



SEIS 2016-2020 Summary July 9 2020

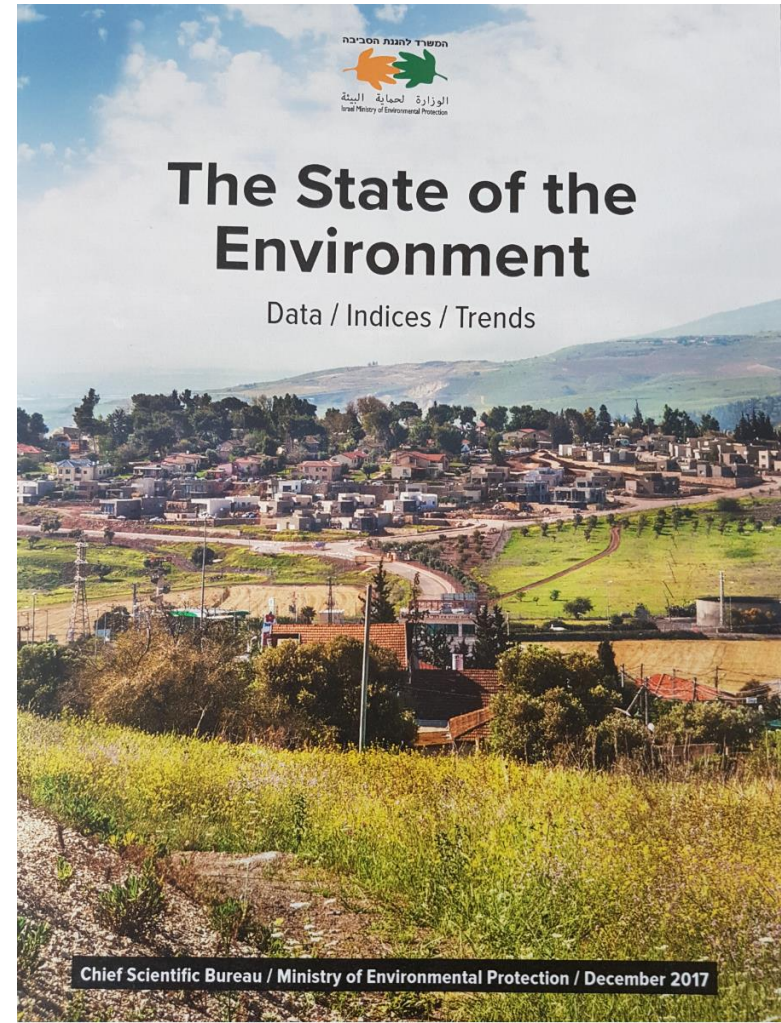
Virtual Meeting Israel

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Assessment: The State of the Environment in Israel: Selected Indicators

Ministry of Environmental Protection (2018)

- **Air;**
- **Climate change;**
- **Water;**
- **Marine;**
- **Biodiversity;**
- **Soil;**
- **Waste;**
- **Noise;**
- **Radiation.**



Changes in recent years with a significant environmental impact

- **Joining the OECD & adapting new environmental regulations and obligations to numerous international conventions/agreements**
- **Exploiting the sea and its natural resources (oil & gas offshore industries, desalination, mariculture, expanding ports, etc.)**
- **Increase in consumption of goods and in quantities of waste.**

SEIS/Horizon2020 Indicators:

