



המשרד להגנת הסביבה



الوزارة لحماية البيئة
Israel Ministry of Environmental Protection

The Pollutant Release and Transfer Register (PRTR) and the National Inventory of Air Emissions (NIAE) 2024

August 2025

[The PRTR on the Ministry of Environmental Protection website](#) – mirsham@sviva.gov.il

[The National Inventory of Air Emissions on the Ministry of Environmental Protection website](#) – ilanl@sviva.gov.il

Table of Contents

3	Background – PRTR	PRTR Reporting Facilities
7	Background – NIEA	
8	Key Trends in the 2024 NIEA & PRTR	
16	Air Emissions	External Costs of Air Emissions
18		Nitrogen Oxides (NOx)
21		Sulfur Oxides (SOx)
24		Non-Methane Volatile Organic Compounds (NMVOC)
27		Known or Suspected Carcinogens
30		Particulate Matter – PM ₁₀ and PM _{2.5}
34		Comparison of Emissions from Different Industrial Zones
38		Climate Crisis – Greenhouse Gases
44	Wastewater Discharges	Discharges to the Sea and Rivers; Targets for Industrial Wastewater Discharges
49	Emissions from Malfunctions	Emissions During Malfunctions
50	Waste	Industrial Waste, Municipal Waste, and Construction Waste



Background – PRTR

PRTR - Pollutant Release and Transfer Register

Israel committed to implementing the Pollutant Release and Transfer Register (PRTR) as part of its accession to the OECD.

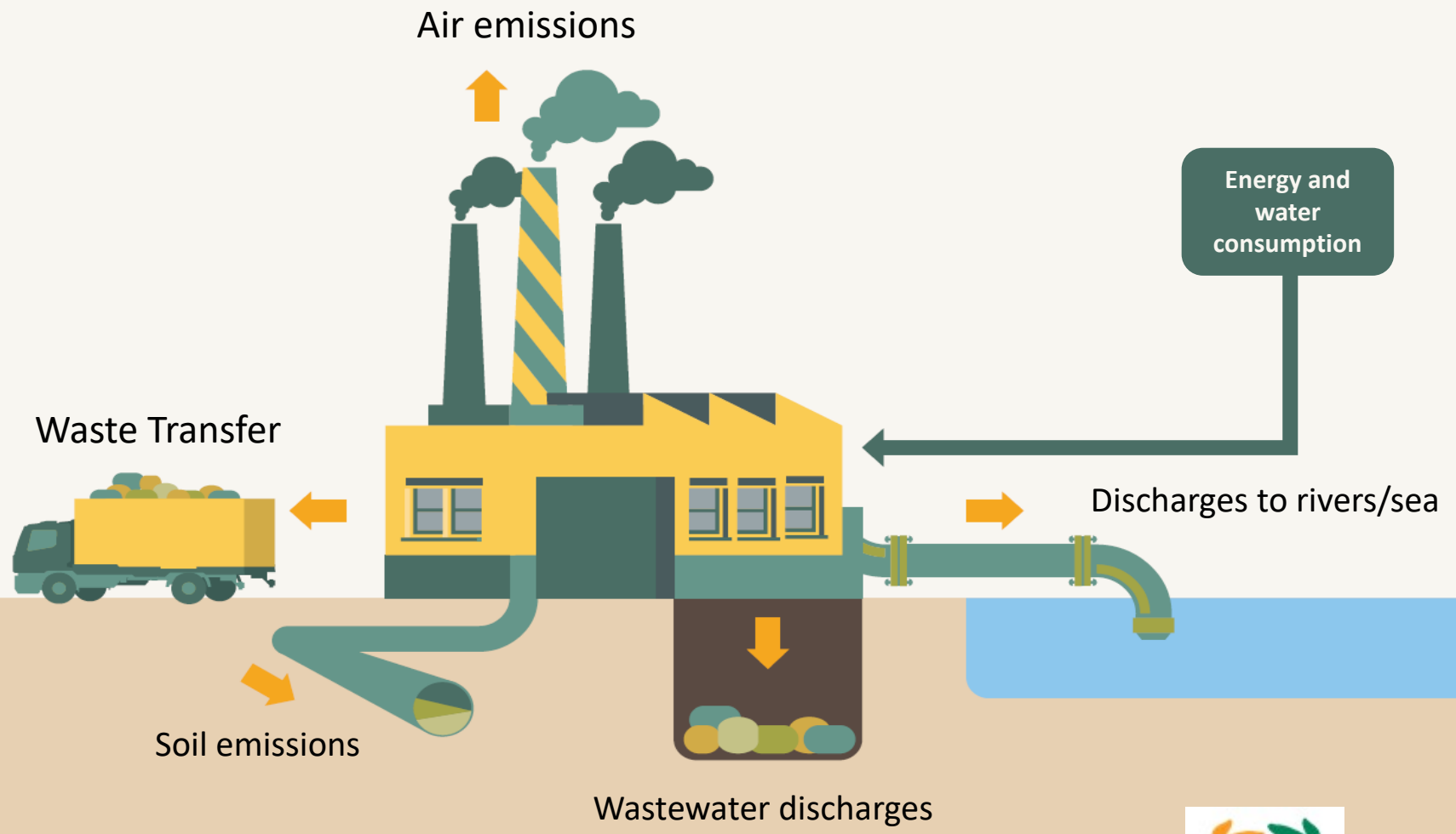
All OECD member countries maintain a PRTR or an equivalent system.

According to the Environmental Protection Law (Emissions and Transfers to the Environment - Reporting and Registration Obligations) 5772 - 2012, large enterprises from the following industries report to the National Environmental Protection Agency:

- **Energy Industry** – power plants, refineries, fuel production, and more
- **Chemical Industry** – including pharmaceutical manufacturing, fertilizer production, pesticide manufacturing, and others
- **Metal Industry** – foundries, smelting, galvanizing, metal coating, and more
- **Food and Beverage Industry** – dairies, slaughterhouses
- **Waste and Wastewater** – wastewater treatment plants, landfills, transfer stations, etc.
- **Intensive Animal Farming** – poultry farms, pig farms, and fish farms

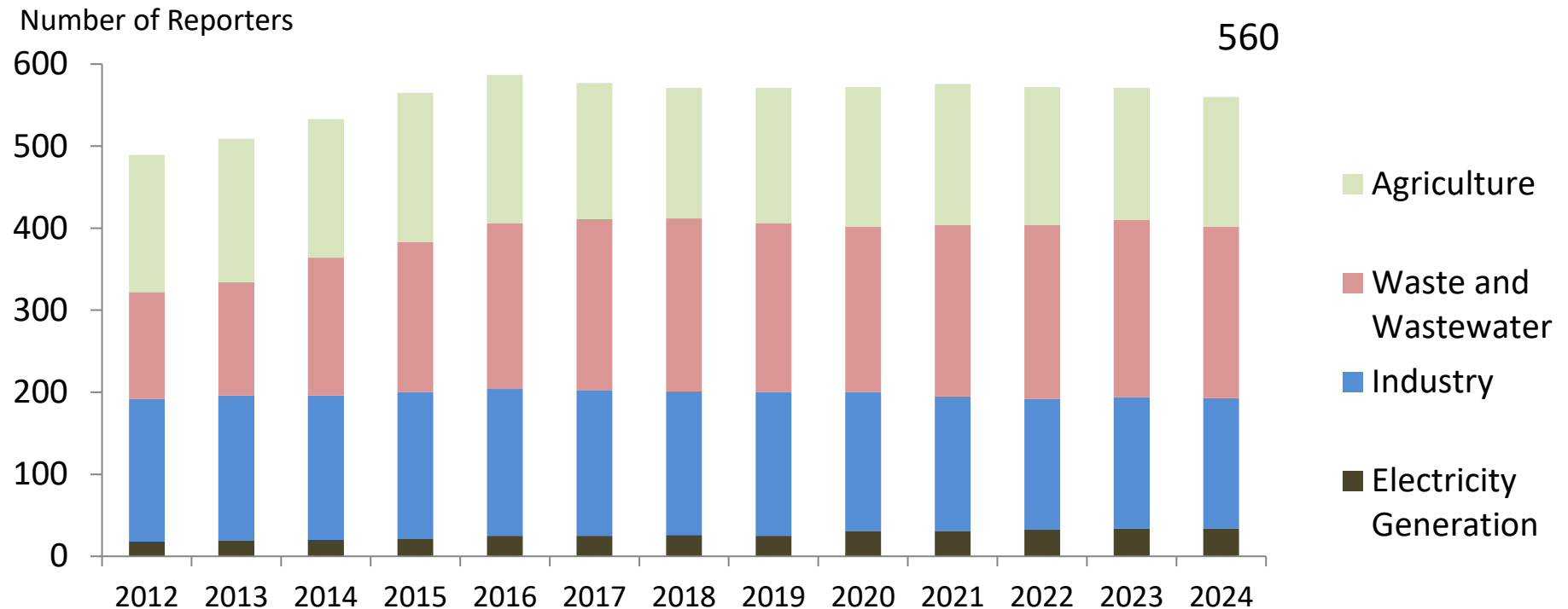


Background – PRTR: What Do Facilities Report?



Number of PRTR Reporters

PRTR Multi-Year Trend



560

- Agriculture
- Waste and Wastewater
- Industry
- Electricity Generation

In 2024, 17 reporters either **shut down or reduced activity below the reporting threshold**: 2 quarries, 5 waste treatment facilities, 2 wastewater treatment plants (WWTPs), and 8 poultry farms near the northern border that were closed due to the “Iron Swords” war.

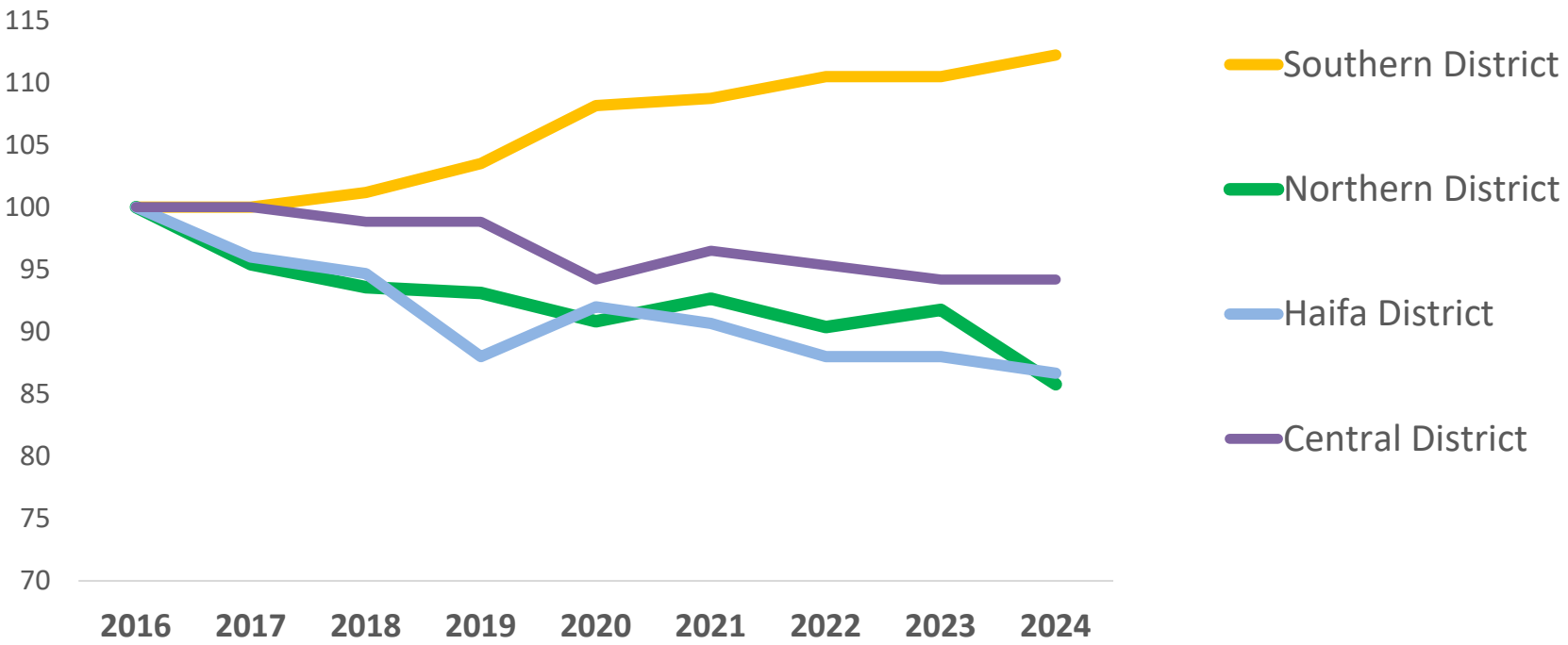
12 new reporters **submitted data for the first time** in 2024: pharmaceutical plant “General Biotechnology Ltd.,” the metal surface treatment plant “PCB Technologies Ltd.,” 4 waste transfer stations, and 6 poultry farms.

5 facilities **failed to report** – 2 waste transfer stations and 3 WWTPs. Enforcement measures will be considered in these cases.



Over the past 8 years, the number of PRTR reporters in the Southern District increased by 12%, while in other major districts it declined by 6% to 14%

PRTR Multi-Year Trend

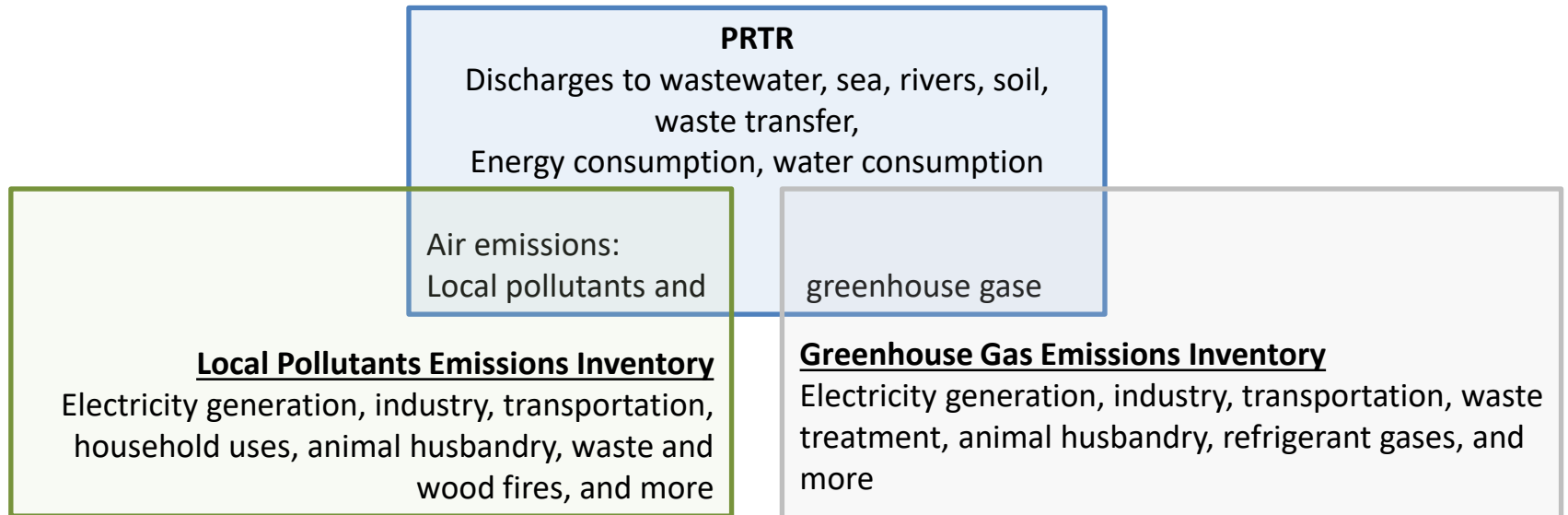


A notable trend in PRTR reporting between 2016 and 2024 is a 12% increase in the number of reporters in the Southern District (in power stations, waste transfer stations, and poultry farms), alongside a decrease in the number of reporters in the other major districts – Northern, Haifa, and Central – with reductions ranging from 6% to 14% (a decline across most sectors).

Background – National Inventory of Air Emissions

The inventory consists of two parts:

- **An inventory of emissions for 16 local pollutants** from most emission sources in the country, calculated by the Ministry of Environmental Protection. The calculation is performed according to methodologies commonly used in European Union countries (EEA) and the United States (USEPA). The inventory is updated periodically. The inventory published here is for the year 2024.
- **An inventory of greenhouse gas emissions** calculated by the Ministry of Environmental Protection’s National System for Monitoring, Reporting, and Verification (MRV).



Key Trends in the 2024 NIEA

Air Emissions	2024 vs. 2023	Explanations of Trends
Nitrogen Oxides (NOx)	-6%	Reduction in emissions from electricity generation and from ships in ports. A change in the emission calculation for non-road mobile machinery (NRMM) led to an overall decrease of 19%.
Sulfur Oxides (SOx)	-6%	Reduction in emissions from electricity generation and from ships in ports.
Particulate Matter PM ₁₀	No change	Together with the new inventory for forest fires and updated calculations for road transportation and NRMM, there was an increase of 29%.
Particulate Matter PM _{2.5}	No change	Together with the new inventory for forest fires and updated calculations for road transportation and NRMM, there was an increase of 24%.
Substances Suspected or Known to Be Carcinogenic to Humans	+2%	Increase in emissions from illegal burning of municipal waste and from biogas generators (landfills, wastewater treatment plants, anaerobic digestion of dairy farm manure).
Non-Methane Volatile Organic Compounds (NMVOC)	+3%	Increase in emissions from the burning of municipal and industrial waste. Along with updated NRMM and road transportation calculations, there was an increase of 5%.
Total Greenhouse Gases, as Detailed Below:	+2%	
Carbon Dioxide	+2%	Increase in electricity production from fuels and in transportation.
Methane	No change	
Fluorinated Gases	+30%	Increase in emissions of Fluorine Gases, due to a temporary provision in the Montreal Protocol regulations.
External Cost of Air Emissions	-2%	

Key Trends in Air Emissions Reported to the PRTR – 2024

Air Emissions	2024 vs. 2023		Trend Since 2012	
Nitrogen Oxides (NOx)	-13%	Reduction in coal use for electricity generation.	-74%	Reduction in coal use for electricity generation.
Sulfur Oxides (SOx)	-7%	Reduction in coal use for electricity generation.	-87%	Reduction in coal use for electricity generation.
Particulate Matter PM ₁₀	-6%	Reductions at the Rotenberg power station, at Rotem Amfert Negev, in quarries, and in landfills.	-73%	Reductions in coal use for electricity generation and at the Rotem Amfert Negev facility, as well as updated emission calculation guidelines for poultry houses.
Substances Suspected or Known to Be Carcinogenic to Humans	+16%	Decrease in the biogas collection rate at landfills; increase in emissions from biogas generators at manure digestion facilities and wastewater treatment plants.	+7%	Reductions in coal use for electricity generation, gas production platforms, and industry. Increase in biogas emissions from mixed waste landfills and from biogas generators at wastewater treatment plants and landfills.
Non-Methane Volatile Organic Compounds (NMVOC)	+16%	Increase in emissions at Solbar Protein Products in Ashdod, Tzalaf Industries in Negba, and Rotem Amfert Negev, as well as an increase in gas emissions from landfills.	-11%	Reductions following the implementation of requirements in air emission permits, primarily in the chemical industry.
Total Greenhouse Gases, as Detailed Below:				
Carbon Dioxide	+0.2%	Slight increase in electricity generation from fuels.	-25%	Reduction in coal use for electricity generation and an increase in renewable energy.
Methane	+9%	Reduction in biogas collection in mixed waste landfills.		In the 2023 reporting, updates were made to the emission calculation guidelines for biogas from mixed waste landfills.
Fluorinated Gases	+9%		+19%	
External Cost of Air Emissions	-1%			



Additional Trends in PRTR 2024

Subject	2024 vs. 2023		Trend Since 2012
Fuel Oil Consumption	+2%		-95%
Natural Gas Consumption	-1%		+221%
Quantity of emissions during malfunctions: to air, sea, rivers, and soil	+0.3%		
Percentage of mixed waste recycled at transfer stations	-4%	Likely due to the closure of the Mashuah composting facility operated by Veridis.	+3% (since 2014)
Quantity of construction waste treated at transfer stations	-5%	Residential construction activity dropped by half in October 2023 and has not yet returned to previous levels.	+194% (since 2014)

Impact of the “Iron Swords” War – This report does not present direct impacts of the war, but rather indirect effects only.

Vessels in ports – As a result of the “Iron Swords” war, the number of vessel calls at Israeli ports decreased, as did the average duration of stay per vessel. Consequently, emissions from vessels declined by 34%.

Forest fires – The area burned by forest fires in 2024 was three times larger than in 2022, partly attributed to the fighting along the northern border.

Fluorinated gases – In 2024, emissions of fluorinated gases increased by 30% (an increase of 1 MtCO₂e). These gases are used for cooling, semiconductor manufacturing, fire suppression systems, and magnesium production. The increase is due to a temporary regulatory order implementing the Montreal Protocol, allowing the import of fluorinated gases for security or life-saving purposes.

Construction and demolition waste – In 2023–2024, there was a decline of approximately 10% in the volume of construction and demolition waste treated at transfer stations and recycling plants. This decrease is attributed to the “Iron Swords” war. According to the Israeli Central Bureau of Statistics, during the fourth quarter of 2023, activity ceased at over 50% of construction sites in Israel, resuming full operation only by the end of 2024.

