

Report of the State Comptroller of Israel | May 2025

Ministry of Agriculture and Food Security

Protection Against Flood Damage — Follow-up Audit



Protection Against Flood Damage — Follow-up Audit

Background

Climate change and extreme weather events have precipitated an increase in natural disasters over the past 50 years. Storms and floods represent the most prevalent natural disasters that have consequently resulted in significant economic losses globally¹. In the years 2000 to 2019, approximately 3,230 floods occurred, impacting around 1.6 billion individuals worldwide and leading to approximately 105,000 fatalities. The economic ramifications of these floods amounted to approximately \$651 billion².

In Israel, floods similarly cause significant damage each year – to property, infrastructures, agricultural fields, and to the economic activity, occasionally resulting in human casualties. For instance, in 2018, ten students perished by drowning due to a flood incident in the Tzafit River³; In the winter of 2019–2020, five individuals drowned during four separate flooding events; In the winter of 2022–2023, two fatalities occurred in a flood incident at the Tzihor River; And in the winter of 2023–2024, one individual drowned in a flood in the Zippori River. In recent decades, the acceleration of urbanization within the country has led to a reduction in open spaces and an increase in areas impervious to surface runoff infiltration (precipitation water that flows or pools on the ground)⁴.

The existence of comprehensive and effective drainage infrastructure is essential for preventing or mitigating flood damage during extreme events. Under the authority of the Drainage and Flood Protection Law, 1957, the Minister of Agriculture and Food Security is empowered to designate specific areas as drainage areas and to establish drainage authorities – statutory corporations responsible for the systematic drainage of their designated regions. A National Council for Drainage Affairs exists to advise the Minister of Agriculture regarding the declaration of drainage areas, the approval of drainage facility plans by drainage authorities, and other general policy matters related to the law (the Drainage Council). The

¹ From the United Nations (UN) website, Climate and Environment (September 1, 2021).

² United Nations (UN), Review of the Human Cost of Disasters 2000-2019.

The institution's director and educational director were convicted in November 2024 of ten offenses of negligent homicide and one count of negligent injury of two additional students. Criminal Case 48149-10-19 **State of Israel v. Kahn et al.** (November 17, 2024). As of the date of submission of the report, the ruling is not final.

⁴ Planning Administration, "Policy and Guidelines for Managing Surface Runoff in Urban Planning in Israel" (March 9, 2020).



Ministry of Agriculture oversees soil conservation and runoff management pursuant to the law.

This ministry regulates eleven independent statutory drainage authorities ⁵. To manage drainage within an area, a drainage authority must establish, modify, maintain, and develop drainage facilities, which are essentially infrastructure projects intended to prevent flood damage. Since 2003, the majority of drainage authorities ⁶ have also been tasked with the management of rivers within their jurisdiction, addressing drainage, recreational, and environmental-ecological concerns due to their designation as river authorities ⁷. It is important to note that the treatment of water pollution sources and the management of water quality do not fall within the responsibilities and powers assigned to the drainage authorities.

The Government Water and Sewage Authority (the Water Authority) is responsible for supplying water to meet state needs and overseeing the water and sewage sector. Local authorities are tasked with executing drainage operations within their respective areas.

⁵ The drainage authorities are: Kinneret, Western Galilee, South Jordan, Kishon, Carmel, Sharon, Yarkon, Sorek Lachish, Shikma Besor, Dead Sea, Arava.

⁶ Within the Yarkon and Kishon drainage authorities, there are separate river authorities whose regulator is the Ministry of Environmental Protection (the MoEP), and they serve as river authorities in the areas they have been authorized to handle.

⁷ River and Spring Authorities Order (Imposition of the Stream Authority Functions on Drainage Authorities), 2003, enacted by virtue of the Rivers and Spring Authorities Law, 1965.

