



OFFICE OF THE STATE COMPTROLLER
AND OMBUDSMAN OF ISRAEL



2024

Introduction

National Climate Action by the Government of Israel Extended Follow-up Audit



Introduction

Background

For hundreds of millions of years, the Earth's climate has been influenced by the amount of solar radiation that reaches it through the layer of gases that make up the atmosphere, including greenhouse gases (GHGs), and by the amount of radiation emitted from it into space. Solar radiation penetrates through these gases, and the Earth absorbs some of this radiation and emits some. Due to human activity, which leads to increased GHG emissions, the concentration of these gases in the atmosphere around the Earth has increased, making the atmosphere more resistant to radiation trying to escape from Earth into space. Radiation that does not escape into space is converted into heat energy, causing the atmosphere to warm and global temperatures to rise. This process is known as the "greenhouse effect" and is one of the main factors contributing to climate change.

Climate change is projected to impact both human and natural systems, leading to societal, economic, and demographic pressures. It may also affect human health due to sensitivity to extreme weather conditions and the spread of infectious diseases. Despite its relatively small size, the State of Israel has a relatively high level of GHG emissions per capita. According to data from the Central Bureau of Statistics, the total GHG emitted in Israel in 2022 amounted to approximately 81.1 million tons (an increase of 3% compared to 2021 and 2% compared to 2020; this means a return to Israel's 2019 emissions level). Located in a "hot spot" region, Israel is exposed to significant risks due to climate change and the process of global warming. The rate of warming in Israel is nearly twice the global average.¹ Therefore, Israel must be ready to address the impacts of climate change in our region.

Between 1970 and 2019, there were 11,072 reports of weather, climate and water extremes ("natural disasters") worldwide, and the indication is of an increase trend in such reports. In the decade of 2010 -2019, the number of reports on climate and natural disasters increased by 450% compared to the 1970s. These disasters resulted in an estimated 2.07 million fatalities, with the majority caused by tropical cyclones (38%), droughts (34%), and heatwaves (8%). The main economic damages during this period were caused by tropical cyclones (38%), river floods (20%), and other floods (8%), with an estimated cost of around \$3.6 trillion.

In 2021, the State Comptroller's Office published its Special Audit Report on "National Climate Action by the Government of Israel." This report highlighted significant deficiencies and gaps in various aspects of the activities of dozens of government ministries and public bodies, in the context of national preparedness for the climate crisis and its actions to mitigate GHG

¹ Israel Meteorological Service, "Is Israel Warming Up?" (October 31, 2021).



emissions ("the previous report"). After examination of government actions on this issue since the publication of the previous report, in early 2023 the State Comptroller decided to conduct a comprehensive follow-up audit on the progress of actions that would ensure Israel's preparedness for the crisis and participation in its mitigation. This decision was made in response to the significant risk facing the country and its international commitments. The following document presents a summary of the findings of this audit.



Extreme Weather Events in Israel, 2020-2023

January 8, 2020 - Severe floods and damage to property and residents in Nahariya and other areas on the northern coast following two weeks of unusually heavy rain.

August 29 - September 5, 2020 - Extreme double record heat wave. Temperatures of 42°C in the central hills for the first time since 1942, and unprecedented minimum temperatures of 30°C and higher. Temperatures reached 47-49°C in the eastern valleys, and up to 46°C in the eastern Galilee.

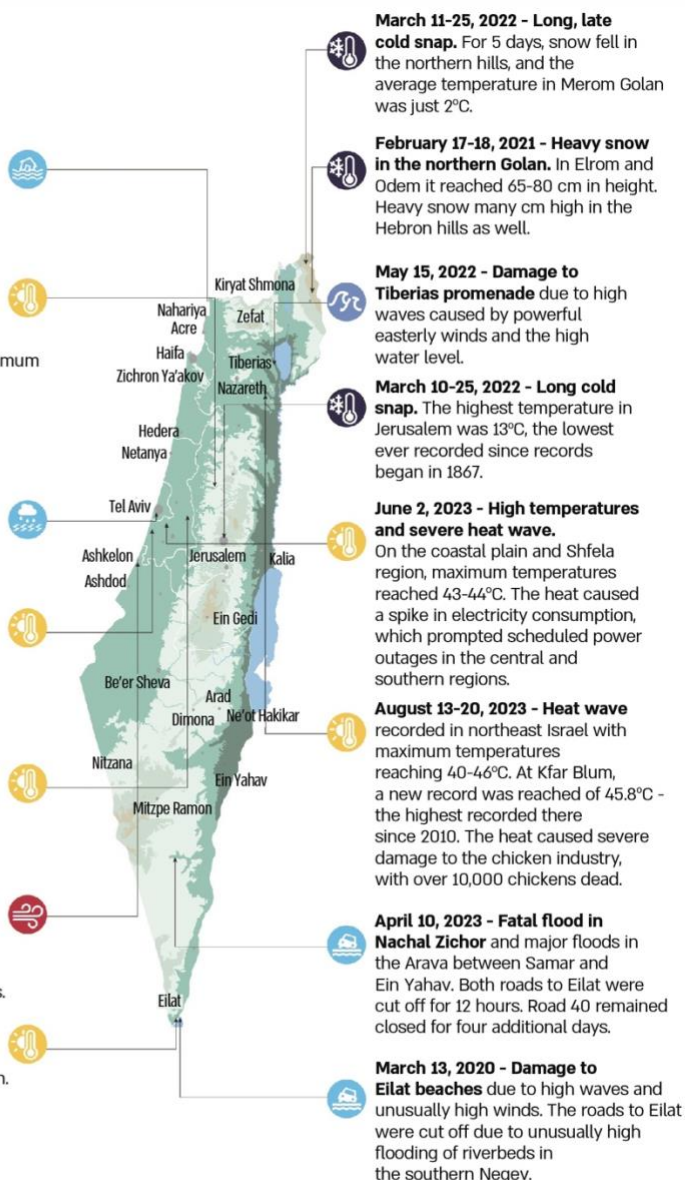
January, 2020 - Fatal flooding in south Tel Aviv due to 30 minutes of unusually heavy rainfall.