Changes in Calculation Methodology in the 2024 Inventory

Road Transportation – Three updates were implemented:

- 1) The source for annual mileage data was updated to the Central Bureau of Statistics (CBS) instead of the Ministry of Transportation, as CBS performs data refinement. However, CBS data is received with a one-year delay.
- 2) Emission factors were updated - the new factors are current and originate from a model used by most European Union countries.
- 3) The inventory now also includes hybrid and electric vehicles.

Non-Road Transportation (Non-Road Mobile Machinery) – The consumption of diesel fuel by non-road mobile machinery was updated. The old method was based on transportation companies' survey findings, whereas the new method is based on excise tax returns for such machinery. The new quantity is about half the previous estimate, resulting in reduced emissions accordingly.

Forest Fires - A new inventory based on satellite imagery provided by the Israel Nature and Parks Authority.



Key Trends in the 2024 Inventory

Vessel Traffic at Ports – Following the Iron Swords War, vessel calls at Israeli ports decreased, as did the average duration of stay per vessel. Consequently, emissions dropped by 34%.

Fluorinated Gases – In 2024, emissions of fluorinated gases increased by 30% (they are used for cooling, semiconductor manufacturing, fire suppression systems, and magnesium production) The increase is due to a temporary provision in the Montreal Protocol implementation regulations allowing the import of refrigerant gases for security or life-saving purposes.

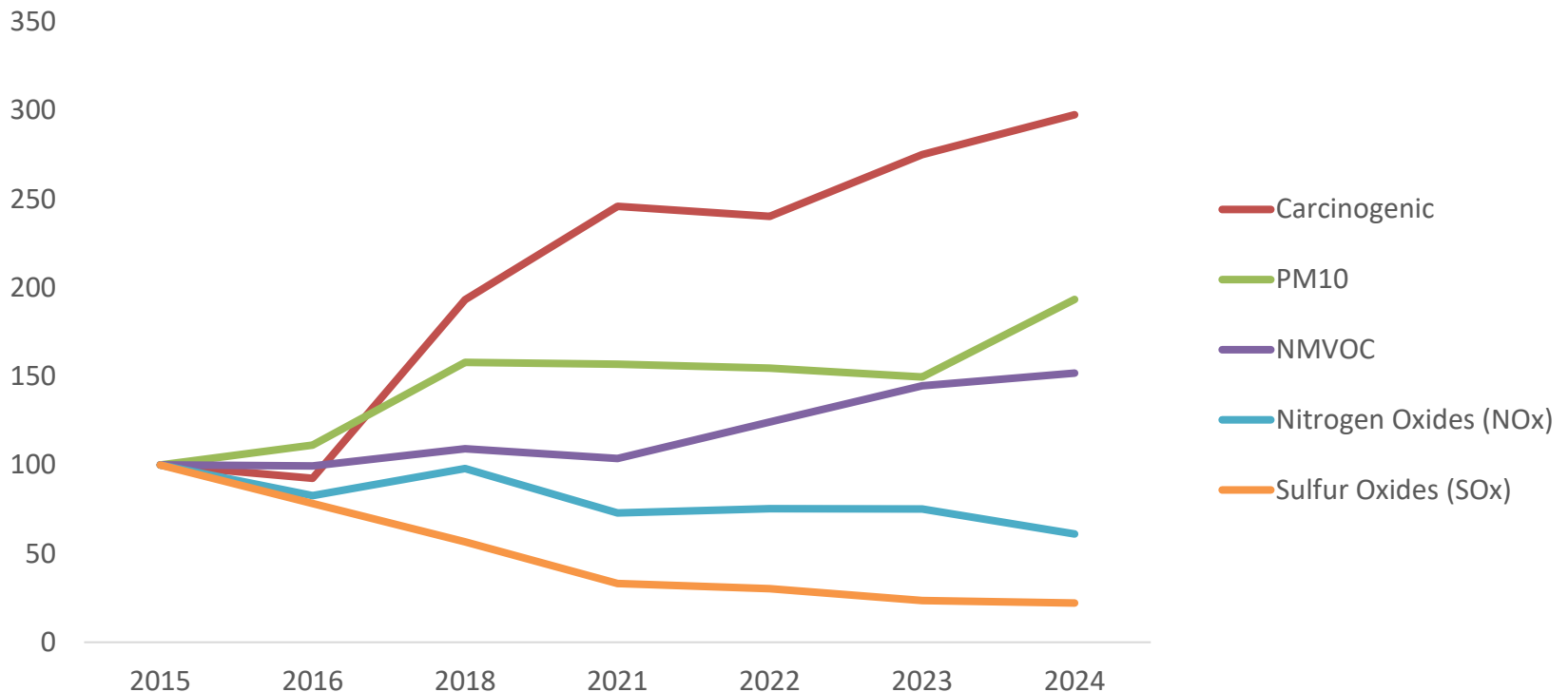


NIEA Trends in 2015–2024

NIAE Multi-Year Trend

This chart presents the amounts of air emissions published in the NIEA since 2015. Sulfur oxide emissions have decreased by 78%, and nitrogen oxide emissions by 39%. Emissions of suspected or known carcinogens, NMVOC, and PM10 have increased over the years due to the inclusion of new emission sources in the inventories.

100 = 2015



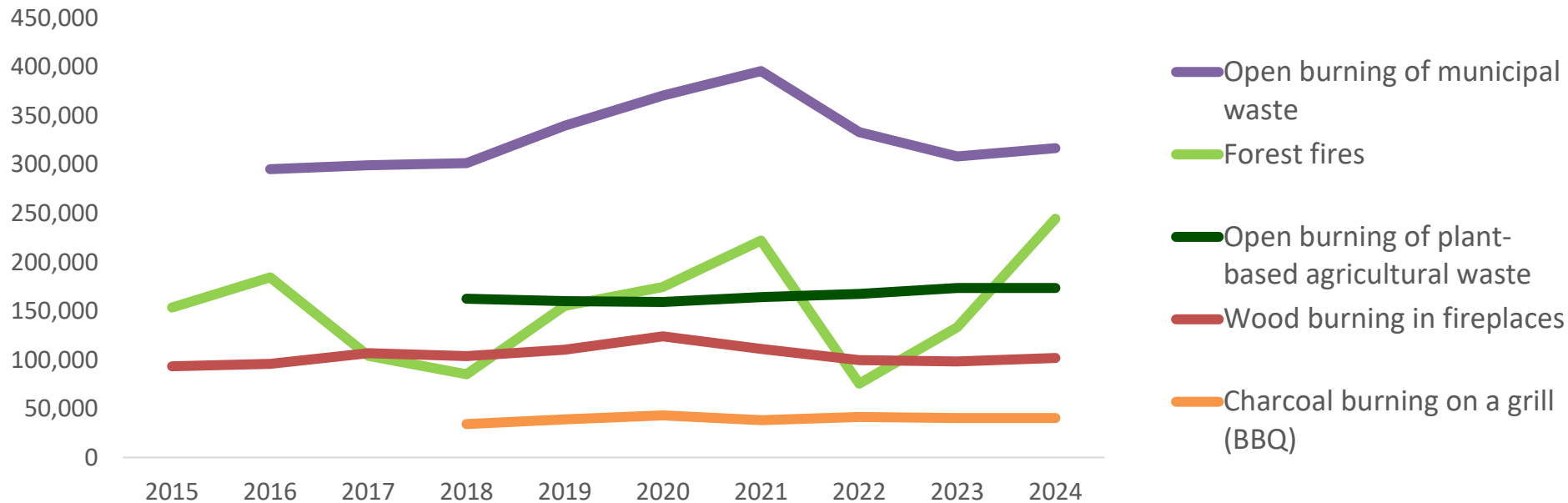
Carcinogenic substances in the inventory include benzene, formaldehyde, 1,3-butadiene, benzo[a]pyrene, arsenic, mercury, nickel, lead, and cadmium.



Total Quantity of Waste, Wood, and Charcoal Burned in 2024 Estimated at 900,000 Tons

According to data from Israel Fire and Rescue Services, there were 12,666 waste-burning incidents in 2024 that required a fire crew response. This marks a 20% decrease compared to the peak year, 2021.

Tons of Material Burned



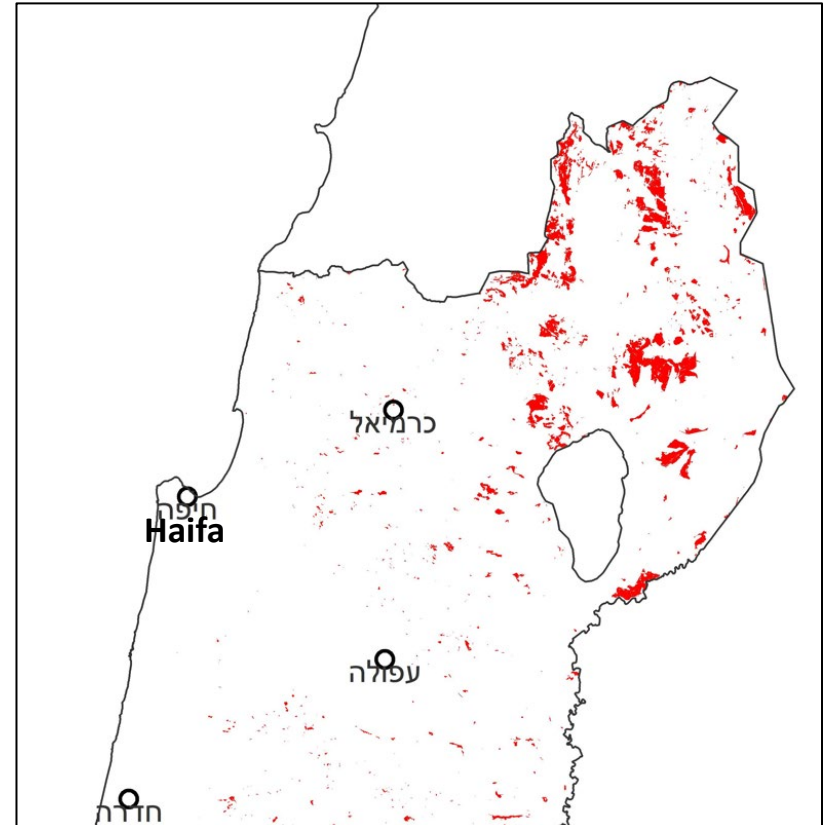
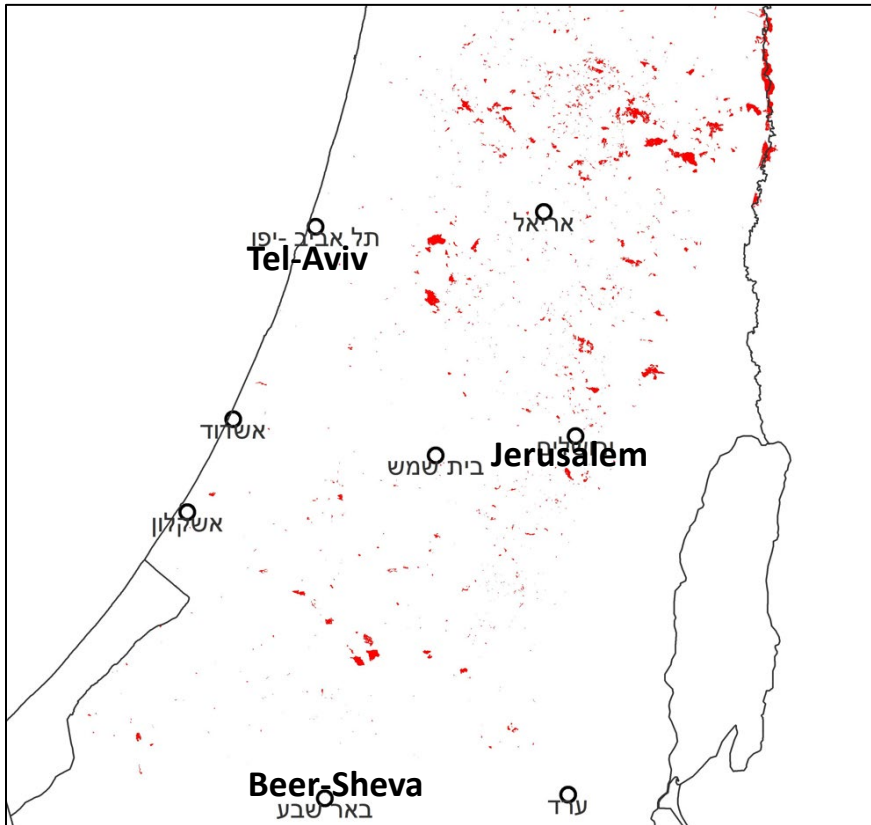
It should be noted that in addition to what is detailed in this report, waste burning also occurs at unregulated sites in the West Bank. According to the State Comptroller*, the amount of mixed Palestinian municipal waste burned in 2022, which has a significant cross-border environmental impact, is estimated at 180,000 tons.

*State Comptroller Report – Cross-Border Air Pollution from Waste Burning in the Judea and Samaria Area, March 2024



Forest fires in 2024

The area burned in 2024 is 277 sq. km. This is the year in which the largest area burned since the beginning of the database (2015). The increase in fires is attributed to the Iron Sword War on the northern front.



The External Cost of NIEA Emissions for 2024 – 37 Billion NIS, a 2% Decrease

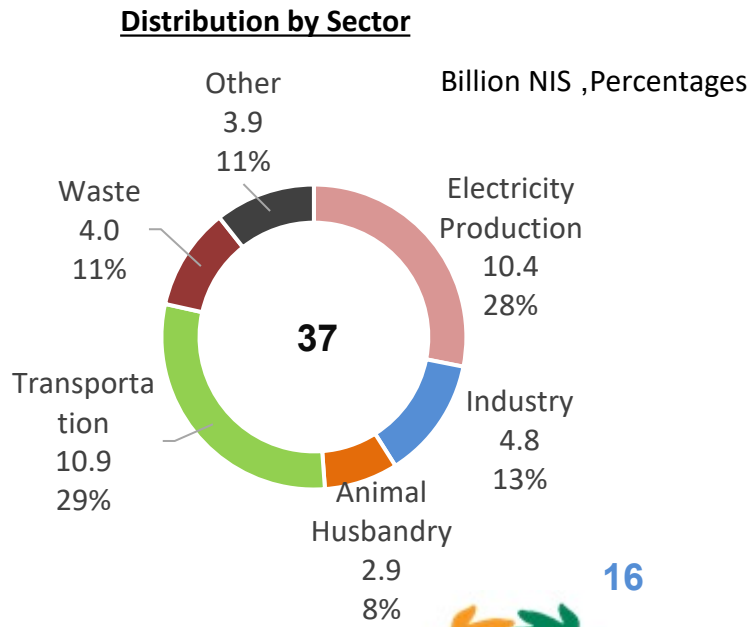
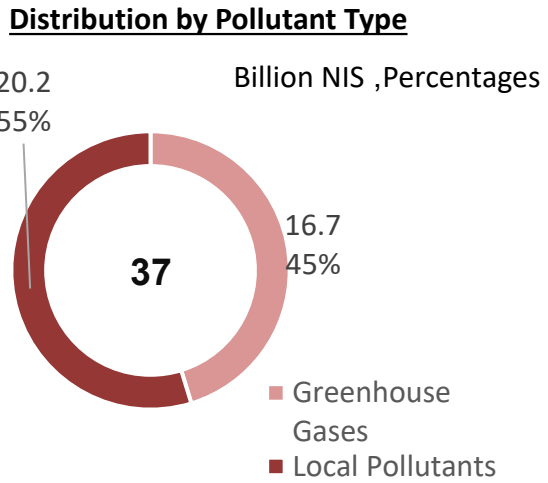
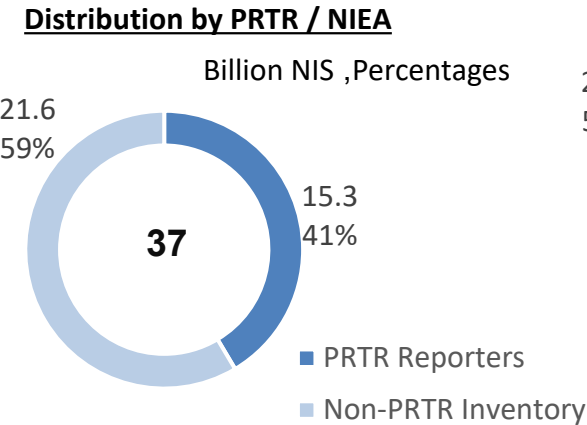
NIEA 2024 + PRTR 2024

The external cost expresses, in monetary terms, the negative externalities impact on human health and the environment.

The external costs of air emissions in Israel decreased by 2% compared to 2023 (A 860 million NIS Reduction.)

The external cost of air emissions from PRTR reporters in 2023 was 15 billion NIS.

In 2024, there was a 1% decrease in the external cost from PRTR reporters- approximately 170 million NIS.



The External Cost of Air Emissions from PRTR Reporters in 2024 – 15 Billion NIS

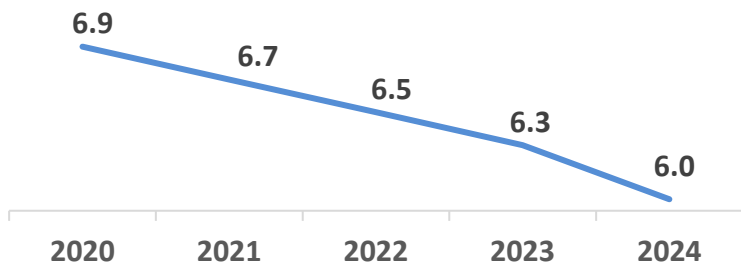
The 20 largest emitters (who make up 4% of PRTR reporters) are responsible for 80% of the external cost in the PRTR.

A comparison of the external cost in 2024 versus 2023, in 2024 prices, shows a 1% decrease in 2024, approximately 170 million NIS, mainly due to a reduction in coal use for electricity generation.

In Yellow- Power stations

Large factories have their own energy centers that generate electricity, and some even supply electricity to the grid.

External costs of PRTR reporters as a percentage of industrial activity (GDP)



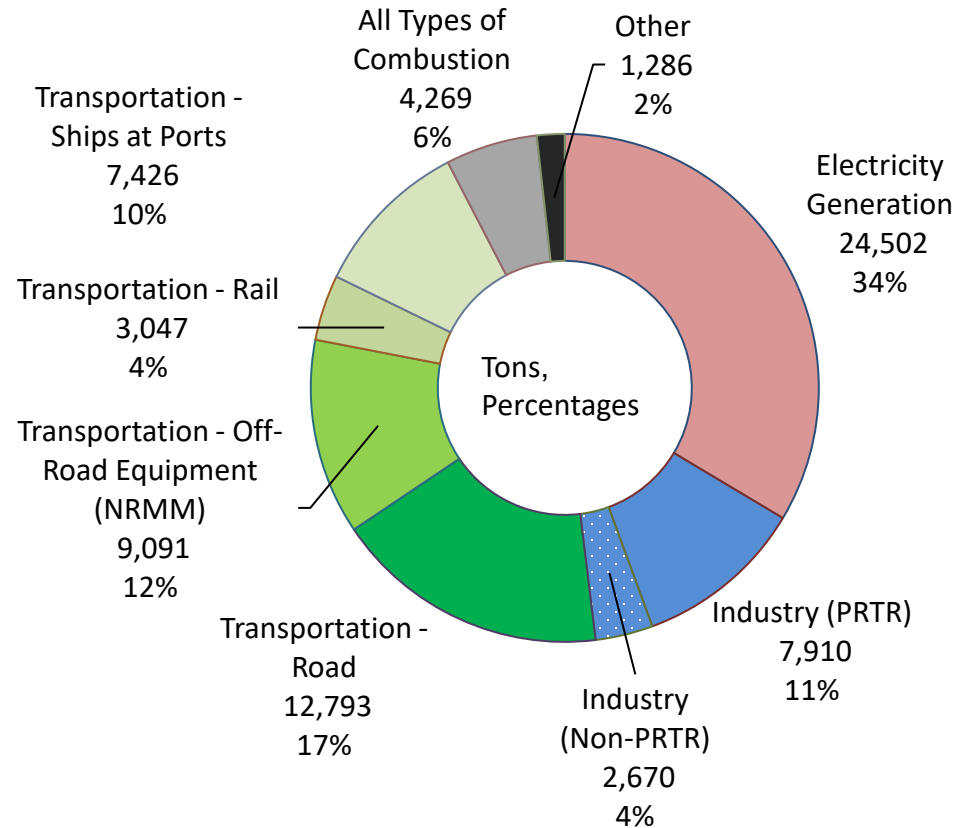
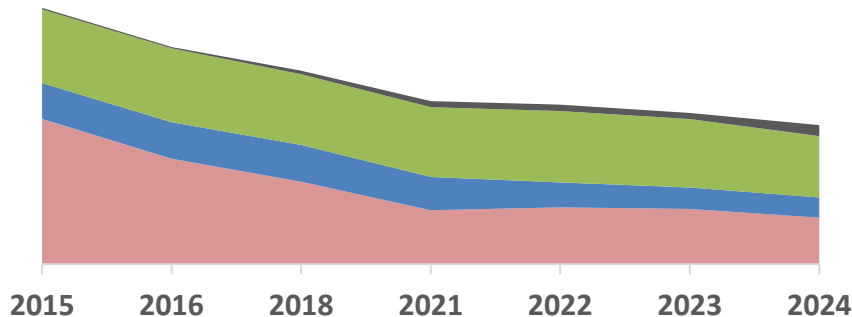
Facility	Municipality	External Cost 2024 (Million NIS)		% Change in Total Cost from 2023 (2024 prices)
		Total Cost	GHG Share of Total Cost	
Israel Electric Corp – Orot Rabin	Hadera	3,180	1,523	-10%
Nesher Israel Cement Enterprises	Ramla	1,219	541	-5%
Israel Electric Corp – Rotenberg	Ashkelon	1,180	924	-11%
Israel Electric Corp – Gezer	Gezer	775	542	+17%
Eshkol Energy Cluster	Ashdod	572	382	-8%
Dorad Energy	Ashkelon	506	336	No change
Ramat Hovav Power Station Ltd.	Neot Hovav	492	353	+17%
Israel Electric Corp – Hagit	Hof HaCarmel	431	330	+8%
Bazan – Oil Refineries	Haifa	465	335	+1%
Dalia Power Station	Yoav	448	416	+1%
Rotem Amfert Negev	Tamar	433	70	+15%
Israel Electric Corp – Haifa	Haifa	429	339	+9%
O.P.C. Rotem	Tamar	361	255	-3%
Dead Sea Works	Tamar	313	220	-4%
Hagit East O&M Power Station	Hof HaCarmel	291	267	+37%
Ashdod Refinery	Ashdod	273	97	+24%
I.P.M. Be'er Tuvia	Be'er Tuvia	226	175	-21%
Ef'eh Landfills	Tamar	211	192	+15%
M.R.C. Alon Tavor Power Ltd.	Jezreel Valley	206	163	-18%
Israel Electric Corp – Netiv HaOr	Hadera	182	134	+248%

Nitrogen Oxides (NOx): Transportation Contributes 44% and Electricity Generation – 33% of Air Emissions

NIEA 2024 + PRTR 2024

The amount of nitrogen oxide (NOx) emissions in NIEA 2024 decreased by 6% compared to the 2023 inventory. This is due to reduced emissions from electricity generation and ships at ports at ports.