Key Figures

1.6 billion

Number of people affected worldwide by floods that occurred in 2000-2019

\$651 billion

Estimated damage and economic losses caused by floods that occurred around the world in 2000-2019

18 **fatalities**

Perished in floods in Israel in 2018-20238

11

The number of drainage authorities responsible for drainage in their area

3 years

The delay by the team of CEOs (led by the CEO of the Prime Minister's Office) in submitting the national flood risk management plan for government approval (the plan has not yet been submitted)

NIS 1.5 billion only

The amount agreed upon by the Ministry of Finance, the Ministry of Agriculture, and the Israel Land Authority (ILA) to be allocated to finance development activities in the field of drainage in the years 2022-2026, compared to the estimated development needs in drainage projects: Approximately NIS 7 billion. However, this amount reflects an allocation of approximately NIS 300 million per year, approximately six times the average amount in the years 2012-2021

NIS 562 million

Total expected revenue sources of drainage authorities for 2024

17 years

Elapsed since the last update made to the total areas for which the Israel Land Authority pays drainage levies to the drainage authorities



Audit Actions



In 2021, the Office of the State Comptroller published a special report on the matter of "Protection Against Flood Damage" (the Previous Report or the Previous Audit)⁹, in which it examined aspects related to the management of surface runoff in Israel and the mitigation of flood damage. The previous audit addressed several key issues, including the normative infrastructure of the runoff sector, planning and construction aspects pertinent to runoff management and the establishment of drainage facilities, budget management of the drainage authorities, and matters related to the creation of a flood forecasting center, etc.

From December 2023 to October 2024¹⁰, the Office of the State Comptroller conducted a follow-up audit to assess the rectification of deficiencies and the implementation of certain recommendations raised in the previous report, as well as to evaluate additional aspects that emerged during the follow-up audit. The audit was conducted at the Ministry of Agriculture and various drainage authorities. Supplementary examinations were performed at the Prime Minister's Office, the Ministry of Finance, the Planning Administration of the Ministry of Interior, the Ministry of Energy (Water Authority), the Ministry of Transport and Road Safety – the Meteorological Service, the Ministry of Interior, the Federation of Local Authorities, the Federation of Regional Authorities, the Israel Land Authority, the National Emergency Management Authority at the Ministry of Defense, the Ministry of Environmental Protection, the Ministry of National Security, the Land Enforcement Authority, the Israel Police, the National Fire and Rescue Authority, the Nature and Parks Authority, the Israel National Transport Infrastructure Company (Netivei Israel), and the National Security Council.

Key Findings





Comprehensive Regulation of the Drainage Sector — The previous audit indicated that, from 2014 until the audit completion date, legislative procedures pertaining to the regulation of the drainage sector had not promoted. The follow-up audit found that this deficiency had been **partially rectified**, as evidenced by the ratification of Amendment 7 to the Drainage Law, which addressed several issues within the drainage sector. At the same time, the Ministry of Agriculture did not finalize a law amendment, and it was noted

⁹ State Comptroller, Special Audit Report – Protection Against Flood Damage (2021), p. 1305.

¹⁰ Supplementary examinations were also carried out in January 2025.

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that no government resolution had been adopted or other measures undertaken to achieve comprehensive and inclusive regulation of the drainage sector as required. The following areas remain unregulated:

- The distribution of powers and responsibilities regarding runoff management and treatment between drainage authorities and local authorities in all matters concerning areas within localities' boundaries;
- The designation of the entity responsible for regulating drainage within local authority territories;
- c. The efforts of drainage authorities to implement the basin approach¹¹;
- The supervisory and enforcement powers associated with the legal provisions aimed at preventing damage to river channels and their surrounding environments.
- Preparedness for the Formulation of a National flood risk Management plan The previous audit found that the methodology regarding flood risk management plans was localized and lacked guidance concerning the integration of basin-level plans into a national flood risk management framework with a comprehensive perspective. The follow-up audit indicated that this deficiency had been slightly rectified. The Ministry of Agriculture published a guide for the formulation of basin-level risk management plans in September 2021, and by the time the follow-up audit was conducted, the majority of drainage authorities were in the preliminary phases of developing these plans. Additionally, it was only during the 2024 audit that the Ministry commenced the creation of a national methodology for flood risk management with a nationwide outlook, with an estimated completion date towards the end of 2026.
- Regulation of floodplains in the Haifa Bay area The previous audit found that the regulatory facilities of Shfaram river and Somekh river had not been classified as drainage facilities in accordance with the Drainage Law. The follow-up audit indicated that this issue had been slightly rectified. The regulation facility at the Somekh river underwent examination and received approval from the engineering committee, and its status was incorporated into the drainage facility plan sanctioned by the minister. Conversely, the Kishon Drainage Authority and the Ministry of Agriculture failed to complete the necessary measures to adapt the facility at Shfaram River to meet its intended purpose of ensuring adequate protection in alignment with various design events and regulating it within the drainage facility plan.
- Economic Model or Economic Calculations for Ongoing Budgeting of Drainage Authorities - The previous audit identified a substantial disparity, with differences of