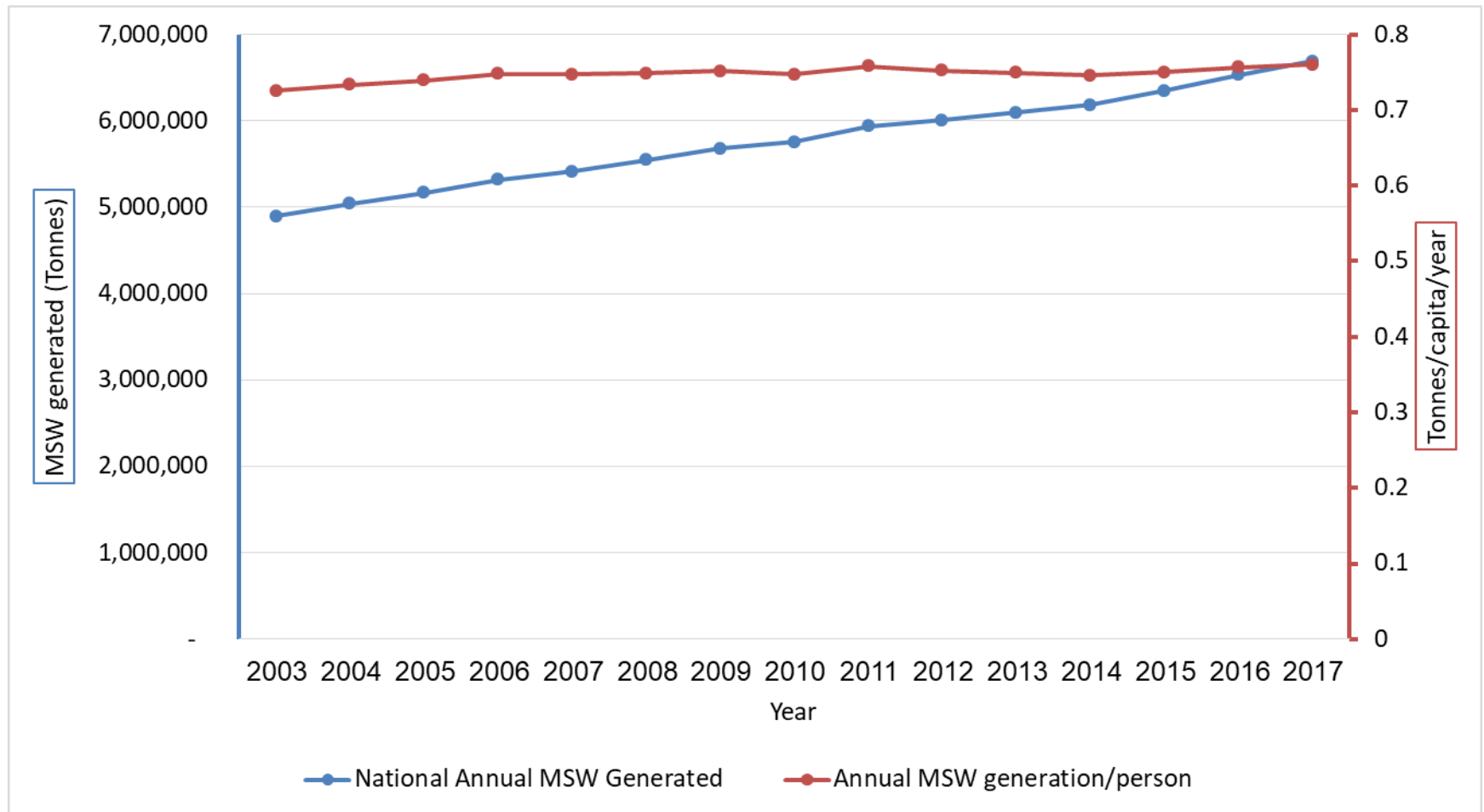
1. Municipal Waste

Indicator	Status	Latest data	Comments
1. Municipal Waste Generation	reported	2017	-Data source: MoEP - Waste Division, ICBS -National level data except for population and tourists data in coastal cities - collection data
2. “Hardware” of waste management <ul style="list-style-type: none"> • Waste collection • Environmental control • Resource recovery 	reported	2017	-Data source: MoEP - Waste Division, ICBS -National level data - Uncontrolled dumpsites were closed, but Illegal dumping exists
3. “Software” of waste management <ul style="list-style-type: none"> • Policy 	reported	2017	-Data source: MoEP - Waste Division, Marine Environment Protection Division

Horizon2020 Indicators: Industrial Emissions

Indicator	Status	Latest data	Comments
6.3 Industrial hazardous waste disposed in environmentally sound manner	Reported	2017	Data source: ICBS

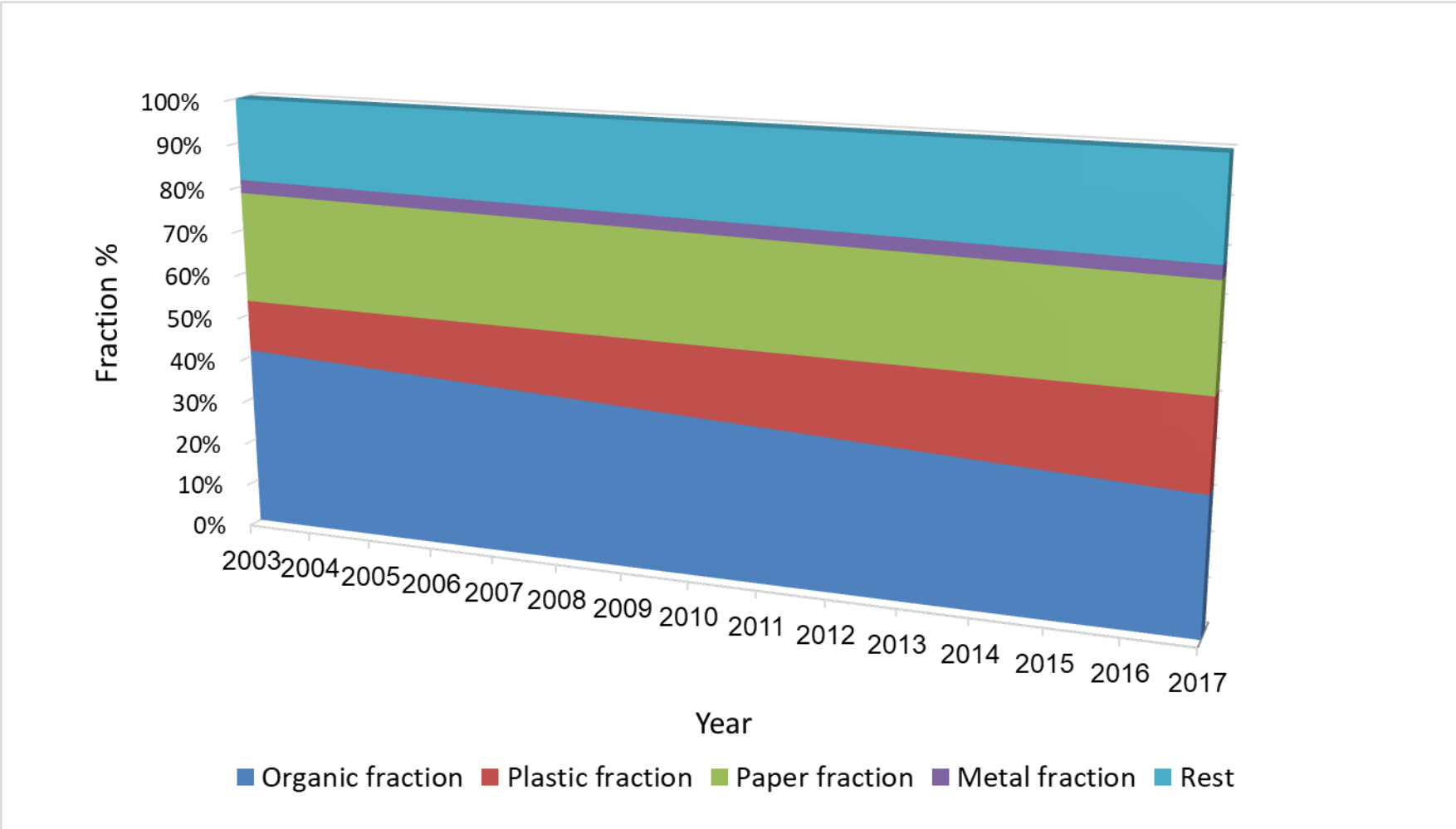
IND1.1 - Total Municipal Solid Waste (MSW) generation