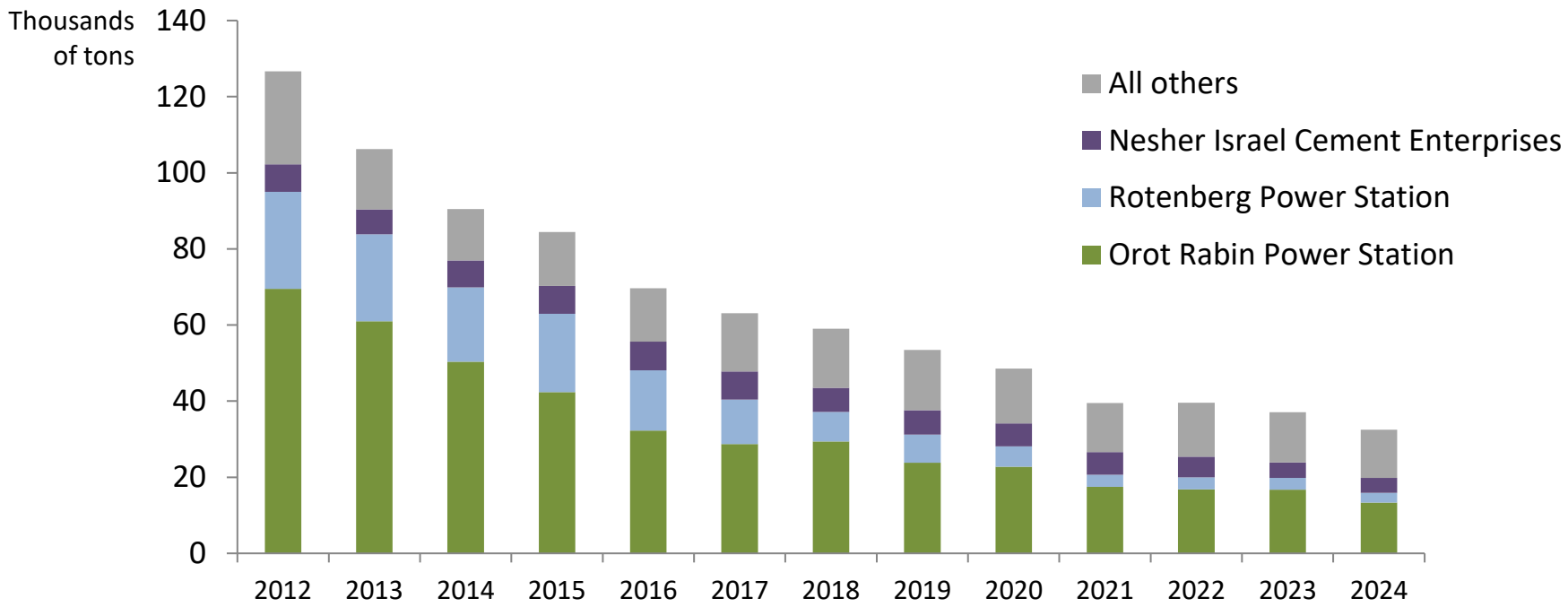
Additionally, following a calculation method update, there was a reduction in emissions from off-road construction equipment (non-road mobile machinery), leading to an overall 19% reduction.



Nitrogen Oxides (NOx): Since 2012, Emissions have Decreased by 74%

PRTR Multi-Year Trend

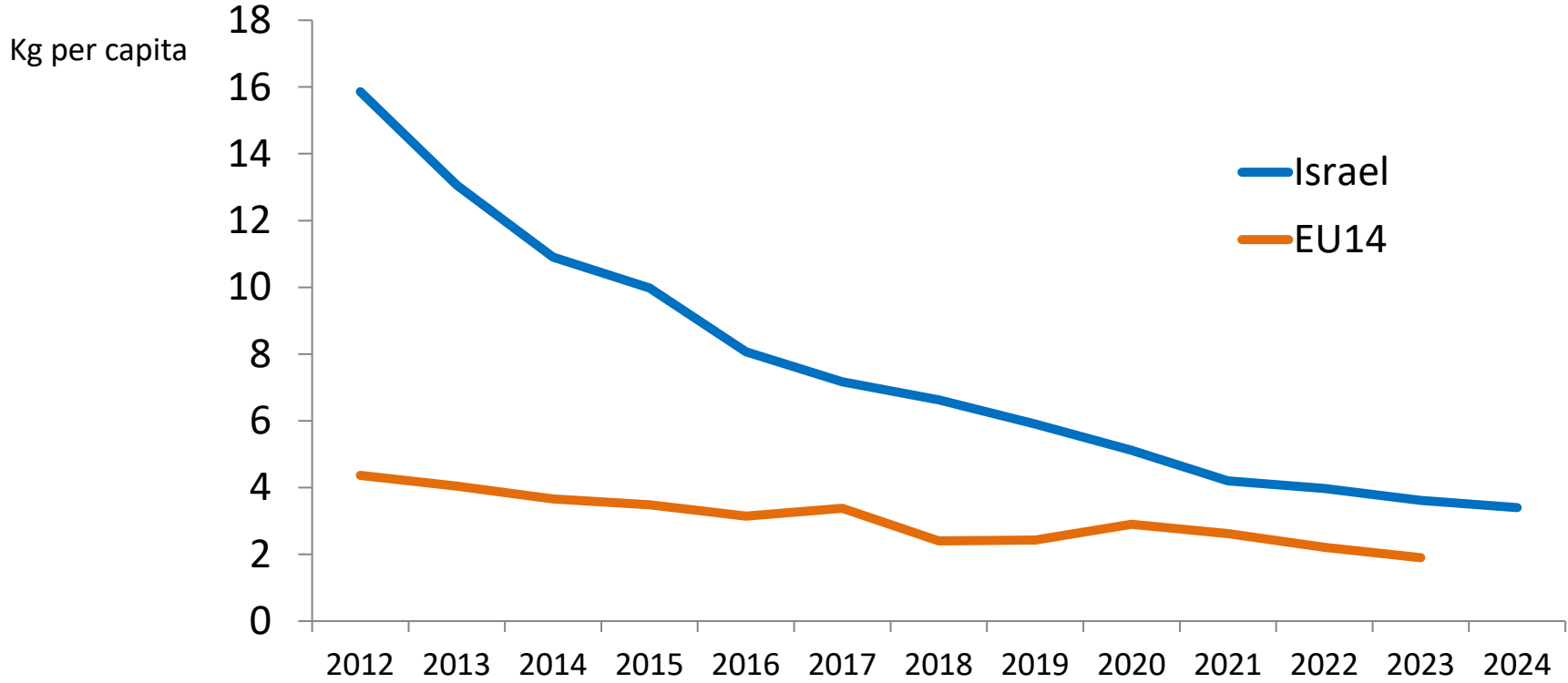
All nitrogen oxide (NOx) emissions result from the combustion of fossil fuels (coal, fuel-oil, diesel, gasoline, gas). In 2024, NOx emissions to air decreased by 13%, following a reduction in coal consumption for electricity generation by the same rate. 61% of NOx emissions originate from three facilities – the coal-fired power plants of the Israel Electric Corporation: Orot Rabin in Hadera, Rotenberg in Ashkelon, and the Neshet cement plant.



Nitrogen Oxides (NOx): Despite Reductions, Israel's per Capita Emissions Remain Higher than in the EU14

International Comparison

Per capita emissions in Israel are on a downward trend, yet they still exceed those in the EU14. This is because some of the coal-fired generation units at the Orot Rabin power station are still operating without advanced emission reduction technologies.



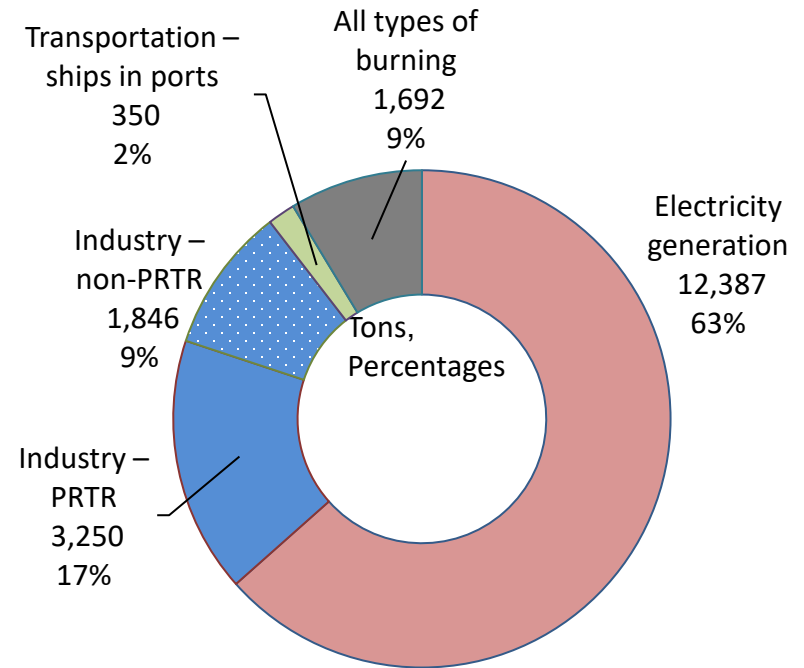
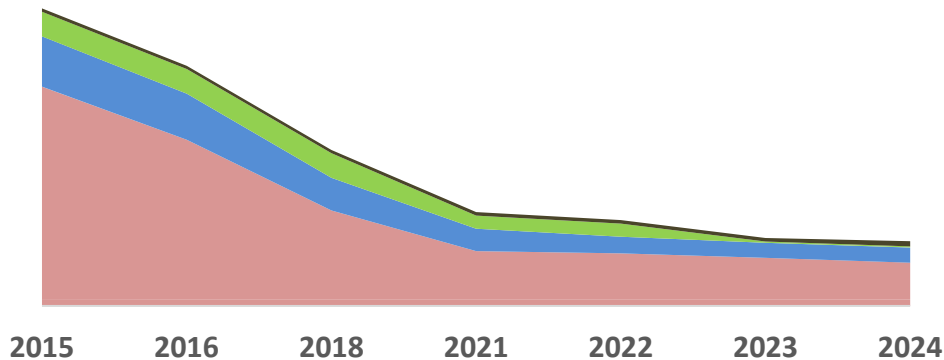
The EPRTTR 2024 data has not been published yet.



Sulfur Oxides (SOx): Power stations contribute 63% of air emissions

NIEA 2024 + PRTR 2024

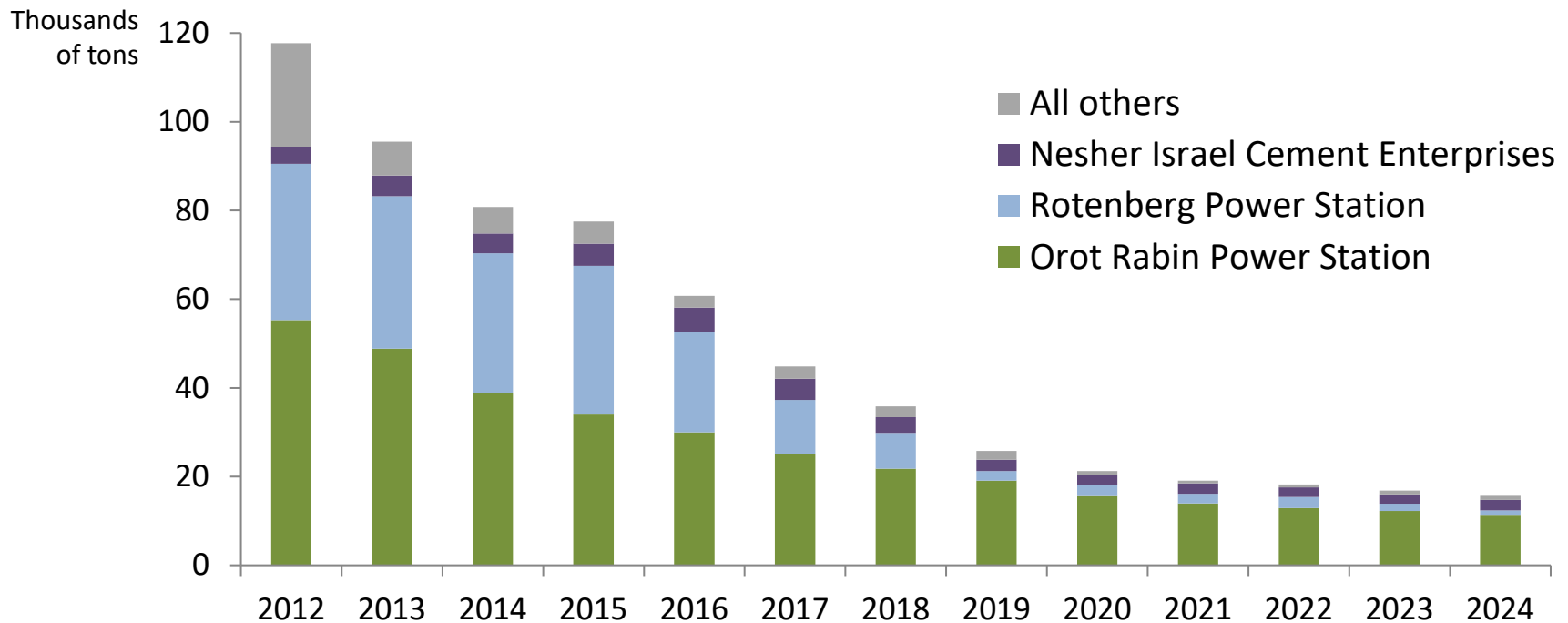
The emission quantity in NIEA 2024 decreased by 6% compared to the 2023 inventory due to reduced coal use for electricity generation and reduced ship activity in ports.



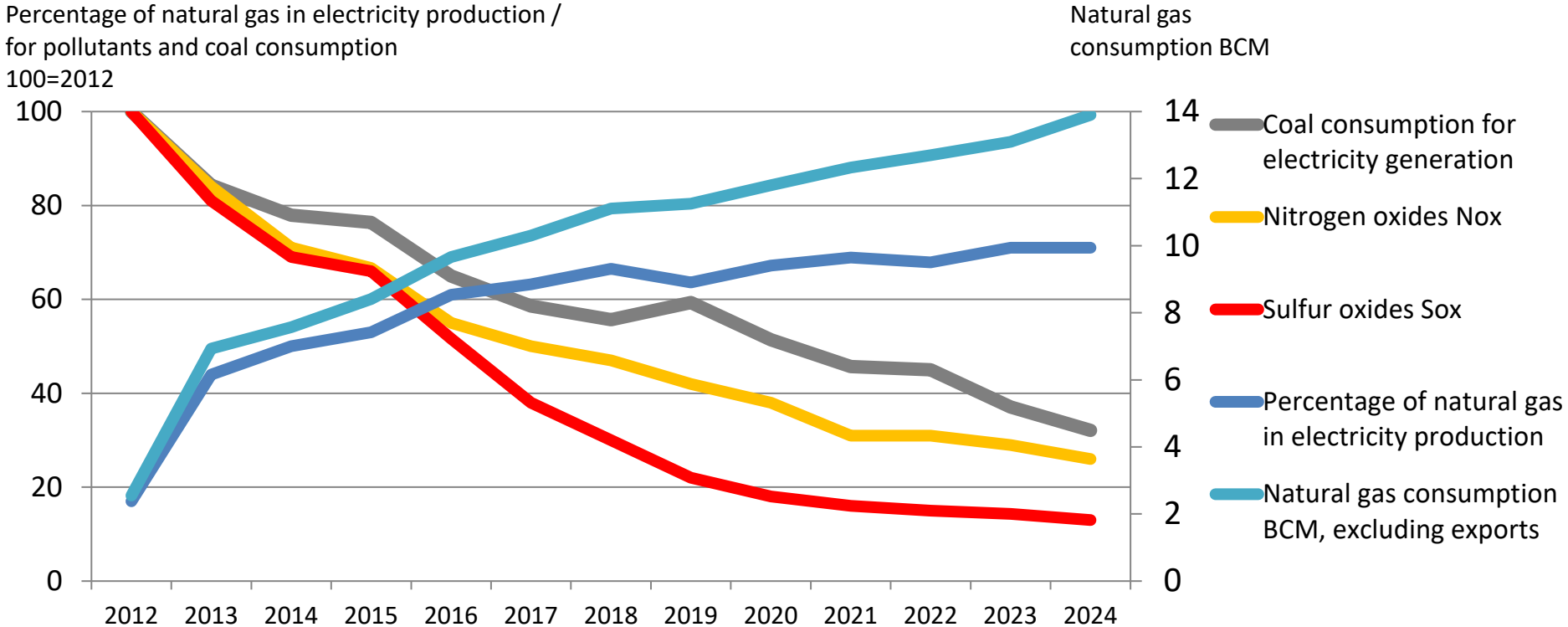
Sulfur Oxides (SOx): Since 2012, Air Emissions in PRTR Decreased by 87%

PRTR Multi-Year Trend

In 2024, there was a 7% reduction in sulfur oxides emissions, mainly due to reduced coal use for electricity generation. The Orot Rabin power plant contributes 73% of total sulfur oxides emissions in PRTR and 58% of the national sulfur oxides emissions. Emissions from the Rotenberg power plant cumulatively decreased by 97% compared to 2012.



In 2024, Coal Consumption for Electricity Generation Decreased by 13%



In 2024, coal consumption for electricity generation decreased by 13%. The reduction in nitrogen oxides and sulfur oxides emissions is not at the same rate because coal consumption occurs partly in production units with advanced reduction facilities (Rotenberg power plant) and partly in units without reduction means (units 1-4 at Orot Rabin).

In 2024, for the first time, there was no increase in the percentage of electricity generated from natural gas, due to the growth of renewable energies.

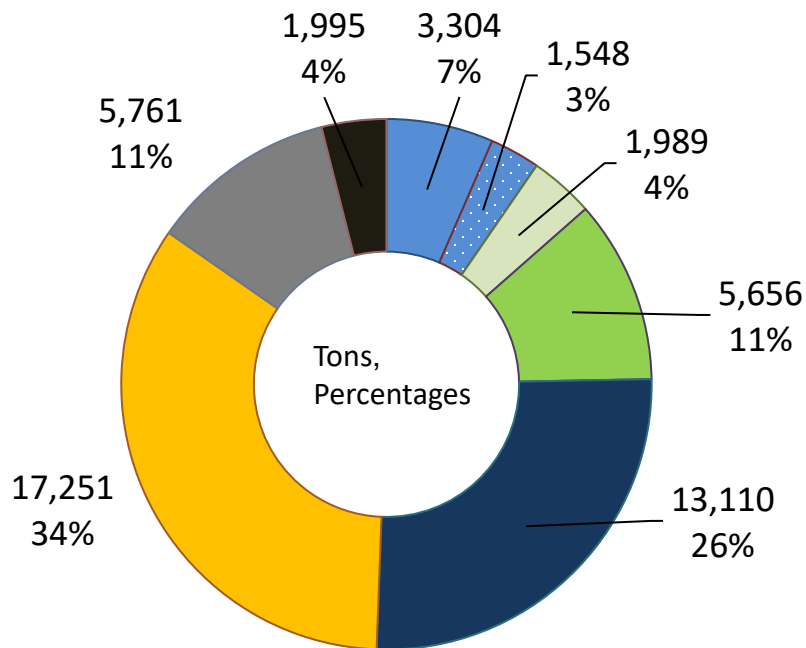
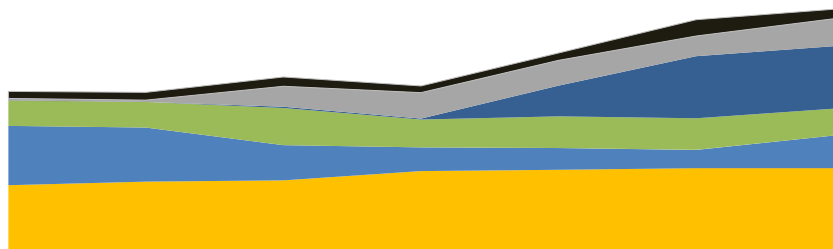


Non-Methane Volatile Organic Compounds (NMVOC):

NIEA 2024 + PRTR 2024

Emission quantity in the 2024 inventory increased by 3% compared to the 2023 inventory, mainly due to increased industrial emissions. Following an update in the calculation of road transportation emissions, there was an overall increase of 5%.

