



State Comptroller Special Audit Report | March 2024

Transboundary Air Pollution from Waste Burning in Judea and Samaria



Transboundary Air Pollution from Waste Burning in Judea and Samaria

Background

An uncontrolled and unregulated waste burning, has been occurring in the Judea and Samaria (West Bank) for at least 20 years. These fires emit many toxic¹ pollutants into the air, exposure to which can lead to health damage, including a burning sensation in the eyes, nose, and throat, headaches, difficulty breathing, chronic respiratory illness, heart disease, neurological problems, and in extreme cases immune system impairment, hormonal disruption, and cancer. The air pollution from these fires does not respect artificial boundaries, and reaches Palestinian and Israeli communities in the West Bank and in Israel, depending on prevalent meteorological conditions and wind patterns (transboundary air pollution). This audit on transboundary air pollution caused by burning mixed Palestinian household waste (mixed Palestinian waste) and electrical and electronic equipment waste (e-waste or WEEE) in Judea and Samaria (most of the WEEE burned in Judea and Samaria originates in the State of Israel).

The Ministry of Environmental Protection (MOEP) is responsible for environmental preservation in Israel, including reducing air pollution, waste management, and monitoring hazardous substances.

The Judea and Samaria area are unique as it consists of many disconnected and scattered territories close to each other, each classified differently (Areas A, B, or C), with differing sovereign powers and applicable laws. Environmental issues in Judea and Samaria are treated differently than in other areas of Israel, both in terms of environmental laws and the bodies authorized to operate in this field. The main governing bodies operating in environment in Judea and Samaria include : the Environmental Quality Unit (Environmental Staff Officer Unit) in the Civil Administration, headed by an Environmental Staff Officer (Environment KAMAT), the Central Supervision Unit in the Civil Administration (Supervision Unit), the Attorney General in Judea and Samaria, the MOEP serving, among other things, as a guide and professional advisor to the Environmental Staff Officer; councils of Israeli communities in Judea and Samaria; of municipal environmental quality associations in these areas; the National Fire and Rescue Authority; the Judea and Samaria District of the Israel Police (SHAI District); the Palestinian Authority (PA), and Palestinian local authorities.

1 For example, smoke, dioxins, polyaromatics, volatile organic compounds, carbon monoxide, particulate matter (PM), ash, and odor pollutants, as mentioned in the Maintenance of Cleanliness Law Memorandum (Amendment No. 22) 2011, Summary Report of the Subcommittee for Dealing with Air Pollution from Waste Burning in Open Areas, Knesset Research and Information Center, p. 7.



Key Figures

last 20 years

the time during which waste burning in Judea and Samaria has causes transboundary air pollution, with no government policy and no government plan addressing it and its hazards

up to about NIS 1.3 billion in 2023 and up to about NIS 9.1 billion in the years 2023–2030

the cumulative external cost of morbidity, mortality damage, and harm to the economy and agriculture from transboundary air pollution caused by burning mixed Palestinian waste and electronic waste in Judea and Samaria, according to the State Comptroller's Office estimates (in the "business as usual" scenario)

over 50,000

the number of Israeli residents' complaints to the MOEP in 2017–2022 regarding air pollution and odor nuisances from waste burning in Judea and Samaria. Of these, about 44,700 reported a strong odor; about 21,200 reported respiratory difficulties; about 13,400 reported eye or respiratory system irritation, and about 2,900 reported skin irritation

about 180,000 tons

the amount of mixed Palestinian waste burned in Judea and Samaria in 2022 which caused significant transboundary air pollution, neither assessed nor included by the MOEP in its reports to the Israeli public



only about 1%	about 30% to about 40%	only 5	at least 758
of the mixed Palestinian waste is recycled and reclaimed, as of 2020, according to a United Nations report	the amount of electronic waste smuggled from Israel to Judea and Samaria (about 57,000–64,000 tons), according to a 2020 United Nations report, out of the total amount of electronic waste generated in Israel that year, according to MOEP estimates. According to the Civil Administration, a significant portion of the e-waste burned in Judea and Samaria originates in Israel	records of waste offenses handled in the Judea and Samaria (SHAI) District in 2022. I.e., a decrease of about 87% in enforcement against waste offenders in Judea and Samaria in 2022, compared to 2020 (40 records)	the number of waste fires in Israeli communities' in Area C in 2020–2022 in violation of the law, resulting in additional air pollution that could harm the environment and the health of Israeli and Palestinian residents

Audit Actions

From February to December 2023, the State Comptroller's Office audited the "Transboundary Air Pollution from Waste Burning in the Judea and Samaria." The audit examined environmental management and waste burning in Judea and Samaria, including governmental bodies' setting a policy and a plan for transboundary environmental management; transboundary air pollution from domestic Palestinian waste burning; cross-border air pollution from e-waste burning; supervision and enforcement of waste disposal offenses and waste burning; the MOEP's emergency response to complaints on hazards in Israel from waste burning in Judea and Samaria; extinguishing waste burning fires in Judea and Samaria; and waste burning incidents at unauthorized waste disposal sites in Judea and Samaria during the Iron Swords war.