MSW Generation – Key Messages

- Between 2003-2017, Israel's MSW generation has increased by an average of 2.3% per year, to over 6.7 M tonnes/year.
- This trend is affected by high population growth rate and a steady growth in standard of living:
 - Population growth rate of 1.9% per year.
 - Per capita MSW is slowly increasing- from 0.73 per year to 0.76 tonnes/capita/year

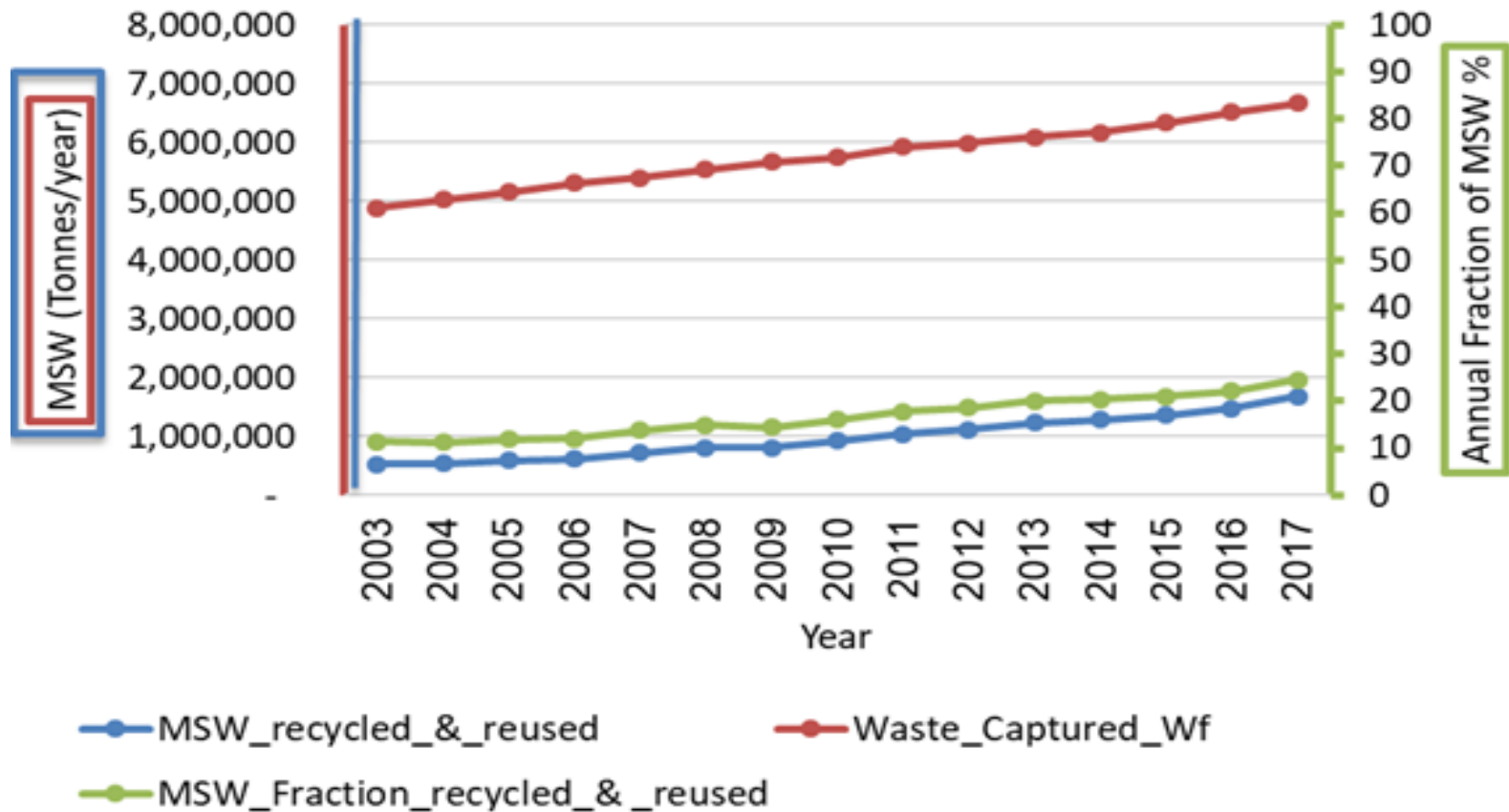
IND1.A - Municipal Solid Waste Composition