- Industry in PRTR
- Industry not in PRTR
- Gas stations
- Transportation
- Poultry farms, dairy farms, pig farms, goat farms
- Household uses (cleaning products, paints, adhesives, cosmetics, bathing)
- All types of burning
- Other



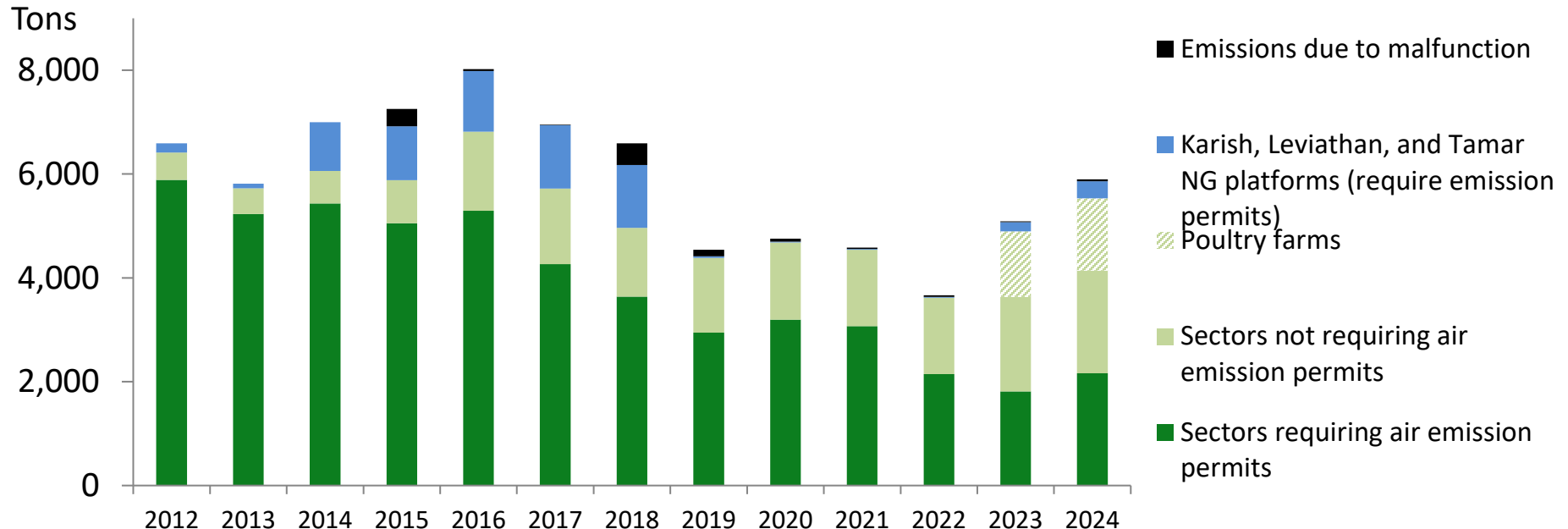
Non-Methane Volatile Organic Compounds (NMVOC):

In 2024, the reported quantity in PRTR increased by 16%

PRTR Multi-Year Trend

Emissions from sectors requiring air emission permits increased by 19% in 2024 and cumulatively decreased by 63% from 2012 to 2024. The main emission increases occurred at Solvar Protein Products in Ashdod, T.L.P Industries in Negev, and Rotem Amfert Negev.

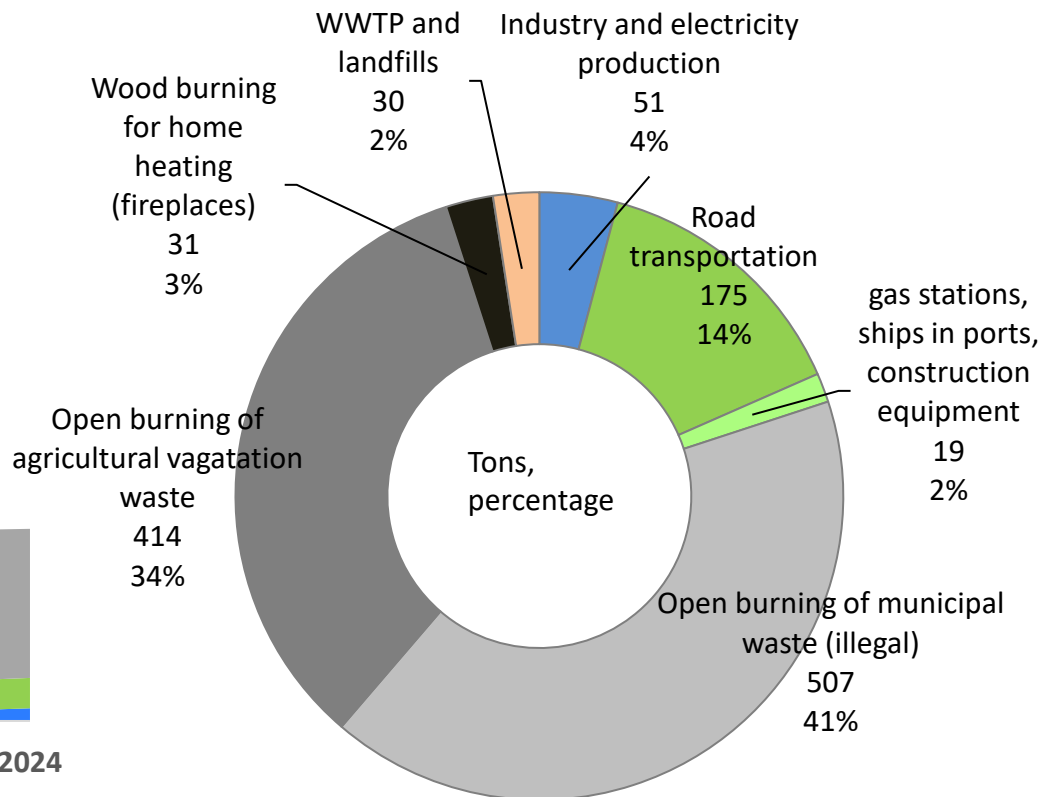
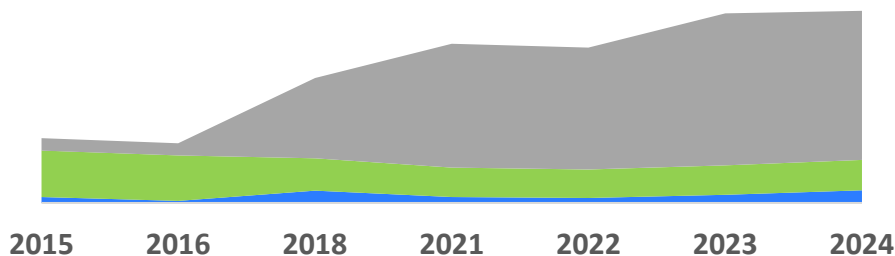
In sectors not requiring air emission permits, there was a 9% increase in 2024, mainly due to applying new RETs in poultry farms. Without the RET update, emissions increased by 5%, mainly due to increased landfill gas emissions.



Suspected or Known Carcinogenic Substances*: Illegal Waste Burning Caused 75% of Emissions in 2024

NIEA 2024 + PRTR 2024

Emission quantity in NIEA 2024 increased by 2% compared to 2023 due to increased emissions from municipal waste burning and bio-generators (landfills, treatment facilities, manure digestion at dairy farms).



*Reporting obligation to PRTR includes a list of 114 pollutant substances. Among them, 38 are suspected or known carcinogens according to the Inter-Ministerial Committee on Carcinogenic, Mutagenic, and Teratogenic Substances of the Ministry of Health. The inventory calculates emissions of 9 suspected or known carcinogenic substances. It should be emphasized that, according to the committee, exposure to outdoor air pollution is recognized as carcinogenic in humans. These graphs deal only with individual pollutant substances.



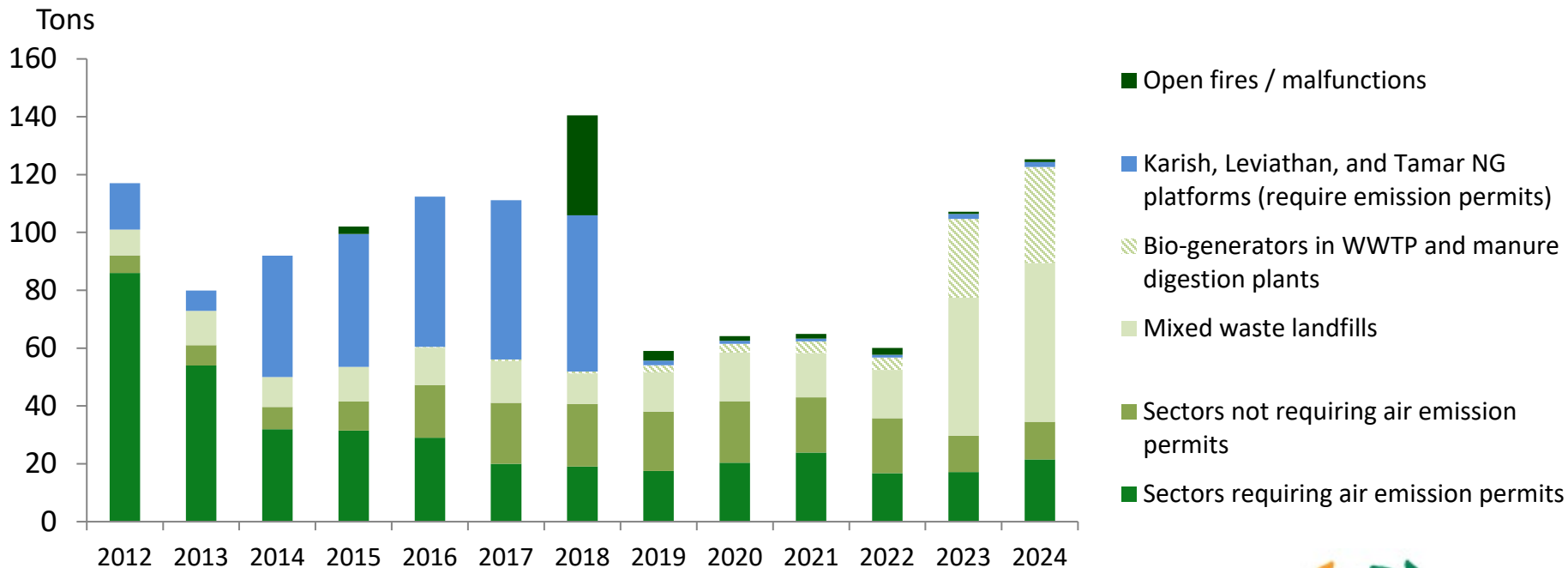
Suspected or Known Carcinogenic Substances: Reported Quantity in PRTR Increased by 16% in 2024

PRTR Multi-Year Trend

Emissions from sectors requiring air emission permits increased by 26% in 2024 (contaminated soil treatment site "Tidhar Harel Menivim" in Acre, Ramat Hovav power stations – Orot Yosef and Hagit Mizrah).

Emissions from sectors not requiring air emission permits increased by 16% in 2024:

- Emissions from landfills increased by 15% due to a decrease in biogas collection rate. It should be noted that landfills will require emission permits according to the integrated licensing reform.
- Emissions from biogas combustion engines in treatment facilities and manure digestion plants increased by 22% due to initial sampling at "Eco-Energy Be'er Tuvia" facility.
- In other sectors not requiring emission permits, there was a 3% increase (asphalt production).



Main pollutants: Formaldehyde 43%, DCM 14%, Ethylbenzene 9%, PERC 8%, TCE 7%, Benzene 7%.



Suspected or Known Carcinogenic Substances: Per Capita Emissions in Israel are 50% Lower than EU14 Emissions

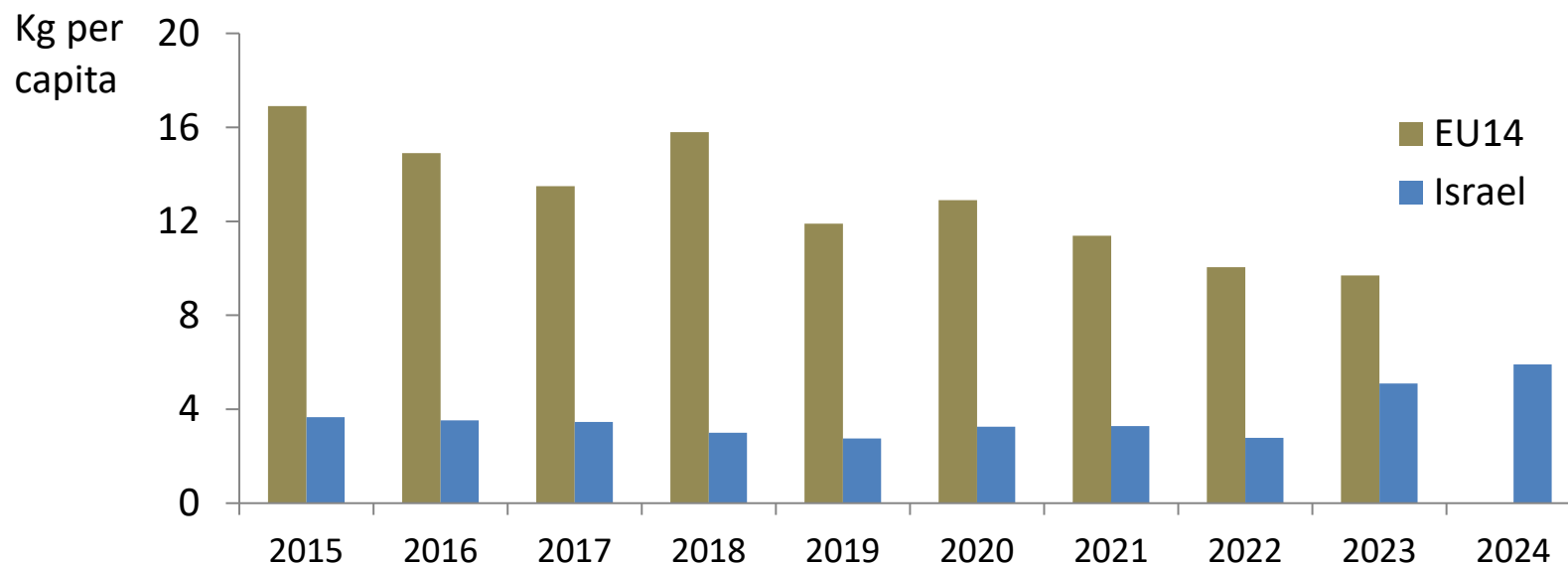
International Comparison

Per capita emissions in PRTR increased by 16% in 2024. Per capita emissions in EU14 countries decreased by 43% since 2015.

The European register does not include fuel production, so natural gas platforms are not included in this comparison.

Also, this comparison excludes 3 sectors added to PRTR and 4 substances not included in the European register.

The most emitted pollutants in large quantities in EU14 are benzene and dichloromethane.

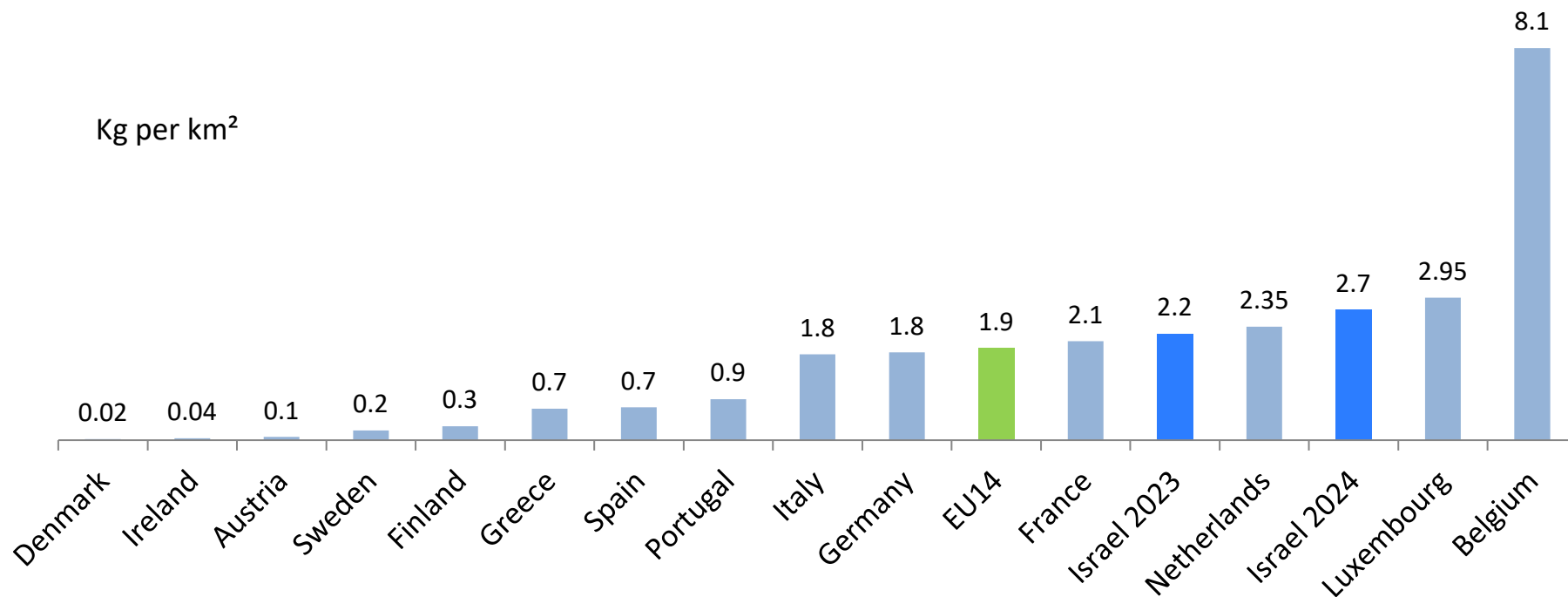


Data Source: [European Industrial Emissions Portal](#)
The EPTR 2024 data has not been published yet.



Suspected or Known Carcinogenic Substances: Emission Density in Israel is Higher than the EU14 Average

International Comparison



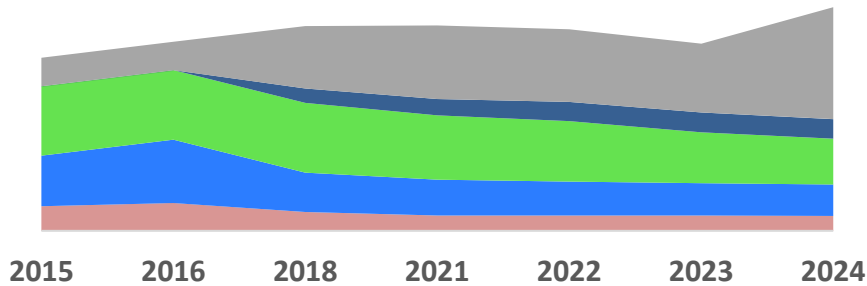
About half of Belgium's emissions are of 1,2-dichloroethane in the chemical industry (EDC and VCM production plants required for PVC manufacturing). Emissions of this substance in Belgium doubled over the last four years.