The audit was conducted in the Environmental Quality Unit at the Civil Administration, in the Supervision Unit at the Civil Administration, in the office of the Attorney General for Judea and Samaria; in the MOEP, in the Fire and Rescue Services, and the Ministry of Health. Supplementary examinations were conducted in the Association of Cities for Environmental Quality in Judea; in the Association of Cities for Environmental Quality in Samaria, in the Association of Cities for Environmental Quality in the Ashkelon region, in the Maintenance of Cleanliness Fund in the MOEP, in the SHAI District of the Israel Police; in the Lachish Regional Council (Eliav); and in the Rosh HaAyin Municipality. The audit



was assisted by associations and third-sector organizations dealing with the subject. The audit also examined aspects the State Comptroller's Office addressed in a previous report: "Water Pollution between the State of Israel and the Territories of Judea, Samaria, and the Gaza Strip" in 2017².

The State Comptroller's Office, using QGIS software, mapped the incidents and their transboundary effect as part of the audit. Since the audit topic directly affects the public, the audit team and the Ombudsman in the State Comptroller's Office met residents from the border area who suffer from waste burning in Judea and Samaria. In examining the scope of waste addressed in this audit report and the economic harm caused by its burning, the State Comptroller's Office hired an economic-environmental consultant.

Key Findings



Addressing Transboundary Air Pollution from Waste Burning in Judea and Samaria – for many years, the Civil Administration has failed to promote environmental infrastructure projects in Judea and Samaria, enabling organized treatment of mixed Palestinian waste and electronic waste. Additionally, the MOEP has long neglected its obligation to safeguard the air quality of Israeli communities affected by these burnings. This, alongside the lack of involvement of the political echelon in the issue and the absence of a government policy and plan to address transboundary environmental impacts from Judea and Samaria, and its execution has persisted for two decades. Furthermore, the audit findings indicate weaknesses in coordinating and sharing information among governmental bodies involved in supervising and enforcing waste dumping and burning offenses in Judea and Samaria. There are also deficiencies in handling public complaints regarding these fires and extinguishing them, as well as weaknesses in the interface between health and environmental authorities. In addition, there is limited use of monitoring and enforcement powers for waste dumping and burning offenses in Judea and Samaria and limited authority for extinguishing fires in the area.

These significant weaknesses and failures led, in 2022, to the burning of mixed Palestinian waste in 123 unauthorized dumping sites throughout Judea and Samaria. Of these, 77 sites (about 63%) had a transboundary effect, with 39 of them (about 51%) burning at high to moderate frequencies (daily to weekly basis). In the same year, with

2 The State Comptroller, **Annual Report 67B** (2017), "Water Pollution between the State of Israel and the Territories of Judea, Samaria, and the Gaza Strip."



transboundary effect, hundreds of additional unauthorized e-waste fires burned at these frequencies in Area C in the southern Hebron Hills region.

Government Policy and Plan for Transboundary Environmental Management

📌 Until the audit end (December 2023), the government has not formulated its policy on transboundary environmental hazards in general and environmental hazards from Judea and Samaria in particular, nor has it established a government coordination factor to lead the handling of the issue. This is despite the existence of severe and ongoing environmental effects in Judea and Samaria, including waste burning, whose environmental, health, and economic effects could harm Israeli population centers as well. The delay in formulating the policy over the years was due, among other reasons, to disputes between the ministries of environmental protection and defense. Already in a report from June 2017, the State Comptroller recommended that the government establish an inter-ministerial team to address the issue. It was found that only in June 2023, during the current audit, the government (Government Decision from June 2023) established an inter-ministerial team to formulate government policy for transboundary environmental management and a plan to address waste-related hazards in Judea and Samaria (the inter-ministerial team). The team was instructed to submit its recommendations to the government by the end of January 2024³.

Transboundary Air Pollution from the Burning of Mixed Palestinian Domestic Waste in the West Bank


📌 The Increase in the Scope of the Phenomenon and the Reasons for its Formation – according to the MOEP, the main reasons for the burning of mixed Palestinian waste in illegal dumping sites are the absence of authorized landfills to handle such waste in various areas of Judea and Samaria, and the lack of economic capability of Palestinian communities of low socioeconomic status to finance the cost of transporting their mixed waste to distant authorized landfills. Between 2017 and 2022, there was an increase of about 75% (from about 70 to about 123 sites) in the number of unauthorized waste disposal sites in Judea and Samaria. According to State Comptroller's Office estimates, about 422,000 tons of mixed Palestinian waste, about 45% of the total mixed Palestinian waste generated in Judea and Samaria in 2022 (an amount equivalent to mixed waste from about 700,000 Palestinians), were burned in unauthorized waste disposal sites. About 180,000 tons of this waste were burned in 77 unauthorized waste disposal sites with transboundary impact.