MSW Composition – Key Messages

- Between 2003-2017, the organic fraction of MSW decreased from 41% to 31%, whereas plastics increased from 12% to 21%
- MoEP, local authorities and NGO have initiatives and plans to decrease plastic use in order to protect the terrestrial and marine environment.

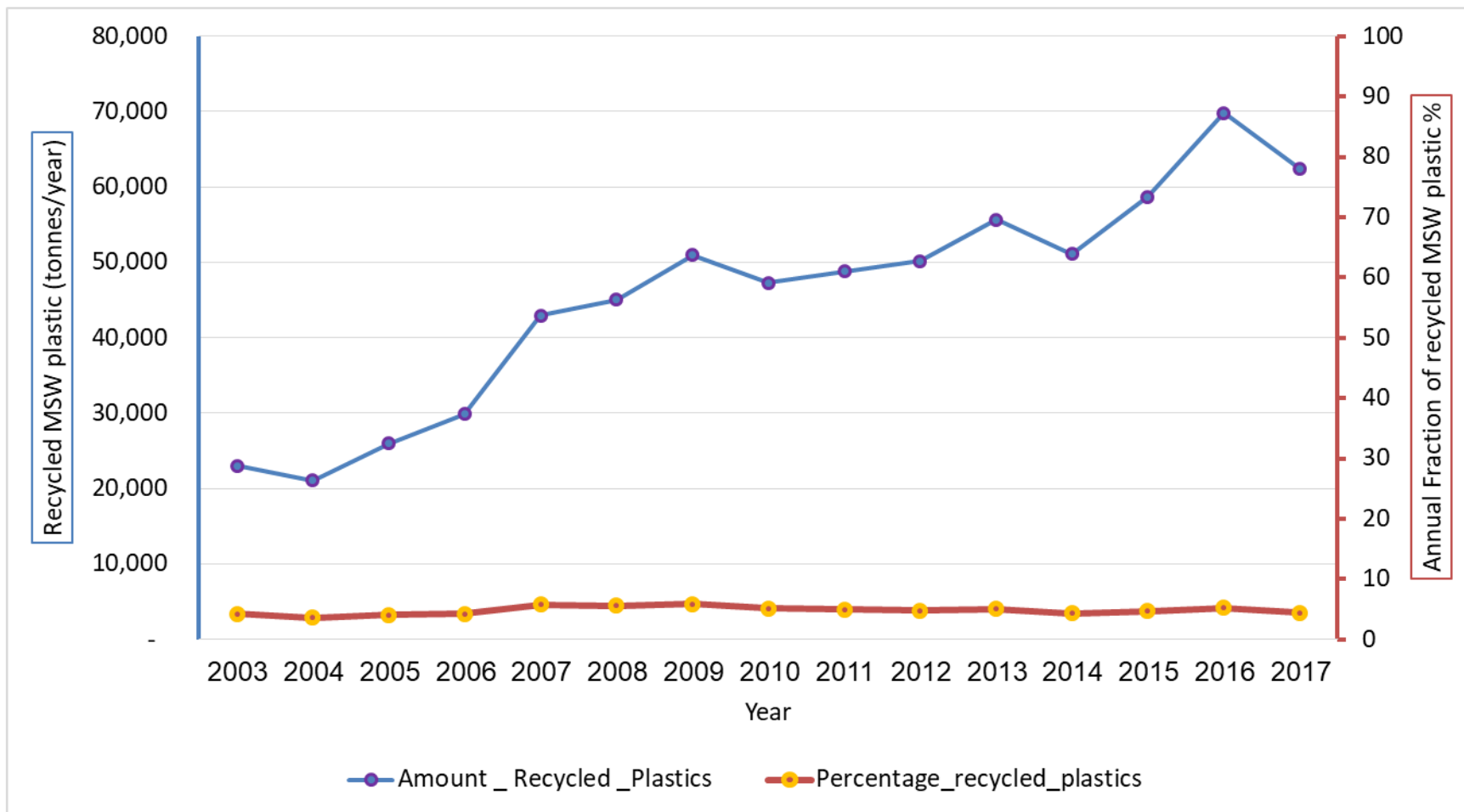
IND2.B Environmental Control



Recycling and Reuse - Key Messages

- Between 2003-2017 there was a significant increase in MSW recycling and reuse, from 11% to 24%
- It is expected to keep increasing in the future according to the MoEP policy and plans
- In 2017, Israel's 1st RDF facility has started operating
- Cycle economy projects are being initiated (Industrial Symbiosis)