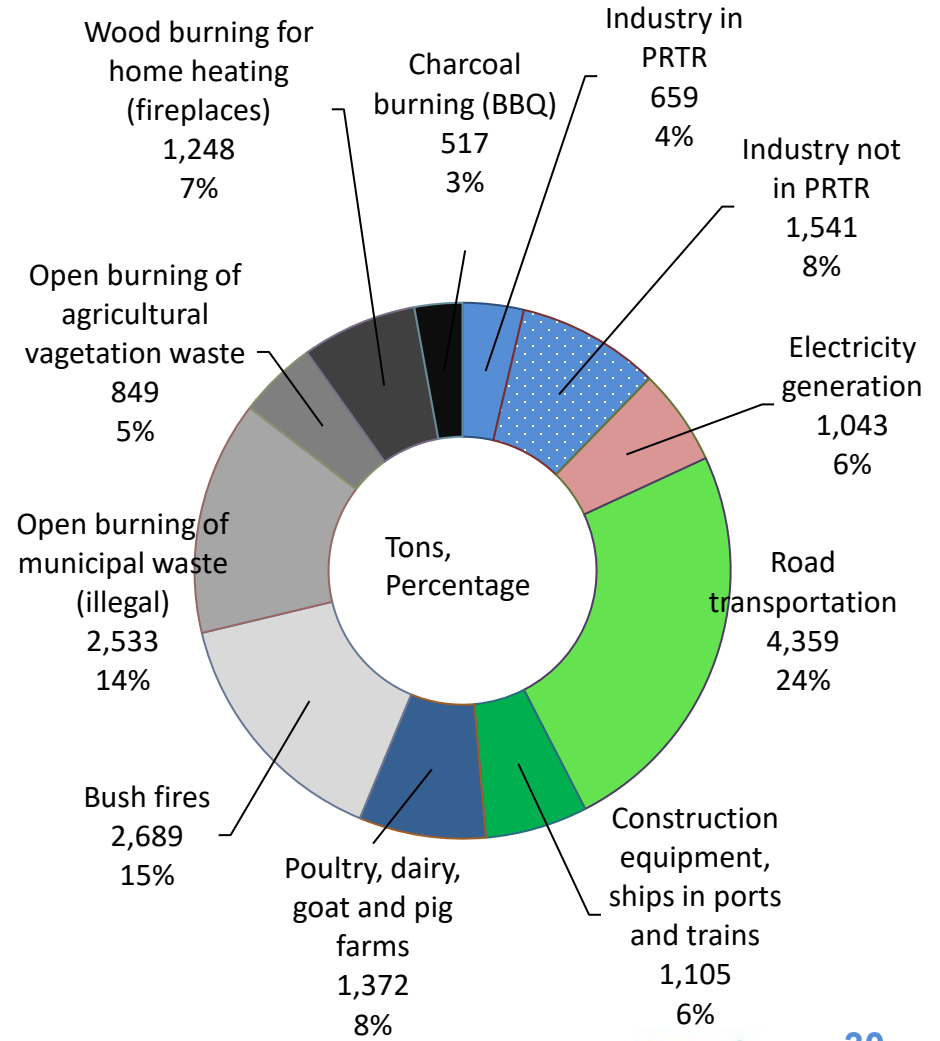
PM10: Fires of all types contribute 44% of emissions

NIEA 2024 + PRTR 2024

The emission quantity in NIEA 2024 remained unchanged compared to 2023. Along with the new inventory of emissions from bush fires and updated inventory of road transportation and construction equipment emissions, there was an overall increase of 29%.



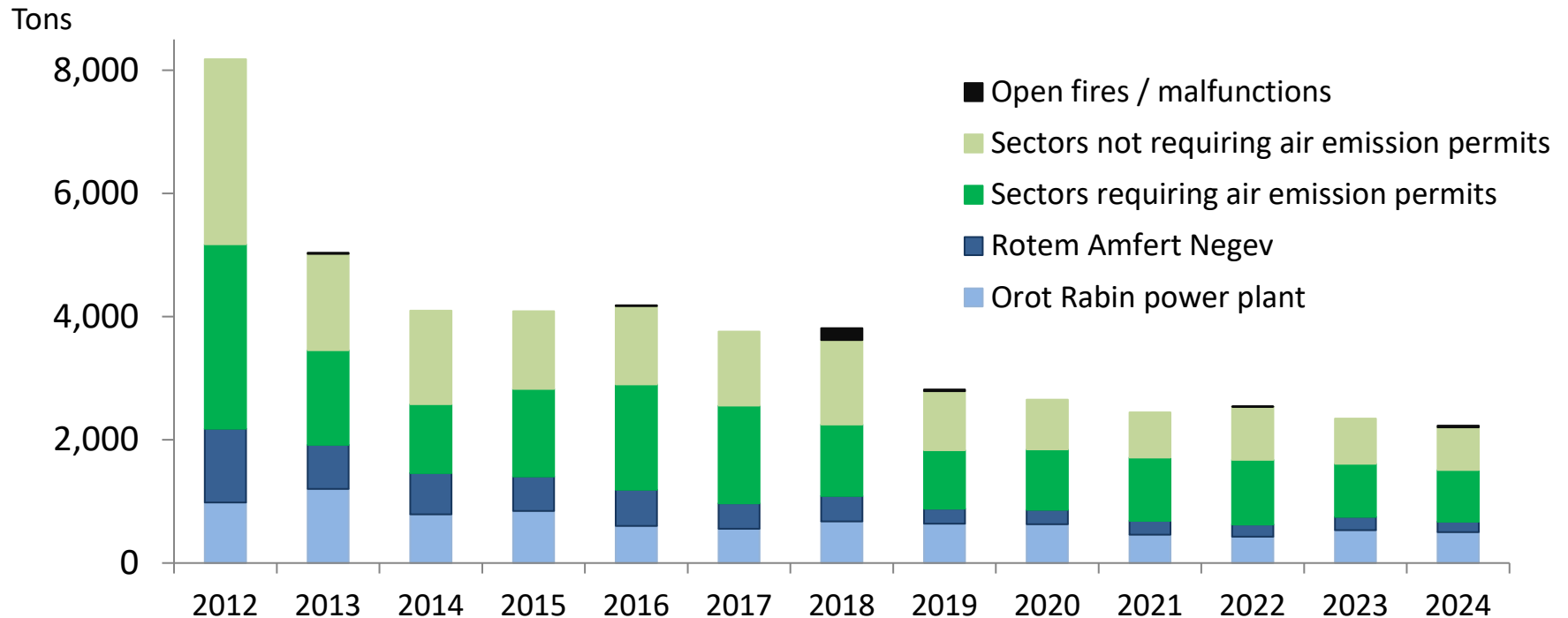
It should be noted that PM10 particles also come from deserts outside Israel. The annual background concentration of these particles is about 40 micrograms per cubic meter. This concentration represents 80% of the annual environmental standard – 50 micrograms per cubic meter. Hence the great importance of reducing particle emissions from anthropogenic sources.



PM10: Air Emissions Decreased Cumulatively by 73% Since 2012

PRTR Multi-Year Trend

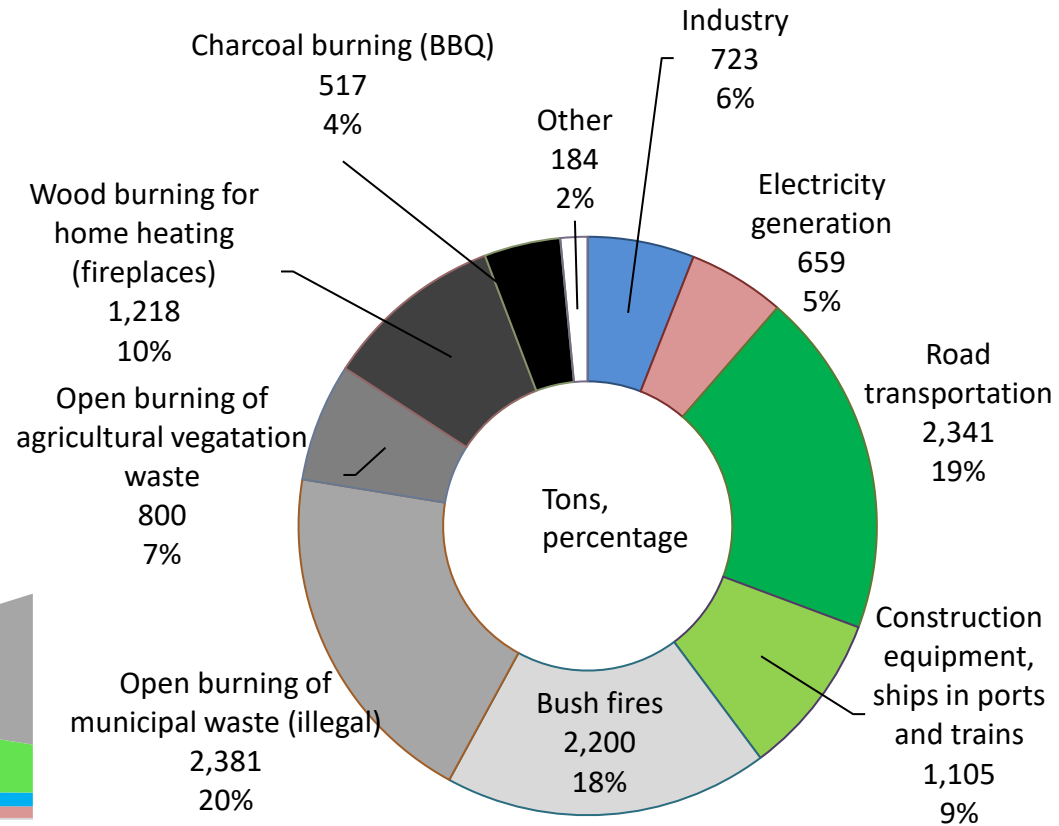
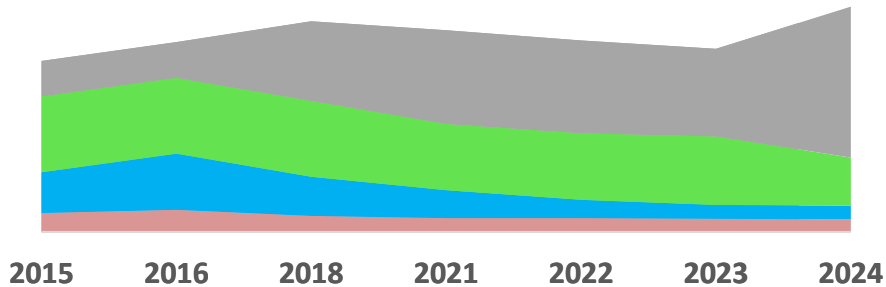
In 2024, routine emissions decreased by 6%. Most reductions occurred at Rotem Amfert Negev and the Rotenberg power plant. PM10 emissions from Orot Rabin power plant account for 23% of total emissions reported to PRTR.



PM2.5: Fires of All Types Contribute 59% of Emissions

NIEA 2024 + PRTR 2024

The emission quantity in NIAE 2024 remained unchanged compared to 2023. Along with the new inventory of emissions from bush fires and updated emission calculations from road transportation and construction equipment, there was an overall increase of 24%.

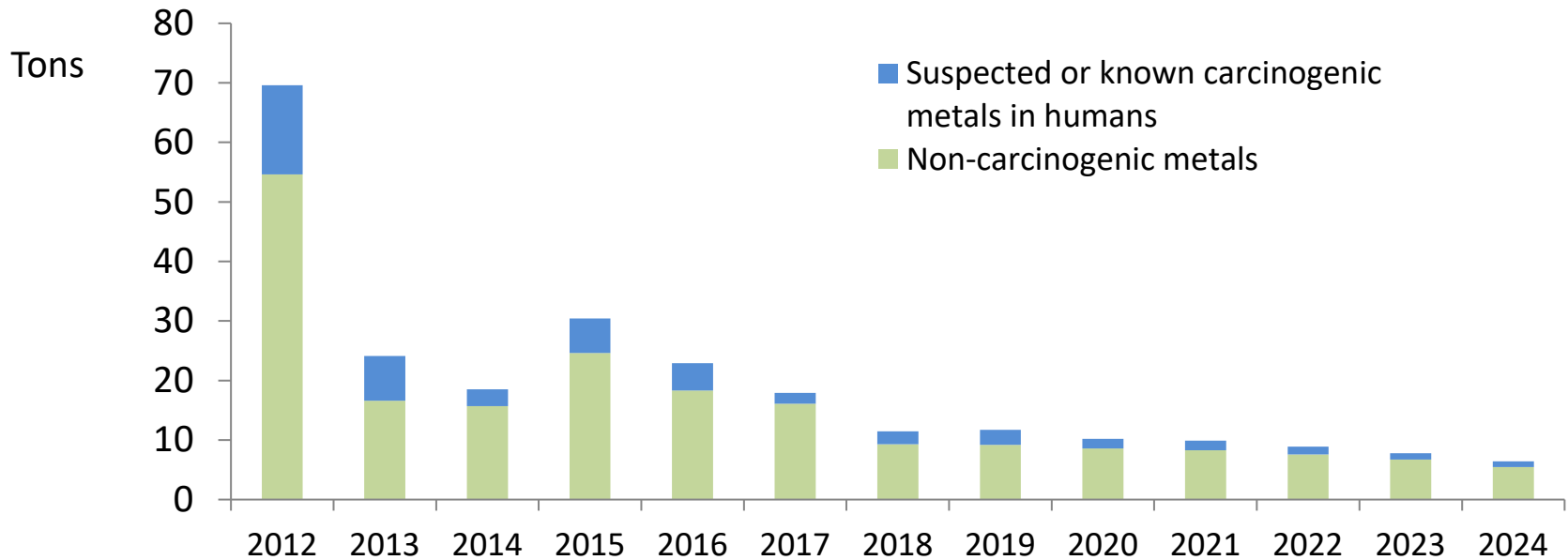


Metals: Metal Emissions to Air Decreased Cumulatively by 91% Since 2012

PRTR Multi-Year Trend

In 2024, metal emissions to air decreased by 18%.

Emissions to air of metals suspected or known to be carcinogenic in humans decreased by 12% in 2024 and cumulatively by 94% since 2012. The main source of reductions is the Orot Rabin power plant.



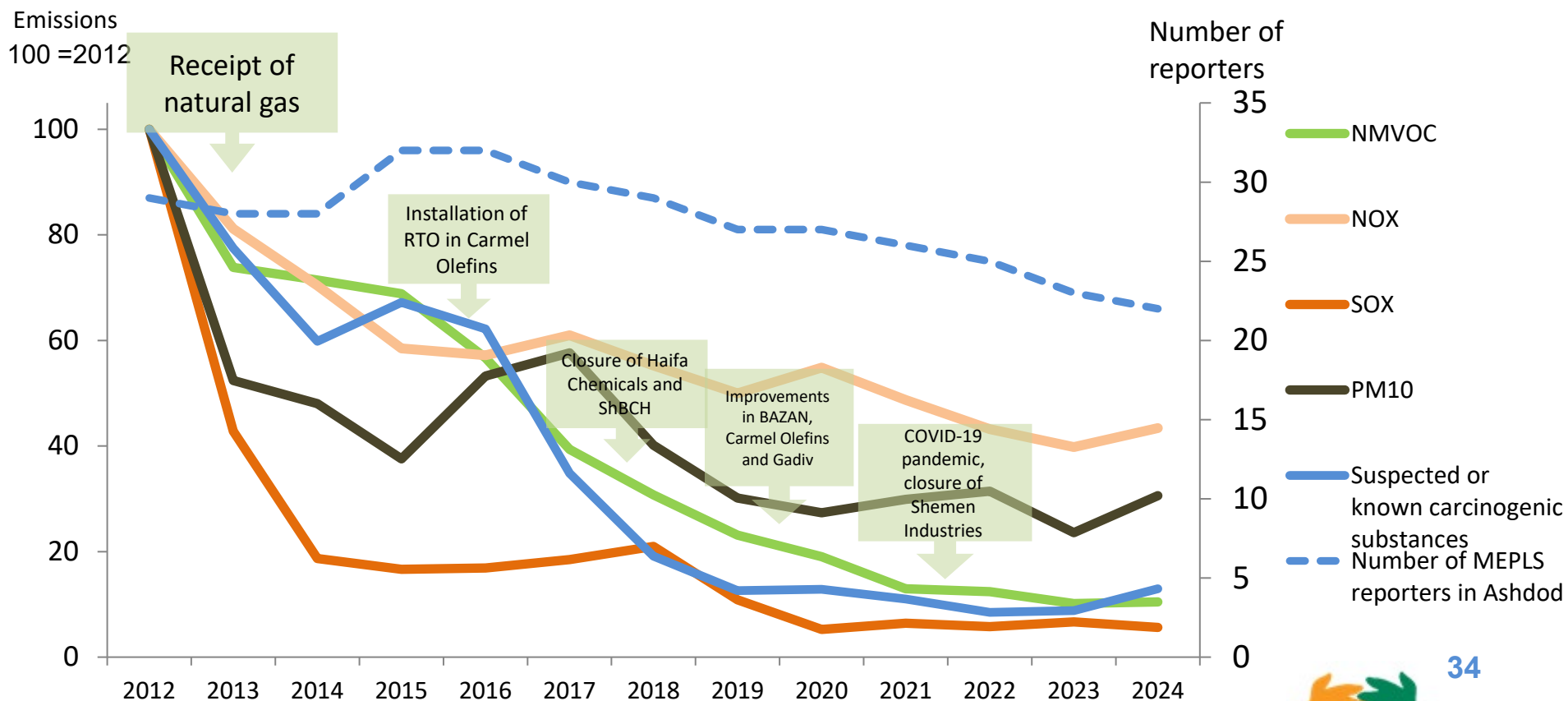
Among the metals reported in PRTR, seven are suspected or known carcinogens: nickel, lead, mercury, cobalt, arsenic, hexavalent chromium, and cadmium.



Haifa Bay: Reductions in Air Pollutant Emissions of 57% to 94% Since 2012 in PRTR

PRTR Multi-Year Trend

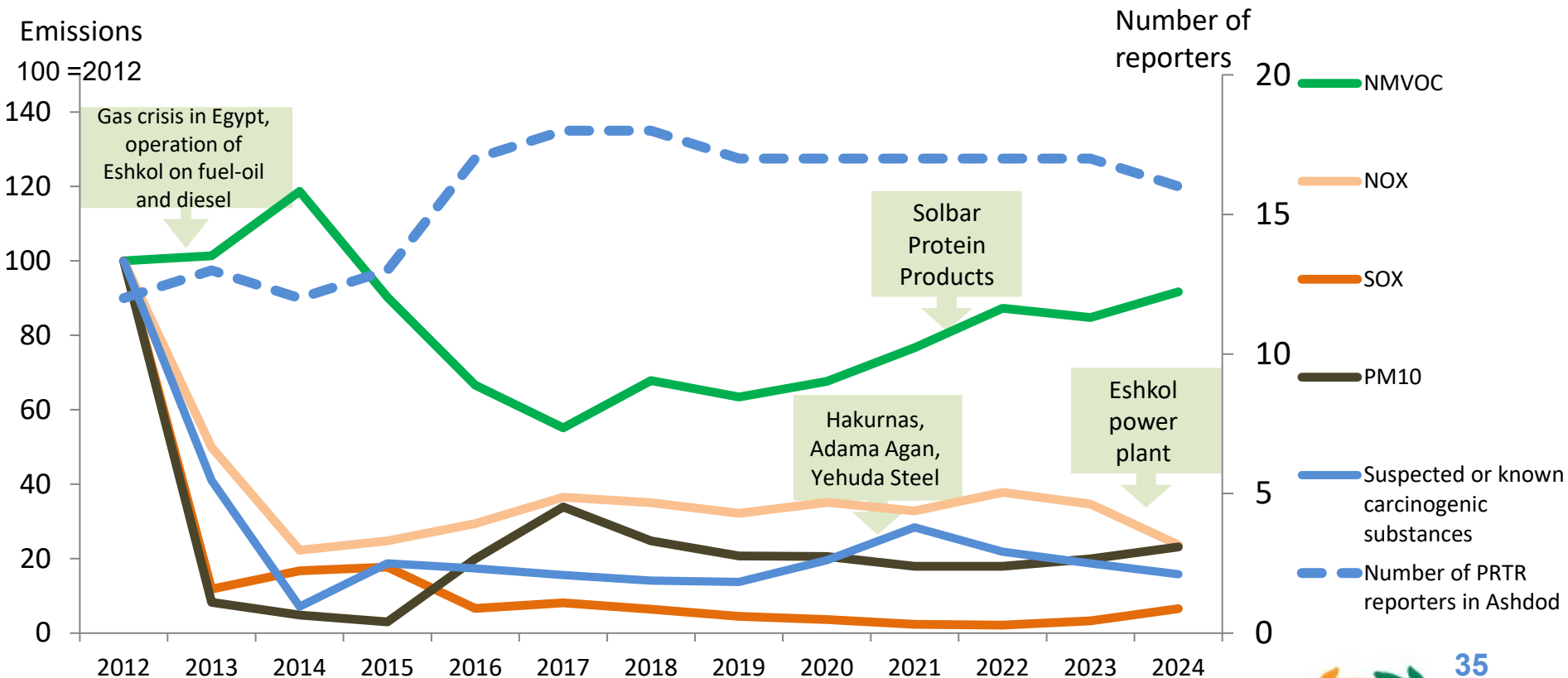
In 2024, increases occurred in Haifa Bay in nitrogen oxides and PM10 particle emissions due to increased activity at the Haifa power plant. Carcinogenic substances emissions increased at Haifa treatment facility (first-time results from bio-generator stack sampling), Haifa power plant, and Carmel Olefins, and NMVOC increased slightly due to increases at Carmel Olefins, the refinery, and Haifa treatment facility.