An approach that, as part of the river drainage solutions, also addresses the environmental and ecological roles of the river areas and encourages the examination of the issue and treatment of rivers and drainage channels throughout the entire length and perimeter of the drainage basin.



hundreds of percent in the tariffs charged per household and dunam by various drainage authorities. Additionally, it was found that neither the drainage authorities nor the Ministry of Agriculture possessed economic calculations that assessed the budgets required by each drainage authority for ongoing operations and developmental needs corresponding to identified risks, while contrasting them with the quotas imposed. The follow-up audit established that this deficiency had been **slightly rectified**. The Ministries of Agriculture and Finance did not initiate a process to establish a new or updated economic model for the assessment of collections from local authorities and the Israel Land Authority, in accordance with recommendations set forth by the State Comptroller.

- Rate of Drainage Levies per Household in Local Authorities Under Multiple Drainage Authorities The previous audit indicated instances where differing drainage authorities imposed different tariffs per household on the same local authority, with discrepancies reaching up to 300%. The follow-up audit noted that this deficiency was slightly rectified, with existing disparities still evident, amounting to up to 154% in the drainage levies per household charged by various drainage authorities on the same local authority.
- Calculation of Areas for Which the Israel Land Authority Pays Drainage Levies

 The previous audit found that the basis for calculating the areas for which the Israel Land Authority remits drainage levies relies on a mapping conducted by the Ministry of Agriculture in 2007, which has not been updated. The follow-up audit identified that this deficiency has not been rectified. The 2007 mapping persists as the foundation for calculating the areas for which the Israel Land Authority is liable to pay levies to the drainage authorities. Consequently, the areas leased by the ILA for generations and those upon which new cities or neighborhoods have been developed have not been accurately factored out from the total areas used for quota calculations, thereby rendering the extant mapping unreflective of current status.
- Date of Transfer of Israel Land Authority Levy Payments to the Drainage Authorities The previous audit revealed that delays in Israel Land Authority payments to the drainage authorities, derived, among other things, from the date when the annual government decision regarding the payment is made, hinder operational effectiveness for the drainage authorities. The follow-up audit indicated that this deficiency had been slightly rectified. Amendments to the Drainage Law have eliminated the prerequisite for a government resolution for payment execution. Nevertheless, the Israel Land Authority disbursed levy funds for 2024 to the drainage authorities, amounting to approximately NIS 59.6 million, only in June 2024. It was found that the Ministry of Agriculture and the Israel Land Authority had not established a structured timeline for the transfer of levy payments to ensure the disbursement occurs immediately following the approval of the drainage authorities' budgets, thereby enabling optimal budgetary management for these authorities.

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Collection of Drainage Levies from Private Landowners Outside the Local **Authority Jurisdiction** – There are some cases of private landowners whose properties are not situated within the jurisdiction of a local authority. The previous audit found that only two entities, the local authorities and the Israel Land Authority, cover the ongoing costs associated with drainage authorities, with no collection from private landowners outside the local authorities' areas. The follow-up audit found that this deficiency has **not been rectified.** The Ministry and the drainage authorities did not pursue the legal option available to drainage authorities to collect special property taxes or fees from private landowners located within their jurisdiction but outside the jurisdiction of the local authority. Consequently, these landowners do not contribute to the expenses associated with drainage operations, despite being directly responsible for the need for such operations or benefiting from them.