IND2.C - Resource Recovery and % of plastic waste generated that is recycled



Plastics Recovery – Key Messages

- The amount of plastic that is recycled was tripled between 2003-2017 from ~20,000 to ~65,000 tonnes/year.
- However, as MSW generation grew by 37% and plastics fraction doubled, the fraction of recycled MSW plastic has remained at ~4.4%

Waste Sector Achievements

- **Near 100% of MSW collection coverage**
- **Gradual increase in recycling rates**
- **Success in implementation of EPR Laws**
- **Success in implementation of the Plastic bags law**
- **Development of a new Waste Database System**
- **Development and operation of new Treatment facilities**
- **Development of Waste Management Strategy**

Waste Sector Challenges

- **Low Landfill Tax**
- **Depleting Landfill space**
- **Inefficient Waste Management at local level
(collection, transport)**
- **Separation at source of organic waste - difficulties in
implementation**
- **Lack of sufficient treatment facilities and sorting
stations**
- **Weak and fragmented Recycling Market**

Horizon2020 Indicators: Water

Indicator	Status	Latest data	Comments
3. Access to sanitation	reported	2017	-Data source: ICBS, Water Authority -National level data -Access to sanitation is estimated at ~100%
4. Municipal Wastewater Management	reported	2017	-Data source: MoEP - Water and Streams Division, Water Authority -National level data - Municipal wastewater treatment and use (2017), Nutrients release data (2014)
5. Coastal and Marine Water Quality	reported	2017	-Data source: MoEP- Marine Environment Protection Division (Medpol), Ministry of Health

Water and Wastewater Key Indicators

Selected Data, 2017

Water Sources

Precipitation volume
in rain year 2016/2017

4.46 billion m³



Desalination of sea water

586 million m³

Dead Sea level

Water Consumption (2016)