3 Government Decision 592, "Strategic Plan for Addressing Environmental Hazards in the Judea and Samaria Region and Transboundary Impacts" (4.6.23), <https://www.gov.il/he/departments/policies/dec592-2023>



Gaps in Information Collection and Sharing About the Fires

- The Environmental Quality Unit did not assess the amount of waste burned in each unauthorized waste disposal site nor the potential environmental damage they posed. However, this information is essential for risk assessment and decision-making regarding measures to be taken and infrastructure to be established or expanded to handle Palestinian mixed waste systematically.
- The MOEP failed to assess the extent of air pollution caused to Israeli residents by waste fires in the West Bank, even though its National Hazardous Materials and Emergency Division defined West Bank areas as a significant contributor to air pollution in Israel, and despite receiving and recording over 50,000 complaints from Israeli residents in 2017–2022. Thus, in 2022, MOEP estimates regarding air pollution in Israel from waste burning in open areas did not include the air pollution from the burning of about 180,000 tons of Palestinian mixed waste in unauthorized waste disposal sites with transboundary effect; instead, only the air pollution from burning about 285,000 tons of mixed waste in Israel.
- The MOEP failed to share with the Ministry of Health tens of thousands of the complaints above, even though they included complaints and reports from Israeli residents regarding physiological symptoms, including breathing difficulties, burning sensations in the eyes or respiratory system, skin irritation, nausea, dizziness, and headaches. Such sharing may help to assess the existence of a health effect among Israeli residents due to long-term exposure to these hazards.

 **Gaps in Regulation of Treatment for Palestinian Mixed Waste in Judea and Samaria** – as of the audit end (December 2023), dozens of Palestinian villages in Judea and Samaria lack transfer stations to streamline waste collection and treatment and encourage organized waste management⁴. The establishment or upgrade of nine out of 12 transfer stations undergoing implementation in 2023 is delayed due to difficulties in coordination with the Palestinian Authority. About NIS 50 out of 53 million allocated by the Judea and Samaria Cleanliness Fund (one of the fund accounts for waste management in the Judea and Samaria region) for projects involving the transfer of waste from Palestinian communities to distant authorized disposal sites in 2020–2023 remain unused. Four projects for the establishment and upgrade of end sites for treating Palestinian mixed waste (including the establishment of Ramon and Tiltan sites and the upgrade and expansion of the Zahrat al-Finjaan and al-Minia sites) to bridge a

⁴ Transfer stations are located near the waste production sites, where the waste delivered to them is compacted and transferred in smaller quantities for treatment at final disposal sites. This enables authorities to save on the costs of transporting waste to distant final disposal sites and payments to final disposal sites based on the quantity of waste received there. The importance of establishing these transfer stations increases when dealing with Palestinian villages of low socio-economic status, struggling to fund waste management and transport to authorized disposal sites, as well as payment of waste disposal fees at these sites.



longstanding gap between the capacity of these end sites and the actual waste volumes generated are only in initial planning stages in the Civil Administration or initial execution processes and may not be completed by the time the existing disposal sites reach their capacity limit.

- 📌 The External Costs Forecast of Burning Palestinian Mixed Waste in 2023–2030** – according to the State Comptroller's Office estimate, the cumulative external costs of transboundary air pollution from the burning of mixed Palestinian waste over eight years, from 2023 to 2030 will be (after adjusting for a 4.5% capitalization rate) about NIS 7.4 billion under the "business as usual" scenario; about NIS 6 billion under the optimistic scenario; and about NIS 10.3 billion under the pessimistic scenario. This assessment reinforces the need and economic viability of completing infrastructure for regulating mixed Palestinian waste as soon as possible.

Transboundary Air Pollution from the Burning of Waste from Electrical and Electronic Equipment in Judea and Samaria

- 📌 The Phenomenon and its Causes** – for about a decade, the MOEP and the Civil Administration have been aware of the transfer of electronic waste (e-waste) from Israel to the Judea and Samaria region, specifically to the southern Hebron Hills area as part of an informal industry that sustains hundreds of Palestinian families by recycling e-waste through burning to extract various metals. The smuggling of e-waste to Judea and Samaria, estimated to exceed 50,000 tons in 2023 (according to the State Comptroller's Office), is illegal under Israeli law. Its burning harms the air quality and health both Palestinian residents and Israeli residents in the border zone and surrounding communities. The State Comptroller's Office estimates the external cost from air pollution due to these burnings to be at least NIS 242 million per year, although this is a conservative estimate. Additionally, there is a loss of revenue to the state treasury, initially estimated at NIS 116 million per year, due to the diversion of e-waste to Judea and Samaria and the prevention of its potential utilization (i.e., the metals contained in it) by the Israeli economy. A 2019 study found a statistical correlation between the foci of excess incidence of lymphoma cancer in children from Palestinian villages in the southwestern area of Mount Hebron and the location of sites for the dismantling and burning of e-waste⁵. Until the audit end (December 2023), the Civil Administration (responsible for civilian affairs in Judea and Samaria, Area C), the SHAI District of the Israel Police, and the MOEP had made no progress regarding the smuggling and burning of electronic waste in the Judea and Samaria region.