Amendment to the Drainage Law – The previous audit found that due to a dispute between the Ministry of Agriculture and the Federation of Local Authorities, therefore no progress was made regarding the legislation of the drainage sector. The follow-up audit found that Amendment 7 to the Drainage Law had been ratified. The Office of the State Comptroller commends the efforts undertaken by the Ministry of Agriculture that culminated in the amendment's approval. The amendment addressed various concerns articulated in the focused memorandum, including: the centralization of regulatory authorities for runoff management within the Ministry of Agriculture; the issuance of directives to ensure the effective and appropriate operation of drainage authorities; and the formalization of the drainage authority's power to directly collect drainage levies from the Israel Land Authority.

Regulation of the Activity of the Flood Forecasting Center and its Interfaces with Emergency Bodies - The previous audit indicated the necessity for the formal regulation of the Flood Forecasting Center (the Forecasting Center). The follow-up audit found that despite the longstanding need for such regulation, the Forecasting Center functioned based solely on an inter-organizational agreement. The absence of formal regulation, approximately four years post-establishment, led to a significant dispute between the Meteorological Service and the Water Authority concerning roles, responsibilities, and powers in the provision of flood forecasts and warnings. The follow-up audit found that this deficiency had been partially rectified. In December 2024, the government designated 12 the Meteorological Service as the entity responsible for generating weather forecasts and alerts regarding weather phenomena posing hazards to life and property, including producing forecasts and warnings against flooding, inundations, and flash floods. Furthermore, a decision was made on the establishment of a steering committee, presided over by the Director of the Meteorological Service, to facilitate the dissemination of flood and flash flood warnings.

Resolution No. 2632, the designation and role of the Israeli Meteorological Service, dated December 29, 2024.



In this context, note is made of the flood incident on Highway 40 in April 2023, which resulted in two fatalities, emphasizing the need to complete the process of ensuring coordinated operations between the Forecasting Center and emergency services. Such coordination is fundamental to guaranteeing preemptive measures are in place for the management of flood events, thereby mitigating potential harm to life and property. Subsequent investigations by law enforcement found the operational methodology employed in forming a national and regional situational overview through the forecasts and alerts provided by the Meteorological Service and the Forecasting Center to be effective. However, from the Police's perspective, there is a demand for increased specificity in targeting the expected floods by stream, while conversely, the Water Authority contended that the warning issued regarding the flood on Highway 40 was both accurate and targeted.

Composition of the Drainage Council — The previous audit indicated that the Drainage Council functioned without twelve public representatives, not in accordance with the provisions of the law. The follow-up audit found that this deficiency has been **fully rectified.** The Drainage Law has been amended, resulting in a revised composition of the Council to include representation from relevant governmental ministries, local government, and the public, thereby achieving full compliance with legal stipulations.

Gaps in the Marking of Rivers in a National Outline Plan (NOP) — The previous audit identified that rivers within NOP 1 were delineated as linear features rather than polygons, failing to encompass all aspects of the river's various usages, thereby rendering it inadequate for planning considerations for the instructions and plan drawings subject to an NOP. Additionally, it was noted that the floodplains¹³ indicated in NOP 1 were outdated, raising concerns about potential misuse. The follow-up audit found the deficiency has been **significantly rectified.** As part of the ongoing revision of NOP 7/1 (the preparation of which is under advanced stages as of the follow-up audit completion date), the Planning Administration and the Ministry of Agriculture are collaborating to update the floodplains in NOP 1 as well as the guidelines pertaining to the expansion of river areas, thereby designating them as polygons in plans subject to the NOP.

Updating the Drainage Authorities in the Planning Procedures of Outline Plans Having Impact on Drainage Matters — The previous audit indicated that drainage authorities were not adequately informed about planning procedures pertaining to all outline plans with potential external impacts involving surface runoff, flooding, or groundwater. This situation was particularly prevalent in instances where a planning institution exempted the plan submitter from the obligation to attach runoff management documentation. The follow-up audit found that this deficiency has been **fully rectified.** Under NOP 8/1, which updates NOP 1, it has been mandated that such exemptions shall

¹³ A floodplain is an area along a river where water flows or stagnates, frequently or intermittently, as a result of flows that the river is unable to convey, as the flow rate in the river is higher than its carrying capacity.

only be granted following consultation with the drainage authority, thereby ensuring that drainage authorities remain apprised of all relevant planning initiatives, including those obtaining exemption from the runoff management documentation requirement.