Industrial Areas in Northern Ashdod: In 2024, NMVOC Emissions Increased by 8%

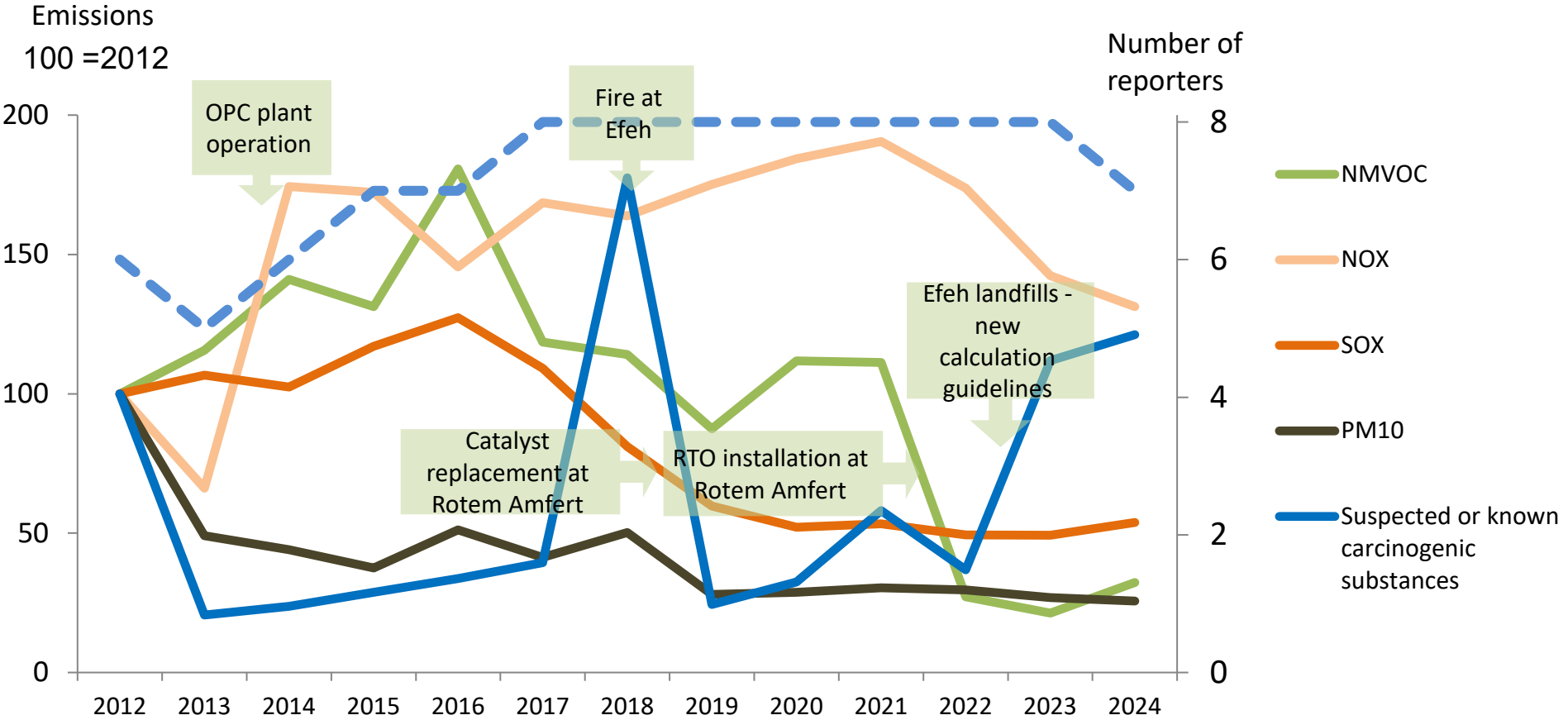
PRTR Multi-Year Trend

In 2012, due to the gas supply crisis from Egypt, the Ashdod power plant burned fuel-oil and diesel, therefore emission values were very high, and this figure reflects the large reductions relative to that year. However, it appears that in recent years there have been no significant reductions in emissions. In 2024, there was an 8% increase in NMVOC air emissions due to a 45% increase in emissions from Solvar Protein Products. It should be noted that in 2024 and 2025 the plant had exceedances in stack sampling of Hexane and TOC. These violations are being enforced by the ministry.



Rotem Plain: In 2024 Carcinogenic Substance Emissions Continued to Increase Due to Reduced Biogas Collection at the Efeh Landfill

PRTR Multi-Year Trend

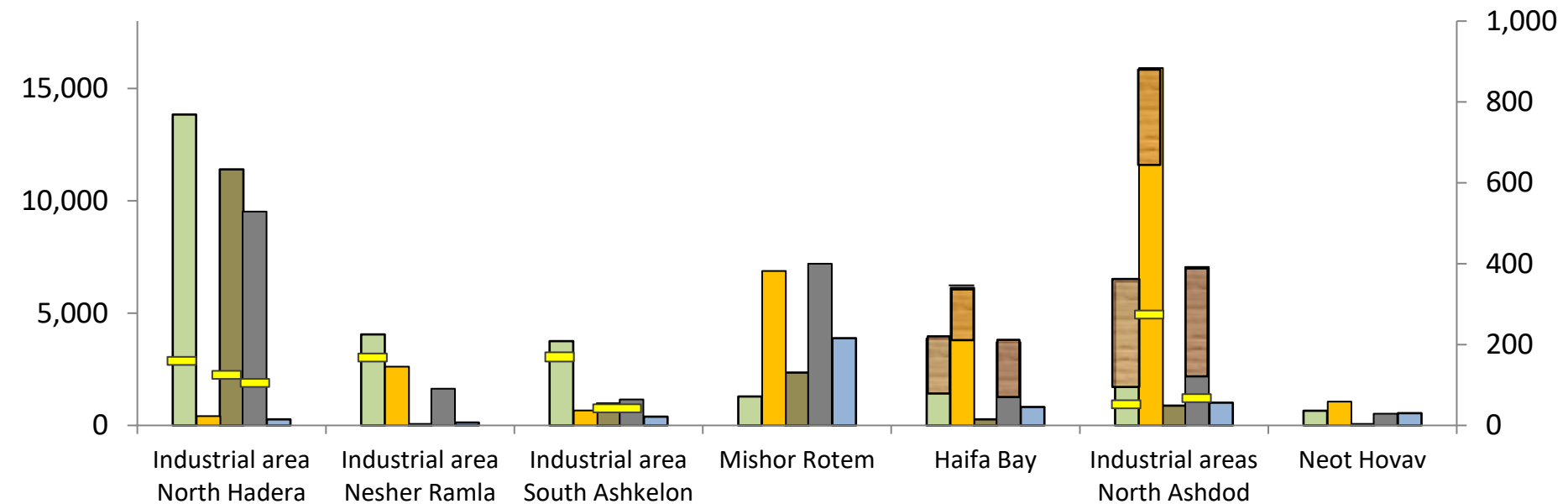


Comparison of air pollutant emissions in industrial areas in 2024 PRTR

Areas with the highest number of industrial PRTR reporters (7 and above). This figure adds emissions from ships in Ashdod and Haifa ports (anchoring, maneuvering, mooring to berth, sailing in territorial waters) to PRTR reported emissions. It should be noted that two-thirds of ship emissions in the inventory occur during mooring to berth.

Tons NOx SOx
Kg carcinogens divided by 5

Tons NMVOC, PM10



■ Nitrogen oxides ■ Sulfur oxides ■ Suspected or known carcinogenic substances ■ NMVOC ■ PM10 particles
■ Expected emissions after cessation of routine coal power production, implementation of a national emissions reduction plan for Ashdod, and reductions at Neshet Ramla.



■ Emissions from ships in ports – anchoring, maneuvering, mooring to berth, sailing in territorial waters.

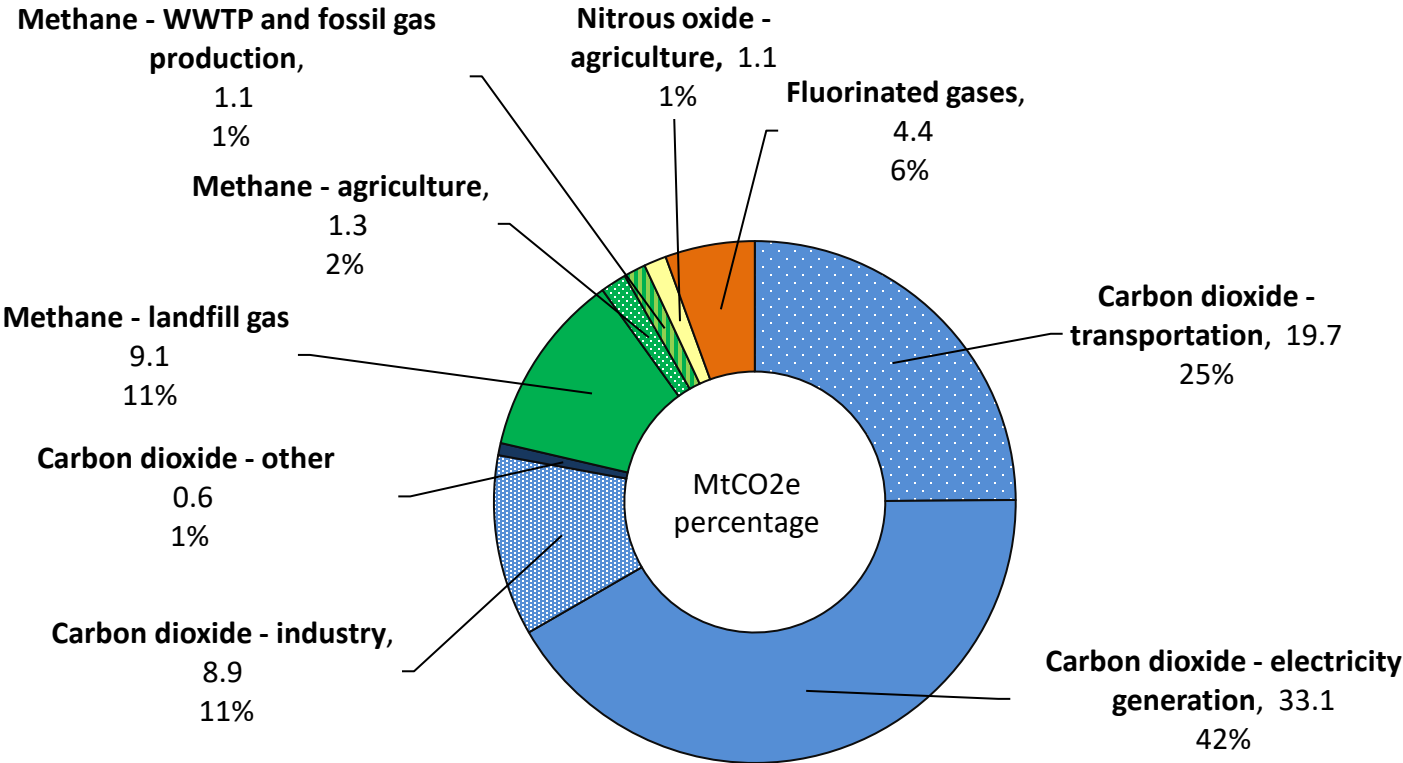


Greenhouse Gas Emissions Sources

2024 Greenhouse Gas Inventory

Greenhouse gas emissions in Israel reached 79 million tons CO₂e in 2024. An increase of 2% compared to 2023.

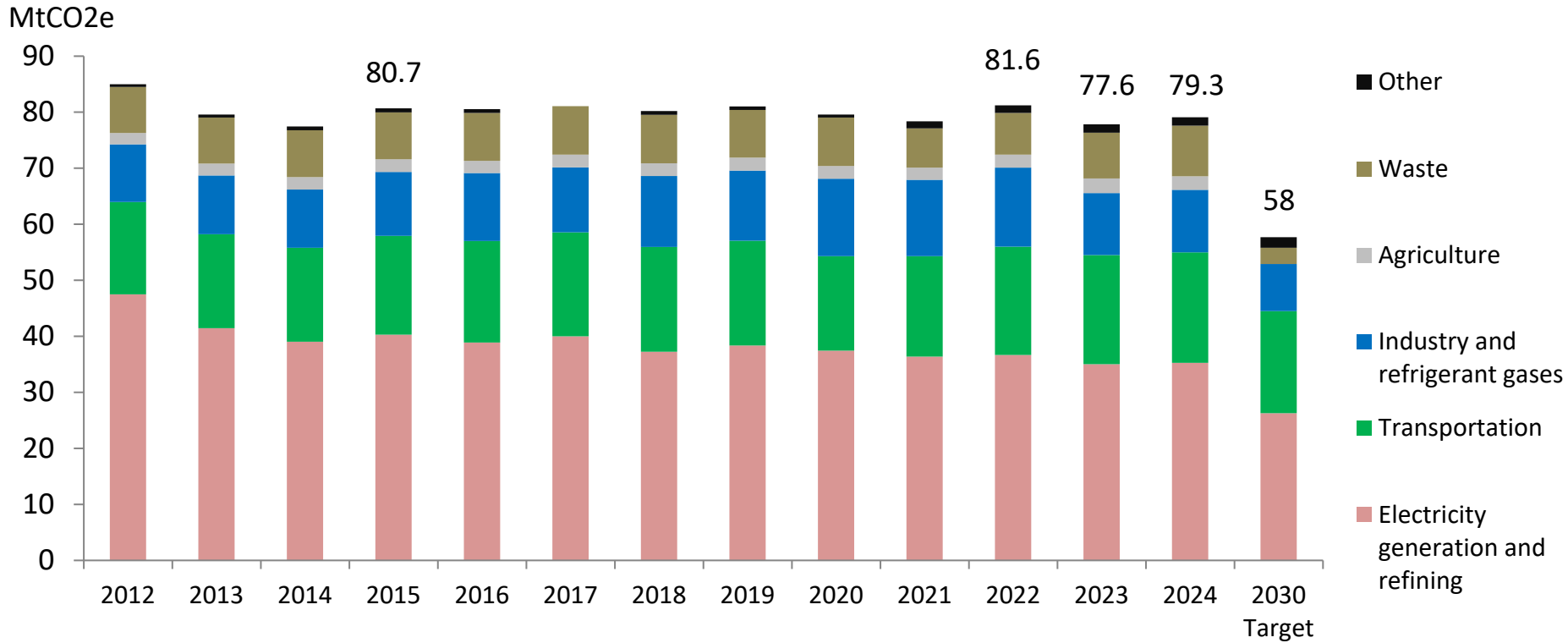
Carbon dioxide accounts for 79% of emissions and methane for 14%.



In 2024, Greenhouse Gas Emissions Increased by 2% in Israel

Greenhouse Gas Inventory

In 2024, emissions of fluorinated gases (used for refrigeration, semiconductor manufacturing, fire suppression systems, and magnesium production) increased by 30% due to a temporary regulation allowing import of refrigerant gases for security or life-saving purposes. There were also increases in electricity generation and transportation.



Government Decision 171 of 25.7.2021 targets a 30% reduction in greenhouse gas emissions by 2030 compared to 2015 emissions:

total emissions – 58 MtCO2e, industry emissions – 8.4 MtCO2e, electricity generation emissions – 26.3 MtCO2e

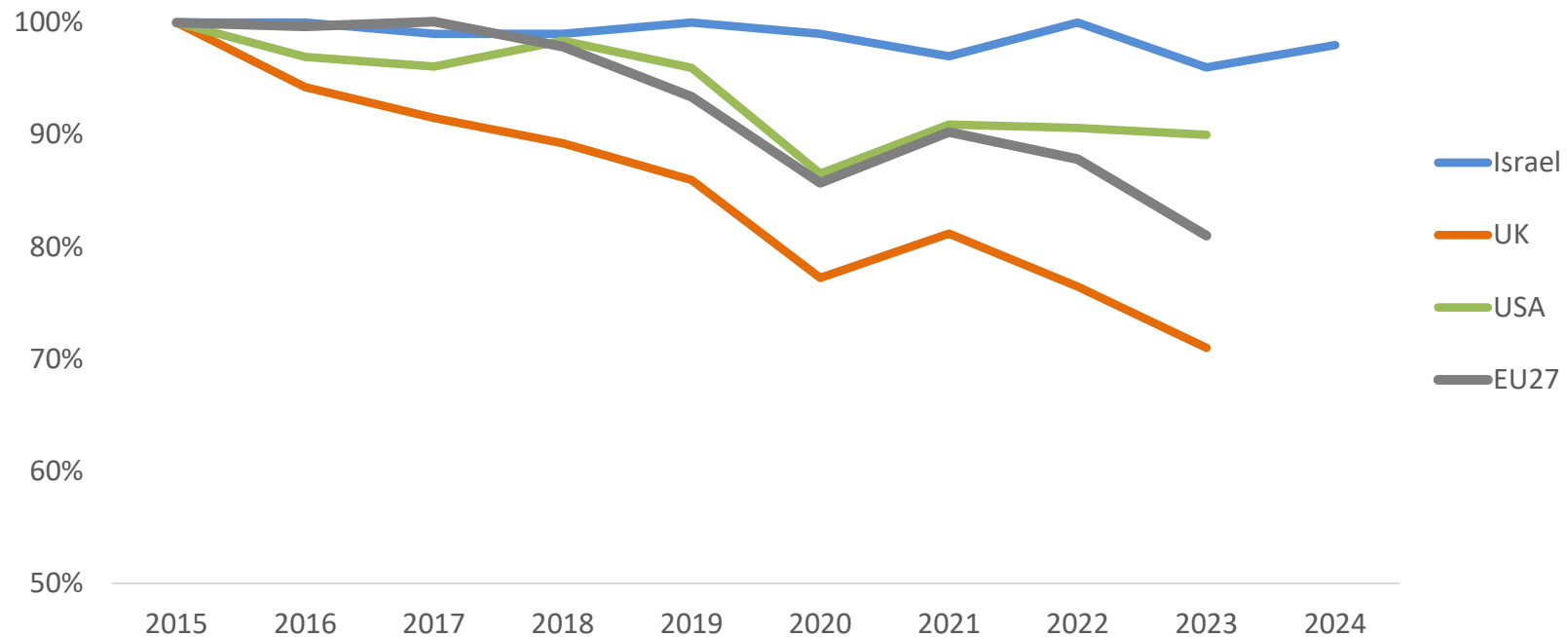
National system for monitoring, reporting, and verification – MRV (Measurement, Reporting & Verification),

Ministry of Environmental Protection.



Percentage of Greenhouse Gas Emissions Relative to the Reference Year 2015 (Paris Agreements)

International Comparison



<https://stats.oecd.org>

2023 data for UK, USA, EU27 from EDGAR – Emissions Database for Global Atmospheric Research

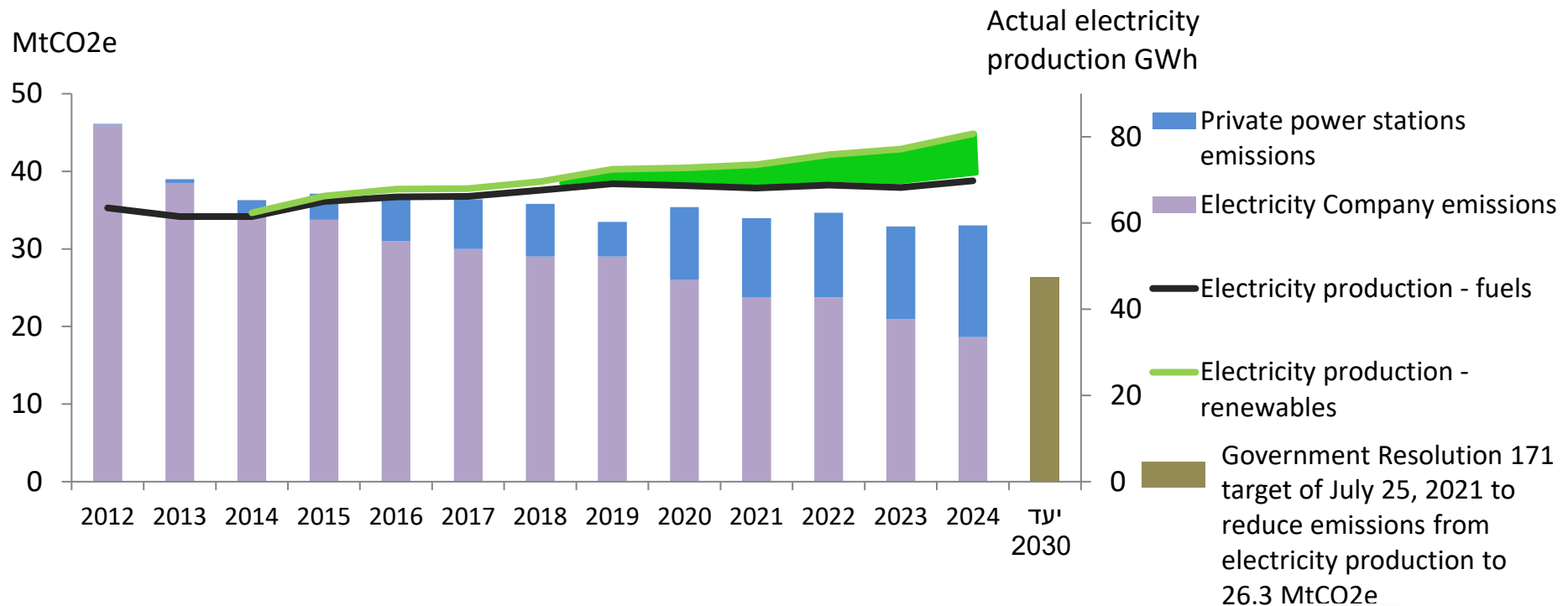
Data for Israel from the National Monitoring, Reporting & Verification system – MRV (Ministry of Environmental Protection)



In 2024, a 22% Increase in Electricity Production from Renewable Energies

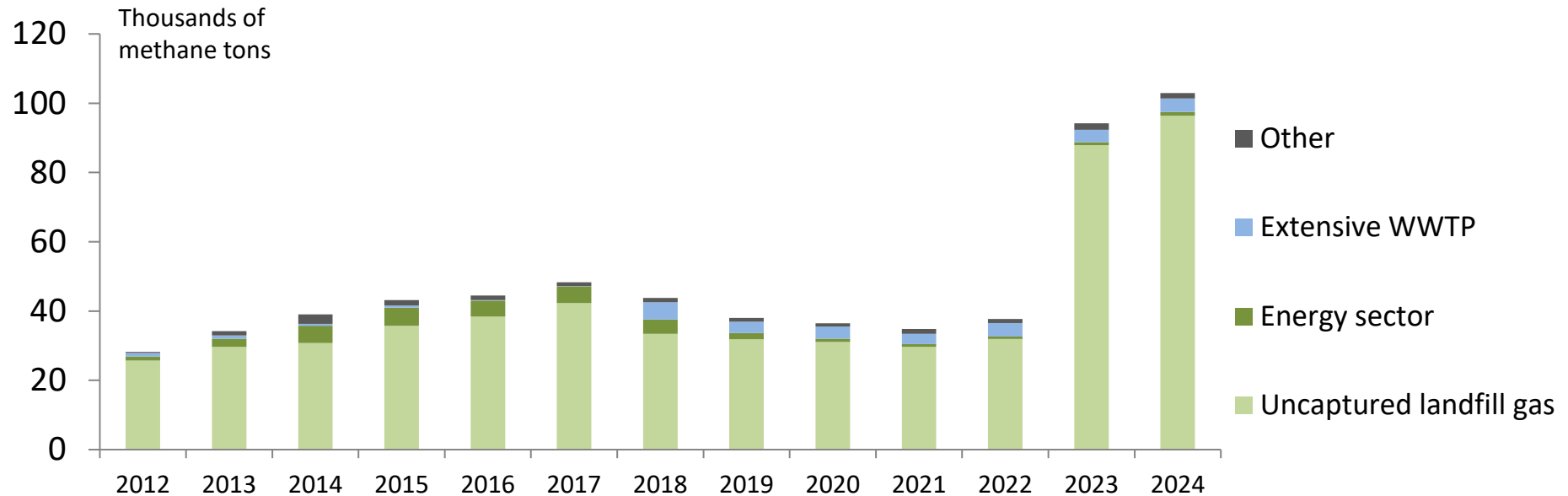
PRTR Multi-Year Trend

Electricity production volume increased by 5% in 2024 (data centers, electric vehicles), however electricity production from renewable energies increased by 22%. Accordingly, there was only a slight increase of 0.5% in electricity production from fuels. In 2024, the share of electricity production from renewables was 14.7%. The share of electricity production from fuels in Israel (85%) is the highest among OECD countries. Although with the sale of the Eshkol power station, the Electricity Company's share in electricity production dropped below 40%, its share in CO2 emissions from electricity production stands at 57% due to the use of coal.