5 This study is known to officials in the Civil Administration and the Ministry of Environmental Protection. See: John-Michael Davis, Yaakov Garb, A strong spatial association between e-waste burn sites and childhood lymphoma in the West Bank, Palestine, *Cancer Epidemiology*, Volume 144, Issue 3 1 February 2019 pp. 470-475.



📌 The Absence of Volume Estimates of Untreated and Burned E-Waste in Judea and Samaria – due to failures that incentivize the existence of an alternative and informal market for e-waste treatment in Israel, some e-waste that should be legally treated in Israel through "recognized recycling" (the formal track where waste is collected legally through recognized implementation bodies from importers, manufacturers, marketers, local authorities, and other waste holders), is illegally and regularly diverted to Area C and PA-controlled areas (A and B); primarily to villages such as Idhna, Dir Samet, and Beit Awwa (near the Lachish settlements), where the e-waste is burned to extract valuable metals. The MOEP and the Civil Administration lack data on the volumes of waste smuggled from Israel to Judea and Samaria (estimated in a 2020 UN study at about 57,000 to 64,000 tons per year); on the scope of e-waste burned in Judea and Samaria; and how much of it is from Israel and how much is from the Palestinian Authority. According to the State Comptroller's Office estimates, in 2023, about 51,700 tons of e-waste from Israel were burned on illegal sites in Judea and Samaria.

Monitoring and Enforcement of Waste Disposal and Waste Burning Offenses in Judea and Samaria

📌 The Supervision Unit in the Civil Administration – in 2017–2022, environmental offenses, including waste-related offenses and waste burning, were not the main focus of the supervision unit's activity, despite the increase in the volume of waste, the number of incidents, and the number of complaints received. This neglect occurred even though the unit is the primary enforcement authority in this area. The supervision unit has several enforcement tools, including the seizure of equipment (such as trucks and tractors) used in illegal waste sites, demolition and blocking of these sites and their access roads, and legal authority, including fines.

- It was found that in environmental protection, the supervision unit primarily carries out equipment seizures over other enforcement actions combined, making it the primary tool applied in environmental offenses. The number of seizures carried out by the unit for all types of environmental offenses enforced in 2017–2022 decreased by about 36%, totaling only 96 seizures in 2022. The effectiveness of this enforcement tool is questionable due to the time limit for confiscation – up to 72 hours. The enforcement unit resorted to enforcement through demolition in only a few cases in 2017–2022 (2–5 cases per year), except for in 2019 (12 cases) and in 2022 (16 cases). The use of enforcement measures such as blocking illegal waste sites and access roads to them has been on the decline since 2017 (except for 2018) and was totally discontinued in 2022.
- In 2020–2022, there was a decrease in the supervision unit's expenditure allocation out of the unit's total budget, from 5.16% to 3.5% (a decline of about 32%), at NIS 344,799. In 2023 (after the audit's commencement), this rate increased to 8.45%,



at NIS 758,120. By comparing the supervision unit's expenditures on all types of environmental enforcement in 2023 to the estimated external costs of pollution from the burning of household waste and e-waste in the same year (ranging from 0.882 to 1.302 billion NIS – as previously mentioned, a conservative estimate that excludes additional external costs and associated costs resulting from this burning), it appears that they represent a negligible proportion, ranging from only 0.058% to 0.086% of the external costs of damage from e-waste burning.

- The unit has never employed additional and more significant enforcement measures, such as exercising authority in the criminal field and imposing fines. It claims that this is due to disparities in resources and workforce within the unit, gaps in technological means of enforcement, and restrictions on entering unit personnel into Areas A and B.

👎 The Environmental Quality Unit in the Civil Administration – the environmental enforcement activity of the Environmental Quality Unit in Judea and Samaria regarding waste-related hazards and waste burning is limited (only 80 inspection tours conducted at crossings and 165 at organized waste sites, quarries, and wastewater purification facilities in 2022). It was found that the Environmental Quality Unit does not monitor environmental hazards and perform supervision routinely and proactively in places other than border crossings or regulated waste sites. Its main activity is not enforcement-oriented but instead focused on addressing specific incidents (in response to complaints) and conducting spot checks in some geographic regions, even though its area of operation includes all Area C territories (excluding Israeli settlements). The unit does not exercise certain aspects of its authority, such as ordering the removal of waste hazards, entering sites operating without a license, imposing expenses or duplicate expenses in the event of hazard removal by the unit, and imposing administrative fines; Instead, it settles for the minimal exercise of its authority, and even that, only at crossings and regulated waste sites. Thus, the unit's activity does not deter those who burn the waste.

👎 The David Unit – this unit is part of the Environmental Quality Unit, operates at border crossings between Israel and Judea and Samaria to implement the Civil Administration's environmental policies and enforcement by the MOEP.