National Projects to Prioritize Actions to Reduce Flood Damage; A Dedicated National Outline Plan for Protection Against Flood Damage - The previous audit found that national outline plans lack sufficient statutory safeguards for hydrological infrastructure, including rivers, floodplains, drainage channels, and runoff regulation sites, essential for mitigating and preventing flood-related damage in vulnerable regions. The follow-up audit established that this deficiency has been significantly rectified. The formulation of NOP 7/1 commenced in mid-2022, and it is presently in the phase of developing alternatives for regulation sites to be integrated into the NOP, facilitating the selection of viable options for inclusion.

Publication Regarding the Preparation of Drainage Facility Plans - Public Participation in the Provisions of the Approved Plans and in the Blueprints -The previous audit found that publicly accessible information pertaining to approved drainage facility plans, as provided by the Ministry on its website, excluded essential plan documentation and blueprints. The follow-up audit found that this deficiency has been significantly rectified. Although the Ministry has yet to upload the drainage facility plan documents and blueprints onto its website or make those accessible through other means, it has been articulated that, pursuant to the joint directives of the Ministry and the Planning Administration from February 2024, both the plan documents and blueprints associated with drainage facility plans will be incorporated into a computerized system¹⁴ and made publicly accessible via the Planning Administration's planning information website. Additionally, a geographic information layer specific to the approved drainage facility plans has been established on the government map website.

The Ministry's Actions to Increase the Development Budget Allocated to Flood Management - The previous audit indicated that, despite the necessity to allocate appropriate resources for the planning, development, and implementation of new drainage projects, and in light of the absence of a valid agreement among the Ministries of Agriculture, Finance, and the Israel Land Authority to advance drainage plans commencing in 2023, no budget agreement was signed on the matter. Furthermore, the government budget designated for this purpose, established in 2010, did not align with the drainage needs at that time nor with future requirements. The follow-up audit found that this deficiency has been significantly rectified. The Ministries of Finance, Agriculture, and the Israel Land Authority collaborated to allocate a budget for 2022-2026 aimed at financing flood damage mitigation activities and at planning and constructing drainage projects to support housing programs amounting to approximately NIS 1.5 billion; Of this, approximately NIS 695 million was sourced from the Ministry's budget and approximately NIS 800 million from the Israel Land Authority's budget,

Uniform structure for plans.



reflecting a six-fold increase compared to the budget allocated in the decade preceding the previous audit period. Nonetheless, the current needs assessment approximates a total of NIS 7 billion.

Project Ranking: Household Tariff — The previous audit found that the methodology introduced in the Ministry of Agriculture's support procedure, whereby the percentage of the Ministry's participation in runoff management projects conducted by drainage authorities is derived from the household tariff established by those authorities, could potentially result in significant drainage projects lacking adequate funding and, consequently, not being executed. The follow-up audit established that this deficiency has been **fully rectified.** The Ministry of Agriculture has resolved to abolish the method that considers the household tariff of drainage authorities in determining support, with intentions to apply the same approach in forthcoming allocations.

Utilization of support Budgets Approved by the Ministry of Agriculture for drainage Authorities – The previous audit indicated that approximately half of the drainage authorities (six) had utilized less than 80% of the support funds allocated for runoff and drainage management projects approved for them during the period 2014–2016. The follow-up audit found that this deficiency has been **mostly rectified.** Between 2018 and 2020, the support utilization rate in nine drainage authorities exceeded 80%, with six of these exhibiting utilization rates of 90% or higher (namely, Kishon, Kinneret, Sharon, Sorek Lachish, Dead Sea, Arava). In contrast, the utilization rates for the Western Galilee Drainage Authority and the Yarkon Drainage Authority were recorded at 29% and 75%, respectively.

The Budget for the Forecasting Center's Activity — The previous audit indicated that the Forecasting Center's budget for 2021 was determined based on an assessment of the current situation, rather than through a structured multi-year work plan. The follow-up audit found that this deficiency has been **mostly rectified**, given that the Meteorological Service reported its capability to operate the Forecasting Center within its existing budget.