Total consumption

2.2 billion m³

Household, public,
and industrial use

42.1% 

Agricultural use

56.6% 

Raw Sewage

Raw sewage
in treatment plants

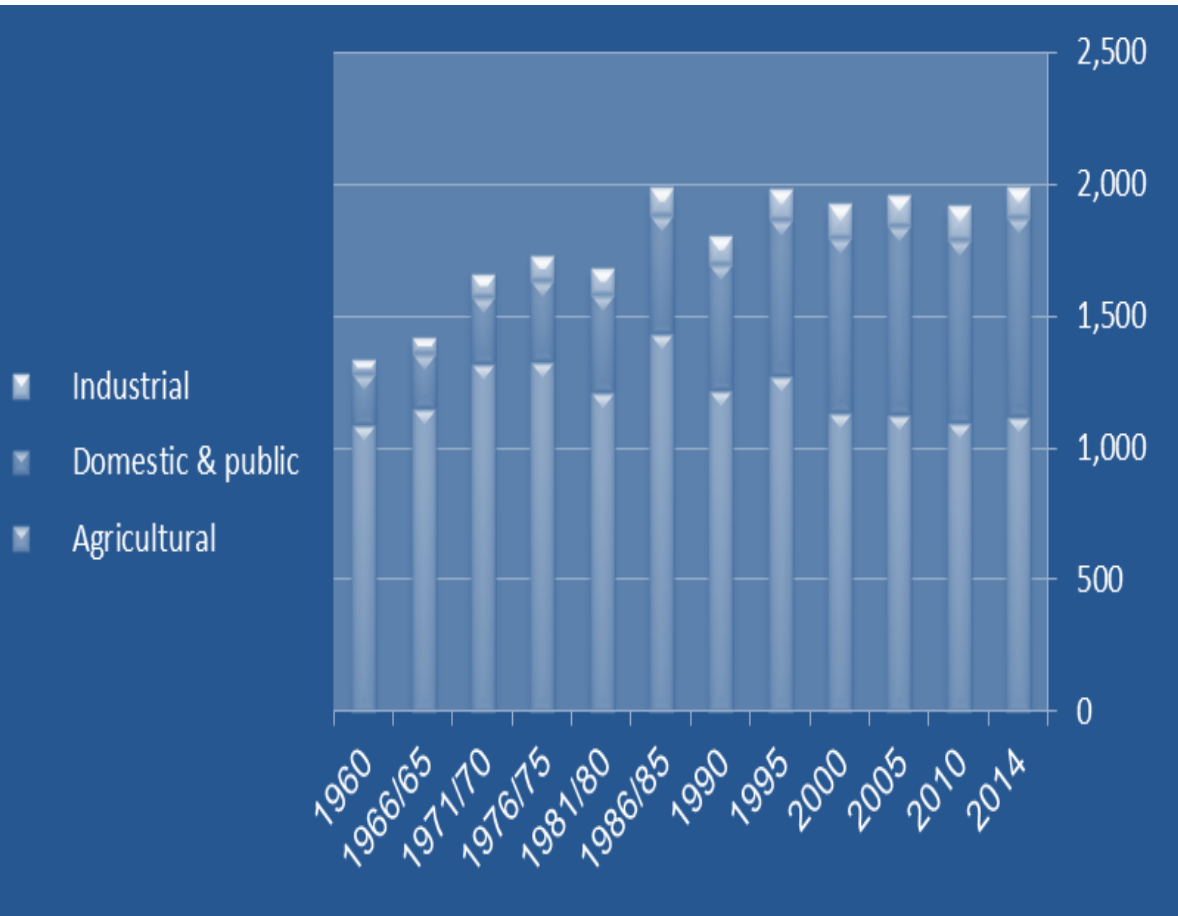
503 million m³



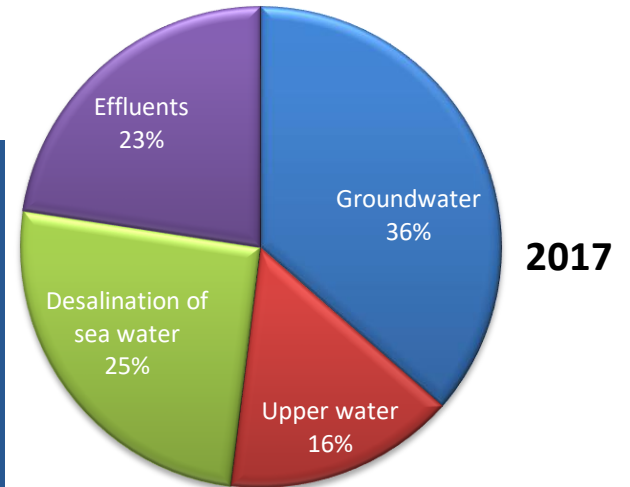
Reclaimed sewage
(effluents) (2016)