- In 2019–2022, there was a decrease in the number of vehicles and trucks seized by the unit: in 2019–2020, there was a reduction of about 7% in the seizure of vehicles and trucks, and in 2021–2022, a further decrease of about 11% (an annual average of 188 vehicle seizures between 2014 and 2022).
- The estimate of trucks smuggling waste from Israel to Judea and Samaria ranges from 2,500 (if they are all large e-waste trucks and the scale of smuggling is in the lower range) to about 10,500 trucks (if they are all small e-waste trucks and the scale of smuggling is on the higher range). Hence, the supervision unit and the David unit combined seized and/or impounded a negligible number (ranging from



about 1.2% to 5% at most) of the trucks smuggling e-waste at the crossings and in Judea and Samaria, assuming that in 2022 these units combined seized and/or impounded a total of 128 e-waste trucks.

- The Civil Administration did not utilize its authority for ransom enforcement as part of the David unit's operations. In addition, the Civil Administration, which, according to the order regarding the transfer of goods (Judea and Samaria) (Number 1252), 1988, is authorized to enact regulations to determine additional powers such as expropriation and sale that could have assisted the David Unit in its work and increased its effectiveness, failed to do so.

📌 SHAI District of Israel Police – the SHAI District hardly employs any criminal enforcement regarding environmental hazards of waste disposal and burning in the Judea and Samaria areas.

- In 2018–2023, the SHAI District initiated only two enforcement operations in Judea, with no enforcement operations in Samaria (neither for waste disposal or burning offenses).
- The SHAI District's handling of waste disposal or burning offenses in 2021–2022 was minimal (six and five records, respectively). In 2022, there was 87% decrease in handling such offenses compared to 2020.
- In 2020–2022, most cases were either shelved or closed without indictments: in 2020, about 55% of the records were shelved; in 2021, about 83% were shelved; and in 2022, none of the cases led to criminal charges. Four cases (80%) were shelved without indictment or were in the closure process; one (20%) was under investigation.

These data raise doubts regarding the effectiveness of environmental enforcement by the Judea and Samaria District in its current form due to the high rate of cases shelved and the low rate of prosecution about the phenomenon's scope.

Handling of Calls by the MOEP's Emergency Hotline on Hazards in Israel from the Burning of Waste in Judea and Samaria

📌 Increase in the Complaints Coupled with Manpower Gaps – the State Comptroller's Office analysis of data from the MOEP's emergency response unit raised that about 92% of the complaints (4,968 out of 5,386) originated from the same 84 Israeli communities reporting incidents of waste burning in Judea and Samaria in 2020–2022. Further analysis raised an increase of 250% in complaints from 15



communities to the MOEP emergency hotline in 2020 (435 inquiries) compared to 2022 (1,526 inquiries). In addition, as of April 2023, out of 15 positions approved for staffing of the MOEP's emergency hotline, only six (40%) were filled. In response to the State Comptroller's Office, the MOEP reported that the gap in staffing the emergency hotline has been closed. As of January 2024, all positions in the hotline are filled.

📌 Service Quality and Feedback – no standards have been set for the quality of service provided by the MOEP's emergency hotline. During the audit, the State Comptroller's Office received complaints regarding the service quality, such as the hotline does not make sure to receive feedback from the bodies to whom he transferred the handling of environmental emergency incidents, nor does it verify whether and when the incident's handling has been completed; and the hotline does not update the applicant who reported the emergency incident regarding completion of the incident's handling and how it was handled.

📌 Reporting Channels for Waste Burning Incidents in Judea and Samaria Affecting Israeli Communities – Multiplicity of Bodies and Lack of Coordination – the audit raised a proliferation of entities receiving complaints about transboundary incidents from waste fires in Judea and Samaria. For at least five years (since 2018), coordination between these bodies – led by the MOEP, the Civil Administration, the Environment Quality Unit, and the National Fire and Rescue Authority – requires improvement and is characterized, among other things, by the transfer of responsibility for handling a complaint from one body to another without verifying that the other body has the authority and capability to address them.

Extinguishing Waste Fires in Judea and Samaria

📌 Fire Extinguishing Operations in Area C, Excluding Israeli Communities Areas – the National Fire and Rescue Authority does not exercise its authority to extinguish fires in all of Area C, despite its legal authority and obligation to operate in this. In 2022, NFRA focused its firefighting efforts on extinguishing fires along roadways, intersections, and near Israeli communities. However, NFRA failed to extinguish waste fires at 82 unauthorized dumping sites, 43 of which (about 52%) occurred at a high (daily and weekly) to moderate (monthly) frequency and were located, among others, near the towns of Rosh HaAyin, Shoham, and Modi'in.

It was also found that the Environmental Quality Unit engages in firefighting without formal authority and with limited resources. In 2020–2022, the unit's teams (or contractors on its behalf) extinguished about 226 waste fires in Area C and on the margins of Area B, totaling about 11,832 hours of operation.

Despite the firefighting operations carried out by the National Fire and Rescue Authority and the Environmental Quality Unit, in 2022, there were still 123 unauthorized waste disposal sites in Judea and Samaria, where mixed Palestinian waste was burned. In



addition, this year, hundreds of electronic wastes burning sites were active during the year.