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Key Recommendations



The Ministry of Agriculture, in collaboration with the Prime Minister's Office, the Ministry of Environmental Protection, the Ministry of Interior, and the Water Authority, alongside the Federation of Local Authorities and the Federation of Regional Authorities, is required to finalize the regulation of the drainage sector and to resolve ongoing disputes regarding this matter. In particular, it is essential that they determine the model that will facilitate optimal overall regulation of runoff and drainage management in the country, identify the government entity responsible for managing runoff within local authorities, and establish agreements delineating the authority and responsibility between drainage authorities and local authorities. Furthermore, they must regulate the powers and role of drainage authorities to implement the basin approach and establish effective mechanisms for supervision and enforcement of legal restrictions aimed at preventing damage to river arteries and their surrounding environments.



The Meteorological Service must work to ensure that the Flood Forecasting Center, established by the government in December 2024, will fulfill its mission by distributing its products in a timely manner among all stakeholders to prevent additional casualties resulting from flood events. Given the importance of publishing reliable outputs in advance, it is expected that all involved parties - including the Meteorological Service, the Ministry of National Security, the Ministry of Agriculture, the Water Authority, the police, and other emergency response entities - will engage in full cooperation to ensure the accurate publication of warnings and the implementation of appropriate preparations in the field.



The Ministry of Agriculture is required to complete the national methodology for flood risk management by the designated deadline, including tools for decision-making and prioritization at the national level. Consequently, it must allocate support for runoff and drainage management plans in accordance with the national methodology that will be determined.



It is recommended that the Ministry of Agriculture establish a unified procedure detailing the information required regarding the characteristics of a drainage facility plan, including guidelines addressing hydrological, ecological, and landscape aspects. Furthermore, it is advised that after drainage authorities finalize the relevant basin risk management plans, the Ministry should mandate these authorities to include in the drainage facility plans submitted for approval details pertaining to their alignment with the action strategy outlined in the risk management plan.



The Ministry of Agriculture and the Kishon Drainage Authority must ensure the execution of all necessary actions to adjust the capacity and efficacy of the Shfaram River regulation facility to mitigate expected flood damage across various return periods. The legal status of the regulation facility and all requisite flood areas in proximity to it must be established. Should it become evident at the conclusion of this process that the necessary adjustments



are infeasible, the Ministry and the Kishon Drainage Authority must, in accordance with their statutory powers, seek to arrange an alternative and sustainable regulatory solution over time, in compliance with legal provisions.



The Ministry of Agriculture, in partnership with the Ministry of Finance and the Ministry of Interior, and in consultation with the Federation of Local Authorities and the Federation of Regional Authorities, should conduct a comprehensive economic review of the resources required by drainage authorities in comparison to the available funding sources. An updated economic model for the requisite levies from local authorities and the Israel Land Authority should be developed. This model must be based on an assessment of costs outlined in the drainage authorities' risk management plans, the financial implications of establishing drainage projects, the maintenance costs of drainage infrastructure, and take into consideration - if possible - the benefits accruing to the paying entities as mandated by law.



The Israel Land Authority, in cooperation with the Ministry of Agriculture and the Ministry of Interior, should undertake an annual review of the areas used as a basis for calculating drainage levies, ensuring that these estimates reflect any changes that occur. Additionally, it is recommended that the Israel Land Authority establish the process and characteristics of the review in a procedural framework to facilitate optimal and agreed-upon annual execution. The Israel Land Authority is expected to complete the entire procedure in preparation for implementation commencing in 2026.



In light of the reported development needs amounting to NIS 7 billion, as indicated by the Ministry of Agriculture, the Ministry of Agriculture should collaborate with the Ministry of Finance and the Israel Land Authority to assess the budget necessary to address drainage requirements and to promote its allocation for actions aimed at mitigating flood damage, as well as financing the planning and construction of drainage projects to support the housing plans of the Israel Land Authority.



Flood on Highway 40 in the Paran River Area, April 2023



Source: Netivei Israel, photographer Shai Yadal El Porat.



