

State Comptroller of Israel

Special Report

National Climate Action by the
Government of Israel

Extended Follow-up Audit

Summaries of Report Chapters



State of Israel

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Foreword

This extensive follow-up report on national climate action by the government of Israel was completed two years after the release of the special report by the State Comptroller's Office on this matter in October 2021 in preparation for the global climate conference, COP28, held in late 2023. Due to Operation Swords of Iron, this report was not submitted to the Israeli Parliament (The Knesset) and not presented to the public until now.

The global scientific consensus is that current levels of greenhouse gas emissions have led to an increase in the concentration of greenhouse gases in the atmosphere and significant climate changes, and that this trend will continue unless immediate action is taken. Some of these changes are already evident and manifested in massive wildfires, severe and prolonged heatwaves, torrential rains and storms, flooding, and other climate related extreme weather, causing loss of life and property. Scientists estimate that even more severe impacts of climate change lie ahead. As a result, a crisis is unfolding that transcends borders and sectors, and is expected to cause global deterioration in the economy, social conditions, human health, and ecological systems. To prevent the realization of this scenario, comprehensive global action is required to transition to a carbon-neutral economy.

In various countries, a climate emergency has been declared, and actions have been taken at the national and local levels based on the understanding that climate change is a significant component of the national risk map. It is no longer perceived as solely an environmental issue with limited effects, but a systemic crisis. Public preparedness is a central component of the national strategy to strengthen public resilience and systemic readiness for multi-hazard crises. As part of the community of nations, Israel must actively participate in this global endeavor.

Having followed the government's progress on the topic of climate change since the last report was published, in early 2023 I decided to conduct a thorough follow-up audit. This audit aims to assess whether the government is taking steps to rectify the shortcomings outlined in the previous report, given the substantial risks facing Israel and in light of its international commitments.

This comprehensive follow-up report reveals a troubling picture: despite some improvements made by certain governmental bodies, the majority of the deficiencies have either not been addressed at all or have not been fully corrected. Governmental efforts to tackle climate change have so far suffered from several fundamental weaknesses, including the absence of effective government leadership on this matter, a legal framework that lacks the necessary foundation for implementing substantial changes, a lack of comprehensive government risk management, limited or ineffective government attention, and policy management through government decisions and statements without leading processes and actions that would



enable real progress. All of this stands in stark contrast to the inherent risks posed by climate change, which threaten our very existence. Therefore, the government's handling of this issue can be characterized as "functionally stagnant."

The absence of substantial corrective action by the Israeli government and head of government and its leader in addressing the climate crisis places current and future generations of Israeli citizens at risk. Without transformative, integrated, and reality-changing government action that includes the deployment of a comprehensive set of mitigation and adaptation tools with significant strategic weight to ensure achieving carbon neutrality by 2050, Israel might become an international outlier, especially in comparison to developed nations. It might even be labeled a "free rider," viewed as not contributing sufficiently to the global effort to mitigate and adapt to climate change.

Comprehensive, extensive actions in this field are imperative in light of the clear national interest: safeguarding the social, economic, and security resilience of the State of Israel. As a country situated in a climate hotspot, the changes in climate and weather that Israel is expected to experience due to global warming will be more significant than the global average, and could have severe repercussions on resilience:

In the economic and financial sphere, consequences are anticipated in two dimensions:

Physical damage: The physical impacts of climate change are expected to affect agricultural yields and lead to food and water shortages, as well as impacting commodities and energy supply, ultimately resulting in global price increases. This will have repercussions on the economy and the household budgets of disadvantaged populations. Additionally, expected damage to infrastructures in Israel that are already overloaded, including roads, desalination facilities, energy facilities, the water system, and sewage, from increasing numbers of extreme weather events could potentially lead to their collapse.

Risks of inadequate transition to a carbon-neutral economy in Israel: The worldwide shift toward a carbon-neutral economy creates transition risks. Inadequate preparedness of the Israeli economy for these risks and the incomplete national transition to a carbon-neutral economy by 2050 may affect the competitiveness of the Israeli economy.

For example, a carbon tax has been approved in the European Union but not in Israel. As a result, European countries may gradually impose a carbon tax on energy-intensive goods exported from Israel due to emissions during their production. This could raise the cost of these goods and potentially impact the competitiveness of Israeli manufacturers. Furthermore, the revenue from this tax will not go to the Israeli treasury but to the countries collecting it. The global transition to a carbon-neutral standard might also divert international investments in both the private and public sectors from Israel to countries with sustainable economic activities.



All of these factors could potentially impact social resilience in Israel. The effects of climate change and transition risks are expected to disproportionately affect disadvantaged populations and may leave significant portions of the Israeli public behind, potentially leading to unrest or social conflicts.

In terms of security, regional climate changes that bring about extreme heatwaves and severe weather patterns could lead to geopolitical instability. This may result in regional conflicts over essential natural resources in short supply, particularly water and food, exacerbating regional tensions and potentially leading to wars and waves of refugees from neighboring countries where living conditions deteriorate.

Climate change thus poses a comprehensive threat to Israel, encompassing societal, economic, financial, health, and security dimensions. It should not be seen solely as an environmental issue but as a systemic crisis that threatens various aspects of life, necessitating a government-wide response.

Dealing with these long-term threats requires drastic action in the present, despite uncertainties, and a high-level government commitment that is reflected in widespread attention from government ministries and relevant bodies appointed by government decisions. These include the Ministries of Finance, MoEP, Energy, Transportation and Road Safety, Economy, Agriculture and Rural Development, Defense, the IDF, the Planning Administration in the Ministry of Interior (the Planning Administration), and others, in addition to public and professional institutions within and outside of the government. To achieve consistent and sustained progress at a sufficient pace, we must combine ongoing government efforts and involvement in this issue. This will ensure that Israel reaches its self-set goals and fulfills its international commitments, while maintaining its status as a developed nation within the OECD.

In addition to these challenges, it is essential to also examine the numerous opportunities and advantages that Israel has not yet fully exploited. These opportunities can strengthen Israel's international and regional standing, while enhancing its strategic relationships with neighboring countries. They can position Israel as a diplomatic and economic leader, an innovative and developed nation offering a comprehensive toolbox to address the crisis and its consequences.

To conclude, I emphasize that the government faces the challenge of managing national-level risks and the need to chart a course for a carbon-neutral economy, green growth, and the transition to green energy on one hand, while preparing comprehensively for the risks stemming from climate change to people, infrastructure, and nature on the other.

Before concluding this audit report, two government actions in the climate field deserve mention. First, the government has formulated a proposed climate law. If approved in the version endorsed by the Ministerial Committee for Legislation, this proposal could provide a limited and partial response to promoting the actions that the government and the country



must undertake to address the alarming picture presented in this audit report. Second, Israel's representatives are preparing for the Global Climate Conference. The findings of this report reflect the gaps in Israel's actions compared to the goals and objectives set at the international level. Therefore, the recommendations in this report can serve as a work plan to narrow these gaps in a forward-looking perspective.

The government and all Audited Bodies are urged to take action to rectify the deficiencies and implement the recommendations detailed in this report.

On Saturday, October 7, 2023, the Jewish holiday of Simchat Torah, Israel faced an unprecedented multi-pronged terrorist attack. Since that day, Israel has been involved in Operation Swords of Iron, necessitating immediate short-term solutions for assisting citizens, rebuilding infrastructure, and repairing various heavily damaged systems. However, even as all state systems tackle this complex emergency, the government must remain committed to addressing the climate crisis. This involves ongoing, significant efforts to advance, budget and achieve the objectives that it has confirmed on this issue for the upcoming years. The climate crisis is a chronic, persistent, long-term issue that continues unabated by internal or external events. As this audit report details, it presents severe future risks for Israel across various sectors, demanding ongoing and long-term governmental intervention.

In conclusion, I would like to express my gratitude to the employees of the State Comptroller's Office, especially in the Department 12 for Government Ministries and Authorities Oversight, for their dedicated work in conducting a thorough, professional, and fair examination and for publishing a clear, effective, and relevant audit report.

Matanyahu Englman
State Comptroller and
Ombudsman of Israel

Jerusalem, March 2024



Glossary

Adaptation – Actions and adaptation for risks related to climate change.

Adaptation plans – National adaptation strategy (NAS) and national action plan (NAP).

Adaptation report – Recommendations intended to support in implementing the targets of Government Resolution No. 4079 and to help Israel to better adapt to climate changes based on the actions of the CCAA and the subcommittees (published in April 2021).

Annual follow-up report – Annual report to the Israeli government of the Steering Committee for GHG Reduction on implementation of the national plan and targets for reducing GHG emissions, as determined in Government Resolution No. 542.

Anthropogenic greenhouse gases – Gases produced by human activity. Most of the anthropogenic greenhouse gas emissions originate in burning fossil fuels for producing energy in activities such as electricity production, transportation, cooking and heating.

BAU scenario – Business-as-usual scenario; the emissions forecast in the BAU scenario relating to GHG emissions expected in the absence of policies or additional government action.

CCAA team – The CCAA; managing team who manages the integration of the national climate change adaptation plan.

Climate Change Adaptation Administration (CCAA) – An entity of the Ministry of Environmental Protection, comprises 35 bodies including representatives of government ministries, civil bodies, and environmental organizations. The role of this team is to manage formulation of the national climate change adaptation plan.

Climate event – Extreme weather event, including unusual environmental events (such as haze, sandstorms, air pollution), mostly limited in extent.

Climate Law Memorandum – 5781-2021, published in May 2021 by the Ministry of Environmental Protection. It aims "to lead to prevention and reduction of GHG emissions and climate crisis damage in Israel... by setting targets for reducing emissions and GHGs and preparing national plans".

Combined cycle power plant – Power plant that relies on storage of PV energy, alternative to peaking power plant.

COVID-19 – Coronavirus disease (COVID-19), an infectious disease caused by the SARS-CoV-2 virus.

Decarbonization – Negating CO2 emissions during economic activity.



Decision makers proposal for transition to a low-carbon economy – Draft of a government resolution on the "Transition to a Low-Carbon Economy" which details Israel's new national targets of GHG Emissions reduction. The Ministry of Environmental Protection has been promoting this proposal since late 2020. The draft proposal was finally accepted as Government Resolution 171.

Defense establishment – The Ministry of Defense and the Israel Defense Forces.

Dual-use zone – Area designated for the construction of installations for producing renewable energy that is being used for other purposes, such as built-up land, agricultural areas, or parking lots.

ESG – Environmental, Social, and Governance; considerations in the fields of environment, social welfare, and corporate governance that can be evaluated during economic or financial activity, such as through reporting on activity of companies and corporations.

Framework convention – The United Nations Framework Convention on Climate Change (UNFCCC), the UN's fundamental convention on climate change.

GDP – Gross domestic product.

Government Guide to Risk Management – A guide designed to aid decision-makers in managing public risk (published by the Prime Minister's Office, 2018).

Government Resolution No. 171 – Israel government resolution dated July 2021 on "The Transition to a Low-Carbon Economy."

Government Resolution No. 208 – Israel government resolution dated August 2021 on "The Transition to Green Energy and Correction of the Government Resolution."

Government Resolution No. 465 – Israel government resolution dated October 2020 on "Promoting Renewable Energy in the Electricity Sector."

Government Resolution No. 474 – Israel government resolution dated June 2009 on "Israel's Adaptation to Climate Change – Adaptation and Readiness for Climate Change and GHG Emissions Reduction."

Government Resolution No. 542 – Israel government resolution dated September 2015 on "GHG Emissions Reduction and Improving Efficiency of Energy Consumption in the Economy", passed following the Paris Agreement, which defined national reduction targets for 2030.

Government Resolution No. 1403; National Plan 2016 – Israel government resolution dated April 2016 on a "National Plan for Implementing the Targets for GHG Emissions Reduction and Improving Energy Efficiency."



Government Resolution No. 4079 – Israel government resolution dated July 2018 on "Israel's Preparation for Climate Change Adaptation: Recommendations to the Government for National Strategy and a National Action Plan."

Greenhouse gases (GHGs) – A group of gases that prevent the radiation reflected from Earth from escaping into the atmosphere contributing to global warming and climate change. Converting them to carbon dioxide (or CO₂) equivalents makes it possible to compare them and to determine their individual and total contributions to global warming.

IMS – Israel Meteorological Service.

IPCC Fifth Assessment Report – The Fifth Assessment Report of the United Nations Intergovernmental Panel on Climate Change (2014).

Low-carbon economy – An integrated economic policy that aims to change patterns of economic activity so that it will have minimal effect on the ecological system and reduce anthropogenic GHG emissions, to prevent the effects of climate change. This policy can reduce GHG emissions to net zero carbon.

Mitigation – Reduction of GHG emissions.

National targets – National targets for GHG reduction determined by countries under the Paris Agreement (see NDCs).

NEMA – National Emergency Management Authority.

New plan for improving energy efficiency 2030 – The new national plan for improving energy efficiency for 2020-2030 (published by the Ministry of Energy in November 2020).

NGFS – Network of Central Banks and Supervisors for Greening the Financial System.

OECD – Organization for Economic Co-operation and Development

OECD climate recommendations report – Comprehensive report on promoting climate action in Israel written by the OECD in 2020 under the title "Accelerating Climate Action in Israel."

RIA – Regulatory Impact Assessment; OECD methodology, implemented in Israel.

Roadmap for Energy Sector 2050 – Summary document on a study by the Ministry of Energy on updated emissions targets for 2050 (published for public comments in March 2021).

Scientific study and recommendations for a national strategy – A study coordinated by the Chief Scientist at the Ministry of Environmental Protection following Government Resolution No. 474 of 2009, which included a scientific survey of the climate change issue, actions being performed for climate change adaptation, and actions that government



ministries intend to promote. The study's conclusions were presented to the government in 2017.

SDGs – Sustainable Development Goals; the UN's 17 goals for sustainable development, adopted in 2015.

Six main GHGs – General term for carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbon (HFC), perfluorochemicals (PFC), and sulfur hexafluoride (SF₆).

State Comptroller's survey / the survey – survey distributed by the State Comptroller's Office to 63 government ministries, and government and public bodies to obtain information on their activity and the government's activity on climate change.

Steering Committee for GHG Reduction – Steering and follow-up committee on the issue of GHG emissions reduction, established under Government Resolution No. 1403, under the Ministry of Environmental Protection.

Supervisor's Letter 2009 – Letter of the Supervisor of Banks of the Bank of Israel to banking corporations regarding environmental risk (published in 2009).

Transition process to low-carbon economy 2050 (2050 process) – An inter-ministerial and multi-sectorial process that began in 2018 at the initiative of the Ministry of Environmental Protection. It aims to formulate a vision, strategy, and long-term plan to transform Israel's economy into low to neutral emissions by 2050.

UNFCCC – United Nations Framework Convention on Climate Change; UN framework treaty on climate change adopted in 1992, The Convention has near universal membership (197 Parties) and is the parent treaty of the 2015 Paris Agreement.

Vector – An organism that transmits diseases but does not cause them. The vector acts as a host for the pathogen.

WHO – World Health Organization



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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.

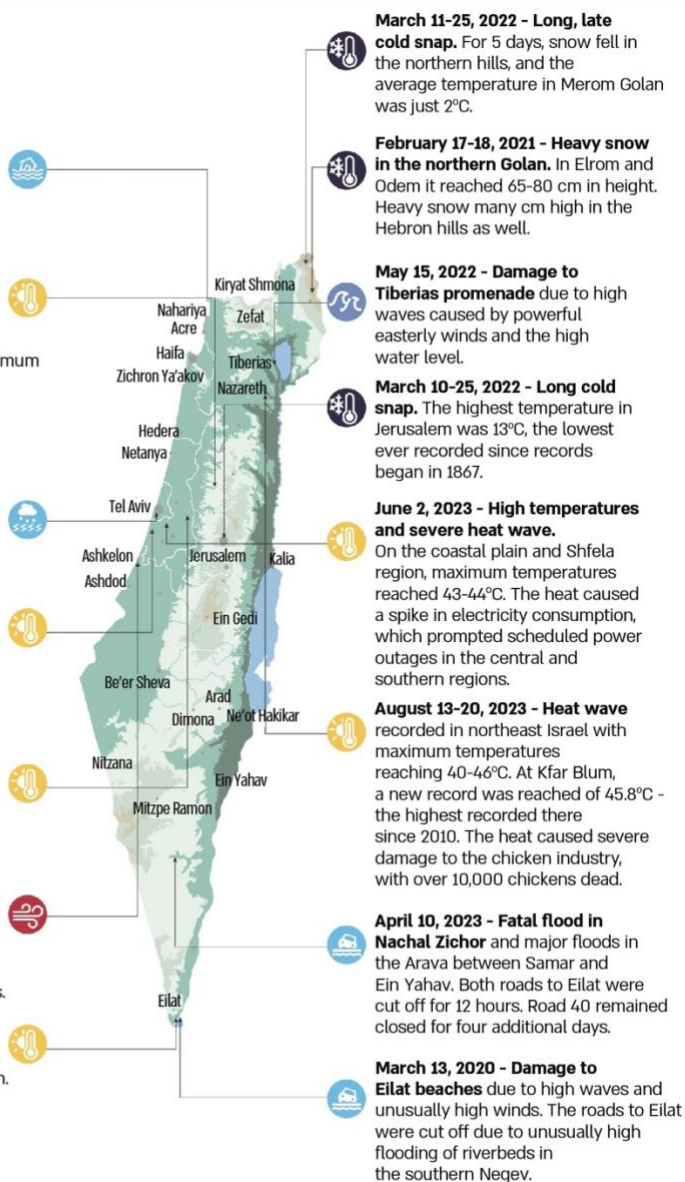
January, 2020 - Fatal flooding in south Tel Aviv due to 30 minutes of unusually heavy rainfall.