🔥 Firefighting Operations in the Israeli Communities Areas in Area C – in 2020–2022, NFRA teams extinguished 758 waste fires in Israeli communities' areas within Area C. This significant number of fires indicates a deliberate, premeditated waste fire even in Israeli communities in Judea and Samaria, contrary to the provisions of the Local Authorities Regulations (Judea and Samaria) and the Cleanliness Preservation Law, 1984. These fires, too, cause air pollution liable to compromise the health and environment of both Israeli and Palestinian residents.

🔥 Investigation of Waste Fires in Judea and Samaria – it was found that out of all waste fires extinguished by the National Fire and Rescue Authority teams in areas C from 2019 to August 2023 (1,457 fires), only 22 (1.5%) were investigated. In its response to the State Comptroller's Office, the National Fire and Rescue Authority stated that there is no obligation to investigate waste fires according to its regulations. If it is decided to update the conditions and restrictions for fire investigation, its Judea and Samaria District will act accordingly. In its response, the NFRA also noted that the conditions often do not allow for an investigation.

Waste Burning at Pirate Waste Sites in Judea and Samaria During Operation Swords of Iron

🔥 Following the Iron Swords War outbreak, during October–November 2023, local authorities in the lowland, central, and surrounding areas complained of increased waste burning in Judea and Samaria, which had a transboundary impact.



The establishment of two end sites for the treatment of Palestinian waste in Judea and Samaria (the Zahrat al-Finjaan landfill in 2006 and the al-Minya landfill in 2014) led to the closure of about 150 unauthorized waste sites in Judea and Samaria in which waste was burned during those years.



Key Recommendations

Governmental Policy and Plan for Transboundary Environmental Management

– it is recommended that the government, following inter-ministerial team recommendations, promptly set a policy and a plan to address and deal with transboundary environmental issues in general and in Judea and Samaria in particular. Moreover, the plan above, approved by the government, should include a timeline for implementation, bodies (including the governmental entity) in charge of integrating and managing it, the budget framework required for plan implementation, and sources of funding for it. The MOEP, in charge of safeguarding the quality of the environment in Israel, and the additional minister in the Ministry of Defense, in charge of the Civil Administration, shall ensure that a resolution proposal to this effect is promptly presented to the government.

Gaps in Data Collection and Information Sharing on Burning of Mixed Palestinian Waste in Judea and Samaria

– it is recommended that the Environmental Quality Unit map the unregulated waste disposal sites where mixed Palestinian waste is burnt, including an assessment of the quantity of waste burned at each site and the potential environmental damage posed with them, similar to the estimations by the State Comptroller's Office, detailed in this report. The unit should update this information periodically. It is recommended that the MOEP include significant transboundary environmental pollution incidents in its periodic assessments of air pollution in Israel, including air pollution from mixed waste fires in the Judea and Samaria areas. The ministry should publish these assessment findings through reports and other relevant publications.

It is recommended that the Ministries of Environmental Protection and Health collaborate and share information regularly to promote action and initiatives related to health and the environment. This collaboration should be formalized through structured work procedures between them. The Ministry of Health should promptly assess the health risks posed to the population exposed to smoke emissions, air pollution, and odor nuisances from waste burning in Judea and Samaria. It should submit this assessment to the Knesset's Internal Affairs and Environment Committee, as mandated by the committee, and examine the action required based on this assessment regarding its responsibility for public health.

Organizing the Treatment of Palestinian Mixed Waste in Judea and Samaria

– it is recommended that the National Fire and Rescue Authority and the inter-ministerial team examine the infrastructure gaps and barriers created over the years to address the lack of organized treatment for mixed Palestinian waste, including transport to existing sites. Recommendations should include practical solutions for its organized treatment, tailored to the expected increase in its volume, and considering that by 2026 or 2027 at the latest, existing landfill sites in Judea and Samaria will reach their capacity limit and will no longer be able to handle mixed Palestinian waste. It is further recommended that the inter-ministerial team examine whether it would be appropriate to arrange a financial offset against the Palestinian Authority (PA) and thus motivate it to solve the problem of waste



burning in Judea and Samaria, from which both Palestinians and Israelis have suffered for an extended period.

The Minister of Environmental Protection, responsible for environmental quality in Israel, and the additional minister in the Ministry of Defense, in charge of the activity of the National Fire and Rescue Authority, should ensure that construction and upgrading of infrastructure for the regulated treatment of Palestinian mixed waste in Judea and Samaria are prioritized and completed. There will be no reason to dump and burn this waste in unauthorized sites.



Causes of Electronic Waste Burning in Judea and Samaria – it is recommended that the MOEP set a plan addressing factors incentivizing a parallel informal market for e-waste treatment in Israel. Measures should be considered to reduce economic incentives underlying informal e-waste treatment and expand incentives for legitimate recycling. This integrated plan should establish clear goals for reducing this phenomenon until its cessation and include effective actions, including enforcement mechanisms, against all formal and informal factors influencing the electronic waste field.



