, whereas N₂O emissions arose during biological nitrogen removal in wastewater treatment plants. A very small amount of CO₂ was also emitted, which arose from the burning of waste.

climate change will exacerbate the effects of Israel's current control on regional water sources. In addition, there is a grave concern over the potential impact of climate change through decreased precipitation and sea-level rise on the coastal aquifer in Gaza. This could severely affect communities that rely almost exclusively on the coastal aquifer for their water needs. Thus, if Palestine can successfully address climate change and lessen the related impacts, these measures will help improve the country's energy security and overall food production, the environment, and people's living conditions and health.

As it will increase physical and/or socioeconomic challenges, it is expected that climate change will most severely impact Palestine's most vulnerable populations, including women, children, young women and men, refugees,

young parents, parents of young children, the elderly, female-headed households, persons with disabilities, families with member(s) in detention, and poor or underserved communities.

Adaptation to the adverse impact of climate change is considered among the high priorities of the Palestinian government. In order to address expected climate change impacts, Palestine has adopted a list of proposed adaptation actions in 12 different sectors, including the water, agriculture, food, industry, local government, energy, gender, health, tourism, and transportation sectors. Regarding the water sector, these adaptations include developing rainwater harvesting technologies. For the agriculture sector, they include adopting climate-smart agriculture practices. To help the energy sector, a focus on the use of solar PV and solar water heating technologies is advised. Although solar water heating is used extensively in the residential sector, its capacity is still limited in sectors such as service provision and industry. Increasing energy efficiency is another approach proposed to decrease energy demand. This is essential, considering the differing needs and requirements of women and men and their subgroups as related to climate change. The impact of climate change by gender has not been fully analyzed or addressed in current climate change adaptation actions, this gap was addressed in many other projects that were concluded recently.

For future actions, Palestine's nationally determined contribution (NDC) clearly identified specific climate actions that are implementable in case the means for implementation can be secured

Israel's occupation and the continuous growth of its illegal settlements, exacerbated by offensive activities carried out by settlers in the West Bank, including East Jerusalem, heavily pollute and deteriorate the natural ecosystems and the environment of the State of Palestine. In 2011, around 541,824 illegal Israeli settlers lived in the State of Palestine, emitting approximately 5,798 Gg CO₂ eq. These emissions are higher than the total emissions of the State of Palestine.

from international resources, especially with regard to technology transfer, capacity building, and financial resources. The estimated financial resources needed to fully implement the NDC are US\$14 billion for all adaptation and mitigation actions from now until 2040. The implementation of the NDC started by granting US\$23 million from the Green Climate Fund to a water banking project in northern Gaza that is being implemented by the French Development Agency in partnership with the United Nation's Food and Agriculture Organization, the Palestinian Water Authority, and

the Ministry of Agriculture. As of recently, a number of concept notes for projects in seven sectors are under preparation, aiming to enhance Palestine's NDC implementation.

To enable such implementation, possible donors for climate change mitigation projects must be identified. We must solicit their interest and potential to support the country through measures that include considering the

■ Photo by Sharif Sarhan.