9% Increase in Methane Emissions in 2024

PRTR Multi-Year Trend



In 2023, biogas emission RET in landfills were updated.

In 2024, methane emissions reported to the PRTR increased by 9% due to a decrease in the rate of biogas capture in mixed waste landfills.

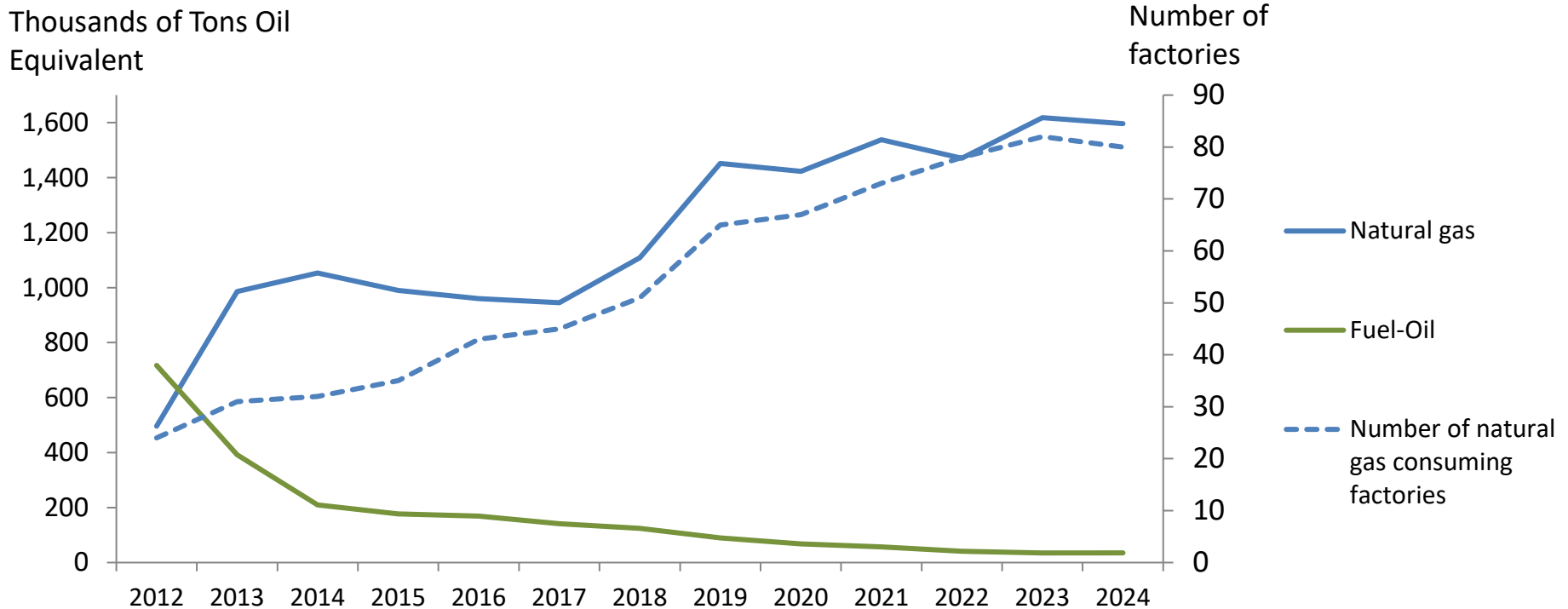
Year	Number of landfills with data	Biogas produced Million cubic meters (according to model)	Biogas collected Million cubic meters (according to measurement)	Biogas emitted Million cubic meters	Collection percentage
2021	6 out of 10	160	44	116	28
2023	10 out of 10	264	43	221	16
2024	10 out of 10	275	36	238	13



No Increase in Natural Gas Consumption by PRTR Reporters in 2024

PRTR Multi-Year Trend

Fuel oil consumption increased by 2% in 2024 but decreased cumulatively by 95% since 2012. Natural gas consumption decreased by 1% in 2024 but increased by 221% since 2012, and the number of natural gas consuming facilities rose from 24 to 80. 54% of the fuel oil consumption reported to the PRTR occurs in asphalt production facilities.

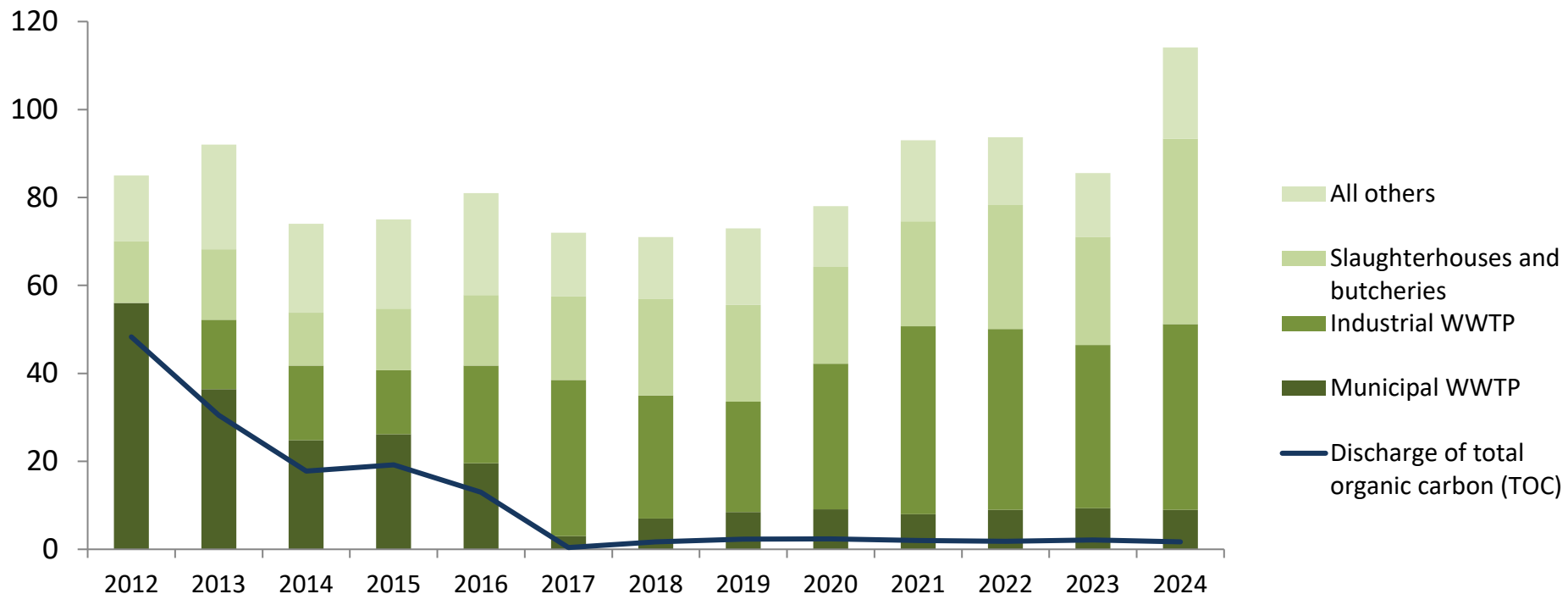


Discharges to the Mediterranean Sea in the PRTR

PRTR Multi-Year Trend

94% of the quantities discharged to the Mediterranean Sea in 2024 are salts (chloride and sodium).
The remaining pollutants are mainly total organic carbon and total nitrogen.

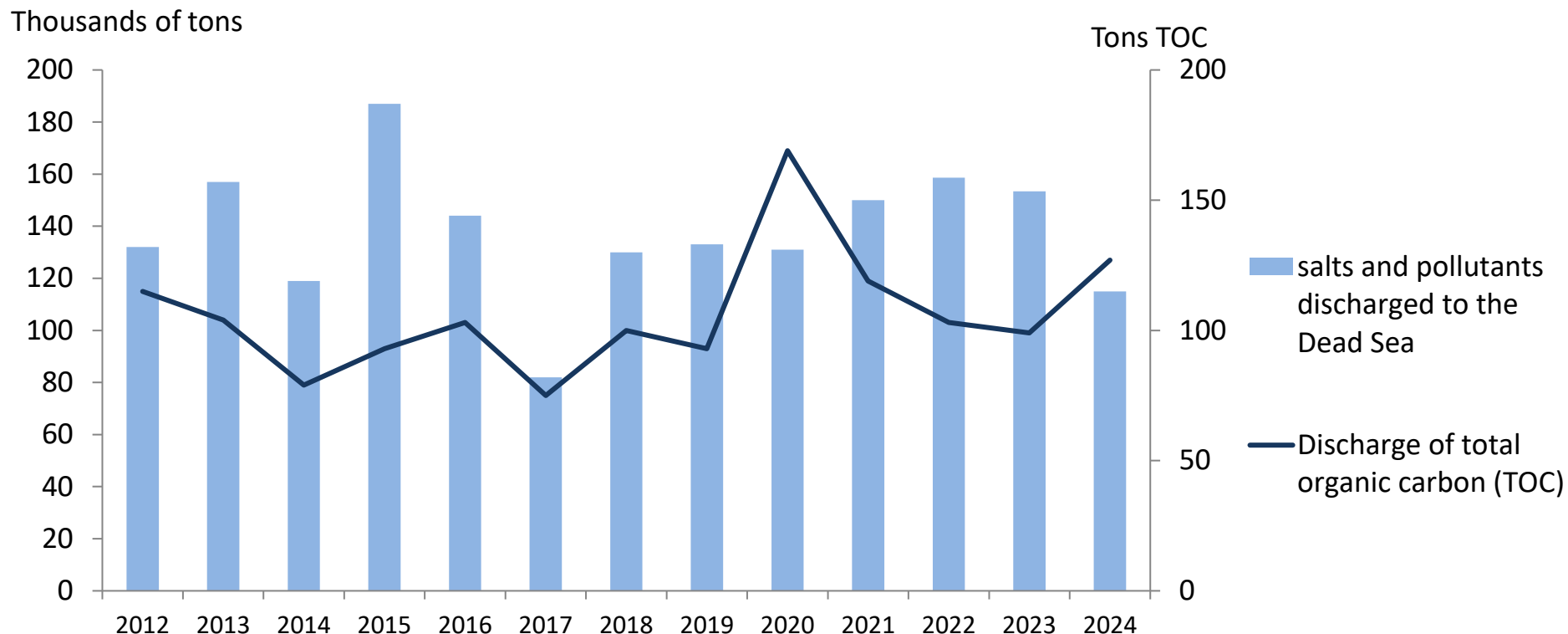
Thousands of tons



Discharges to the Dead Sea in the PRTR

PRTR Multi-Year Trend

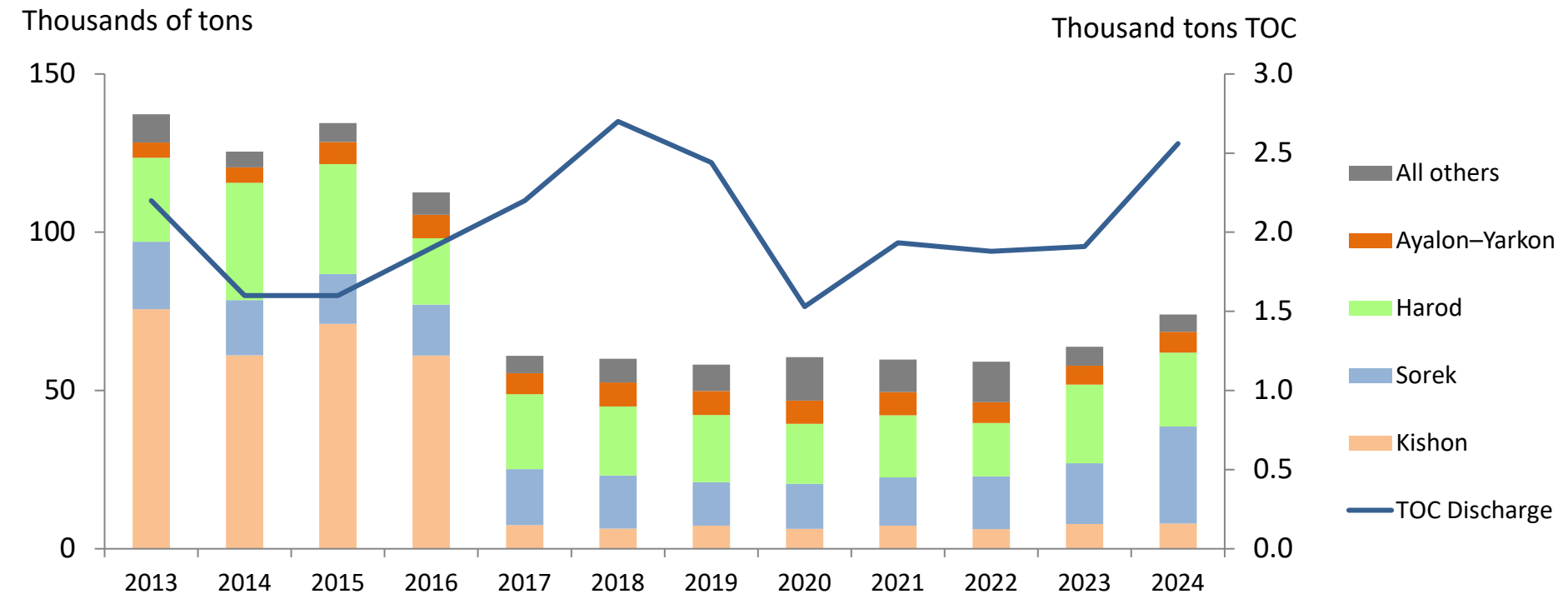
99.6% of the quantities discharged to the Dead Sea in 2024 are salts (chloride and sodium). The remaining pollutants are mainly total organic carbon and total nitrogen.



Discharges into Rivers in the PRTR

PRTR Multi-Year Trend

91% of the pollutants discharged into rivers in 2024 are salts. The remaining pollutants are mainly total organic carbon and total nitrogen. The significant reduction in discharge into the Kishon in 2017 was due to the closure of the Haifa Chemicals plant. In 2024, there was a 16% increase in river discharges, mainly due to an increase in the volume of effluent from the Shafdan and Sorek WWTP discharged into the Sorek River.

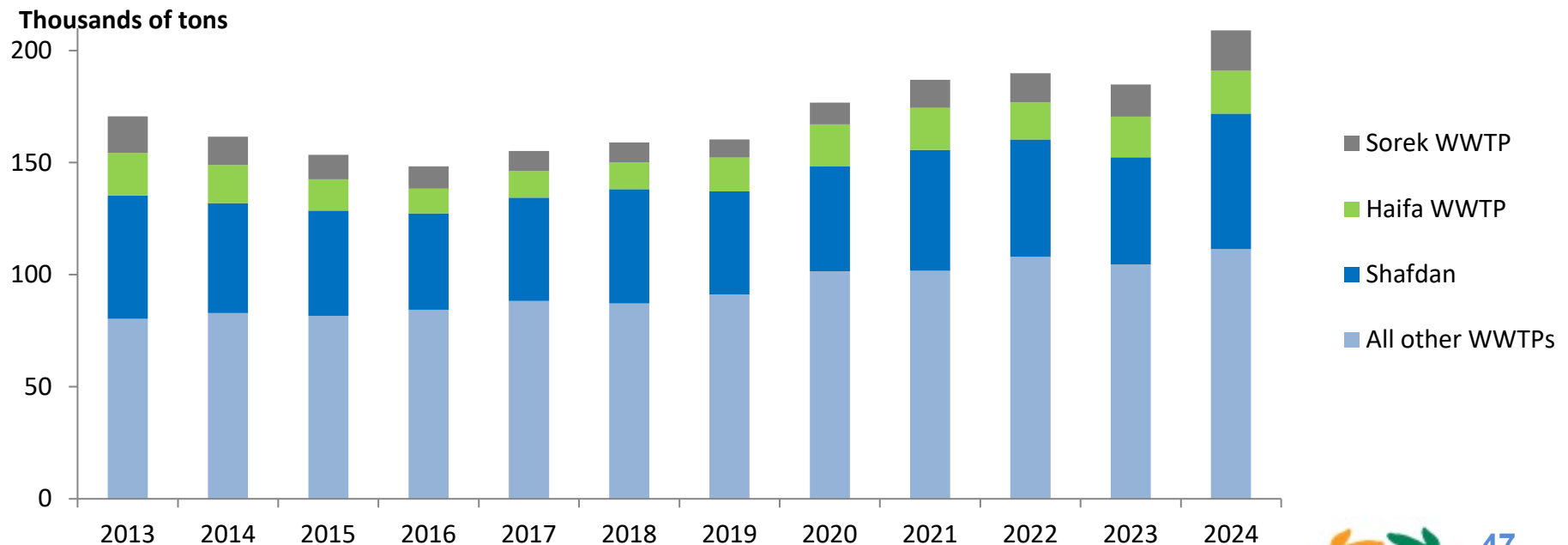


Salt Content in WWTP Effluent Increased by 13% in 2024

PRTR Multi-Year Trend

About 85% of WWTP effluent is used for agricultural irrigation; therefore, the salts present in the effluent reach agricultural soils. In 2024, the salt content in WWTP effluent increased by 13%, reaching 209 thousand tons of chlorides and sodium. The explanation for this increase is that in 2024, the volume of water pumped from the Kinneret (relatively saline) rose by about 70% compared to 2023, while the volume of desalinated water was reduced by 7%, and domestic and industrial water consumption increased by 5%.

The cumulative increase since 2016 is 41%. This increase is explained by the rise in domestic and industrial water consumption (up 19% since 2016) and increased pumping from the Kinneret due to most recent winter seasons being relatively rainy.