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

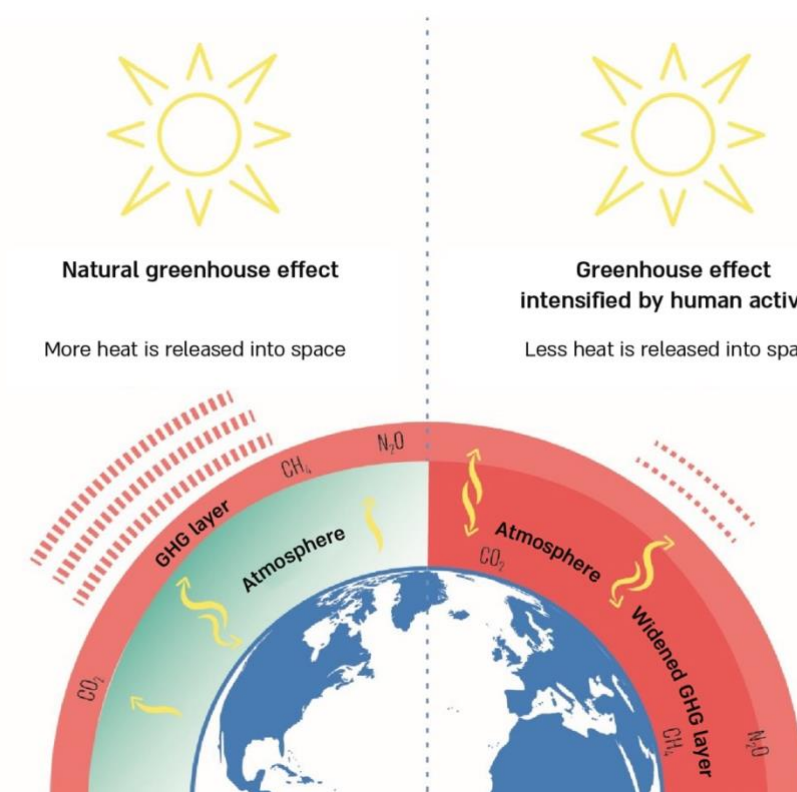
Average rate of warming in Israel per decade, which is almost twice as high as the global rate from 1980-2020

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.



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2024

Chapter | 1

Mitigation

Actions to Reduce GHG Emissions



Chapter 1 | **Mitigation – Actions to Reduce GHG Emissions**

Background

The quantity of greenhouse gases (GHGs) emitted by all countries and released into the atmosphere determines their concentration in the air. The primary sources of GHGs are human activities, originating mainly from the combustion of fossil fuels for purposes such as electricity generation, transportation, cooling, and heating. Over the past few decades, GHG emissions have increased significantly, and their concentration in the atmosphere has led to rising temperatures on Earth. Global warming resulting from GHG emissions is recognized as one of the most severe challenges that the international community must address.

The impact of GHG emissions is not localized, and every country is affected by the extent of emissions from other countries. Therefore, to reduce global GHG emissions, close international cooperation is required to decrease them. This can mainly be achieved through: the production of clean energy, which means energy that does not rely on fossil fuels, and comprehensive energy efficiency measures to reduce overall energy consumption. To reduce GHG emissions, countries that participate in international agreements, including Israel, have set national targets for reducing GHG emissions through various means.

The follow-up audit examines how the recommendations for addressing the shortcomings raised in the previous report were implemented. It also assesses other aspects related to the actions of the government and public bodies that were not covered in the previous report.



Key Figures

12%

Forecast for reduction of GHG emissions for 2030: 56% less than the reduction target, which was set at 27%

19%

The forecast for electricity production from renewable energy sources in 2030 – instead of the required 30%, as determined in Government Resolution No. 465. The reduction in emissions from the electricity production sector is expected to be only 21% instead of 30%

+1%

The percentage increase in Israel's GHG emissions from 2015 to 2022. In 2020, there was a 2% actual reduction in emissions in Israel, which is 5.5-10 times less in comparison to other developed countries that achieved reductions ranging from 11% to 20%

20%-30%

The increase in the sulfur content of the coal used for electricity generation in units 1-4 at the Orot Rabin Power Station. The sulfur content is 0.7%-0.8%, while the emission limit conditions allowed a maximum sulfur content of up to 0.6% in coal

3.38 B NIS

The external cost in 2022 resulting from polluting emissions at the Orot Rabin Power Station, including NIS 1.626B for GHG emissions

Just 1.14%

Percentage of electric vehicles, out of total vehicles in 2022 – 45,270 out of 3,973,310 vehicles, as compared to the target of 25% for 2030

58%

The percentage of public charging stations for private vehicles funded by the Ministry of Energy, until April 2023 -1,460 out of a target of 2,500. Only 79 of these are fast and ultra-fast charging stations

1500 megawatts

The additional capacity required for the establishment of PV renewable energy production facilities to meet the target of 20% by 2025



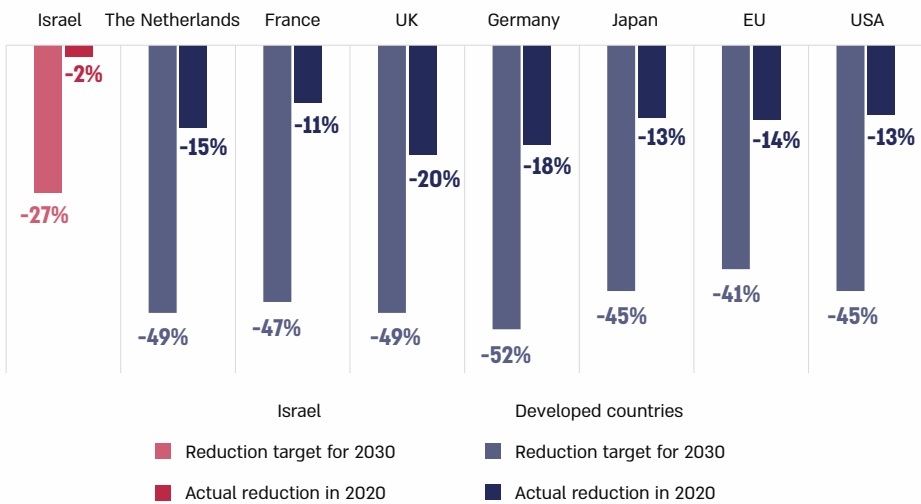
Key Findings



Setting and Implementing Targets for GHG Emissions Reduction

Leading country – In the previous report, it was noted that Israel is not a "leading country" in setting targets as required for developed countries under the Paris Agreement. In the follow-up audit, it was found that **the deficiency was slightly rectified**. Israel is still not a "leading country" in setting targets, and even though some of the updated governmental targets aim to enhance national ambition, such as setting an absolute target instead of per capita targets for reducing GHG emissions by 27% by 2030 and 85% by 2050, they do not align with the existing level of ambition in this matter in other developed countries. As of 2020, there is a significant gap of 52% to 93% between Israel's target for reducing GHG emissions by 2030 (27%) and the reduction targets set by the developed countries listed in the chart below (ranging from 41% to 52%).

Targets for reducing GHG emissions by 2030 and the actual reduction data in 2020 for developed countries and Israel



Based on data from the MoEP, adapted by the State Comptroller's Office.



-  **Target for carbon neutrality** – The previous report indicated that the Israeli government had formulated a target for GHG emissions reduction from the energy sector that suggested a policy of transition to a low-carbon economy rather than a complete carbon neutral economy as planned by many OECD countries. In the follow-up audit, it was found that **the deficiency was slightly rectified**. The proposed Climate Law by the MoEP seeks to advance the target for net-zero emissions by 2050. As of September 2023, the new bill has been approved in the Ministerial Committee for Legislation and awaits its first reading.¹
-  **Renewable energy targets for 2050** – The previous report revealed that the Ministry of Energy did not set a target for renewable energy capacity for 2050. The follow-up audit found that **the deficiency has not been rectified** – as of June 2023, the Ministry of Energy has not set a target.
-  **Renewable energy targets for 2030** – The previous report stated that Israel's target rate of 30% for the use of renewable energy by 2030 is relatively low compared to the targets set by other surveyed countries, which range from 40% to 100% (including OECD countries and other nations except China). Israel's target of 30% for the use of renewable energy is the lowest among OECD countries. The follow-up audit found that **the deficiency has not been rectified**. Israel has not presented a more ambitious target for renewable energy by 2030, and it remains at 30%.
-  **Setting targets in the waste, construction, and agriculture sectors** – The previous report noted that the MoEP had not set GHG emissions reduction targets for the waste, construction, and agriculture sectors. In the follow-up audit, it was found that **the deficiency was slightly rectified**. Targets were established in the waste sector for reducing solid waste by at least 47% and for reducing GHG emissions originating from urban waste by 92% by 2050 (compared to 2015). However, targets for reducing GHG emissions from the agriculture and construction sectors have not yet been established.
-  **Status of meeting GHG emissions reduction targets** – The previous report noted that regarding all sectoral targets for reducing GHG emissions, progress in achieving them ranged from "lagging" to "zero." The follow-up audit found that **the deficiency has not been rectified**. In 2020, Israel recorded the lowest reduction in emissions among developed countries, at a rate of 2% compared to 2015 – a gap of between 5.5 - 10 times the reduction rate in emissions observed in surveyed countries (which reduced emissions between 11% and 20%). In 2021, Israel achieved a slight reduction of 1.5% in absolute emissions compared to 2015. However, in 2022, the amount of GHG emissions in Israel increased, reaching 81.06 million tons of CO₂e, representing an increase of approximately 3.5% compared to 2021. This is also reflected in per capita emissions, which increased by about 1.5% during this period. This increase in emissions

¹ The "first reading" refers to the first stage of a bill's passage through the Knesset (Israel's Parliament).



essentially negate the progress made in reducing GHG emissions in Israel., with a total increase of nearly 1% compared to 2015, mainly due to an increase in emissions in the transportation, industrial, and construction sectors. According to the MoEP's forecast, the current implementation rate of government policy will achieve only a 12% reduction in emissions by 2030, compared to the set target of 27% (56% below the target). This means that annual emissions in 2030 would amount to 69.4 million tons of GHGs instead of the target of 58 million tons.

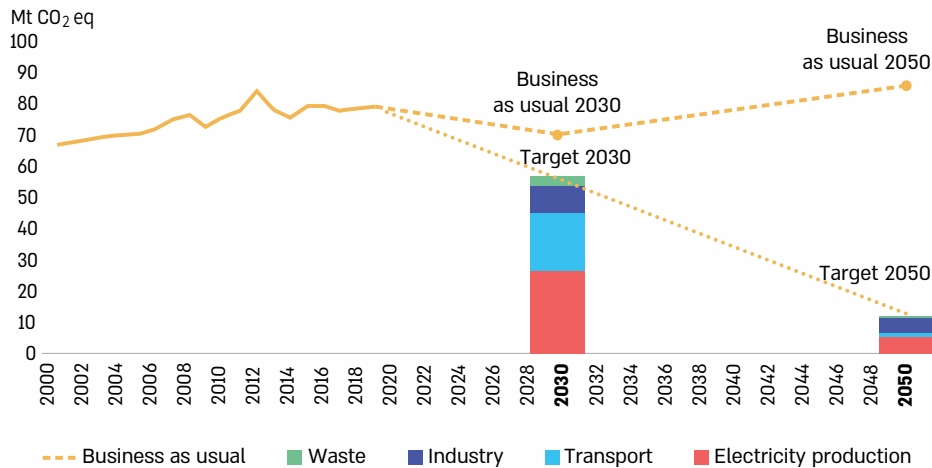
The projection indicating failure to achieve the national target for emissions reduction results from non-compliance with sectoral targets:

- Electricity production from renewable energy sources is expected to be 19% by 2030 instead of 30% as defined in Government Resolution No. 465. Therefore, the reduction in emissions from the energy sector is expected to be only 21% instead of 30% (almost one-third less than the target, assuming coal electricity production ceases at that point).
- In the transportation sector, a 6% increase in emissions is expected, which is almost double the limit set by Government Resolution No. 171 of 3.3% for an increase in GHG emissions (an addition of about 80% to the target). The reduction in mileage of private vehicles is expected to be only 15% instead of the required 20%, which is a quarter less than what is needed.
- In the waste sector, partial achievement of the target is expected, with a reduction of only about 19% in emissions by 2030 compared to 2015, instead of the target of 47% (60% less than the target).
- In the industrial sector, a 17% reduction is expected instead of the target of 30% (about 44% less than the target).

According to the OECD, there is an expected gap between the targets set in Israel for the years 2030 and 2050 and the forecast to achieve them through current policy instruments. The forecast for 2030 indicates that the gap will be around 20%, and it is expected to grow (in a business-as-usual scenario) to approximately 650% by 2050.



OECD forecast for the gaps between Israel's GHG emissions reduction targets for 2030 and 2050, as compared to the forecast for achieving them under a BAU scenario



Source: OECD Survey of Environmental Performance, 2023.



Status of implementing government resolutions – The follow-up audit revealed that the level of implementation of the provisions in government resolutions on mitigation, whose execution deadline has been reached, is not high: for only 8 provisions out of 42 (19%), the relevant entities agreed that they were fully implemented; regarding 3 provisions, the entities agreed that they were not implemented; for 7 provisions, all parties agreed that they were only partially implemented, and for 24 provisions (over half), the relevant entities provided conflicting answers regarding their implementation.

Energy Sector



Continued use of coal for electricity production – As of the end of June 2023, the government has not implemented Resolution 4080 from July 2018, which was intended to cease the ongoing operations of Units 1-4 at the Orot Rabin Power Station. Over a year past the deadline set in the government decision, these units have not been shut down, and they continue to generate electricity using coal as their primary fuel. Furthermore, due to the global shortage of coal, Units 1-4 are operated using high-sulfur coal, leading to increased pollution levels and GHG emissions, even higher than those emitted in the past, despite the consistent level of electricity production from coal in those units. Additionally, the follow-up audit found that due to considerations related to the continuity of the electricity supply, these units will be retained for preservation,



meaning that emissions from them will not be completely terminated, and Israel will not meet its sectorial and overall goals for reducing GHG emissions.

 **Economic damages resulting from the continued operation of Units 1-4 of the Orot Rabin Power Station** – The delays in ceasing activity of the units and increased global coal prices have caused, in addition to the environmental costs, a noticeable increase in electricity prices. Between May 2022 and January 2023, electricity prices saw a significant rise of approximately 19%, leading to an estimated additional cost of over NIS 1.5B to Israeli consumers.

 **Production of electricity from renewable energy sources** – The previous report noted that Israel did not meet its self-set target of 10% for renewable energy consumption in 2020, achieving only around 6%. The follow-up audit revealed that this **deficiency has not been rectified**. While Israel has set relatively low targets compared to other OECD countries to begin with, it managed to achieve this goal only in 2022, when 10.1% of the consumed electricity was generated from renewable sources. However, the MoEP estimates is that by 2025, the share of electricity generated from renewable sources out of total consumption will be approximately 14% (which is about 30% less than the intermediate target of 20%). This situation is a result of fundamental governmental practices and barriers that have persisted for years, and which the Israeli government has faced challenges in removing, as highlighted in the previous report and this follow-up audit.

 **Energy efficiency** – The previous report noted that the government had not yet approved a national plan for energy efficiency. The follow-up audit found that **this deficiency was slightly rectified**. In October 2021, the government adopted Resolution No. 541, which endorsed the National Plan for Energy Efficiency. However, the funding of the plan and its implementation were contingent on obtaining income from a carbon tax that was not approved. Consequently, the National Plan for Energy Efficiency was not implemented as originally intended. The audit also found that some of the provisions in Government Resolution No. 541, which did not necessarily depend on approval of the carbon tax, were either partially implemented or not implemented at all. (For example, the first provision in Government Resolution No. 541, which called for relevant ministries to convene and create a joint task force, was not implemented. Additionally, the provision regarding budgeting for industry in the amount of NIS 300M was not implemented).

 **Targets for energy efficiency and intensity** – The absolute target for energy efficiency was canceled, and instead, a relative target dependent on GDP (Gross Domestic Product) was set, of 122.4 megawatt-hours per NIS M of GDP for the year 2030. Transition to an energy intensity target² tied to GDP will not reflect the absolute growth in electricity consumption and, consequently, the increase in emissions resulting

² Energy intensity calculates the amount of energy required in a country to produce a unit of GDP, so that using less energy to produce a product reduces the intensity.



from it. This consumption, according to the Ministry of Energy, is expected to rise due to increased use of electricity in economic activity.

Transportation Sector

-  **Quantifying the scope of GHG emissions reduction** – The previous report mentioned that the Ministry of Transport's plan to reduce GHG emissions from the transportation sector does not link the recommendations and tools provided in it to their contribution to reducing emissions. The follow-up audit revealed that this deficiency has not been rectified. The transportation sector's plan does not quantify the scope of emissions reduction and the actual impact of each policy tool and action included in the plan on the quantity of emissions generated by this sector. In this situation, it is not possible to assess the effectiveness of the plan and whether its implementation will indeed lead to achieving the goal of reducing 96% of GHG emissions by 2050.
-  **Penetration of electric vehicles** – Israel shows a gap of approximately 90% in the penetration of new electric vehicles into the overall new vehicle market, as compared to the average in European countries, and their percentage is still very low, at only about 1.14% of the total number of vehicles. Furthermore, there is a noticeable gap between the current percentage of electric vehicles in the total vehicle market and the target the government set for 2030 of 25%, and it is doubtful whether this gap can be bridged within seven years.
-  **Charging infrastructure for private vehicles in buildings** – The previous report noted that there are obstacles to implementing measures to reduce GHG emissions in the transportation sector, including the lack of efficient charging infrastructure for electric vehicles and legal difficulties in installing charging points in buildings. The follow-up audit found that **the deficiency was slightly rectified** – amendments to regulations were made that will help establish charging infrastructure in new buildings. However, the legal status of charging stations for electric vehicles in existing buildings remains unregulated, in contrast to Government Resolution No. 208.
-  **Public charging stations for private vehicles** – By April 2023, only 1,460 (58%) charging points were installed in public charging stations for private vehicles, funded by the Ministry of Energy, while the Ministry's target for this date was 2,500 points. The vast majority of the installed stations are slow charging stations, suitable for long-term parking. These stations are not designed for fast charging for drivers on extended trips, similar to refueling at a gas station. They do not provide a reliable, continuous electricity supply network for long journeys and, therefore, do not alleviate "range anxiety" resulting from the limited distance that an electric vehicle can travel on a single charge. Furthermore, the Ministry of Transport has not provided guidelines for the proper use of public charging stations, nor tools for their enforcement. Consequently, alongside the installation of public charging stations for private vehicles, there has been no legal



regulation of the parking spaces next to them, and any driver can park in them without a time limit.