Summary

In 2021, the State Comptroller published a special report assessing governmental initiatives aimed at safeguarding the public from flood-related damage. The follow-up audit found that some deficiencies had been fully or significantly rectified, as previously described. Furthermore, two deficiencies were identified as partially rectified: the lack of promotion for comprehensive and inclusive regulation within the drainage sector through legislative means, including the delineation of powers and responsibilities among drainage authorities and local authorities, as well as the enforcement mechanisms for legal provisions designed to prevent damage to river systems and their surrounding environments; And the oversight of the activity of the Flood Forecasting Center and its interactions with emergency response agencies. Additionally, multiple deficiencies were either slightly rectified or not rectified at all, such as the initiation of the development of a national methodology for flood risk management by the Ministry, intended to include tools for prioritizing risk management at the national level, which commenced only during the current audit, in 2024.. Moreover, the Ministry, in collaboration with relevant stakeholders, has yet to resolve critical issues related to drainage levies, including the mechanisms and criteria for setting drainage tariffs and the updated mapping required for the calculation of areas for which the Israel Land Authority is responsible for paying drainage levies.

The Ministry of Agriculture and the Prime Minister's Office, in collaboration with the Ministry of Environmental Protection, the Ministry of Interior, and the Water Authority, must undertake efforts to finalize the comprehensive regulation of the drainage sector nationally. Additionally, the Ministry of Agriculture, in collaboration with the Ministries of Finance and the Interior, and in consultation with the Federation of Local Authorities and the Federation of Regional Authorities, is required to conduct a thorough economic assessment of the resources necessary for the drainage authorities, compared to their available funding sources, and to formulate an updated economic model for the required financial contributions from local authorities and the Israel Land Authority. The Ministry of Agriculture must also finalize the development of a national methodology for flood risk management, which will include decision-making tools and resource prioritization at the national level, thereby supporting the previously mentioned economic assessment. This is particularly critical considering the estimated drainage needs for the forthcoming years, which amount to approximately NIS 7 billion, in contrast to the NIS 1.5 billion allocated by 2026.

During the follow-up audit, and following a material dispute arising between the Meteorological Service and the Water Authority concerning the designation of the responsible entity and the authority for providing forecasts and warnings regarding floods and inundations, the government authorized the Meteorological Service, through Resolution 2632 of December 2024, to activate the National Flood Forecasting Center. The significance of its effective and continuous operation, as well as the optimal collaboration with entities responsible for managing emergency situations in the country, is underscored by the flood-



related damage that has occurred in Israel over recent years, which has resulted in loss of life. Notable incidents include the flood disaster in the Tzafit River claiming the lives of ten students, a flood occurrence on Highway 40 (Tzihor River) resulting in two fatalities, and a flood event in the Zippori River that claimed one life.

In light of the severe consequences and expected economic impact of future floods, all parties responsible for the management of runoff and drainage systems, led by the Ministry of Agriculture and the drainage authorities, in collaboration with the Prime Minister's Office, the Ministry of Environmental Protection, the Ministry of Finance, and the Water Authority, along with the Federation of Local Authorities and the Federation of Regional Authorities, must take requisite actions to address the deficiencies that have not yet been addressed and to establish a nationwide strategic vision aimed at risk mitigation and the prevention of flood damage.



The Degree of Rectification of Main Deficiencies Raised in the Previous Report

		The Degree of Rectification of the Raised in the Follow-Up A						
The Audit Chapter	The Audited Body	The Deficiency Noted in the Previous Audit	Not Rectified	Slightly Rectified	Partially Rectified	Significantly Rectified	Fully Rectified	
Composition of the Drainage Council	Ministry of Agriculture	The Drainage Council operated without 12 public representatives, in a manner that is not in accordance with the provisions of the law					-	
Involvement of drainage authorities in approving plans that affect runoff	Planning Authority	Drainage authorities are not informed about the planning processes of all outline plans that may have an impact outside their territories on issues of surface runoff, flooding, or groundwater					—	
Planning and construction aspects of drainage and river regulation projects	Ministry of Agriculture, Planning Authority	The rivers in NOP 1 are marked as a line and not as a polygon, and therefore do not reflect all areas of the river and its various uses. The flood plains marked in NOP 1 are not up to date				—		