August 1-7, 2021 - Unusually hot, dry weather for the season. In the eastern coastal plain, maximum temperatures of 36°C and higher were recorded for 6-7 days in a row.

May 14-22, 2020 - Unprecedented long heat wave of 40°C and higher recorded in the Shfela region, the eastern coastal plain, and the valleys.

March 13, 2023 - Fatal damage due to collapse of an Israel Electric Company crane at the coal wharf in Ashkelon. The event took place during a sudden storm and powerful winds.

September 4, 2020 - A record temperature of 48.9°C was recorded at the Eilat weather station.



According to data from the Ministry of Foreign Affairs, processed by the Office of the State Comptroller.



Key Figures

**11,072
disasters**

The reported number of natural disasters in the world from 1970-2019: droughts, extreme heat waves, floods, mudslides, storms, and wildfires

**38%
of natural
disasters related
damage**

In the world from 1970 -2019 resulted from tropical cyclones (economic damage and fatalities)

**2.07
million people**

Killed in natural disasters in the world from 1970-2019

\$3.6 trillion

Estimate of reported economic damage resulting from climate and natural disasters in the world from 1970- 2019

0.54°C

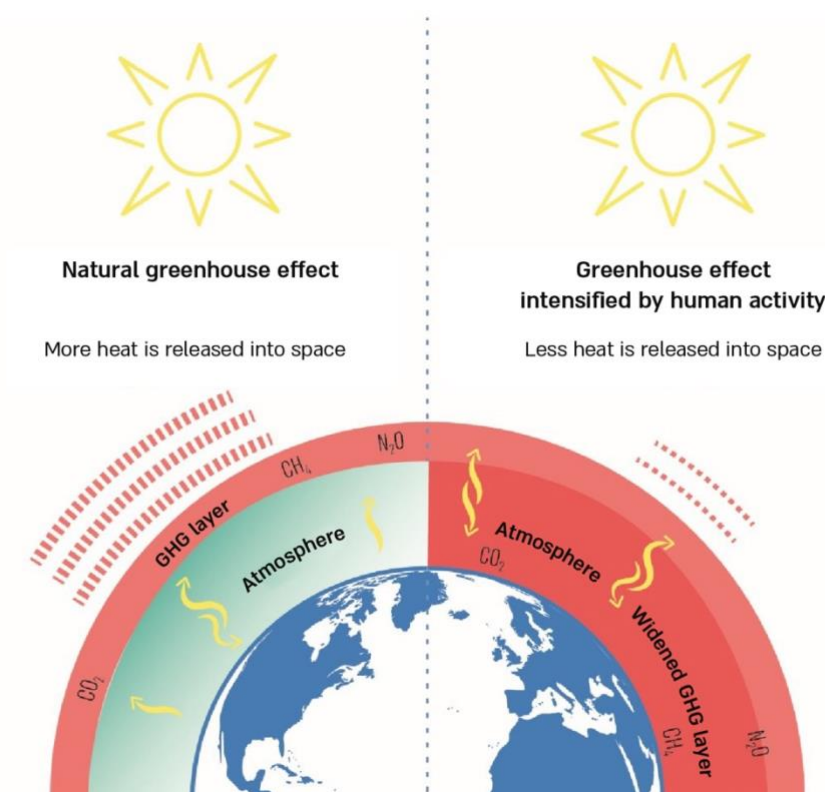
Average rate of warming in Israel per decade, which is almost twice as high as the global rate from 1980-2020

**34% of GHGs
in the world**

Originate from energy production (over 1/3 of the total), 24% originate from industry and another 15% from transportation



Illustration of the Greenhouse Effect



Based on data from the Ministry of Environmental Protection (MoEP), adapted by the State Comptroller's Office.

Audit Actions

Between January and June 2023, the State Comptroller's Office conducted a follow-up audit regarding correction of deficiencies and implementation of recommendations on some of the issues mentioned in the previous report. Additionally, other aspects related to government actions and public bodies that were not covered in the previous report were examined. The follow-up audit was conducted at the Ministry of Environmental Protection (MoEP), the Ministry of Energy and Infrastructure (the Ministry of Energy), the Ministry of Finance, the Ministry of Health, the Ministry of Defense, the Ministry of Transport and Road Safety (the Ministry of Transport), the Israel Electric Corporation,



Noga - The Israel Independent System Operator Ltd.² (Noga), the National Security Council (NSC), the Israel Meteorological Service (IMS), and other government and public bodies. Furthermore, a survey was sent to 70 government ministries and public bodies to collect information about their activities, with responses received from 60 entities ("the survey"). The responses and the findings from this survey were integrated into the follow-up audit.

This follow-up report includes four main chapters:

Chapter 1 | Mitigation – Actions to Reduce GHG Emissions

Chapter 2 | Adaptation – National Plan and Measures

Chapter 3 | Economic, Taxation, and Financial Aspects of Climate Change

Chapter 4 | Climate Change Governance - Organizational, Functional, and Professional Adaptation to Climate Change

² Noga - The Israel Independent System Operator Ltd. is an Israeli government company for managing the national electric system.