 **Electric public buses** – The Ministry of Transportation plans to convert only urban public buses to electric vehicles, while urban public buses account for only about 18% of all buses and minibusses traveling on Israeli roads. Furthermore, the Ministry of Transport has no plans to convert non-public urban buses, intercity buses, and minibusses to electric vehicles. According to the Ministry of Transport, most of these are currently powered by diesel.

 **Mass transport** – As of August 2023, only one out of three light rail lines in the Tel Aviv metropolitan area has begun operation, and there is an expected delay of two to three years in the activation of the two additional light rail lines. The metro is still in the initial planning stages. This continuous delay and uncertain end date hinders the process of reducing private car travel and complicates the reduction of GHG emissions from the transport sector.

Buildings and Cities Sector

 **Energy efficiency and energy neutrality in the construction sector** – The previous report noted that no targets were set for mandatory energy efficiency improvements in existing buildings, and plans for implementing these goals for energy neutrality and GHG emissions reduction in the building sector were not formulated. The follow-up audit has shown **that these deficiencies have not been rectified** – as of July 2023, no targets have been set for the construction sector, and plans for their implementation have not been developed. Additionally, no progress has been made promoting energy efficiency in existing buildings. As for the requirement for solar power installations, it was found that the 2023 Arrangements Law only requires preparation for PV and not its installation, which limits the promotion of energy neutrality in buildings to some extent.



Setting absolute goals for GHG emissions reduction instead of per capita goals

– The previous audit report noted that Israel set a target for reducing GHG emissions per capita only, while developed countries typically set absolute mitigation targets. The follow-up audit found that **the deficiency was fully rectified** – Israel set absolute reduction targets for GHG emissions. According to these targets, the annual amount of GHG emissions in 2030 will be approximately 58 million tons, and in 2050, it will be around 12 million tons.

Actions to remove barriers to promoting renewable energy – The State Comptroller's Office acknowledges the work of the Ministry of Energy in preparing the



"Roadmap for Renewable Energy in 2030," which includes key steps to address barriers, promote the establishment of renewable energy facilities, and examine future technologies that will help achieve emission reduction goals. The Ministry of Energy is also preparing the strategic plan for integrating hydrogen into the Israeli energy sector. Implementation of the roadmap and this strategic work is expected to advance achievement of the targets set for electricity production from renewable sources.

Key Recommendations

Setting and Achieving Targets for Reducing GHG Emissions

💡 It is advisable that the MoEP continue to promote the anchoring of the national target for carbon neutrality by 2050 through legislation, ensuring that Israel transitions to a carbon-neutral economy rather than merely a low-carbon economy. Additionally, it is recommended that the government set targets for reducing GHG emissions from the agriculture and construction sectors, both for 2030 and 2050. Furthermore, all relevant ministries, including the Office of the Prime Minister, the MoEP, and the Ministry of Energy, should work together to remove barriers in establishing ambitious targets aligned with the OECD-aligned, leading Israel toward a carbon-neutral economy.

💡 The MoEP and the Ministries of Energy, Transport, Economy, and the Planning Administration, as well as any other relevant government bodies, are urged to take the necessary actions and implement the policy measures outlined in government decisions to narrow the gaps in achieving GHG emission reduction targets. They should also work towards meeting the goals set for the primary sectors responsible for GHG emissions, including the energy, transportation, industry, and waste sectors.

Energy Sector

💡 The Ministry of Energy and the Electricity Authority, which are responsible for electricity production processes under the Electricity Sector Law, are advised to be deeply and continuously involved in the processes of ending electricity production through coal. This includes conducting in-depth examinations of the factors that led to the delays in ending coal-based electricity production and taking action to ensure that these factors do not continue to be obstacles in the process of discontinuing the operation of the coal units.

💡 To meet the demand for increased electricity supply and reduce GHG emissions while addressing significant challenges to solar energy in Israel arising from limited land and intermittent energy sources, the relevant authorities, including the Ministry of Energy and the Electricity Authority, should examine, encourage, and promote electricity production processes through a variety of additional clean energy technologies. This includes exploring options such as nuclear energy or hydrogen, as mentioned in their respective ministry



plans. Additionally, the audit recommends that these authorities consider accelerating regional cooperation to address the challenge of limited land for PV facilities and assess the possibility of expanding Israel's connection to the European electricity grid to provide energy security during periods when solar energy is not available due to weather conditions.

💡 The audit recommends that the Ministry of Energy promote an amendment to Government Resolution No. 541 regarding energy efficiency and GHG emissions reduction, with budget sources that are independent of a carbon tax.

💡 Due to the nature of the energy intensity target, which allows for an absolute increase in GHG emissions from electricity generation as a derivative of GDP growth, the audit recommends that the Ministry of Energy and the MoEP examine additional targets and benchmarks for energy efficiency prevalent globally, including an absolute target for efficiency. Furthermore, the audit proposes that the Ministry of Energy consider updating the energy intensity target, as it appears this target was achieved much earlier than the set date.

Transportation Sector

💡 The audit recommends that the Ministry of Energy, the Ministry of Transport, the Ministry of Justice, and the Ministry of Finance examine the targets set for the penetration of electric vehicles and address the barriers to continued penetration. They should also make every effort in bureaucratic, legal, and technical fields to promote the installation of charging stations for private cars, including: completing the installation of already planned public charging stations for private vehicles; planning and installing fast charging stations for long-distance drivers; and establishing regulations for parking at public charging stations.

💡 The audit recommends that the Ministry of Transport thoroughly analyze and assess in advance the estimated reduction in GHG emissions for all policy measures it intends to employ in its mitigation plans (including the light rail and metro projects), to ensure that the policy instruments determined in the above-mentioned government resolutions do indeed achieve a comprehensive 96% reduction in GHG emissions by 2050. The Ministry should also conduct ongoing monitoring of their implementation.

Buildings and Cities Sector

💡 The audit recommends that the Ministry of Interior and the Planning Administration, in cooperation with the Ministries of Energy, Environmental Protection, Construction and Housing, and Finance, complete their joint work and progress towards setting targets for energy-neutral construction of buildings, as decided in Government Resolution No. 171 of July 2021. The audit also recommends consideration of a requirement to install PV facilities in new buildings. Furthermore, it is advisable that the Ministry of Energy lead a holistic approach to change in existing buildings in terms of energy production, conservation, and externalities.



Coal for Electricity Production at Orot Rabin Power Station, May 2023



Photographed by the audit team, May 2023.



Level of Correction of the Main Deficiencies Identified in the Previous Report

Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Setting targets: absolute reduction of GHG emissions	The government, Ministry of Energy	Absolute targets for GHG emissions were not set				
Setting targets: carbon-neutral economy and renewable energy	The government, Ministry of Energy	Lack of targets for carbon-neutral economy				
Setting targets: renewable energy	The government, Ministry of Energy	Renewable energy targets for 2050 were not set				
Setting targets: renewable energy	The government, Ministry of Energy	The 2030 target is not ambitious				
Setting sectorial targets: waste, construction, and agriculture	MoEP, Ministry of Agriculture, and Planning Administration	Targets were not set for waste, construction, and agriculture sectors				
Meeting and implementing GHG reduction targets in the electricity, transportation, and construction sectors	MoEP, Ministries of Energy, and Transport	Failure to meet defined targets				



Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Energy: producing electricity from renewable energy sources	MoEP, Ministries of Energy, Finance, Health, Prime Minister's Office, Israel Land Administration, Planning Administration	Failure to meet target and to encourage construction of production facilities for renewable energy				
Energy: efficiency in energy use	Ministry of Energy	Israel did not meet the targets set for 2020 on this issue and did not confirm the energy efficiency plan				
Transportation: quantifying the connection between actions to reduce GHG emissions and the contribution to overall reduction	Ministry of Transport	Quantification of the connection was not carried out				
Transportation: infrastructure for charging private electric vehicles	Ministries of Energy, Transport, Justice, Interior, and Planning Administration	There are barriers to installing charging infrastructure, and particular difficulties in installing charging points in residential buildings due to legal impediments				



Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Buildings and Construction: targets for reaching carbon neutrality emissions and efficiency in new and existing buildings	MoEP, Ministries of Energy, Finance, Construction and Housing, Planning Administration, Israel Electric Authority, Israel Land Authority, Tax Authority	Plans and targets for carbon neutrality in new buildings were not formulated; targets were not set for requiring energy efficiency in existing buildings				



OFFICE OF THE STATE COMPTROLLER
AND OMBUDSMAN OF ISRAEL



2024

Chapter | 2

Adaptation National Plan and Measures



Chapter 2 | **Adaptation – National Plan and Measures**

Background

The intensification and exacerbation of climate events, alongside the ongoing changes in climate pattern, have the potential for significant damage and impact on Israel's economy. These include many risks to national and urban infrastructure, the continuous functional capabilities of economic entities, and the provision of services to residents. Moreover, they pose a threat to Israel's national security in security, regional, and geo-strategic aspects, as well as civil aspects, including the public healthcare system, agriculture sector, water and food supply, energy sources, technological systems, and biodiversity.

To reduce the extent of damage caused by climate change and promote effective preparedness for these changes, the need has grown globally and in Israel to implement adaptation¹ measures at the national and strategic levels. Government resolutions and additional reports have emphasized the importance of advancing early prevention and preparedness measures to promote Israel's readiness for the future impacts and damages of climate change. Additionally, in accordance with the Paris Agreement and reports from international organizations such as the IPCC, the trend of increased risks associated with climate change requires countries to proactively implement preventive measures and prepare for them.

¹ Actions taken to prepare for climate change are referred to as "adaptation". This term reflects the need to prepare systems and build resilience to handle events and risks associated with climate change.



Key Figures

86% of entities

Lack approved, budgeted ministerial adaptation plans for climate change as required under Government Resolution No. 4079 (as per survey responses)

Only 10% of entities

Have fully budgeted adaptation plans

79% of entities

That were surveyed (47) responded that they have yet to complete climate risk surveys or have not performed these surveys at all

75% of entities

That were surveyed (45) have no economic data regarding the extent of anticipated damage to their fields of responsibility due to the climate crisis

92% of entities

That were surveyed (55) have yet to finish checking costs of damage that will be caused to their fields of responsibility

1 employee position

Filled in the Ministry of Environmental Protection since late 2022 to operate the Climate Change Adaptation Administration (CCAA), as compared to an average of 11 employee positions in 3 countries that have parallel units (Switzerland, UK, Sweden). An additional position was approved in August 2023, but has yet to be filled

11 of 41 tasks

In the Ministry of Health climate change adaptation plan are in process of implementation and remain incomplete

Only 0.36% - 11%

Rate of Israel's investment in the national climate computation and calculation center (20M NIS) as compared to the investment of countries such as UK, Germany, Italy, and Cyprus



Key Findings



Preparing a National Adaptation Plan

 **National Climate Change Adaptation Plan** – The previous report noted that the State of Israel lacks a national climate change adaptation plan, and 84% of the public bodies in Israel (and that were asked about this issue in the previous survey) do not have a ministry-level climate risk adaptation plan. The follow-up audit found that **this deficiency has been slightly rectified**. Israel still lacks a national climate change adaptation plan. Out of the 60 public bodies that responded to the survey (29 of which are subject to Government Resolution No. 4079 and an additional 31 public bodies), only five of them (about 8%) have an approved ministry-level preparedness plan. Another six bodies (about 10%) have a plan in its initial implementation stages. However, five years after Government Resolution No. 4079 was passed, 82% of the public bodies surveyed (49 out of 60) still do not have an approved climate adaptation plan. 90% of these bodies have not reached the implementation stage of their adaptation plan, and over one-third of them (21 out of 60) have not even begun the initial steps in developing an adaptation plan.

 **Budgeting for the first stage of developing an adaptation plan** – In the follow-up audit, it was found that in 35 out of 60 public bodies that responded to the survey (58%), the full budget required for the development of a climate change adaptation plan, which is the initial stage in adaptation, was not allocated. In 19 bodies (31%), no budget was allocated for this stage at all, while in 16 out of the 60 bodies (27%), only partial budgeting was done. The preparation of the adaptation plan was fully budgeted in only six public bodies (10%). Therefore, there is concern that most ministries are expected to be delayed in implementing Government Resolution No. 4079 due to the lack of budget allocation for the formulation of adaptation plans. This is in addition to the delay of five years since this government resolution was passed.

 **Budgeting for adaptation in Israel** – The previous report noted that 89% of the public bodies did not contact the Ministry of Finance for budget allocation for adaptation actions. In the follow-up audit, it was found that **the deficiency has been slightly rectified** – 85% of the ministries did not approach the Ministry of Finance for budget allocation regarding adaptation. Given the consistent data indicating the lack of adaptation budgeting in most public bodies in Israel, there is growing concern about the effectiveness of the Ministry of Finance budgeting mechanism for adaptation actions. This increases the risk that most public bodies in Israel will not have an adaptation plan for climate change in the near future, which could lead to serious implications.



The Climate Change Adaptation Administration (CCAA) in the MoEP

 **Responsibilities of the CCAA** – The previous report noted that the CCAA lacks authority over government ministries regarding the preparation of adaptation plans and reporting requirements on ministry actions related to such plans. The follow-up audit found that **the deficiency has not been rectified**. The CCAA still lacks clear authority vis-à-vis the government ministries, and there is no mechanism that compels government ministries to report to the CCAA on their actions. Therefore, the CCAA struggles to establish an organized reporting mechanism in which government ministries involve it in the intermediate stages of plan preparation.

 **CCAA human resources** – The previous report found that the CCAA operated without any regular employee positions and relied on a few employees who worked on additional tasks beyond their defined roles. The follow-up audit found that **the deficiency was slightly rectified**. For the first time, one position was approved for the head of the CCAA that was staffed in late 2022, and a position for another employee was approved in August 2023 but has not yet been filled (compared to an average of 11 staff positions in three countries with parallel units in Switzerland, England, and Sweden). However, the defined positions are still not in line with the scope of responsibility, the extent of actions, and the hundreds of interfaces that the CCAA is required to maintain in the long term. There is concern that this situation will not be sufficient for the fulfillment of the CCAA's duties, and it will struggle to function efficiently and advance a national adaptation plan for Israel.

 **CCAA budgeting** – The previous report found that the CCAA's actions were almost entirely without budget allocation. In 2019, the CCAA received a budget of NIS 300,000, but in 2020 and 2021, no budget was allocated. The follow-up audit noted that **the deficiency has been slightly rectified**. In 2022, a budget of NIS 1 million was approved for spending during 2023-2024. However, this budget covered only initial set-up for adaptation policy, through an external consultant.

Apart from this allocation, the CCAA's activities for 2023 remain unfunded by the MoEP. Consequently, there is concern that this budget may not suffice to support the continued advancement of all adaptation efforts that the CCAA is committed to within the scope of national adaptation and has defined as necessary. This includes necessary tasks such as cost-benefit analyses related to adaptation activities and the development of risk management methodologies, which currently remain unaddressed.

Without these essential tools, the CCAA will face challenges in identifying knowledge gaps in Israel regarding preparedness, updating existing recommendations outlined in Government Resolution No. 4079, determining budget requirements accurately, and prioritizing preparedness initiatives effectively.



 **Developing scientific knowledge on climate change and establishing a national knowledge hub** – The previous report noted that very little research had been conducted to expand the existing knowledge base on climate adaptation and to address research gaps. Furthermore, the scientific and research database which was created based on Government Resolution No. 4079 had not been updated. The previous report also highlighted that the budget allocated to Israeli researchers by the Israel Science Foundation (ISF) in 2021-2023 for studying the impacts of climate change in Israel and adaptation to it was low – NIS 8.7M cumulative out of a total research budget of NIS 454M allocated for research in all fields covered by the Foundation (1.9%). Additionally, Israeli researchers received about 65M EUR out of approximately EUR 486M in grants under the Horizon program (13.3%). These figures are notably low compared to the potential funding available in the European Union's budgets for the climate-tech sector, expected to reach EUR 34.5B between 2021-2027, cumulatively.

As a result, there is concern about missed opportunities to enrich and strengthen Israel's existing scientific research base and to advance research activities aimed at closing knowledge gaps. The follow-up audit found **that the deficiency has been slightly rectified**. However, five years after the implementation of Government Resolution No. 4079, many of the gaps in this area remain unaddressed. The CCAA has not yet fully established itself as a national knowledge hub, and it continues to struggle to promote relevant research on adaptation, resulting in decision-making processes lacking sufficient research-based data and scientific foundation.

Assistance of the Israel Meteorological Service (IMS) in Developing Climate Scenarios for Adaptation Plans

 **Ministries contacting IMS** – The previous report noted that only seven public bodies had approached the IMS for the purpose of obtaining data and future scenarios regarding climate change. The follow-up audit found that **the deficiency has been slightly rectified**. Since the previous report, seven additional public bodies, including the National Security Council, the Ministries of Health, Energy, MoEP, and Defense, have approached the IMS for the purpose of constructing specific climate scenarios tailored to their needs which will serve to advance their adaptation plans and actions.