Gaps in Data Collection and Sharing on the Burning of Electronic Waste in Judea and Samaria – it is recommended that the National Fire and Rescue Authority, the MOEP, and other relevant bodies establish a database or reliably estimate the quantity of electronic waste transferred from Israel to Judea and Samaria and burnt there, including an assessment of the amount of waste generated in Judea and Samaria. Thus, it will assess the environmental, health, and economic effects of burning electronic waste in Judea and Samaria and choose an alternative solution to treat it, including prevention-based solutions, while considering feasibility and cost-effectiveness. This is especially important due to the economic damage from the burning of e-waste, estimated by the State Comptroller's Office at about NIS 1/4 billion per year.



Supervision and Enforcement of Waste Disposal and Burning Offenses in Judea and Samaria – the head of the Supervision Unit in the Civil Administration should examine the full extent of the unit's powers on environmental enforcement, particularly concerning air pollution offenses, and apply these significant powers among its staff. Suppose there are obstacles or difficulties in exercising its authority. In that case, the head of the unit, in cooperation with the Civil Administration and, if necessary, with OC Central Command, should promote solutions to exercise the powers granted to it. It is recommended that the Environmental Quality Unit, assisted by the Legal Advisory Unit in Judea and Samaria, examine the full range of its legal authority and how it can optimally utilize its enforcement tools in every section of the violation chain, from illegal disposal of waste of all types at crossings, its transport throughout Judea and Samaria, its dumping at unauthorized sites, and up to its incineration, and implement its full authority accordingly.

If any challenge or difficulty exists in exercising authority, it should promote solutions to realize its enforcement potential. The additional minister in the Ministry of Defense and



Minister of Environmental Protection is recommended to instruct the inter-ministerial team to examine Judea and Samaria's full range of supervisory and enforcement powers regarding waste-related hazards and waste fires. They should identify existing powers that are not being exercised, such as criminal powers, and examine the reasons for this and ways to use them – including the absence of a mechanism for imposing fines in Judea and Samaria, to maximize the exercise of existing powers and improve the effectiveness of enforcement.

Within this context, the ministers should instruct the team, in collaboration with the Environmental Quality Unit and Supervision Unit, to define the units' areas of responsibility and clarify the division of roles between them. Furthermore, the head of the Civil Administration or OC Central Command (depending on the case) should exercise their authority, without the need for changes in existing regulations, to enhance the measures at the disposal of the enforcement authorities in Judea and Samaria. In the second stage, it is recommended that the inter-ministerial team assess the extent to which it is necessary to expand or modify the powers granted to enforcement agencies and amend them accordingly.



The MOEP Emergency Hotline – it is recommended that the MOEP examine the quality of service provided by the hotline regularly by setting standards, conducting internal audits; obtaining ongoing or periodic feedback from the public regarding the quality of service provided by the hotline and its effectiveness; improving the quality of service; and publicizing public satisfaction with it. Moreover, the MOEP should ensure that all positions in the hotline are fully staffed at all times. It should also examine workforce headcount standards (number of employees), considering the increase in complaints to improve the hotline's availability and service quality. The hotline should ensure public complaints are appropriately addressed, handled, and concluded. Based on this, it should update the reporting party regarding the handling's completion.

The MOEP emergency hotline, the Civil Administration, the Environmental Quality Unit, and the National Fire and Rescue Authority are also recommended to establish a unified hotline. This unified approach will facilitate effective and beneficial collaboration and efficient handling of public complaints related to environmental incidents originating in Judea and Samaria. It is recommended that this mechanism be anchored in a procedure and relate to the following stages: receiving the public complaint and documenting it in the unified hotline; transferring it to the authorized party to handle the incident efficiently; monitoring the handling, and providing feedback from the handling parties to the unified hotline and the reporting public.



Extinguishing Waste Fires in Judea and Samaria – it is recommended that the Attorney General of Judea and Samaria regulate the authority of the Environmental Quality Unit to remove smoke and fire hazards in Area C. In addition, the National Fire and Rescue Authority should establish joint working interfaces with the Environmental Quality Unit regarding firefighting in Area C and form solutions to overcome the obstacles preventing them from fulfilling their roles properly.