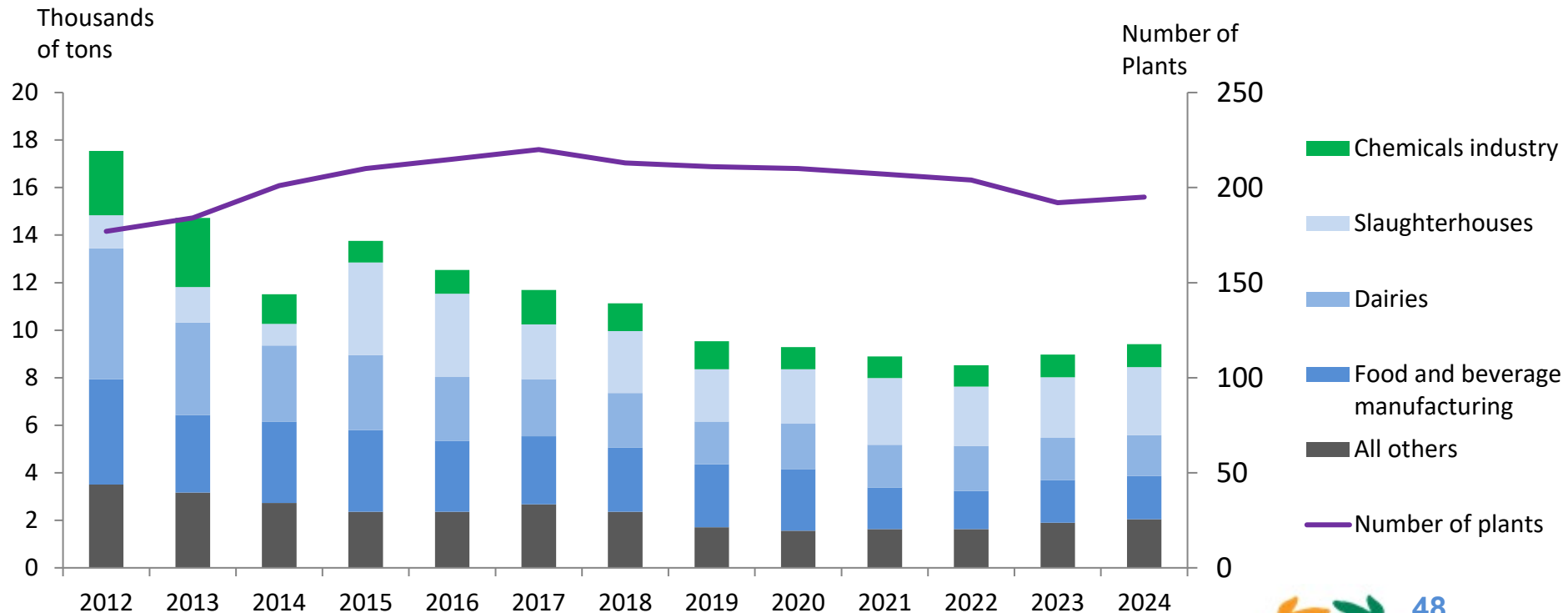


Industrial Wastewater Discharges into WWTPs

PRTR Multi-Year Trend

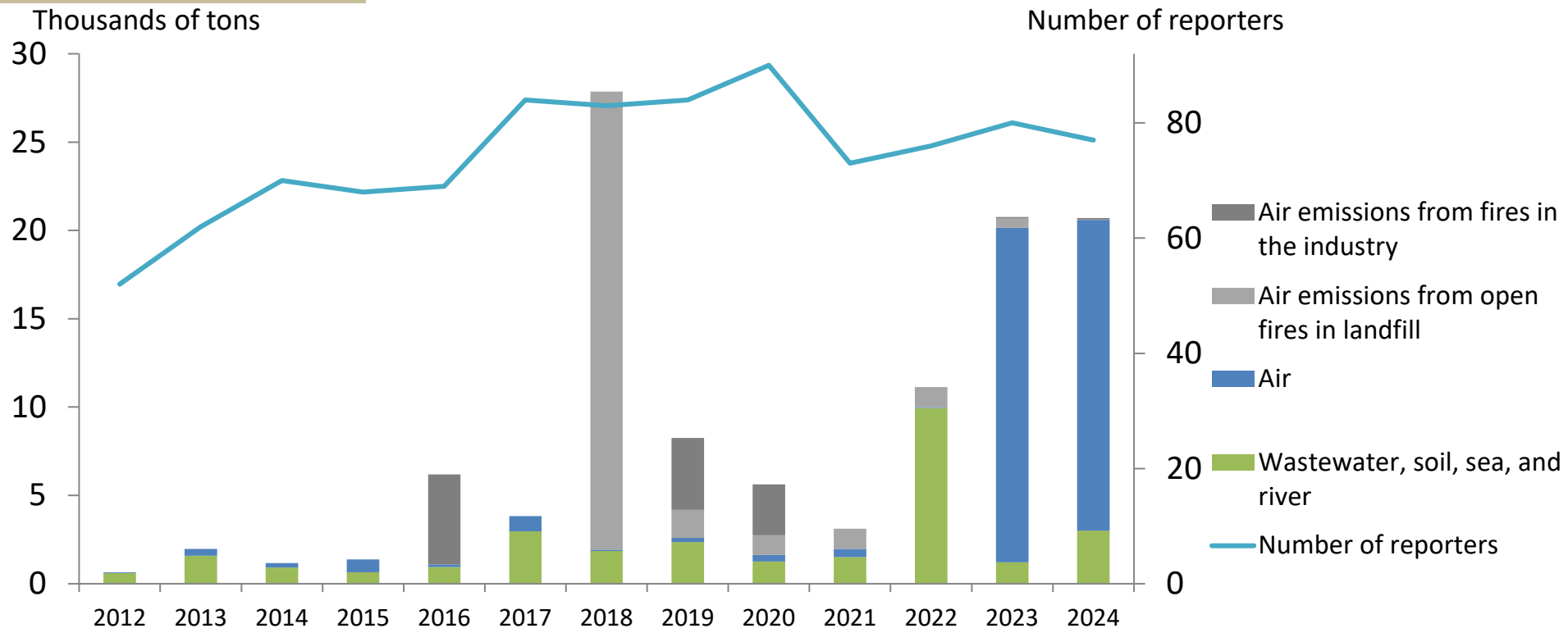
The quantity of pollutants discharged from industrial plants into public WWTPs has decreased by 46% since 2012, despite the number of plants reporting wastewater discharges into WWTPs being 10% higher than in 2012. This is explained by inspection carried out by the Ministry of Environmental Protection, as well as the implementation of monitoring programs by water and sewage corporations in accordance with the Water and Sewage Corporations Regulations (industrial wastewater discharged into the sewage system), 5774–2014, and sewage tariffs according to the quality of the discharged wastewater.

The main pollutants in the discharges are: Total Organic Carbon – 35%, chlorides – 33%, sodium – 23%, total nitrogen – 8%.



Emissions from Malfunctions in the PRTR

PRTR Multi-Year Trend

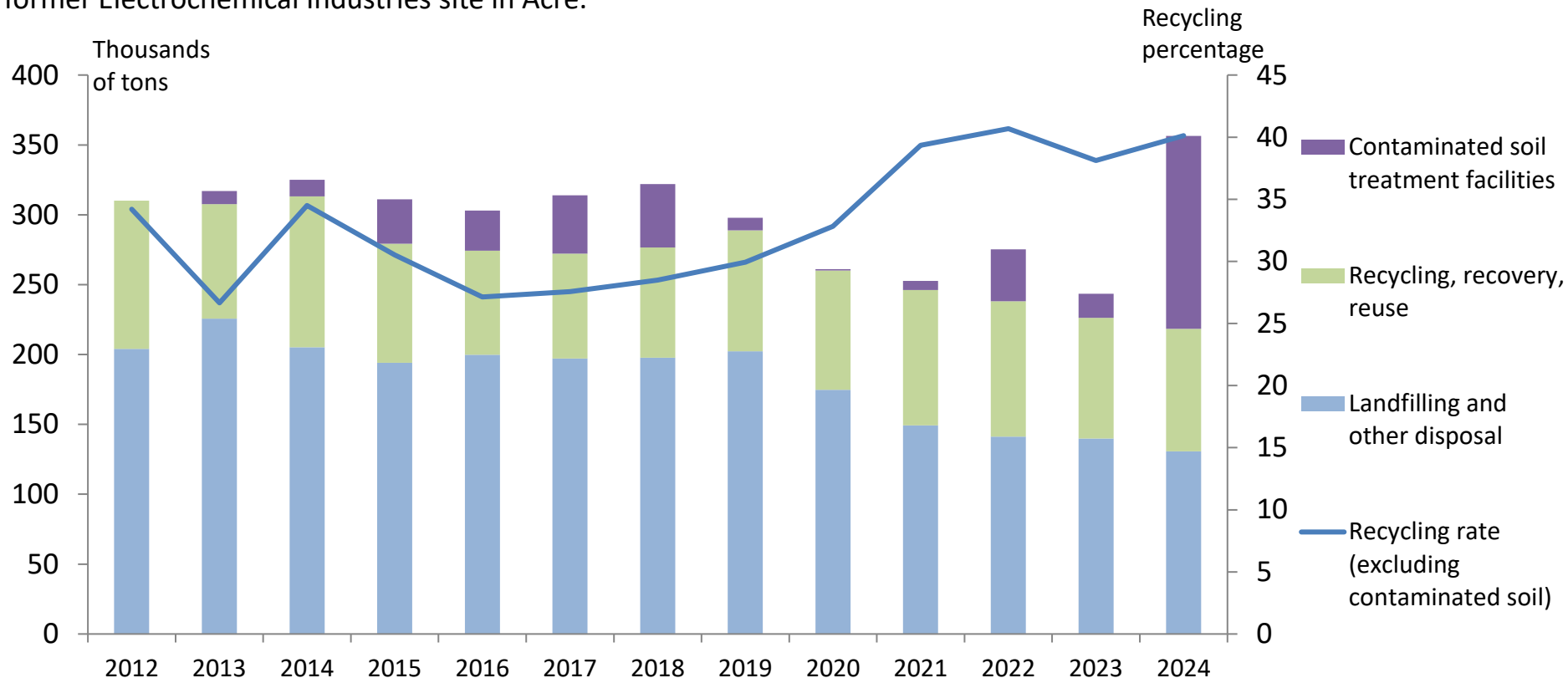


In 2024, emissions and discharges from malfunctions increased by 1%. Major emissions occurred at the Karish NG platform of Energean Israel Ltd. (air emission of 15,220 tons, 99.5% of which was CO₂), Phoenicia Glass Works in Yeruham (air emission of 2,360 tons CO₂), and Dead Sea Works (soil discharge of 1,320 tons of salts). In 2024, malfunction-related emissions into wastewater, soil, sea, and rivers accounted for 0.6% of total emissions. Malfunction-related air emissions in 2024 accounted for 0.04% of total air emissions.

Hazardous Waste Transfer in the PRTR

PRTR Multi-Year Trend

The amount of hazardous waste reported to the PRTR (excluding contaminated soils) has decreased by 30% since 2012, due to reductions at power plants and pharmaceutical plants. In 2024, there was an increase in the treatment of contaminated soils at the Bio Soil Registered Partnership site – contaminated soil treatment facility (CSTF) in Neot Hovav, as well as the start of contaminated soil treatment operations by “Tidhar Harel Manivim – The Logistics Park” at the former Electrochemical Industries site in Acre.



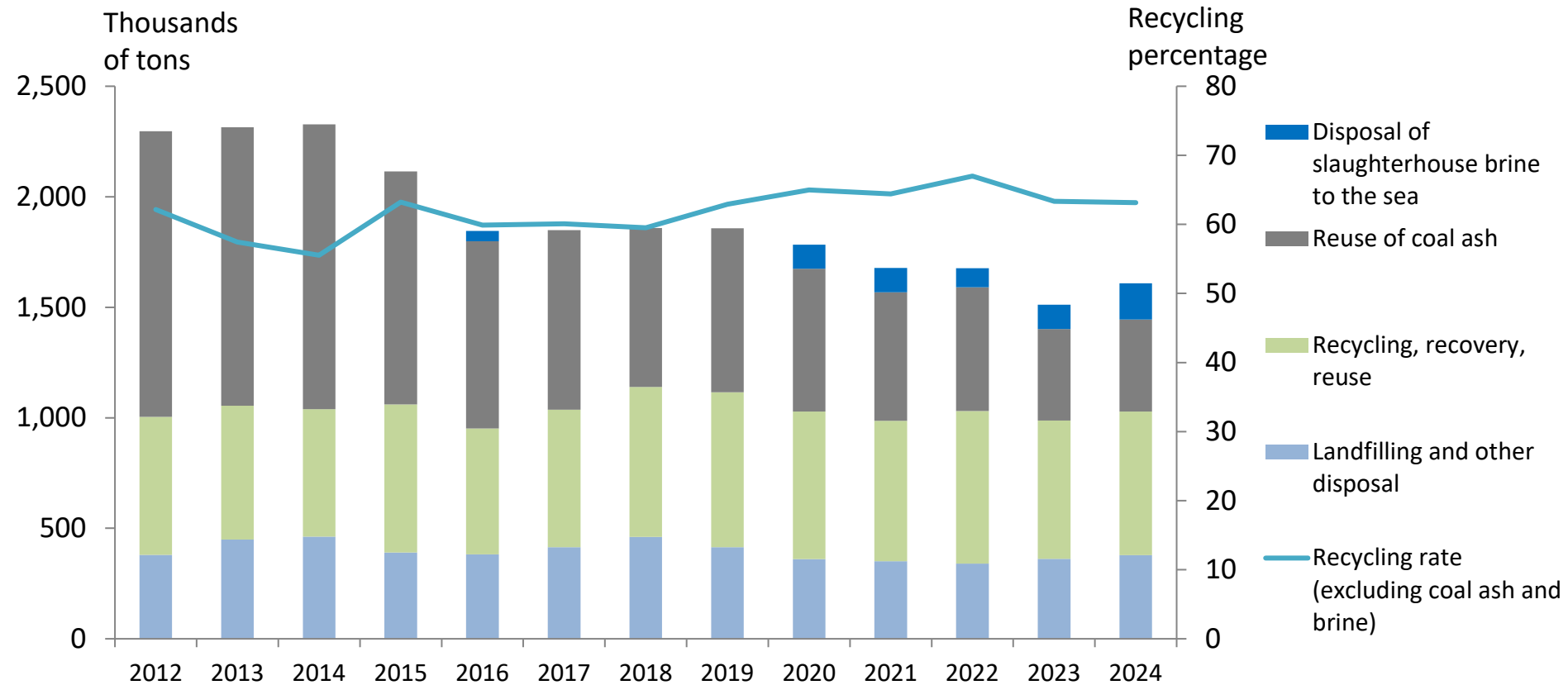
The waste quantities indicated in the figure do not include hazardous waste reported by waste transfer stations and the Environmental Services Company, in order to avoid duplication, as these waste quantities were already reported by the waste-producing plants.



Non-Hazardous Industrial Waste Transfer in the PRTR

PRTR Multi-Year Trend

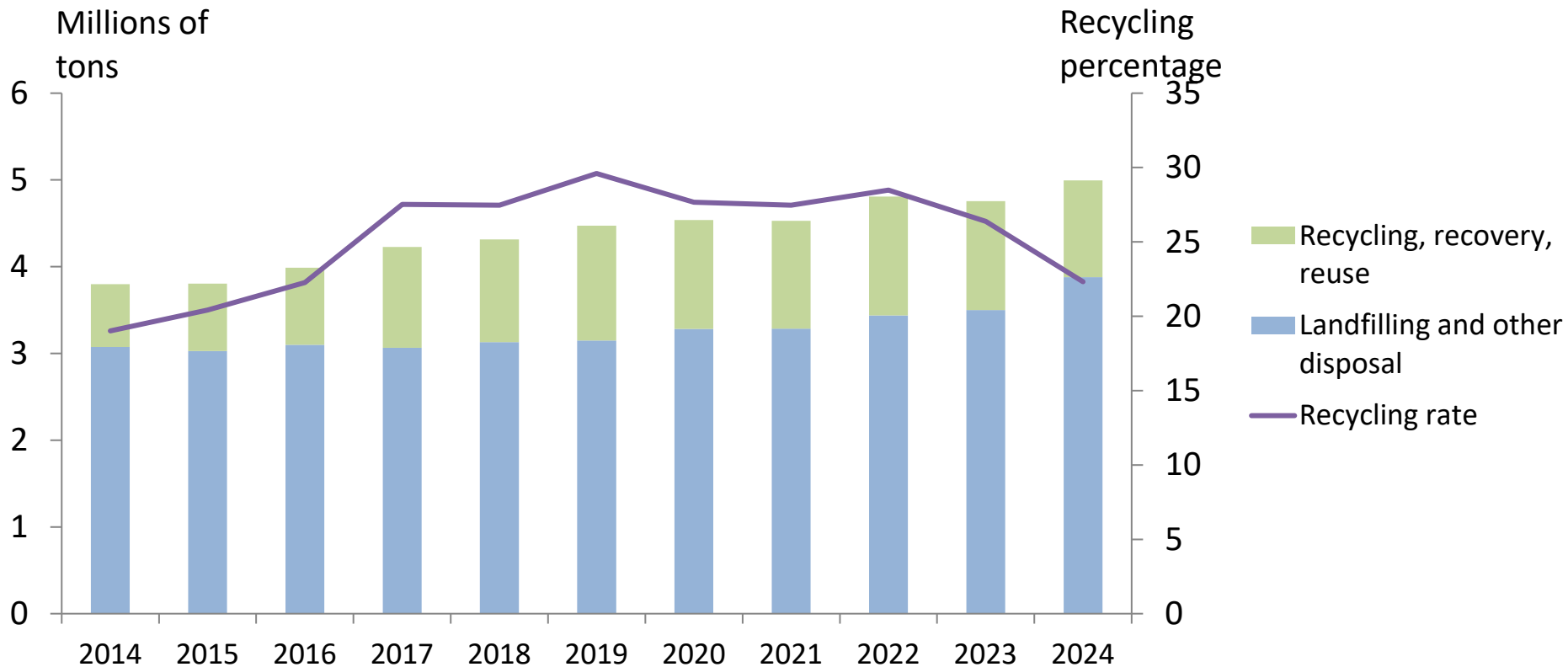
This figure does not include waste from agriculture, waste treatment, or WWTP sectors.



Mixed Municipal Waste Recycling in the PRTR

PRTR Multi-Year Trend

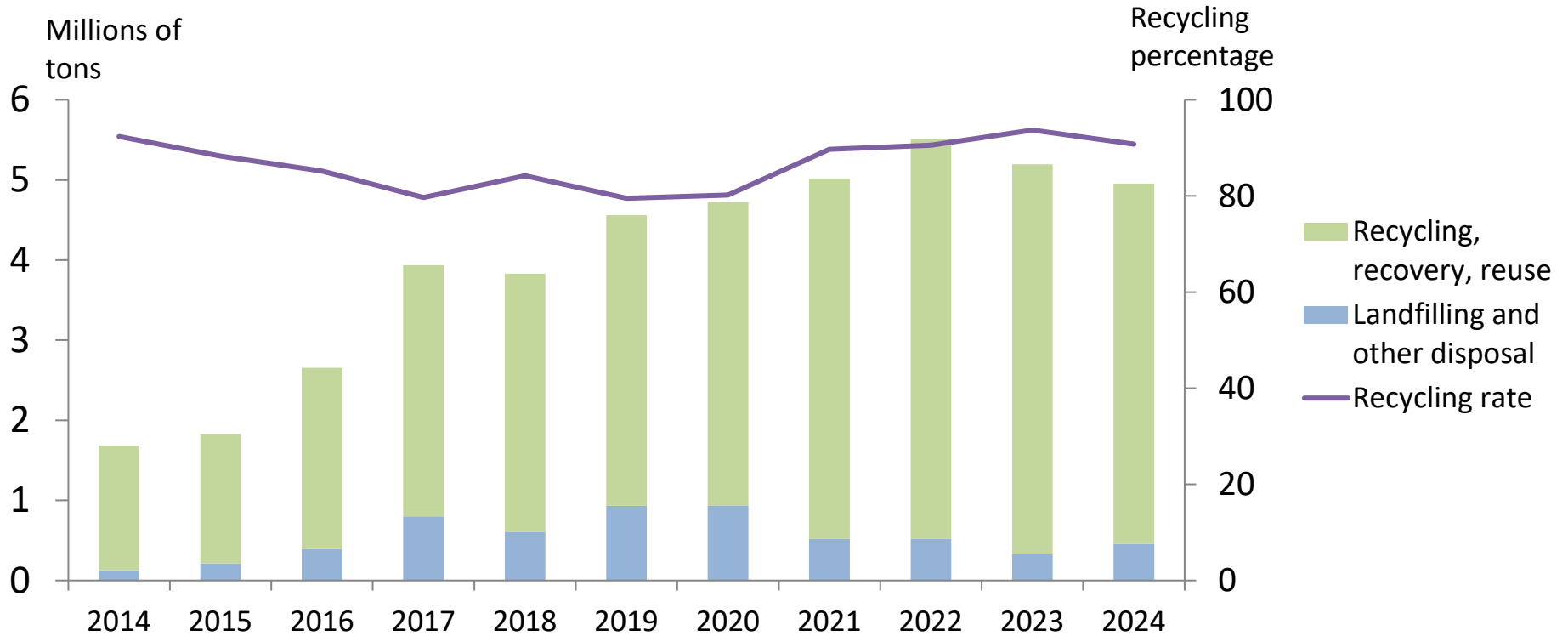
In 2023–2024, there was a 6% decrease in the recycling of mixed municipal waste in the PRTR, most likely due to the cessation of operations at the Veridis Massuah Compost facility during this period.



The figure includes transfers of mixed municipal waste through [transfer stations](#) only (and the RDF facility at Hiriya Recycling Park) and does not include waste transferred directly to landfills.

Construction Waste Transfer Stations and Recycling Plants

PRTR Multi-Year Trend



The figure includes waste leaving treatment sites for landfilling or sale as recycled material. The figure does not include stockpiles of recycled material not yet sold and does not include construction waste landfilled directly (amounting to 640 thousand tons).

The 10% decline in treated construction waste in the past two years is attributed to the “Iron Swords” war. According to the CBS report, in the fourth quarter of 2023, activity ceased at more than 50% of construction sites in Israel and returned to full operation only at the end of 2024.