In other words, the majority of public bodies still do not base their actions on specific climate scenarios developed in collaboration with the IMS. As a result, there is concern that the plans advanced by government ministries and public entities may not adequately address the specific climate-related risks within their areas of responsibility, and may prove insufficient.

 **Meteorological research at the IMS** – The previous report highlighted that the IMS faced difficulties in implementing key provisions of Government Resolution No. 4079 pertaining to meteorological research and climate-related knowledge areas. The follow-up audit found that **the deficiency was slightly rectified**. However, gaps still exist in the IMS's activities, such as advancing research on climate change in Israel, developing



tools for addressing extreme risk scenarios, creating climate models, and constructing a national monitoring plan. Additionally, the IMS continues to struggle to provide services in these areas to government ministries and public bodies due to a shortage of researchers and budget constraints, despite being the designated professional entity responsible for supplying climate metrics to government ministries for adaptation to specific climate risks.

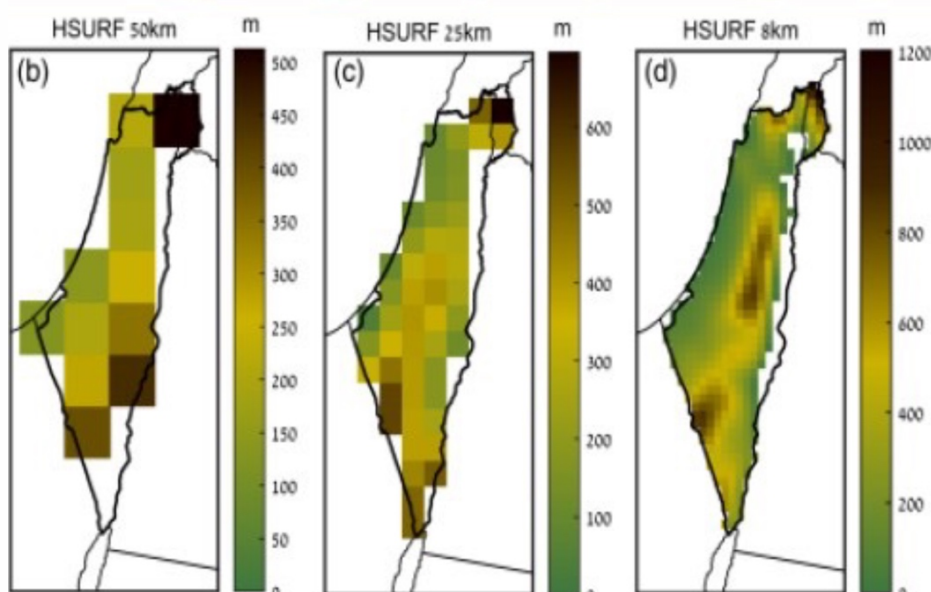
Establishment of the Climate Computation Center at the Israel Meteorological Service (IMS)

 **Failure to establish the Climate Computation Center** – The previous report found that the failure to establish a national Climate Computation Center for climate simulations hinders the ability to formulate a science-based national policy for climate preparedness in Israel. In the follow-up audit, it was found that **the deficiency was slightly rectified** – Government Resolution No. 1791 was passed, ordering the establishment of the Center by August 2023. However, as of July 2023, there has been no progress on this matter. While the Ministries of Energy and Agriculture, as well as the Water Authority, allocated a budget of NIS 1.35M to the IMS, the Ministries of Transportation, Innovation, and MoEP have yet to allocate the required budgets, totaling NIS 2.7M, for the establishment of the Center. Consequently, actions to establish this technologically complex project have not yet commenced as required by the government resolution, and they are experiencing delays. This delay may shorten the operational timeline of the Center, which, according to the government resolution, is supposed to operate in this manner only until the end of 2027. Without the establishment of the Center, the government of Israel will continue to prepare for climate change based on imprecise climate models.

 **The computing power of the planned Climate Computation Center** – The follow-up audit revealed that the computing power of the Climate Computation Center, whose establishment was approved by Government Resolution No. 1791, is limited. It consists of approximately 5,000 cores available for use by all government ministries, with a total budget of approximately NIS 20M. This computing power is low, approximately 50% less than the minimum threshold recommended by the Israel Academy of Sciences and Humanities (National Academy of Sciences), and the lowest among the countries reviewed. Furthermore, it is budgeted at only half of the amount recommended by the Academy of Sciences (\$10M), and it is significantly lower compared to the surveyed countries (Israel's investment ranges from 0.36% to 11% of the budget allocated in surveyed countries). According to the director of IMS, this computing power will not allow the execution of numerous high-resolution models to assist in establishing Israel's future climate scenarios. This raises significant doubts about the relevance of the Center's capabilities to meet Israel's needs. There is concern that climate preparedness actions approved and budgeted for in the coming years may lack sufficient data,

potentially proving inefficient or inadequate for addressing the risks associated with the climate crisis.

Climate Imaging Analysis in Various Geographical Areas



Source: Israel Meteorological Service.

Allocation of human resources for operating the Climate Computation Center –

The follow-up audit pointed out that Government Resolution No. 1791 does not include additional funding for the operation of the Climate Computation Center and for enabling access to the produced information. It only includes the budget for the establishment and technological operation of the systems in the Center. This is while the IMS has experienced recurring and ongoing cutbacks in human resources. The resolution also fails to consider the preliminary conditions required for the operation of the Center. This includes budget resources for hiring skilled personnel with special expertise needed for its operation, for running climate simulations, and for maintaining a professional relationship and providing data access to "end users" (government ministries and other organizations). Further, it does not address information security requirements through an information security management standard.

 **Mapping climate-related risks** – The previous report emphasized that it is crucial for the CCAA to develop a methodology for identifying, mapping, and analyzing risks that will serve as the basis for creating a preparedness plan for climate change, in order to prioritize adaptation actions. The follow-up audit found that **this deficiency has been slightly rectified**. Progress has been made in terms of the decision of the MoEP to



establish a high-resolution national portal on climate change. However, the project is still in its early stages, and human resources and budgetary requirements for its ongoing operation in the coming years, for running scenarios based on various indices and for conducting research, have not yet been defined.

 **Mapping climate-related risks at an organizational level** – The previous report revealed that the majority of surveyed ministries and public bodies (approximately 82% of the respondents in the survey) have not performed an organizational risk assessment process related to climate change. About 60% of organizations did not conduct any economic evaluation of the risks associated with climate change, and only 8% reported that they had estimated the costs of unpreparedness (business-as-usual scenarios). The follow-up audit found that **this deficiency has been slightly rectified**. About 79% of the surveyed organizations (47 out of 60) stated that risk assessments have not yet been completed or have not been conducted at all. Progress in this matter is partial and slow.

Additionally, around 75% of the surveyed organizations (45 out of 60) lack economic information regarding the expected damages in their areas of responsibility due to the climate crisis. Furthermore, 92% of them (55 out of 60) have not yet completed the examination of the costs associated with the potential damages in their areas of responsibility. However, there is a noticeable slow shift in this regard, as about one-third of the organizations reported that they have initiated the process of risk analysis, and one-sixth reported that they have started the assessment of damage costs.

Transportation Sector Adaptation

 **Transportation sector adaptation** – The previous report recommended that relevant bodies in the transportation sector should examine climate change-related risks based on relevant scientific research and updated forecasts and promote preparedness measures to prevent risks to transportation infrastructure. In the follow-up audit, it was found that **this deficiency has been slightly rectified**. According to the Ministry of Transportation, no preparedness plans have been prepared yet by the ministry or most of the relevant designated authorities and implementing bodies in the transportation sector. The ministry's actions in this regard are preliminary and are in the learning stages: they are in the "early stages of developing mandatory guidelines on how to form initial adaptation plans and their implementation among implementing bodies".

Budgets have not been allocated, and no research has been conducted by the ministry in this area. Furthermore, there is no designated professional responsible for climate change issues in the transportation sector. Given this situation, the ability of the Ministry of Transport to continue its preliminary actions beyond the learning stage, and to integrate all the risks to this sector under its responsibility and promote a plan for the required adaptation is extremely limited, and the ministry's progress in this matter since the previous report has been minimal.



Health System

 **Actions by the ministry of health** – The previous report found that most of the actions that the Ministry of Health was supposed to examine as part of Government Resolution No. 4079 were only partially carried out due to budget constraints, low prioritization, and difficulties in promoting cooperation with other public bodies. The follow-up audit found that **this deficiency has been slightly rectified**.

Progress has been made regarding 4 out of the 13 tasks that the ministry was questioned about, and they are currently included in the ministry's work plan. These tasks include monitoring mortalities, illness, and the treatment of high-risk groups, closing knowledge gaps, conducting applied research, and preparing or updating national and local disaster preparedness plans. However, for 10 of these tasks, the required budget has not been allocated for their implementation, and for seven of them, goals have not been set in the ministry's work plan.

 **Preparedness plan** – The previous report noted that the Ministry of Health had not yet made a comprehensive policy decision with a systematic plan of action for climate change adaptation. The follow-up audit found that **this deficiency was slightly rectified**. During 2022, the Ministry of Health formulated a preparedness plan consisting of 41 specific tasks. However, as of June 2023, the ministry has only implemented 11 of these tasks (26%). This is partly because the ministry has not allocated a dedicated budget for the plan and has not appointed specific individuals to lead its implementation. This situation does not allow for the necessary health related actions to be effectively implemented across government ministries and local authorities.

 **Monitoring and early warning system** – The previous report recommended that the Ministry of Health act based on recommendations from professional bodies worldwide to promote two key actions: establish a monitoring and early warning system for disease outbreaks and the reduction of knowledge gaps in this field through research. This would ensure that government ministries have a comprehensive picture of the risks of disease outbreaks and pandemics expected to worsen due to climate change. The follow-up audit found that **this deficiency was slightly rectified**. While the Ministry of Health is continuously collecting relevant information and developing a necessary action plan, it has not taken broader action to ensure the implementation of key components required by the ministry, including reducing knowledge gaps through research and establishing a monitoring and early warning system.

 **National plan for health and environment** – The previous report noted that the National plan for Health and Environment, as mandated by Government Resolution No. 1287 from 2016, had not been submitted for approval by the Ministers of Health and Environmental Protection, nor had it been presented for government approval. The follow-up audit found that **this deficiency has not been rectified**, and there has been no progress in obtaining approval for this plan.



Defense Establishment

Climate change adaptation plan for the defense establishment – The previous report noted that in 2021, the security system was in the initial stages of adaptation, and work plans that would address climate-related risks to the defense establishment within the IDF's multi-year plan had not yet been developed. The follow-up audit found that **this deficiency has been mostly rectified**. As of June 2023, significant actions have been taken to establish the professional and functional infrastructure required for completion and implementation of the climate change adaptation plan for the defense establishment.

Nevertheless, there are still delays in completing some of the actions that the defense establishment had planned to finish in 2022. Specifically, the road map that serves as a strategic plan for the defense establishment's preparedness and was approved by the Director General of the Ministry of Defense has not yet been approved by the Deputy Chief of Staff, and the defense establishment adaptation plan has not been integrated into the IDF's multi-year plan. It is important to recognize the progress made by the defense establishment in climate change adaptation, based on a systematic methodology and significant initial resource allocation.

Transportation Sector

Netivei Israel – National transport infrastructure company Ltd. is in an advanced stage of risk mapping and is actively working to promote a multi-year plan in the transportation sector.

Key Recommendations

National Adaptation Plan

-  The audit proposes that, given the risk posed by the absence of adaptation plans for ministries and other public bodies, priority should be given to the preparation and funding of such plans by all public entities in Israel. This should be done promptly in order to meet the goal set by Government Resolution No. 4079 (amended), for the approval of ministerial plans by the end of 2023.
-  The audit recommends that the Ministry of Finance, in collaboration with the MoEP and other relevant government ministries mentioned in the Government Resolutions, act to ensure the necessary funding for the development of ministry-specific adaptation plans.



This should be done in accordance with the government's adaptation guide published by the CCAA. The Ministries should also act to complete preparation of these plans, as required by Government Resolution No. 4079.

The CCAA

-  The audit proposes that the Ministry of Finance lead the process of formulating an appropriate funding mechanism for a multi-year plan in collaboration with other relevant government bodies, local authorities, and the private financial sector, as needed. As part of this process, the Ministry of Finance may consider proposing a complementary or amendment to Government Resolution No. 4079, which would anchor this mechanism and ensure the allocation of budgets for its implementation.
-  The audit proposes that the MoEP advance an additional amendment to Government Resolution No. 4079, clearly defining the authorities of the CCAA, clarifying its obligations towards government ministries and public bodies in Israel, and specifying the extent of reporting requirements imposed on government ministries regarding their progress in preparing plans. Alternatively, the audit suggests considering including this issue in the emerging Climate Change Bill. These actions may assist in resource optimization, preventing duplications of various government plans, and enhancing coordination among all plans.
-  The audit recommends that the MoEP, the Civil Service Commission, and the Ministry of Finance assess, based on parallel data worldwide and the volume of tasks within the CCAA, the needs of the CCAA and the actual human resources required to fulfill its duties and maintain ongoing interfaces with hundreds of public bodies and local authorities.
-  The audit suggests that the MoEP, in collaboration with the Ministries of Finance, Innovation, the Council for Higher Education, the Planning and Budgeting Committee, the National Academy of Sciences, and other relevant bodies, examine the required capabilities for the CCAA and the Office of the Chief Scientist within the MoEP as knowledge hubs. This examination aims to bridge research gaps and transform the CCAA into a knowledge hub in the field, thereby improving decision-making processes regarding climate change adaptation and basing them on all available information on the subject.

Assistance of the IMS in developing climate scenarios for adaptation plans

-  The audit recommends that the Ministries of Finance and Transportation, in collaboration with the MoEP and the IMS, assess the capabilities of the IMS in developing climate scenarios for the adaptation plans of government ministries and public bodies. This is especially important given the increasing challenges related to climate change, the existing uncertainty, and the need for adaptation actions based on updated meteorological information and data.



Establishment of a Computation Center at the IMS

-  The audit suggests that the Ministries of Transport, Finance, Innovation, and MoEP examine whether the processing capabilities approved for the Climate Computation Center adequately address the challenges that Israel faces in preparing for climate change, and whether these capabilities can be increased in the early stages. The Ministries of Transportation, Innovation, and MoEP should promote the allocation of the necessary budgets totaling NIS 2.7M, in accordance with Government Resolution No. 1791, for the establishment of the computing center.
-  The Ministry of Transport, the CCAA at the MoEP, and the Ministry of Finance should examine whether the IMS has the necessary data, means, and professional standards required for the development of a unified national climate change attribution scenario and for the State of Israel's optimal preparation accordingly. The audit also suggests assessing the need for authorizing and budgeting of the necessary employee positions at the IMS, particularly in the field of information security, to enable it to operate the Computation Center as soon as possible and in an optimal manner, and to produce climate simulations that will assist a data-driven decision-making process.

Mapping Climate Risks in the Risk Portal

-  The audit proposes that the MoEP collaborate with the Ministry of Finance, the IMS, the Ministry of Innovation, and other public entities to ensure the completion of the Climate Risks Portal project. This collaboration should ensure that adaptation actions of public entities are based on risk analysis and an assessment of the expected costs of climate change impacts within their areas of responsibility.

Transport Sector Adaptation

-  The audit suggests that the Ministry of Transport take action to approve a comprehensive preparedness plan with the assistance of the IMS and the MoEP. Additionally, the Ministry of Transport should ensure that all designated authorities and executing entities are actively engaged in the subject and incorporate adaptation to climate risks related to their fields, with a focus on projects related to mass transit, such as the metro and light rail lines. This should include attention to underground infrastructure in light of the increased risks to these infrastructures.

Adaptation of the Health Care System

-  The audit proposes that the Ministry of Health promote the approval of the ministry's adaptation plan for climate change, with the assistance of the MoEP and the Ministry of Finance, and take action to implement the adaptation plan with an operational mechanism for implementing Government Resolution No. 1287, by securing all the necessary resources for the plan's implementation.



Level of Correction of the Main Deficiencies Identified in the Previous Report

Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Preparing a National Adaptation Plan	MoEP, Ministry of Finance, Prime Minister's Office	Deficiency in National Climate Change Adaptation Plan; designated budgets were not allocated for implementation of the plan				
Authority of CCAA	MoEP	The CCAA was not given authority vis-à-vis government ministries regarding preparation of adaptation plans and the obligation to report on ministry actions for preparing adaptation plans				



Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
CCAA resources	MoEP, Ministry of Finance, Civil Service Commission	The CCAA operates without designated budgets and positions, and without approval from the Civil Service Commission for its organizational framework. The CCAA's activities are carried out as additions to existing job responsibilities, and it has not been allocated a long-term dedicated budget.				
Developing scientific climate knowledge and building a national knowledge database	MoEP	The CCAA has not initiated research actions required for effective adaptation, necessary for national adaptation. In many areas, the necessary actions have not been taken according to scientific research and recommendations for a national strategy to fill the research knowledge gaps, and the existing knowledge base in scientific research has hardly been developed since 2018, nor has it been updated or validated.				



Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Assistance of the IMS to ministries in formulating climate scenarios	IMS	The IMS has only partially implemented the sections of Government Resolution No. 4079 regarding promotion of research, knowledge, and abilities in the meteorological field, due to lack of budget.				
Establishing a Climate Computation Center at the IMS	MoEP, Ministries of Finance, Transport, and Innovation	A national Climate Computation Center for climate simulation to assist in formulating science-based national policy has not been established.				
Mapping risks arising from climate change	MoEP, Ministries of Finance, Transport, and Innovation	The CCCAA did not complete the development of a decision-making methodology based on risk management, and a dedicated secondary committee for risk assessment was not established as per Government Resolution No. 4079.				



Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Transport sector adaptation	Ministry of Transport	Examining examples of risks to infrastructure of mass transportation systems show that there is a real risk of damage to Israel's main transport systems.				
Defense establishment	Ministry of Defense	Working teams have not yet been established to develop concrete work plans that will address the security-related risks in the coming years as part of the IDF's multi-year plan.				



Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Health system	Ministries of Health, MoEP, Innovation, Defense, IMS, Council for Higher Education, Planning and Budgeting Committee	The national plan for health and environment has not been submitted for approval by the Ministers of Health and the MoEP, and it has not been forwarded for government approval. The Ministry of Health conducted an examination, but it did not lead to concrete and meaningful actions to advance action plans and policy steps to mitigate the health risks from climate change. Additionally, it was found that a comprehensive policy decision has not yet been made on the matter, along with a structured plan for action.				





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2024

Chapter | 3

Economic, Taxation, and Financial Aspects of Climate Change



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

Background

From a historical perspective, as well as today, there is a direct link between the development of countries and modern economies and the increase in GHG emissions. Economic growth is associated with increased energy production from fossil fuels, leading to higher GHG emissions. Climate risks caused by this global increase in GHG emissions are expected to impact a country's financial situation and GDP, affecting its growth rates and national budget. This is because the chronic and acute effects of climate change are expected to cause substantial damage to various sectors of the economy over time: they could negatively impact economic growth and disrupt its activities, or harm the country's income and its ability to provide adequate services to its citizens. Climate change also has a direct impact on price stability in the economy.

The ability to continue economic growth without the need to increase GHG emissions implies breaking the dependence between these two factors (decoupling), which reflects an increase in productivity relative to the energy unit consumed. This implies a fundamental change in the way the economy operates. The need to mitigate the connection between economic growth and GHG emissions leads to the fact that for many years, countries have been "greening" their economies, including through green budgeting, and "greening" the financial system. This section addresses various aspects of this issue in Israel.



Key Figures

90 finance ministers worldwide

Are members of the Coalition of Finance Ministers for Climate Action (Climate Coalition); Israel is not among them

13

Number of years of discussions in the Israeli government on the issue of carbon pricing before Government Resolution No. 286 on the carbon tax was passed in 2021; as of November 2023, the resolution was not implemented

38% reduction

The reduction rate in the budget of the Chief Scientist's Office at the Ministry of Energy compared to the budget for 2022 (from NIS 100M to NIS 65M)

NIS 4B

Total annual support and subsidies for fossil fuels in Israel

16.8%

The rate of internalization of external costs estimated from GHG emissions, according to the coal tax plan established in Government Resolution No. 286

0

The number of cross-sector economic and fiscal assessments carried out in Israel on the implications of the climate crisis on Israel

Only 9%

Of public companies in Israel (48 of 558) publish ESG reports

Only 5.7%

Rate of the public investment of the Israel Innovation Authority in 2022 in the fields of energy, water, environment, and sustainability out of its total investments (NIS 96M out of NIS 1.7B)



Key Findings



Role of the Ministry of Finance in Promoting Climate Actions

-  **Absence of leadership by the Ministry of Finance on the climate change issue** – The Ministry of Finance continues to view the climate issue primarily as an environmental matter, mainly dealt with at the professional-administrative level rather than as a national economic issue. The overall activity of the Ministry of Finance, as indicated by the previous report and this follow-up report, suggests that despite its broad impact on this issue, it has not yet adopted a leadership position. Instead, it takes a reactive stance, initiating very few actions in the field. Often, it even takes a stance that hinders the means needed to combat climate change, over which it has influence. When the Ministry of Finance does address the issue, it does so in segments, according to its traditional method of operation – vis-à-vis each ministry separately, and using its typical tools as used for any other government issue, instead of taking wide-ranging proactive action using the full range of tools at its disposal. The Ministry of Finance's reluctance to transform into a dominant player in promoting climate policy, as other OECD countries have done, negatively affects Israel's effective achievement of its goals in this area.
-  **Membership in the Coalition of Finance Ministers for Climate Action** – Out of the 37 OECD member countries, the Israeli Minister of Finance (along with three other finance ministers from other countries) has not joined the Coalition of Finance Ministers for Climate Action, whose work is consolidating around best practices and principles in areas under the responsibility of finance ministries related to climate change. This reflects a disconnection of the Israeli Ministry of Finance from a highly significant forum in which relevant practices are developed in areas within its purview.
-  **Green budgeting** – The Ministry of Finance in Israel is not actively involved in green budgeting, except for being aware of the existence of the concept. Its engagement is limited to promoting voluntary green procurement and issuing a single green bond letter (issued in 2023). It does not incorporate recommendations on these matters into fiscal and economic actions it takes and does not see its role as central in promoting climate actions. This is despite the increasing global recognition of the crucial role played by finance ministries and the need to make them a dominant force in achieving climate goals and carbon neutrality. This is also despite the fact that within leading international frameworks in which Israel is a participant, recommendations have been formulated for the adaptation of economic and fiscal tools to the era of climate change, tools that are typically within the purview of finance ministries.



Assessment of Climate-Related Economic Impacts

 **Lack of assessment on the economic impacts of climate change** – The previous report noted that no economic or financial government body or trusted entity in Israel, such as the Ministry of Finance and the National Economic Council, had conducted a national assessment regarding the long-term economic impacts of climate change on Israel. In the follow-up audit, it was found that **this deficiency was not rectified**. Over a year and a half after the publication of the previous report, none of the mentioned responsible entities, including the Ministry of Finance, the National Economic Council, and the Bank of Israel, had conducted a comprehensive national economic and fiscal assessment related to climate change and the formulation of climate policy (mitigation and adaptation) for the long or medium term. Conducting a unified and validated national economic and fiscal assessment for the entire government is an important tool for reducing uncertainty and making well-informed decisions regarding climate policy in Israel.

 **Lack of economic impact forecast of climate change at the Ministry of Finance** – The Ministry of Finance did not address the long-term economic impacts of climate change on Israel in the context of the economic forecasts published by its Department of the Chief Economist. These economic impacts are caused by the costs associated with adaptation for the purpose of reducing damage to public assets, infrastructure, and citizens' property, due to the realization of acute or chronic physical risks; and due to the investments required for transitioning away from coal (except for mentioning a single, indirect risk of the global supply chain crisis, and even that, only for a two-year timeframe).

While the Department of the Chief Economist believes that there is value in assessing these impacts, it asserts that is not their role to do so. The Department argues that the initiative to derive the economic implications should be "bottom-up" and come from within each ministry, so that each government ministry conducts its own independent assessment. This stance does not align with the Ministry of Finance's role in planning and implementing the economic and fiscal policy of the State of Israel; in setting the state budget for government activities and distributing it to the various government ministries; managing government revenues, collecting direct and indirect taxes; and considering relevant economic changes affecting the Israeli economy for the purpose of determining government policy. This position does not align with the Ministry's economic expertise or its wide-ranging influence on the economy, which gives it a unique position, nor with the recommendations made by the OECD, the Coalition of Finance Ministers for Climate Action, and the IMF regarding the role of finance ministries.

 **Ministry of Finance's failure to conduct economic-fiscal assessment** – The audit noted that the Budgets Department in the Ministry of Finance does not adhere to international recommendations regarding "green" budgeting and fiscal management. It has not conducted an economic-fiscal assessment regarding the costs of adapting to



climate change on the Israeli economy, or the costs of achieving emissions reduction targets by 2050. Additionally, the Budgets Department has not acted to validate the data it relies on, despite being the professional body responsible for managing the state budget.

In the absence of an independent economic-fiscal analysis, the Budgets Department has relied on research from an Israeli institute, which concluded that in a business-as-usual scenario, the estimated economic impact of climate change on Israel is a decrease of approximately 1.15% in GDP by 2050. Consequently, the Budgets Department stated its conclusion that climate change impact is "very limited." However, the Department's statement is unfounded and not validated, as it disregards less harmful alternatives to GDP, such as the low-carbon economy alternative and the 2°C temperature increase limit (RCP 2.6) consistently presented in various studies (including in the referenced institute's research).

This reliance may inherently bias decisions concerning budgeting for climate action towards reduction, as presented in the prior report and reiterated in this follow-up audit. The Ministry of Finance does so rather than being grounded in a thorough economic-environmental analysis, utilizing the dedicated tools recommended by organizations mentioned in this audit report such as the Coalition of Finance Ministers for Climate Action and the OECD. The Ministry should also consider scenarios which demonstrate that policies aimed at limiting temperature rise to 2°C mitigate the impact of climate change on GDP, compared to a business-as-usual scenario (including in the cited research).

The National Economic Council's failure to conduct an economic assessment

– The National Economic Council did not carry out an economic assessment on the subject of climate change, although the council has a mandate to deal with long-term economic issues. Furthermore, it emerged that as of July 2023, about a year and a half after the publication of the previous report, the council had not presented the Israeli government with a strategic situation assessment that addresses the climate issue, partly due to the position of council head remaining vacant for about a year and a half (from mid-2021 until January 2023).

Carbon Pricing and Additional Tax Aspects

 **Failure to implement a carbon tax in Israel** – The previous report indicated that after over 13 years of discussions on carbon pricing in the Israeli government, Government Resolution No. 286 was made to gradually impose a carbon tax on some fuels starting in 2023. The follow-up audit found that the **deficiency has not been rectified** – as of November 2023, a carbon tax had not been implemented (following the discussion in the Knesset Finance Committee from December 2021), and in practice, Government Resolution No. 286 is not being enforced. Currently, there is no willingness on the part of the Ministry of Finance to promote its implementation even though the carbon tax framework is supposed to be implemented progressively, and regarding households, it imposes a low to



moderate cost of NIS 32 per month on average per household. The non-implementation of a carbon tax in Israel does not align with repeated OECD recommendations on the matter, including its latest recommendation in the 2023 Environmental Performance Review of Israel. According to the Budgets Department of the Ministry of Finance, non-implementation of the carbon tax will result in a revenue loss of over NIS 2.5B in 2023, and over NIS 7.5B for the years 2023 to 2028 (cumulatively).

-  **Impact of the failure to implement the carbon tax on international trade and Israeli exports to Europe** – The previous report noted that Israel is exposed to trade restrictions in the form of the Carbon Border Adjustment Mechanism (CBAM) promoted by the European Union, which imposes a carbon tax on imports from countries without a carbon pricing mechanism. The follow-up audit found that **the deficiency has not been rectified** – without implementing a carbon tax, Israel is exposed to the CBAM, and Israeli export companies may be harmed by the requirement to pay a carbon tax to the European Union or European countries on goods from certain sectors of Israeli industry. Since the legislative processes regarding the CBAM have been completed in the European Union, there is an increased potential for harm to competitiveness.
-  **Failure to formulate a mechanism to mitigate the impacts of carbon tax on households and industry** – The Finance, Civil Service, Economy, and Energy Ministries have not finalized complementary mechanisms for the carbon tax along with Government Resolution No. 286. These include support for households among underprivileged populations, compensation for energy-intensive industrial sectors to maintain the competitiveness of Israeli industry, and a general taxation mechanism that would lead to offsetting or mitigating the increase in the cost of living. These mechanisms need to be regulated in conjunction with the imposition of the carbon tax and were even proposed to be regulated within the framework of the Third Green Taxation Committee Report. The absence of such regulation prevented the implementation of the carbon tax in the past and also complicates it in 2022-2023. Although the inter-ministerial team led by the Ministry of Energy completed its study on mechanisms for promoting energy efficiency and facilitating the transition to clean energy among underprivileged populations, the study was not finally adopted as policy. According to the Ministry of Energy, this is "due to the fact that a carbon tax was not promoted for implementation," and the team's main output remained a draft.
-  **Setting the carbon price in Government Resolution No. 286** – The previous report indicated that a price of NIS 167 per ton of carbon, as stated by the MoEP in its Policy Document on Carbon Pricing, is lower than the updated recommendation of the OECD - namely EUR 60 in 2021 and EUR 120 by 2030. The follow-up audit found that **this deficiency was not rectified** – there was no evidence that the level of the carbon tax was reconsidered or that its adaptation to international recommendations was contemplated. In this situation, the carbon tax, which is updated to NIS 189 for 2022 and matches the recommendation in the United States, even if implemented, would not meet the aforementioned recommendations of the OECD, the IMF, the European Union, or the World Bank. The carbon tax roadmap in Government Resolution No. 286 is also meant to



end in 2028, without a mechanism for an annual price update of 2.1%, and without linkage to expected increases in international pricing recommendations from which the Israeli pricing recommendation was derived. In this state, even if it were implemented, it would begin to erode in 2029, and possibly even earlier.



Partial internalization of the external costs of natural gas in the carbon tax framework – As of 2021, natural gas alone accounted for 41% of CO₂ emissions in Israel, and this proportion is expected to increase to 60% of emissions by 2030.¹ Even if Government Resolution No. 286 were implemented, the internalization of the external costs incurred from the combustion of natural gas would reach a maximum share of only 31%, and only for the external costs of CO₂ emissions rather than all GHG emissions associated with natural gas production (and only starting from 2028). By contrast, with full internalization of the costs, the price of CO₂ would need to be tripled, and the external costs of the remaining GHGs would also need to be priced in. This also means that as the power sector reduces and eventually ceases coal combustion, as the government has determined, and as the proportion of electric vehicles rises, the share of natural gas in the fuel mix will increase, and the rate of cost internalization through the carbon tax will decrease accordingly.

The decision to limit the increase in electricity prices to 5% has significantly eroded the effectiveness of the carbon tax framework established by Government Resolution No. 286, which mandates the internalization of external costs from natural gas – the fuel with the highest emission rate in Israel. This increase and the slight rise in the cost of living for households - had the carbon tax been implemented - reflect the fact that the relevant government bodies, led by the Ministries of Finance and Energy, have not sufficiently internalized the recognition that carbon neutrality typically involves an increase in electricity prices and a rise in the cost of living in the energy and fuel-powered transportation sectors.



The "coverage" scope in the carbon tax roadmap of Government Resolution No. 286 – Even if the carbon tax mentioned had been implemented, it would not have been applied to emissions from other non-fuel sources (such as refrigerant gases and waste) which account for an additional 20% of emissions, and there is currently no intention to price them. It was also found that a carbon tax was applied only to some of the fuels. For example, it was not applied at all to heavy fuel oil for ships (which is not taxed at all) or to aviation kerosene (which has a very low tax rate of NIS 29 per ton), nor on gasoline and diesel of all types (diesel, transport diesel, shipping diesel, which remained taxed at the same price). Furthermore, it was found that pricing carbon through the tax mechanism would have meant that the external costs intended for internalization were due to CO₂ emissions and not for other greenhouse gases (i.e., not according to CO₂e) – this in the absence of additional pricing tools such as levies on entities obliged by law to report emissions (including of GHGs).

1 According to data from the Finance Ministry.



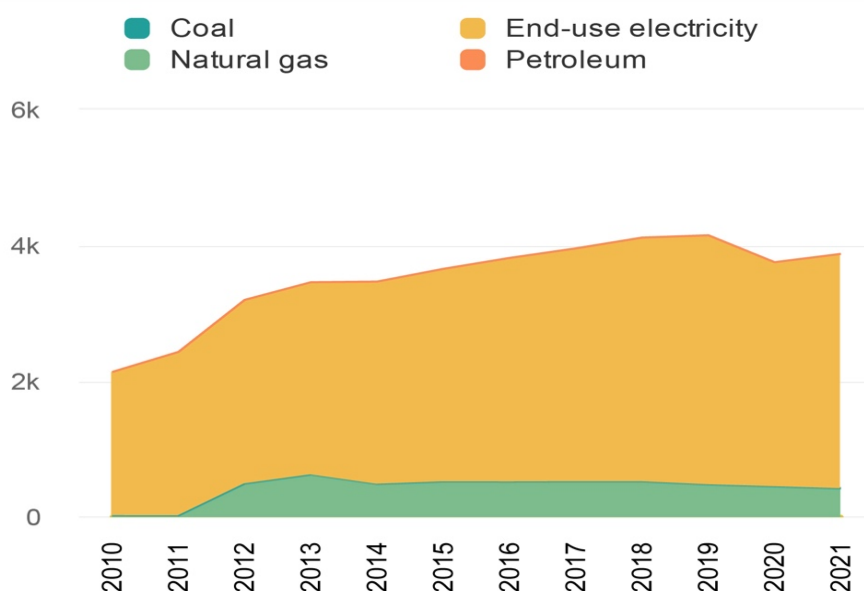
Extent of external cost internalization if the carbon tax roadmap had been implemented – The partial coverage of the carbon tax in Government Resolution No. 286, especially its low rate for natural gas, would have resulted in partial internalization of the external costs of GHG emissions in Israel. Instead of internalizing the costs estimated by the MoEP at NIS 13.1B in 2020, about NIS 2.2B would have been internalized - a rate of only 16.7% of the total and far from the 100% internalization recommended by the Third Green Taxation Committee, led by the Ministry of Finance and the Tax Authority.

Incentives and subsidies for fossil fuels – The follow-up audit found that annual government support for fossil fuels is on a steady increase (except for the year 2020 due to the COVID-19 pandemic). This support nearly doubled, rising from about NIS 2.2B in 2010 to a peak of NIS 4.2B in 2019, and although it declined in 2020 (due to the pandemic), the upward trend resumed in 2021. Support figures for 2022-2023 are expected to rise even more in light of the new exemption from the coal tax and the discount on the gasoline tax, amounting to a cumulative total of about NIS 3.5B. These subsidies act as an economic incentive, increasing demand for fossil fuels instead of shifting demand to other alternatives or improving energy efficiency. Subsidies of such extensive scope are inconsistent with Israel's long-standing goals to reduce GHG emissions and other pollutants, and they undermine its efforts to transition to a low-carbon economy.