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The Audit Chapter	The Audited Body	The Deficiency Noted in the Previous Audit	Not Rectified	Slightly Rectified	Partially Rectified	Significantly Rectified	Fully Rectified
A dedicated national outline plan for protection	Planning Authority	The national outline plans do not provide sufficient					
against flood damage		statutory protection for hydrological infrastructure					
Publication regarding the preparation of drainage facility plans –	Ministry of Agriculture	The information on approved drainage facility plans, which the Ministry made available to the public on its website, does not include the plan documents and their blueprints					
public participation in the provisions of the approved plans and blueprints							
The Ministry's actions to increase the development budget allocated to flood	Ministry of Finance, Ministry of Agriculture, Israel Land	No budget agreement has been signed for 2023 and beyond to advance drainage					
treatment	Authority	programs. The government budget designated for the subject, set in 2010, did not reflect drainage needs at the time and future needs					



		The Degree of Rectification of the Defi Raised in the Follow-Up Audit					iency as
The Audit Chapter	The Audited Body	The Deficiency Noted in the Previous Audit	Not Rectified	Slightly Rectified	Partially Rectified	Significantly Rectified	Fully Rectified
Utilization of support budgets approved by the Ministry of Agriculture for drainage	Ministry of Agriculture, drainage authorities	About half of the drainage authorities (6) utilized less than 80% of the support funds for runoff					
authorities	norities	and drainage management projects approved for them in 2014– 2016					
Comprehensive regulation of the drainage sector	Ministry of Agriculture	From 2014 until the audit end date, legislative procedures to regulate the drainage sector were not advanced					
Flood risk management	Ministry of Agriculture	The flood risk management plan methodology does not include guidance regarding the integration of					
		integration of the regional plans into a national flood risk management plan with a nationwide perspective					



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The Audit Chapter	The Audited Body	The Deficiency Noted in the Previous Audit	Not Rectified	Slightly Rectified	Partially Rectified	Significantly Rectified	Fully Rectified
Regulating floodplains in the Haifa Bay area	Ministry of Agriculture, Kishon Drainage Authority	The regulating facilities for Shfaram River and Somekh River were not regulated as a drainage facility in accordance with the Drainage Law					
Drainage levies paid by local authorities	Ministry of Agriculture, Ministry of Finance, Ministry of Interior	There is a gap of hundreds of percent in the tariffs per household and dunum charged by different drainage authorities. It was also found that neither the drainage authorities nor the Ministry of Agriculture have economic calculations examining the budgets required for each of the drainage authorities					
Drainage levy tariffs for a household in local authorities whose jurisdiction falls within the jurisdiction of several drainage authorities	Ministry of Agriculture, Ministry of Finance	There were cases where different drainage authorities charged the same local authority a different tariff for a household, up to 300% more		-			

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The Audit Chapter	The Audited Body	The Deficiency Noted in the Previous Audit	Not Rectified	Slightly Rectified	Partially Rectified	Significantly Rectified	Fully Rectified
Date of transfer of levies payments from the Israel Land Authority to the drainage authorities	Ministry of Agriculture, Israel Land Authority	The delay in Israel Land Authority payments, which stems, among other things, from the date of the annual government decision on payment, makes it difficult for the drainage authorities to operate					
Calculation of the areas for which the Israel Lands Authority pays drainage levies to the drainage authorities	Ministry of Agriculture, Israel Land Authority, Ministry of Interior	The basis for calculating the areas for which the Israel Land Authority pays drainage levies is based on a mapping conducted by the Ministry in 2007 and has not been updated since					

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The Audit Chapter	The Audited Body	The Deficiency Noted in the Previous Audit	Not Rectified	Slightly Rectified	Partially Rectified	Significantly Rectified	Fully Rectified
Collection of drainage levies from private landowners on land not included in the jurisdiction of a local authority	Ministry of Agriculture, drainage authorities	Only two entities bear the cost of the drainage authorities' ongoing expenses, the local authorities and the Israel Lands Authority, and there is no collection from private landowners outside the areas of the local authorities.					