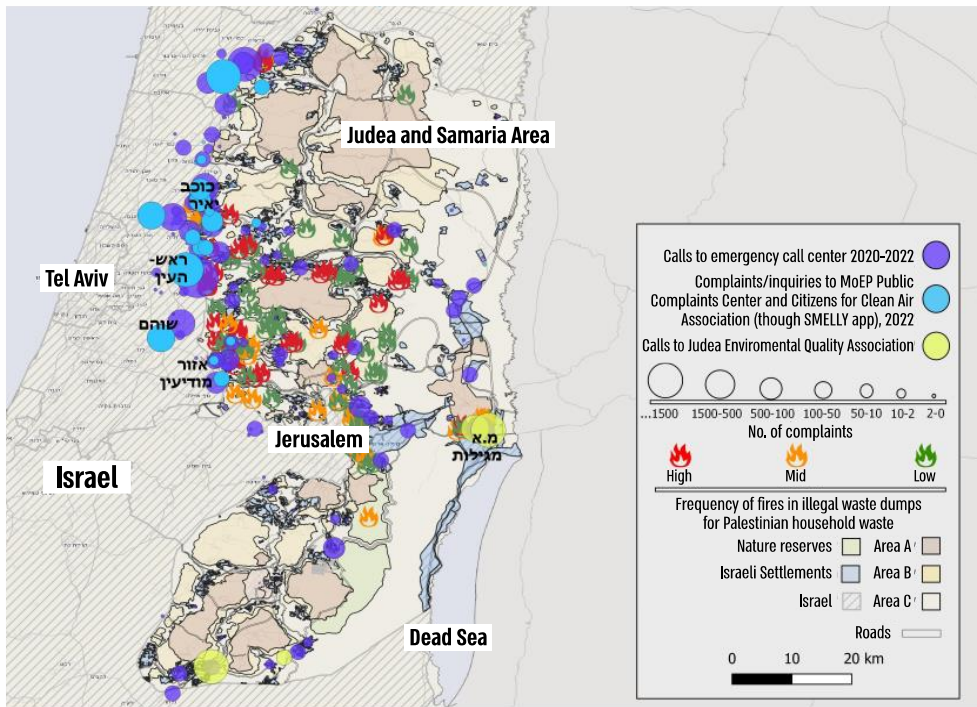
It is recommended that the MOEP examine the information held by the National Fire and Rescue Authority regarding waste fires occurring in Israeli communities in Judea and Samaria, as well as the detailed findings in this report, and eradicate the phenomenon of these deliberate premeditated fire incidents.



Waste Fires in Judea and Samaria During the Iron Swords war – it is recommended that the Ministries of Environmental Protection and Health, along with the Environmental Quality Unit, examine whether changes have occurred in the extent of waste fires in Judea and Samaria and their patterns since the outbreak of the Iron Swords war. They should initiate independent action and, as necessary, prevent recurrence in collaboration with relevant bodies to safeguard public health and the environment.



Geographical Representation of the Foci of Mixed Waste Fires in Judea and Samaria, and Complaints Thereof from Israeli Residents Including of Physiological Phenomena, as of 2022



Background map source: Survey of Israel, with additional information layers from the Civil Administration⁶ Ministry of Environmental Protection, the Judea Environmental Quality Association, and the Citizens for Clean Air Association, processed by the State Comptroller's Office.

The map presents a correlation between the areas in Judea and Samaria where illegal waste site fires occurred in 2022 and the Israeli communities from which the MOEP received complaints that year regarding waste site fires. This includes impacts on air quality due to exposure to these fires and physiological effects.

⁶ Background map source: Survey of Israel, <https://cdnil.govmap.gov.il/xyz/heb/{z}/{x}/{y}.png> with additional information layers from the Civil Administration: layer of ABC areas, Israeli settlements jurisdiction boundaries, road plans, <https://tapash-mnz.opendata.arcgis.com/search>



Smoke from the Burning of E-Waste in the Southern Mount Hebron Area, as Seen from a Distance, 2018



Source: Almog Ella.



Summary

This audit presents a grim picture of long-standing failure in all aspects of the government bodies' activity, first and foremost by the Civil Administration (in charge of environmental protection in Area C, including through the Environmental Quality Unit and the Supervision Unit) and the MOEP (entrusted with safeguarding environmental quality in Israel), in preventing waste fires in the Judea and Samaria with transboundary effect and addressing them. It was found that in 2017–2022, the air and odor pollution hazards from these fires expanded and intensified, adversely affecting the daily lives of both Israeli and Palestinian residents and exacerbated during the Iron Swords conflict.

The additional minister in the Ministry of Defense, the Minister of Environmental Protection, the Civil Administration, the Environmental Quality Unit, the Attorney General of Judea and Samaria, the Supervision Unit in the Civil Administration, the Ministries of Environmental Protection and Health, the National Fire and Rescue Authority, the SHAI District, and the inter-ministerial team – should diligently close the gaps that have persisted on this issue for 20 years. They should collaborate, coordinate, and share information to develop and implement an 'operational toolbox' for addressing waste burning in Judea and Samaria. This 'toolbox' should include effective tools for preventing these fires, such as constructing infrastructure and end solutions that address root problems and increasing monitoring and enforcement capabilities. Additionally, they should ensure the policy's effectiveness and the measures taken – to rectify the deficiencies and implement the audit's recommendations to eradicate the long-standing and serious phenomenon of waste fires originating in Judea and Samaria and their transboundary effects.

This audit and the previous audit report published by the State Comptroller's Office in June 2017 highlight the environmental, health, and economic damage resulting from the state's inadequate handling of significant transboundary environmental pollution hotspots. It is recommended that the Ministries of Environmental Protection and Health use the recommendations from these reports to examine the existence of other transboundary pollution hotspots (in addition to waste fires) that may significantly affect air quality and land and water resources in Israel. They should ensure that these hotspots are adequately addressed to preserve environmental quality and the quality of life in our country.