- a. **Diesel** – From 2015 to 2023, the State of Israel saw a loss of potential revenues amounting to nearly NIS 30B due to rebates on diesel. This revenue loss will continue to be significant as the framework for abolishing the rebates does not, for instance, apply to diesel for industrial plants, engineering equipment, tractors, and work vehicles weighing more than 4.5 tons, which have a substantial rebate on diesel ranging from 45% to 69%.
- b. **Coal** – The abolition of the coal tax led to a revenue loss of NIS 800M from the state treasury from February 2022 to May 2023.
- c. **Gasoline** – The reduction of the gasoline tax rate on from April 2022 until the end of 2023 resulted in an estimated revenue loss of NIS 2.6B from the state treasury, broken down as follows: from April to December 2022, a loss of NIS 1.7B, and an estimated revenue reduction of about NIS 830M in 2023.



OECD Data on Israeli Government Support for Fuels, per Type (in NIS M)



Source: OECD.

Climate-Tech Innovation and R&D

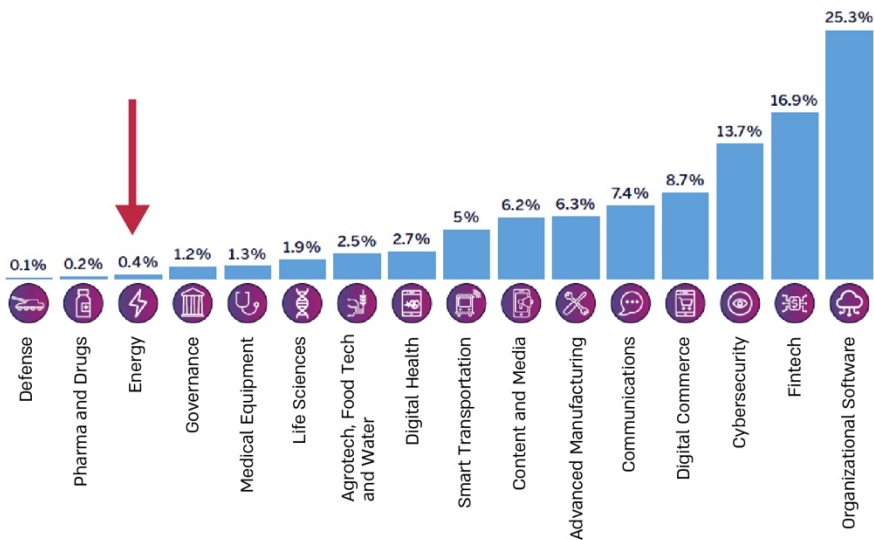
Investments by the Chief Scientist's Office of the Ministry of Energy in innovation – The audit found that in 2023, there was a decrease in "supplementary budgets" compared to 2022, from approximately NIS 99.5M to NIS 61.5M (a decrease of about 38%). As a result, new climate related projects planned by the Chief Scientist's Office did not receive funding. The absence of a long-term budget plan for these investments that provides certainty to the economy may hinder the research and development of essential climate technologies in the energy and electricity sector. This significantly affects the advancement of projects and may lead to missed opportunities and the "flight" of Israeli investors and entrepreneurs from Israel. This sends a negative signal of a de facto retreat by the State of Israel from its declarations in government decisions on climate-tech, expressed at the recent global climate conferences in Glasgow and Sharm el-Sheikh. As mentioned earlier, there is a significant difficulty in the conditioning of the budgets for innovation in the energy sector on the implementation of Government Resolution No. 286 regarding a carbon tax and the related revenues.

Innovation Authority investments in climate-tech – The follow-up audit found that the State of Israel is not implementing government decisions in the field of climate-tech: Innovation Authority investments in energy are relatively low – NIS 39M in 2021, and NIS



96M in 2022 (compared to agriculture and food sectors, in which NIS 139M were invested in 2021 and NIS 104M in 2022), out of NIS 1.7B of the Authority's investments in 2022 (a rate of 5.7%). The public investment by the Innovation Authority in the energy sector (in addition to water, environment, and sustainability), which is responsible for nearly half of the emissions in Israel, is almost half compared to the public investment in technology sectors in agriculture (and food), which is responsible for a marginal portion of emissions in Israel. The low level of the Innovation Authority's investments in climate-tech is emphasized even more given the difficulty in raising private investments in Israeli high-tech companies in the energy field. They are at the bottom of the list for private equity investments in Israel, attracting only about 0.4% of all private capital invested in Israel, or third from last. This reality will make it difficult to develop the climate-tech market in Israel.

Private Investments in High-Tech Companies, per Field (2021)



Source: The Israel Innovation Authority.



Task force for accelerating climate technologies – Despite the directive in Government Resolution No. 544 of October 2021 to establish a team to remove barriers to promote this issue, headed by the Director-General of the Prime Minister's Office, the team was not formed. This reality makes it difficult to find solutions to regulatory barriers for research, development, implementation, and integration of technologies in the climate field, and hinders the maximization of the existing potential in Israel regarding climate-tech technologies and the promotion of a "green" state, which will help Israel meet its goals for



emissions reduction. Additionally, Israel may lose opportunities to promote technologies for preparing for the climate crisis and strengthening economic growth in Israel.

 **Additional budgets in the climate-tech field** – Regarding future investments, government decisions do not include dedicated budgetary resources for innovation initiatives and the establishment of new startups in the climate-tech field. In 2022, a total of NIS 38.3M was invested by government ministries. As for potential future budgets that may be received from European projects such as Horizon, there is difficulty in maximizing the activity of Israeli companies and in obtaining funding due to existing knowledge gaps. A total of EUR 65M was received in the years 2021 and 2022 from the Horizon program (EUR 24M in 2021 and EUR 41M in 2022), and the total grants Israel received from this program in these years was EUR 486M (EUR 231M in 2021 and EUR 255M in 2022), that is, the realization rates of Horizon's budget range from 10.4% to 16%. This realization rate is significantly lower than the potential (the Horizon program intends to invest about 35% of its budget for climate-tech related research, EUR 34.5B from 2021 to 2027 in total; Israeli researchers received a total of EUR 65M in grants related to climate-tech in 2021 and 2022 - about 13.3%).

In this reality, the concern arises that without significant long-term dedicated government budgets, it will be difficult to advance the government's decisions in the climate-tech field. Without creating economic certainty for the promotion of technological innovation in Israel's climate-tech sector, it will be very difficult to advance the government's decisions on this issue.

Preparation for Climate-Related Financial Risks

 **Investments in ESG as part of the Bank of Israel's foreign exchange reserves management** – The previous report noted that the Bank of Israel does not invest the country's foreign exchange reserves in ESG fields. However, in response to this finding, the Bank of Israel wrote that in 2021 it established a team to examine whether it is appropriate to expand the types of assets in the foreign exchange reserves portfolio and whether to include green bonds or other sustainable investments without compromising the goals of holding the reserves and without altering the portfolio's return-risk profile, and to consider integrating rules for responsible investments in the bank's investment policy. The Bank also reported that "the team's findings and recommendations will be presented to the Governor and the Monetary Committee during 2022." In the follow-up audit, it was found that **the deficiency was not rectified**. Over two years after the establishment of a team to examine rules for responsible investments (ESG considerations) in its investment policy, the Bank of Israel has not yet completed the examination process and has not made decisions on the matter. Therefore, the Bank of Israel manages Israel's foreign exchange reserves, which as of June 2023 amount to \$202B, without consideration of ESG factors and without integrating the risks arising from climate change within its investment considerations. This is despite the trend highlighted in the 2022 NGFS survey, where about 40% of the central banks that responded (two-thirds of them in the European Union) take climate considerations into account in their current monetary policy.



Securities Authority and climate risks – The previous report indicated that the ESG disclosure format published by the Authority does not distinguish climate from other ESG considerations. Furthermore, the voluntary nature of ESG disclosure of the Authority's supervised companies and their ability to report in various formats lead to discretion over the execution of the disclosure, the information it includes, its frequency, and its format remaining with the companies themselves. The follow-up audit found that **the deficiency was slightly rectified** – there has been no significant progress since the previous report, and the Authority's recommendation regarding the examination of the relevance of ESG risks in investment processes remains voluntary and general in a way that grants broad discretion to these regulated companies on whether and how to conduct such an examination, without adequate detail, without standardization of the subject, and also without distinguishing the issue of climate from other ESG topics. As of July 2023, two years after the Authority's recommendations on the matter were published, only 48 out of 558 public companies disclose ESG reporting on the dedicated site (9% of public companies) – some of them did so before the publication of the Authority's recommendations or independently of them, either because they are banks that are obligated to do so anyway, or because they are international companies that comply with regulatory requirements of other countries. Hence, the effectiveness of the voluntary arrangement is in doubt.



Capital Market, Insurance, and Savings Authority and its preparedness for climate risks – The previous report found that the guidelines of the Capital Market, Insurance, and Savings Authority to its supervised entities (such as institutional investors, insurance companies and pension funds - "institutional bodies") did not address climate aspects nor included instructions on the reporting format for ESG aspects that should be published, including whether to include climate aspects. The audit recommended considering actions for integrating the risks associated with climate change within the disclosure obligations applicable to institutional bodies in Israel. The follow-up audit found that **the defect was slightly rectified** – the Authority issued several guidelines in the areas of risk management, investments, and disclosure obligations and conducted a review of the implementation of its guidelines by the regulated entities. However, alongside this, its position is that at this stage there is no room for establishing a uniform method for managing climate and environmental risks. The follow-up audit also found that the disclosure obligations remained general and lack quantitative disclosure components regarding the total investments in fossil fuels companies, there are no clear definitions for reporting on environmental aspects; and that the Authority is not promoting stress tests in the context of climate risks at this stage, among other things due to the fact that a unified national climate scenario has not yet been adopted in Israel.



Climate-Tech Innovation and R&D

Innovation Authority's investments in climate-tech – The previous report found that in 2018, the public investment rate of the Innovation Authority in the fields of energy, water, environment, and sustainability was 4%. The follow-up audit found that **the deficiency was mostly rectified** – in 2022 there was an increase in investment of 5.7% (NIS 96M), which represents a certain improvement compared to 2018.

Preparation for Climate-Related Financial Risks

Climate risks in the banking system – The previous report indicated that the Supervisor of Banks did not explicitly address climate risks in the guidelines for supervised entities, leaving the matter to relatively broad discretion. The follow-up audit found that **the deficiency was mostly rectified** – in June 2023, Proper Conduct of Banking Business Directive No. 345 on the "principles for effective management of climate-related financial risks" was published, adopting many principles from the Basel Committee's recommendations from 2022. There was also substantial progress in the supervisory activity over banks both in terms of explicit reference to climate issues and the expansion to additional environmental risks, as well as in enhancing the disclosure obligations currently imposed on the banking system. However, gaps were found in the supervisory actions over the banks concerning the need to expand and specify the quantitative disclosure obligations and the need for uniform criteria for reporting by banking corporations. Additionally, there are gaps at the level of the banking system, for example, regarding the performance of climate stress tests to examine their resilience in Israel in the case of the realization of climate and environmental risks.

Key Recommendations

Assessments of Climate-Related Economic Impact

 The audit recommends that the Ministry of Finance initiate and lead a comprehensive study to analyze the long-term economic-fiscal impacts, including assessments of the costs of preparing for climate change in Israel and the costs of adopting mitigation measures to achieve national objectives in the matter, as well as costs of non-action. This should be based on various climate policy scenarios, taking into account economic studies and assessments that have already been conducted on the matter, such as those by the MoEP, as well as current global economic research and the international recommendations of organizations like the OECD, the Coalition of Finance Ministers for Climate Action, and the IMF, that are intended for finance ministries. The research findings will serve as the basis for a guiding and validated national economic-fiscal assessment. In preparing and updating



this assessment, it is appropriate for the Ministry of Finance to involve the National Economic Council, the Bank of Israel, the MoEP, the Ministry of Energy, and the IMS (for the definition of reference scenarios), and to also request and collect assessments from all government ministries and public bodies whose inputs are relevant to the formulation of this assessment. Additionally, the audit recommends that the Ministry of Finance ensure that this assessment and climate reference scenarios be used to derive budgetary implications, and that decisions on policies across all government ministries are made on this basis, across the entire economy. Finally, the audit proposes that the National Economic Council complete a strategic situation assessment that will also address climate change and bring it for discussion in the government.

The Role of the Ministry of Finance in Advancing Climate Action



For the purpose of formulating a climate action strategy, the audit recommends that the Ministry of Finance join the Coalition of Finance Ministers, and review the Helsinki Principles, the publications and recommendations of the Coalition, the recommendations of the OECD Paris Collaborative on Green Budgeting, and the Green Budgeting Framework it published, as well as the IMF recommendations on green management of public finances, revenues, and expenditures, along with other recommendations in these areas. These actions will position the ministry at the forefront of the transition to a carbon-neutral economy and the adaptation to climate change, send a signal to the economy, and mark the path for other government ministries, the economy, and the market.

Carbon Pricing and Additional Tax Aspects



The audit proposes that the Ministry of Finance and the Tax Authority, in consultation with the MoEP and the Ministry of Economy, act according to the recommendations of the Coalition of Finance Ministers and the OECD to align the national revenue and expenditure processes with climate goals, including the elimination of benefits for fossil fuels. They should analyze all supports and subsidies for fossil fuels and how they stimulate demand, and consider alternatives. Furthermore, this examination should be part of a broader initiative mapping all the fiscal policy tools of the state's revenue system, including taxes, that negatively impact the achievement of climate goals. At the end of this process, these entities will formulate alternative policy tools that will advance the achievement of these goals. A holistic examination of the state's revenue system will allow for the identification of harmful subsidies and incentives that hinder the achievement of climate goals and address them on one hand, and on the other hand, identify opportunities for state treasury revenues that will aid in budgeting climate actions (mitigation and adaptation), compensate affected parties, support underprivileged populations, and enable adjusted coping with the cost of living for these and other populations, according to priorities.



The carbon tax framework decided upon in Government Resolution No. 286 is a very long-term, gradual approach, during which fuel prices may be volatile. Therefore, the



implementation of the carbon tax cannot depend on fuel prices. The State Comptroller's Office repeats its recommendation from the previous report that, alongside the finalization of complementary mechanisms to minimize damage to industry and disadvantaged populations, and upon their validation, the Ministries of Finance, Environmental Protection, Economy, and Energy, will implement Government Resolution No. 286 on the carbon tax. In this context, the Ministry of Finance will simultaneously act to renew and approve the ordinances with the Finance Committee and will develop well-informed benchmarks for the use of the revenues generated from the carbon tax, including regarding their allocation to climate issues and offsetting the impact of the carbon tax on the cost of living. Meanwhile, since this is a core policy tool in comprehensive climate policy and to ensure its continuity, it is proposed to anchor the carbon tax in climate legislation.

-  The audit proposes that prior to adopting a new carbon tax framework, a renewed and thorough examination will be carried out, which will consider not only how to mitigate the increase in costs but also how to create mechanisms that will compensate for the expected rise in prices, including through revenues from carbon tax. In this way, it will be possible to reassess the decision to limit the rise in electricity prices and to explore ways to reduce taxes and decrease the cost of living in other areas, as proposed by the Third Green Taxation Committee, chaired by the Ministry of Finance, which will offset the effects of the carbon tax on the cost of living.
-  The audit suggests that the Ministry of Finance consider the pricing of the proposed carbon tax, taking into account all sources of GHG emissions and all fuels. It should also account for the limited overall proportion of the internalization of the external costs of GHG emissions arising from the carbon tax roadmap in Government Resolution No. 286, and consider ways to increase it, in light of the recommendations that the Ministry of Finance has previously been partner to in the Third Green Taxation Committee report. Further, the audit proposes examining the establishment of complementary mechanisms to the carbon tax for the purpose of internalizing the costs of other GHGs; this could be done, for example, through levies on emissions, so that all measures better reflect the external costs of GHGs, leading to their broader internalization.
-  The audit recommends that the Ministry of Finance, together with the MoEP, the Tax Authority, and the Ministry of Energy, re-examine the issue of the carbon tax on transportation fuels, including the question of explicitly and visibly marking its share in the excise tax, and consider additional tools that would signal the existence of a carbon tax for these fuels or promote alternatives. This aims to bring about a change in consumer behavior and reduce the demand for gasoline and diesel.
-  The audit proposes that the Ministry of Finance, along with the MoEP, the Tax Authority, and the Ministry of Economy, analyze the implications of the processes for promoting CBAM in the European Union. They should also follow the evolving policies on the matter in the United Kingdom and other countries, and assess whether the carbon tax roadmap in Government Resolution No. 286 sufficiently addresses the exposure of Israeli exports to these countries. In this context, the audit also suggests considering the adoption of similar



measures in Israel aimed at preventing "carbon leakage" (following the imposition of a carbon tax).

Climate-Tech Innovation and R&D

-  The audit proposes that the Innovation Authority examine the trends in investment volumes and the composition of its investments in light of Israel's sectoral emission reduction targets, which are mainly required in the fields of electricity production and transportation, and also considering the needs raised by the Chief Scientist's Office at the Ministry of Energy, while consulting with the Chief Scientists' Offices of the Ministries of Energy and Environmental Protection.
-  The audit proposes that the Innovation Authority consult with the Ministries of Finance, Energy, Agriculture, Economy, and Innovation to assess whether the government's decisions on climate-tech to assist in the reduction of GHGs in Israel are being promoted in the most efficient manner, and whether the actions of the Innovation Authority in this regard can meet the technological development needs of Israel and maximize its opportunities in this field relative to the world. Additionally, the Ministries of Energy and Finance should examine whether the actions of the Ministry of Energy, through the Chief Scientist's Office, are receiving all the necessary resources.
-  To promote the implementation of government decisions in the climate-tech sector, the audit proposes that the findings of this section, which pertain among other things to public investments in the climate-tech field and the classification of climate-tech areas, be reviewed by the Innovation Authority and the Ministry of Energy in cooperation with the Ministry of Finance, and to execute the necessary processes for their practical application including prioritization of public resource allocation while encouraging private capital investment in this field, based on appropriate budgeting. It is also recommended that the Innovation Authority formulate a complementary decision-makers' proposal that will ensure the budgets needed to advance the field; and that the Israel-Europe Research & Innovation Directorate in the Innovation Authority (ISERD) continues to encourage researchers to submit applications for research funding in the climate field.
-  The Director-General of the Prime Minister's Office should act to establish a task force for accelerating the development of climate technologies which will work to identify barriers and to perform actions for their removal, with the participation of the Accountant General at the Ministry of Finance and the Commissioner for Budgets.