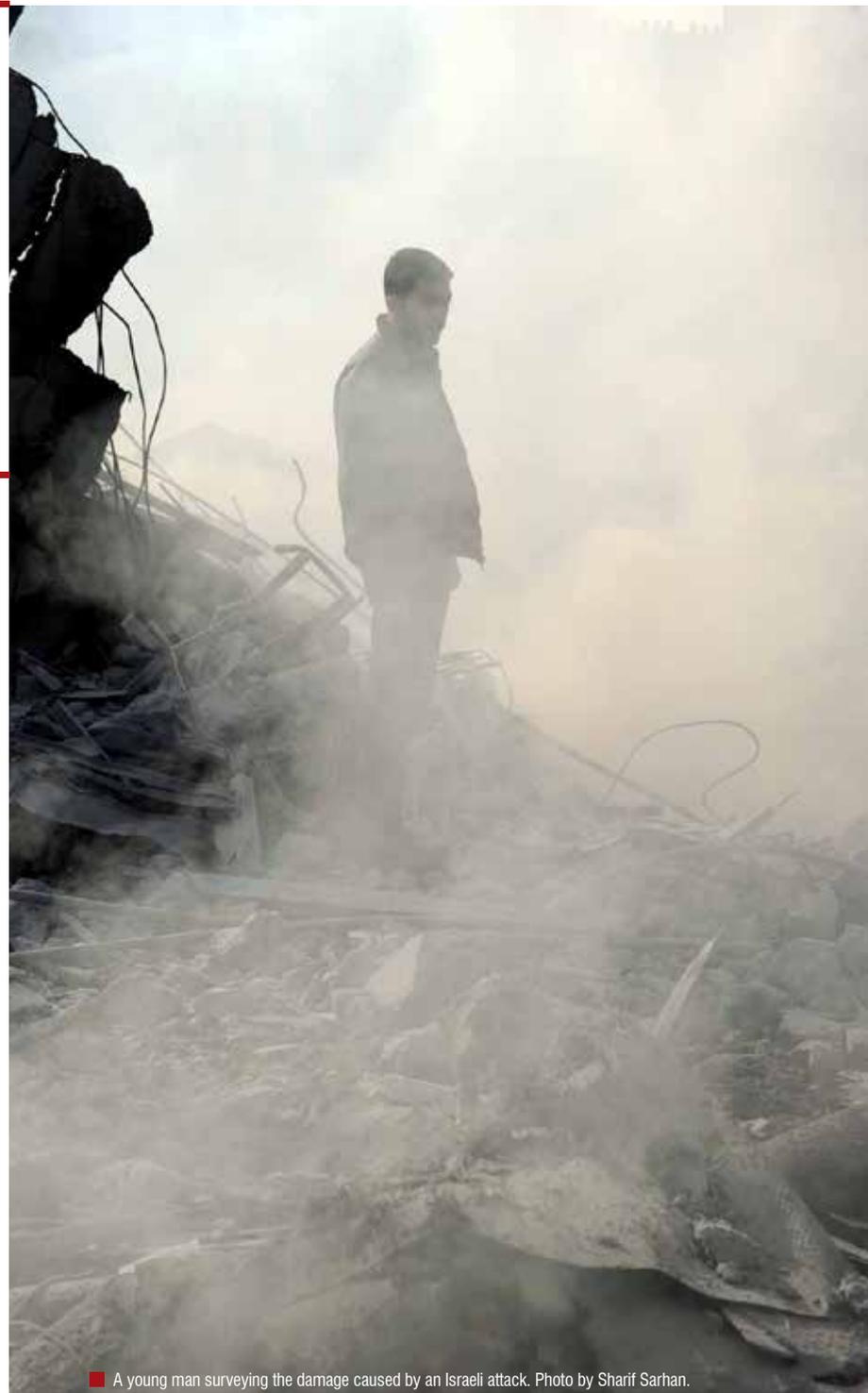


In 2011, the energy sector emitted 1997.7 Gg of CO₂ eq., as CO₂ dominated the greenhouse gas emissions in the State of Palestine, with relatively very small emissions of CH₄ and N₂O. All the emissions arose from fuel combustion.

donor's priorities, access criteria, instructions and guidelines, and barriers to funding.

The open burning of solid waste, although still occurring, has decreased substantially since 2012. With illegal dumping sites closing down and waste being shifted to sanitary landfills, waste burning has become a less common method of disposal.

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■ A young man surveying the damage caused by an Israeli attack. Photo by Sharif Sarhan.

ⁱ Najla Abdellatif, Palestine Leading International Climate Negotiations, Heinrich Böll Stiftung, January 13, 2020, available at <https://ps.boell.org/en/2020/01/13/palestine-leading-international-climate-negotiations>.

ⁱⁱ Initial National Communication Report, submitted to UNFCCC in 2016, available at <https://unfccc.int/documents/81488>.

ⁱⁱⁱ *National Determined Contributions (NDC) submitted to UNFCCC* (with Palestine listed as State of Palestine), United Nations Framework Convention on Climate Change, available at <https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx>.