Preparation for Climate-Related Financial Risks

-  In the context of disclosure obligations, the Banking Supervisor should examine the possibility of including a clear and uniform list of criteria in the banks' reports regarding the disclosure obligations of quantitative climate reports related to the method of calculating GHG emissions, the types of environmental interests considered, and the way of managing



risks associated with the climate (both physical and transitional). This is to further enhance the preparedness for climate-related financial risks, and in light of the publication of uniform standards on the matter by the IFRS in June 2023 and the completion of additional agreed standards also in Europe as of the audit date.

-  The audit recommends that the Bank of Israel transmit to the government, as part of the decision-making processes relating to legislation and government policy on climate risks, the effects of uncertainty regarding the overall regulatory and legal framework pertaining to the climate field. According to the Bank, these uncertainties limit "the banking system's ability to optimally manage climate risks," resulting, inter alia, from the incomplete legislative process, the absence of comprehensive and integrated governmental action, and the lack of necessary national infrastructure for information and reporting. Transmitting these impacts should also be carried out towards parallel financial regulatory authorities. This is in order to further improve the preparedness of the banking system and other financial bodies for climate risks.
-  The audit recommends that the Bank of Israel accelerate its efforts and finalize the evaluation of risks associated with climate change, and the integration of ESG factors in its investment policy regarding the foreign currency reserves of the State of Israel. The Bank should assess whether and in what manner it must incorporate climate change risks into its daily management of the state's foreign currency reserves, valued at around \$202B, in light of the risks identified for the commercial banks it oversees. Additionally, the audit recommends that if the Bank of Israel decides to factor ESG considerations into its ongoing operations, it should consistently disclose to the public the approach it takes to applying these ESG factors as part of its reports on managing the state's foreign currency reserves.
-  The audit proposes that the Israel Securities Authority evaluate whether the ESG disclosure recommendations for public companies and the instruction to assess ESG considerations and report them to fund managers and significant license holders are adequate for the effective advancement of investment policies that account for climate risks. It should explore the shift to a mandatory reporting obligation (rather than a voluntary approach) and how to establish standards for its supervisees that are in line with current practices in other nations, based on new international regulations on the matter. In light of the IFRS's publication of standards for sustainability and climate-related reporting in June 2023, the Authority is advised to act to integrate these standards among the bodies it supervises.
-  The audit recommends that the Capital Market, Insurance and Savings Authority consider instructing institutional entities to include disclosure indicators as is customary, for example, in the European Union's disclosure legislation, which should cover the exposure to activities and assets that are at risk in terms of financial liabilities, in accordance with the international reporting rules expected to be published, and the IFRS standards for sustainability and climate reporting that were already published in June 2023. Additionally, the audit proposes that the Authority examine the environmental risk exposure of institutional bodies and the extent of existing insurance coverage and promote the implementation of climate stress tests among the supervised bodies. All this is to enhance

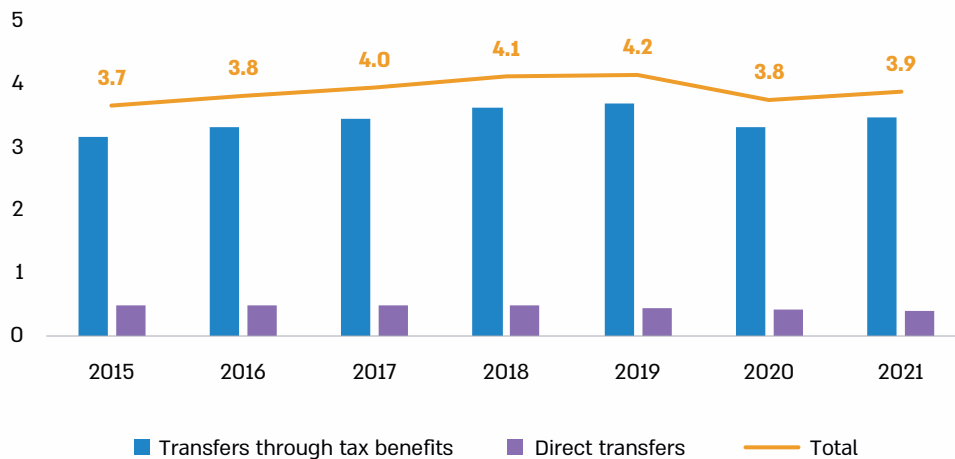


the integration of climate risks and to provide investors with the ability to examine the existing climate risks in institutional bodies.



The audit recommends that, in parallel to their efforts to assess risks (both physical risks and transition risks) of the financial bodies they supervise, the financial regulators should also consider the environmental and climate impacts of these entities' activities, including through collaborations between the entities and with the Ministry of Justice.

OECD Data on Government Supports for Fuel, by Support Type (in NIS B)



Source: OECD.

* 2020 was affected by the COVID-19 pandemic.

** Direct transfers are funds given to the Israel Electric Company for the adaptation of factories to natural gas as an energy source, and also through the gas agreements of 2012 with the Tamar gas field, according to which the IEC will purchase natural gas from the Tamar project for 15 years from the start of gas export, or until it purchases the total contractual amount, whichever is earlier.

*** Tax benefits primarily include exemption from diesel excise tax (rebates) and a reduction in royalty payments and taxation according to the Israeli Petroleum Law.



Level of Correction of the Main Deficiencies Identified in the Previous Report

Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Assessments of the economic impacts of climate change	Ministry of Finance, National Economic Council, MoEP, Bank of Israel	No governmental economic body has conducted a national assessment of the long-term economic impacts of climate change on Israel				
Carbon pricing and additional fiscal aspects	Ministry of Finance, MoEP, Ministries of Energy, Transportation, & Foreign Affairs; Tax Authority, Electricity Authority	There is no carbon taxation in Israel				
Carbon pricing and additional fiscal aspects	Ministry of Finance, MoEP, Ministries of Energy, & Transportation, Foreign Affairs; Tax Authority, Electricity Authority	The level of tax proposed in Government Resolution No. 286 is lower than the latest recommendation by the OECD				
Carbon pricing and additional fiscal aspects - CBAM	Ministry of Finance, MoEP, Ministries of Energy, Economy, & Foreign Affairs; Tax Authority, Electricity Authority	An impact on international trade and Israeli exports is expected if a carbon tax is not imposed				



Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Innovation and R&D in climate tech	Israel Innovation Authority	Israel is ranked at the bottom of the scale for the development of climate change-related technologies out of all the technologies in the country				
Preparation for financial climate-related risks (climate risks in the banking system)	Bank of Israel	The Supervisor of Banks' 2009 letter to banking corporations on environmental risks does not explicitly mention climate change and does not promote uniformity in the banking system				
Investments in ESG as part of the foreign currency reserves management of Bank of Israel	Bank of Israel	Bank of Israel does not invest the state's foreign currency reserves in ESG areas				
Preparation for climate-related financial risks (Israel Securities Authority and climate risks)	Israel Securities Authority	The ESG disclosure obligations in the format published by the Israel Securities Authority do not distinguish climate as separate from other ESG considerations				



Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Preparation for climate-related financial risks (Capital Market, Insurance, and Savings Authority and its preparation for climate risks)	Capital Market, Insurance, and Savings Authority	The 2007 guidelines of the Capital Market, Insurance, and Savings Authority did not address climate aspects and did not include instructions on the format of reporting ESG aspects that should be published, and whether to include climate aspects based on a uniform reporting format; the Capital Market, Insurance, and Savings Authority did not conduct specific audits regarding these instructions and did not address environmental aspects				





OFFICE OF THE STATE COMPTROLLER
AND OMBUDSMAN OF ISRAEL



2024

Chapter | 4

Climate Change Governance

Organizational, Functional, and Professional Adaptation to Climate Change



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

Background

The systemic nature of the climate issue requires the involvement of all relevant governmental and public bodies in each component of the actions related to handling the crisis. Therefore, addressing the climate crisis necessitates comprehensive government attention—it demands multi-ministerial cooperation on many issues and monitoring the implementation of actions by government ministries, while it competes with other matters for government attention and budget allocation.



Key Figures

69% of government ministries

Believe government handling of the climate issue is not good at all (8 respondents) or not so good (26). This accounts for 34 out of the 49 government offices and public bodies that responded to the questionnaire of the State Comptroller's Office

NIS 3B

Total decided by Israeli governments to designate (cumulatively) to address various issues of the climate crisis in 14 government decisions between 2015-2022

Only 50%

Of the budgets designated in government decisions were actually allocated for dealing with the climate crisis between 2015-2022 (NIS 1.58B out of NIS 3B approved)

Only 32%

Of the total budgets designated by the government to be for dealing with climate change between 2015-2022 (in the 14 decisions it made) were actually utilized (NIS 988M out of a total of NIS 3B)

NIS 32B

Lost revenue to state treasury through support and subsidies of fossil fuels in 2015-2022

33x

The discrepancy between the amount the government waived as revenue to the state treasury through support and subsidies of fossil fuels (NIS 32B) and the budgets used to implement climate policy (NIS 988M) between 2015-2022

42%

Of government decisions addressing climate crisis challenges made in the past 16 years were made in 2021-2022

56 countries (Israel is not among them)

Anchored their policy actions in the climate field in legislation confirmed by the legislative body (as of 2020)



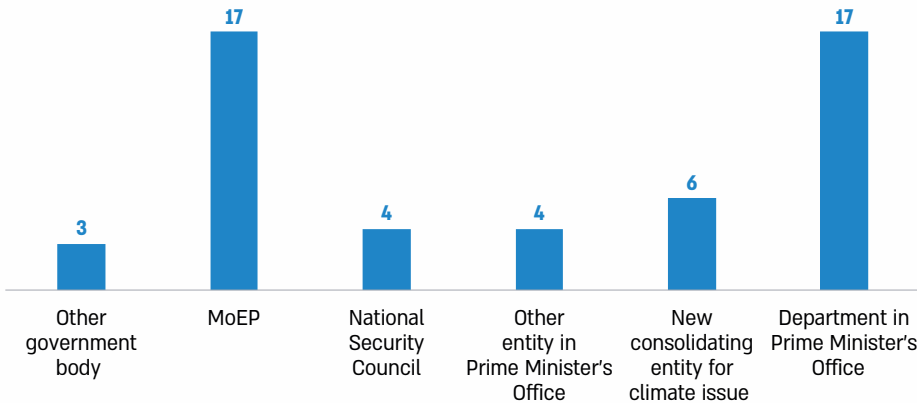
Key Findings



A Single Governmental Entity to Consolidate Climate Action

 **Quality of governmental handling of climate issues** – The previous report indicated that the segmentation of governmental handling of climate action leads to barriers and an increase of conflicts between ministries, complicating the integration of considerations when making decisions. The follow-up audit found that **this deficiency was slightly rectified**. The findings of this follow-up audit and the responses received from the survey distributed by the State Comptroller's Office among government offices indicate that 69% of the respondents believe that the governmental handling of the climate issue is not at all good (8 respondents) or not so good (26). This indicates that the government's action in climate matters is insufficient, and this difficulty continues to persist.

Attitudes of 51 Government Offices and Public Entities on which Body Should Lead the Climate Issue in the Government



 **Ministerial Committee on environmental and Climate Affairs as a leading and integrative Entity** - Government Resolution No. 440 of April 2023 established the Ministerial Committee on Environmental and Climate Affairs headed by the Minister of Environmental Protection. However, it did not include granting explicit authority to resolve disputes between ministers, and it lacks the characteristics required for an integrative entity, particularly on the issue of mitigation, that could lead the extensive



governmental efforts to formulate actionable decisions to resolve disputes and ensure the implementation of all governmental and national policy instruments on climate. Furthermore, the audit noted that as of July 2023, the committee had not yet convened, and no future date had been set for its assembly.

 **Integrative governmental entity for climate issues** – In the previous report, the State Comptroller recommended that the government designate the handling and ongoing management of this issue to a permanent, designated, integrative body with executive powers and the ability to decide between alternatives and in cases of ministerial disputes, which would lead the subject. The follow-up audit found that **this deficiency was slightly rectified** – although various governmental entities are involved in some aspects of integrating climate issues, such as the MoEP, the Ministry of Energy, the Ministerial Committee, and the National Security Council, none have the mentioned characteristics that may assist in effective integration. Furthermore, the audit noted that the absence of such a body is recognized by the government ministries themselves and from the findings of the chapters of this follow-up audit. Continuing to operate based on the dispersed governmental structure, without addressing the existing functional difficulties, fails to address those barriers to implementing the government ministries' climate change policy measures.

Regulation of a Mechanism for Long-Term Climate Policy Budgeting

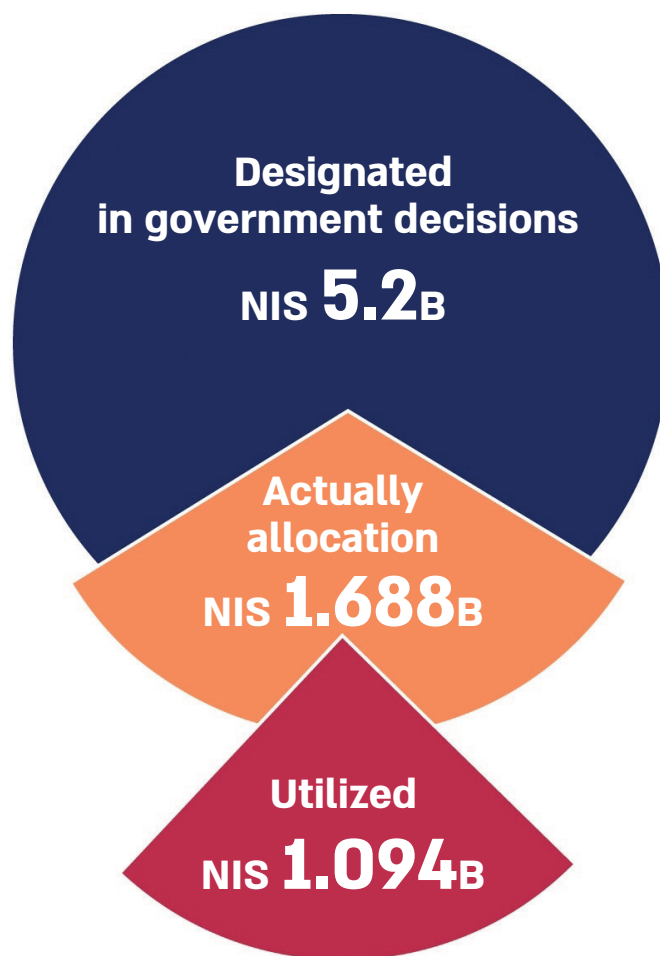
 **Climate action budgeting** – Instructions to ministries regarding climate are not always backed by budget allocations in accordance with government decisions; budget allocations are not fully utilized; there is an inability to create an overview that reflects the real needs, barriers, and duplications in areas of responsibility. Additionally, there are gaps in aspects of oversight, control, and monitoring the use of the said budgets. All these create a situation akin to directionless actions without a leading and integrative entity.

 **Budget designation, allocation, and utilization** – The follow-up audit found that government ministry reporting data (based on responses provided in this audit and documents submitted for the previous report) reflect a low level of budget execution. Out of NIS 5.2B that the government declared it would designate for addressing the climate crisis in all aspects (in 15 different government resolutions), NIS 3.5B were not allocated at all (67%); about NIS 1.688B were allocated (32%); and for NIS 52M (1%) no reporting was received.

The audit further found that out of the total allocated amount (NIS 1.688B), 65% (or NIS 1.094B) were actually used. Therefore, the budget utilization stands at only 21% of the total budget declared for addressing the climate crisis as per the 15 government resolutions examined (totaling NIS 5.2B as mentioned), all from the years 2015 - 2022, except for one resolution from 2010.



Designation, Allocation and Utilization of Budgets for Addressing the Climate Crisis, in Government Resolutions Passed in 2010, 2015 - 2022



Based on data from the MoEP, Ministry of Energy, Transport, and Finance, adapted by the Office of the State Comptroller.

📌 Budgetary control, supervision, and monitoring – In receiving responses from government ministries regarding the actual allocation and utilization of budgets, conflicting reports were found between ministries, gaps in reporting on their budgets, lack of information, and overall lack of clarity that characterized both the executing ministries and the Ministry of Finance as the allocating body that is also supposed to oversee budget implementation. The follow-up audit reveals a serious situation "in the



field", indicating that there is no body in Israel that carries out comprehensive budgetary oversight and control regarding the management of billions of shekels that the government has decided to designate for dealing with the climate change in all government decisions over the years and their allocation.



The need for a climate budgetary framework – The previous report indicated the end result, demonstrating that, a work model of segmented budgeting (divided per action by ministry) and one-time or ad-hoc budgeting does not allow for the systemic advancement of the climate crisis issue. The follow-up audit found that this deficiency was not rectified and reflected this segmentation. In 47 government decisions addressing climate change issues made by the government between 2007 and 2022, which decided to designate approximately NIS 7.B, the government ordered the execution of more than 70 individual budgetary allocations to many government ministries (about 15 in number).

The State Comptroller's Office processed the climate budget allocation and utilization data. This processing reveals a quantifiable realization of the concern regarding the government's ability to achieve its climate crisis objectives without a comprehensive view of resource allocation and practical implementation capabilities. The current manner of budgeting the tasks for addressing climate crisis does not suit its complexity, its many tasks, the dispersion of its management to many agents, and its broad impacts on entire sectors of the economy.



Gaps in resource allocation for climate change – fossil fuels as a test case – The previous report highlighted that addressing the climate crisis, largely reliant on infrastructure investment, is almost never granted an adequate and specific budget. The follow-up audit found that **this deficiency has not been rectified**. From 2015 to 2022, Israeli governments utilized only 32% (NIS 988M) of the funds which were designated to climate issues in those years (NIS 3B¹, of which NIS 1.584B was actually allocated).

This level of utilization does not allow for the effective implementation of established climate policy. This issue is further exacerbated by data indicating that during the same period, the government forfeited state revenues exceeding NIS 32B through supports and subsidies for fossil fuels – 10.6 times the amount planned for climate investment (the decision to allocate about NIS 3B), and 33 times the amount actually invested (budget utilization of NIS 988M). These gaps starkly reflect the priorities of the governments during those years – multiple declarations of setting climate goals without the necessary resource allocation to achieve them, alongside continued funding policies that undermine these goals.

1 The total amount decided to be allocated for climate crisis adaptation in all relevant government decisions from 2007 to 2022 was NIS 7.4B. The State Comptroller's Office examined the extent of actual allocation and utilization of these funds in relation to all government decisions between 2015 to 2022, which are more relevant due to the Paris Agreement (a total of 15 government decisions out of the 47). The amount allocated for this period is NIS 3B.



Creating Normative Standards through Climate Legislation

 **Achievement of objectives is limited through government decisions** – The previous report noted that the policy tools used in the routine work of government ministries, especially within the framework of government decisions, did not always lead to their engagement with the issue. In addition, the lack of mobilization of government ministries over the years led to limited progress in Israel's climate actions. The follow-up audit found that **this deficiency was not rectified**. In the last 16 years, 47 government decisions related to addressing the challenges of climate change were made, but Israel has not shown significant improvement in achieving its national climate objectives: essential government decisions dealing with the climate were not implemented, were partially implemented, or are only in the initial stages of implementation. For example, 86% (25 out of 29) of the bodies designated in Government Resolution No. 4079 do not have a departmental preparedness plan for climate change. Additionally, the degree of achieving the central objectives in mitigation remains very low: the current pace of government policy implementation will achieve only about a 12% reduction in GHG emissions by 2030 compared to the target set of 27%. The lack of mobilization of government ministries has led to limited progress in climate actions and the implementation of government decisions, indicating a continued lack of effectiveness in using this policy tool.

 **Completion of climate legislation** – The previous report found that the government had not reached a consensus regarding the climate bill draft published by the MoEP in April 2021. The audit recommended that the ministry continue to promote the draft bill to help address the challenges related to climate threats and deal with uncertainties. The follow-up audit found that **the deficiency was not rectified**. As of September 2023, more than a year after the first climate bill discussed in the previous report was approved by the Knesset in the first reading (vote). Despite the OECD's 2023 recommendation that the tools Israel is using to achieve its climate commitments are insufficient, and that enacting a comprehensive climate law with binding targets would be an important step towards achieving them, the new climate bill proposal was approved by the Ministerial Committee for Legislation. As of the audit completion date (September 2023 for this matter), this proposal is approaching the first reading.

 **Lack of consensus among ministries regarding the climate bill** – The Ministry of Finance's position on establishing a normative foundation through climate legislation involves several complexities: (a) opposition to giving normative validity to GHG reduction targets in the climate law, preferring instead that the targets be anchored in a government decision; (b) a demand that the targets should not bind the government but only represent goals to aspire to, in order to prevent, as they explain, "judicial authority interference with government decisions." This stance presents a real and fundamental difficulty since effectively the ministry demands unlimited flexibility in changing climate targets, which could allow these targets to be postponed in favor of any other issue that arises. This position could delay and, in some cases, even halt the achievement of Israel's climate goals. It will not create adequate commitment and certainty to address the issue,



especially when it is adopted without taking steps to utilize additional economic tools like green budgeting (see above), intended to minimize the restriction of economic activity and promote its growth alongside carbon neutrality. Therefore, it will lead to a declarative climate law that will serve primarily to present Israel to the world as having a climate law, nothing more.

Indeed, the wording of the new climate bill proposal (approved by the Ministerial Committee for Legislation in September 2023) allows almost unlimited flexibility for the government in a way that could undermine Israel's commitment to meeting its targets.

Furthermore, the government ministries' responses to the draft climate bill reflect their disputes regarding the gap between the targets that the ministries seek to anchor in law and Israel's existing capacity to achieve them under current circumstances. For example, the Ministry of Energy, Ministry of Economy, Budgets Department of the Ministry of Finance, and the National Economic Council agree that there are currently inter-ministerial barriers, such as in the installation of PV facilities; deployment of charging stations for electric vehicles; promotion of policy instruments and economic tools such as carbon tax; and tax support for the transition to a low-carbon economy. Without the removal of these barriers, Israel will not be able to achieve its climate goals. But currently, each entity sets up certain barriers to others, while there is no leading entity who can decide in case of controversies or promote climate issues.



Gaps between provisions of Israel's proposed climate bill and common elements in global climate laws

– The targets set in the proposed climate bill as of September 2023 are largely declarative. Despite the obligations it imposes and the policy tools set forth therein, the bill lacks additional policy instruments that would allow decision-makers to integrate a variety of considerations, promote processes at the operational level, and consequently meet the goals and commitments it establishes. The new bill proposal also lacks a mechanism intended to regulate a framework for long-term budgeting of climate policy and sources for its funding. Further, its language does not bind government agencies and even creates a path for them to retreat from implementing the established targets.² This is primarily due to the absence of supportive policy instruments for achieving the goals, in a manner that does not align with the OECD's recommendation to Israel to anchor such a commitment in law:

- The reference in the law to a target set by government resolution weakens the government's commitment to achieving the target—instead of a long-term national obligation with a high normative level, it offers a governmental commitment that does not create long-term certainty. The new proposed climate law ostensibly protects the target in legal language. However, the government's ability under this proposal to change it, for any reason, by an order with a significantly lower normative level than the law, could weaken the national commitment to the issue.

² Evidence for these shortcomings can be found in the positions of various bodies on the proposed climate law, such as the Ministry of Energy and the Ministry of Economy.



This approach paves a problematic path that could allow the government to retreat from its own set targets in the event of disagreement among government ministries.

- The proposed law did not define in depth the powers, roles, and tools of the bodies established through it (Ministers Committee on Climate, Climate Council, Expert Committee, and Climate Institute) so that in their establishment they would best fulfill the legislator's intention.
- The new bill, although includes tools such as risk management, cost-benefit considerations, obligation to update, monitor, report, and parliamentary oversight and control, lacks additional operational policy tools supporting the achievement of targets, some of which were even noted by government ministries—for example, removing regulatory and planning barriers to increase renewable energy, tools for budgeting climate policy, and carbon taxation. Regarding carbon taxation, it is proposed that, alongside its imposition, mechanisms will be developed to compensate for the expected rise in the cost of living due to this tax, including through the revenues from carbon tax, and also to examine ways to reduce taxes and lower the cost of living in other areas, as proposed by the Third Green Taxation Committee chaired by the Ministry of Finance.



Establishment of the Ministerial Committee on Environmental and Climate Affairs – In April 2023, Government Resolution No. 440 was adopted concerning the establishment of the Ministerial Committee on Environmental and Climate Affairs, which will be headed by the Minister of Environmental Protection.

Key Recommendations



The State Comptroller's Office reiterates its recommendation from the previous report to designate the handling of climate change issues to a permanent, consolidating body that will lead the subject and possess executive powers and the ability to decide between alternatives and in cases of ministerial disputes. Alternatively, the audit suggests endowing one of the existing bodies (such as the MoEP, the Ministry of Energy, the Ministerial Committee, or the National Security Council) with the currently missing characteristics and authorities required. The audit further recommends that given the situation that the issue has not been promoted for years, the MoEP should act to inform the government of the aforementioned obstacles and barriers before for resolution and assistance in providing solutions, with the goal of removing ministerial disputes on focused issues in a way that will allow the promotion of actions required to achieve climate goals.



The audit recommends that the Ministry of Finance develop an operational framework for long-term budgeting of climate policy, in collaboration with the Ministries of Environmental Protection, Energy, Transportation, the Bank of Israel, the National Economic Council, and the National Security Council, and in consultation with the financial regulators. This framework, to be decided upon by the State of Israel, will aid in mapping funding sources, from public funds to other sources such as capital market investments and government bonds. The audit proposes that this framework function as a permanent inter-ministerial mechanism with the capability for long-term vision, which will continuously assess and define the budgetary needs for implementing Israel's climate policy and ensure their actual allocation and utilization over the required timeframes. It will serve as a comprehensive entity for the budgeting and financing of Israel's climate actions, working in synergy with other functions involved in the integration and cross-sectoral coordination of the climate issue.

This step complements the previous chapter's recommendation to the Ministry of Finance regarding the examination of alternatives to subsidies and supports for fossil fuels and a comprehensive process to map out all policy tools in the state's revenue system, including taxes and subsidies that negatively affect the achievement of climate goals. This process is also in line with the recommendations of the Coalition of Finance Ministers for Climate Action and the OECD to adjust "national revenue and expenditure processes" to align with climate goals and the OECD recommendations to Israel for the elimination of benefits on fossil fuels.



The audit recommends that the Ministries of Environmental Protection, Finance, Energy, and other ministries involved in the matter work to strengthen Israel's commitment to fulfilling climate policy, both in the emerging climate law and generally. This includes considering the addition of tools such as anchoring a multi-year budgetary framework and setting rigid and binding targets, as well as providing a range of supporting and complementary policy tools for the initiatives anchored in the climate bill. These tools include necessary economic policy instruments to advance the processes decided upon, including incentives and encouragement of "green" investments; mapping barriers (legal, policy-related, and others) and creating plans for their removal; carbon taxation; and budgetary and financial planning for the transition to a carbon-neutral (or low-carbon) economy ("green financing").

These policy tools are complementary steps for meeting the overarching goals outlined in the bill and have been discussed previously, with their implementation delayed for many years due to governmental disputes. The audit further recommends that these ministries examine and act to remove barriers and to anchor these policy tools in the climate law, in other primary legislation, or through other means that provide them with a binding normative validity. This should also include a mechanism for regulating disparities that hinder the implementation of these tools due to regulatory and legal situations or due to governmental barriers and disputes.



 Building on this and in line with the recommendations of the OECD and the actions taken by developed countries around the world, the audit therefore proposes to anchor mandatory governmental targets in law. This would send a clear signal to government ministries, the economy and the market, the public, and local authorities regarding the direction in which the State of Israel is headed on this issue. Additionally, to realize the objectives of the law and its goals, and to ensure that preparations for climate change and the reduction of GHGs are implemented on a wide scale, the audit recommends embedding the national plans for GHG emissions reduction and climate change adaptation more broadly and mandatorily in the activities of all government ministries (mainstreaming). Therefore, it is important that all relevant government ministries (as well as local government) actively participate in the development of these plans.

Climate Budgets Determined in Government Decisions, Their Allocation and Utilization, Compared with Subsidies for Fossil Fuels, 2015 - 2022 (in NIS B)³



Based on data from the Ministries of Finance, Environmental Protection, Transport, and Energy, adapted by the State Comptroller's Office.

³ To create a comparative basis, the State Comptroller's Office examined the actual allocation and utilization of funds in relation to all government decisions between the years 2015 - 2022, amounting to NIS 3B, compared to the revenues that were reduced as a result of support for fossil fuels during the same period.



Level of Correction of the Main Deficiencies Identified in the Previous Report

Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Quality of governmental handling of climate issues	Government	Segmented governmental handling of climate change leads to barriers and an increase in conflicts between ministries in a way that complicates the integration of considerations when making decisions.				
Consolidating governmental entity for integrating climate issues	Government	The previous report recommended that the government designate the leadership and ongoing management of climate issues to a permanent, comprehensive entity with executive powers and the ability to decide between alternatives.				



Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Need for a budgetary framework	Government	The end result demonstrates that a work model of segmental budgeting (by ministry) and one-time or piecemeal budgeting does not allow for systemic advancement of the climate crisis issue.				
Budgetary deficiency in financing climate change investments in infrastructure	Government, Ministry of Finance	Infrastructure investment is budgeted appropriately or specifically to a very limited extent.				



Report chapter	Auditing entity	Deficiency in previous report	Level of correction of deficiency as identified in the follow-up report			
			Not Rectified	Slightly Rectified	Significantly Rectified	Fully Rectified
Existing normative infrastructure and completion of climate legislation	Government, MoEP	The government has yet to complete legislation of the climate law. The tools used in routine work of the government ministries, especially within the framework of government decisions, do not always lead to their mobilization for the issue, and their lack of engagement over the years has led to limited progress in Israel's climate actions.				



OFFICE OF THE STATE COMPTROLLER
AND OMBUDSMAN OF ISRAEL



2024

Summary

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



Summary

The understanding that the risk arising from the global climate crisis constitutes a significant threat at the national level, posing a real danger to the way of life in the State of Israel in the coming decades, and the fact that Israel's geographical location further exacerbates this risk, led the State Comptroller to conduct a comprehensive audit regarding the state's preparedness on this issue from 2020 to 2021 and to publish its findings in October 2021 as part of a special report (the previous report). The findings of the previous report from 2021 pointed to deep and fundamental gaps in the Israeli climate change response and the country's failure to meet its commitments.

After observing the government's progress on the issue since the publication of the previous report, the State Comptroller decided at the beginning of 2023 to conduct a comprehensive follow-up audit. This audit was designed to examine whether the Israeli government is acting to correct the deficiencies identified in the previous report and whether it is advancing actions that will ensure its preparation for the crisis, in alignment with the significant risk it faces and its international obligations.

This report once again reveals, through detailed tracking of the status of more than 100 audit findings raised in the previous report, a concerning picture. The majority of the deficiencies have not been rectified at all or have not been fully addressed. The State of Israel has made many declarations, mainly implemented through a long series of government resolutions regarding its commitment to climate action, yet it has not led processes or taken enough actions that would enable tangible progress. The government's conduct in this matter can therefore be characterized as "functional stagnation." An improvement was recorded in setting an absolute national target for reducing greenhouse gas emissions instead of the per capita target that existed before, and the audit also found improved preparedness for climate change within the defense system and the Bank of Israel's guidelines for the banking system.

The situation is alarming regarding the government's progress in adaptation across all four dimensions examined: (a) government actions to reduce GHG emissions into the atmosphere to prevent an increase in Earth's temperature (mitigation); (b) the government's multi-sectoral advance preparedness for the risks associated with climate change resulting from global warming (adaptation); (c) the economic and financial aspects of the crisis; (d) aspects of climate governance concerning the institutional, normative, and functional framework of addressing climate issues.



Addressing climate change requires comprehensive governmental attention that involves most government offices and relevant bodies mentioned in government decisions, including the Ministries of Finance, Environmental Protection, Energy, Transportation, Economy, Agriculture, Defense, and the IDF, as well as the Planning Administration within the Ministry of Interior, alongside other public and professional bodies within and outside the government. Combined efforts and sustained political focus on the issue are necessary to generate consistent and continuous progress at a satisfactory pace, which will ensure that Israel achieves its self-set targets and meets its international commitments in a manner befitting its status as a developed country and a member of the OECD.

As mentioned, the foundation of this follow-up report is rooted in a detailed examination of the government's actions concerning more than 100 deficiencies highlighted in the previous report. However, it is possible to identify six fundamental failures that explain the government's slow progress over recent years, which in some aspects has been even slower in the two years since the last report was published:

- 1. Absence of a leading governmental entity** – The lack of a leading governmental body that is committed to achieving the state's targets, working to implement a coordinated and holistic governmental plan, and decisive in ministerial disputes. Continued operation based on the dispersed governmental arrangement, without addressing the functional difficulties identified in this follow-up audit, fails to tackle these obstacles in the government offices' preparation and response to climate change.
- 2. Delay in binding regulation (legal anchoring)** – There has been minimal implementation of the numerous government decisions made in recent years, along with delays in advancing a climate law.

The audit notes that towards the end of the audit, the government began actions to promote a climate law. However, the new proposed law does not include binding targets that would enable effective leadership and integration of the issue across all government actions.

- 3. Failure to promote carbon tax** – The absence of a financial instrument that would internalize the external costs caused by economic activities emitting GHGs and prevent the imposition of a carbon tax on Israeli goods exported abroad. This is part of a package of tax reforms and incentives aimed at mitigating and offsetting the rise in the cost of living and compensating underprivileged populations and local industry in case they are affected. Such a scenario could occur if the carbon tax is promoted in isolation.
- 4. Insufficient response to needs in the electricity network** – Israel lacks investment in upgrading and constructing technical capabilities along the electricity grid, including diversifying its energy sources.



- 5. Absence of comprehensive government risk management** – Israel lacks a government-wide national "attribution scenario" that could serve ministries as a real compass for formulating detailed work plans to address the climate threat.
- 6. Absence of a budgetary framework for climate** – The Ministry of Finance's segmented budgeting approach does not suit the complexity and scope of the issue. Coupled with a lack of oversight, this leads to low utilization of budgets allocated for climate-related issues. This is even more problematic given the stark disparities between the amounts actually spent on climate issues since 2015 and the significantly larger sums the state invests in fossil fuels through various subsidies.

Thus, the findings of this follow-up audit serve as an additional red flag for the government and the Prime Minister. Collaborative international action to address the climate crisis is particularly important, and the State of Israel must actively participate in this global effort. The absence of substantive corrective action regarding Israel's conduct on climate change under the leadership of the government and its head poses a risk that is relevant both to the current generation and those to come.