506 million m³

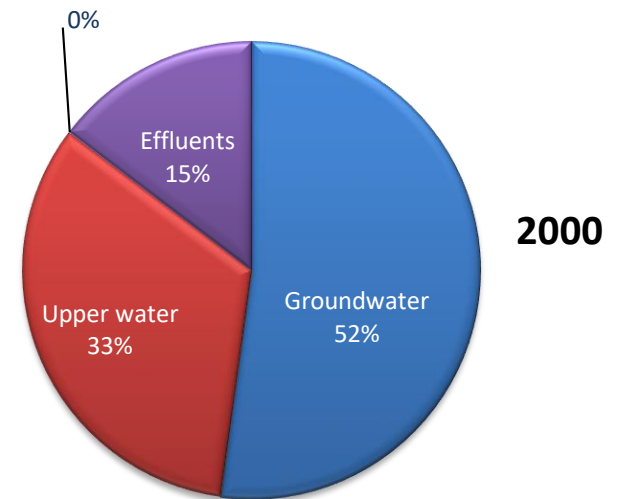
Water consumption by source and user



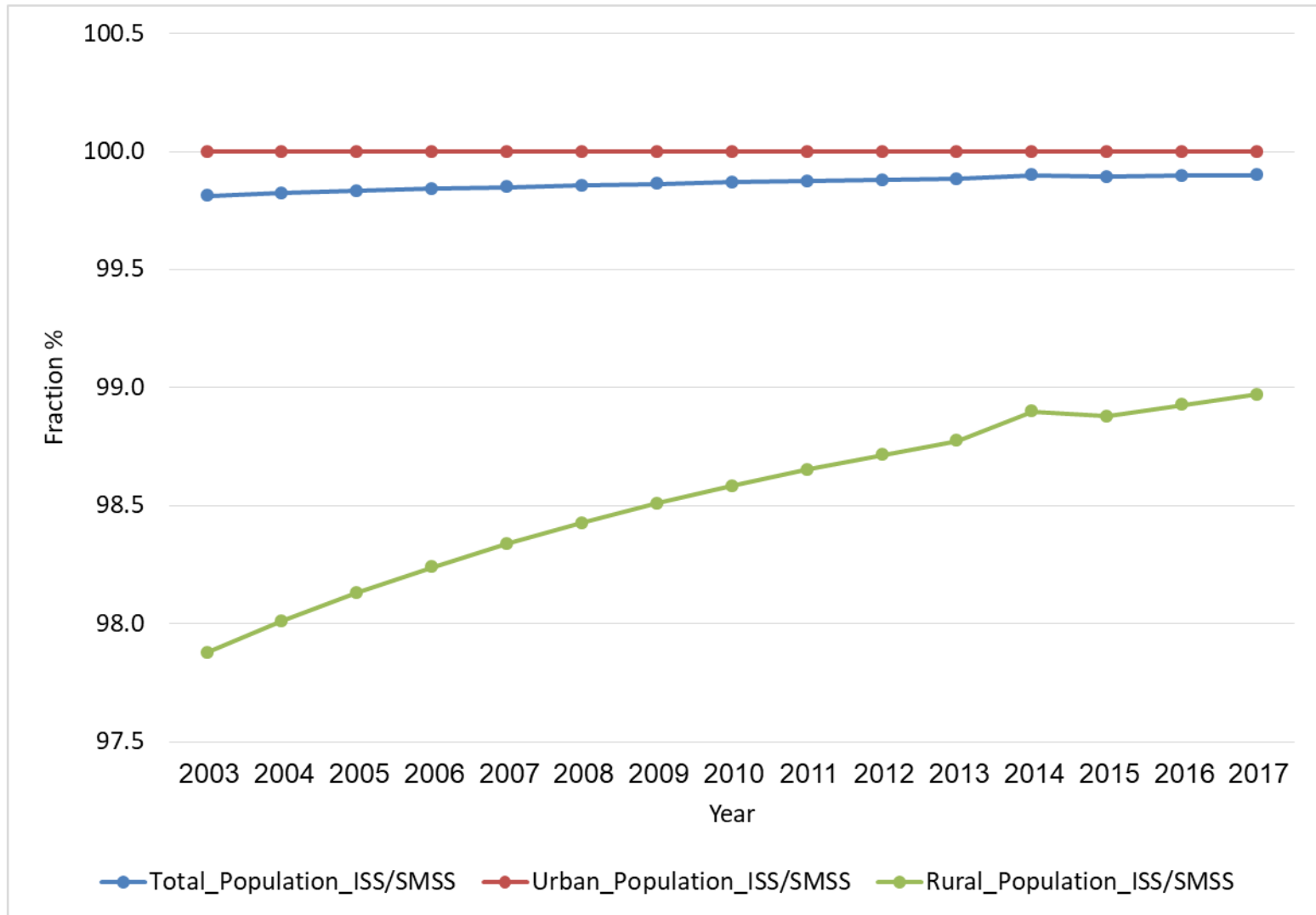
MCM



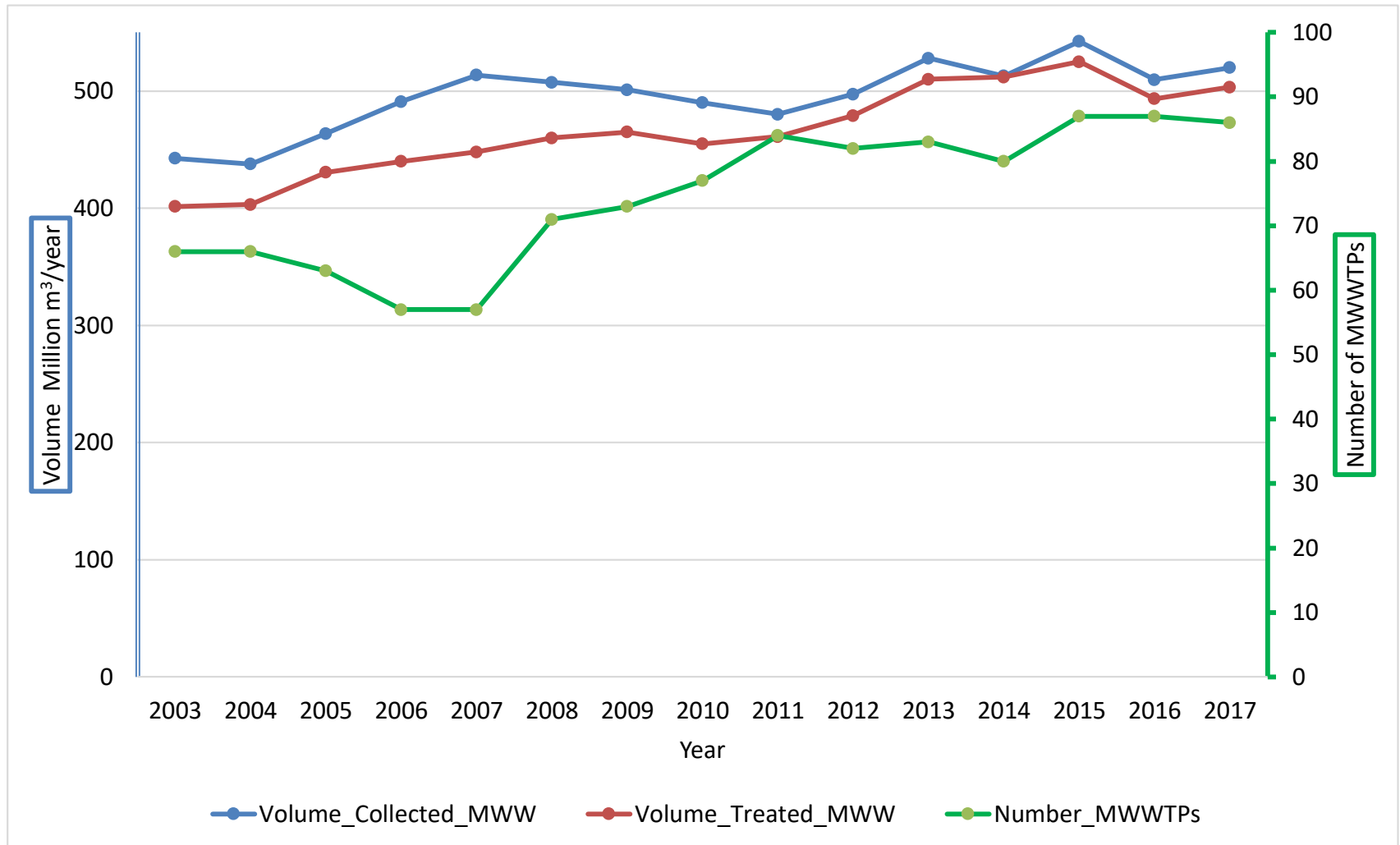
Desalination of sea water



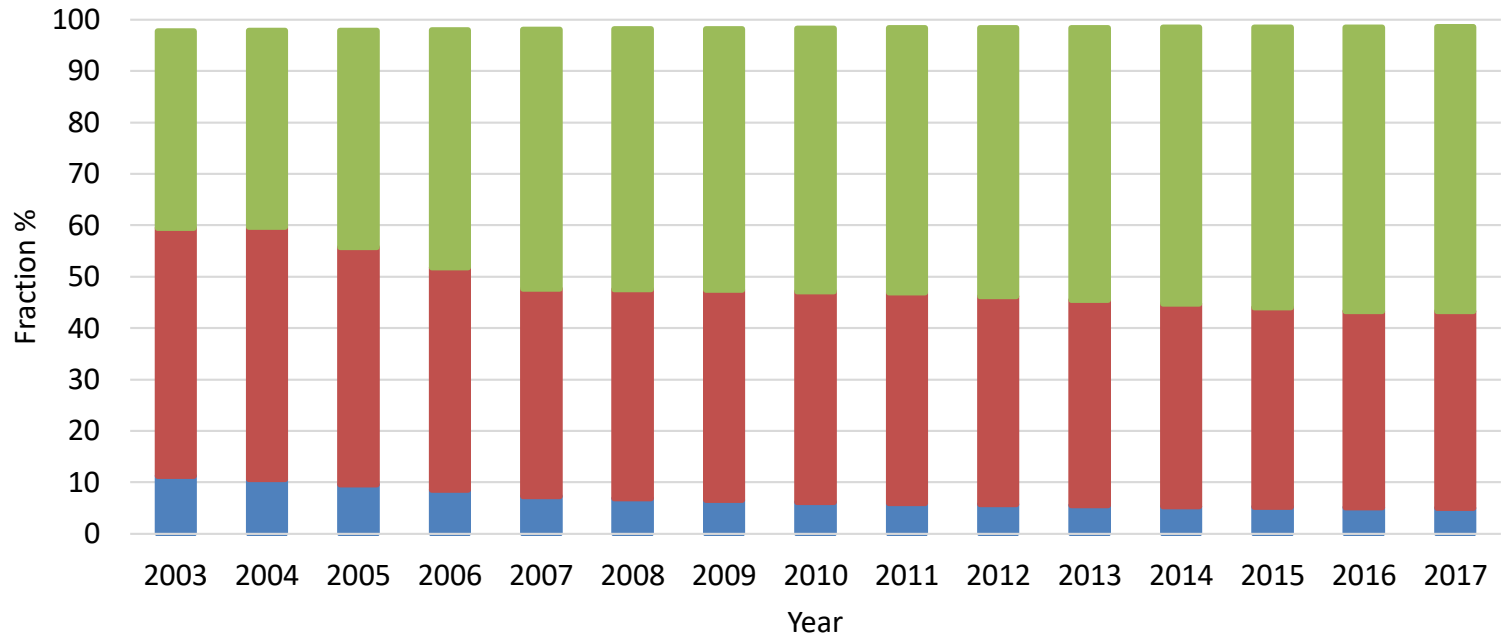
3.1.1 – 3.2.2 Share of population with access to improved sanitation system (ISS) & and sanitation services (SMSS)



IND 4.1.1/4.1.2 - Municipal wastewater collected and treated at the national level



IND4.1.1/IND4.1.2 Connection to wastewater treatment plants (%)



Fraction_Primary_Treatment

Fraction_Secondary_Treatment

Fraction_Tertiary_Treatment

Water and Wastewater – Key Messages

- **Dependency on freshwater sources is decreasing in recent years**
- **Overall, 99% of all of the population is connected to a public wastewater treatment system**
- **The municipal wastewater collection and treatment significantly improved between 2003-2017, as they rose by 18% and 25%, respectively**
- **The share of collected and not treated wastewater was reduced in that period from 9% to 3%**

Water and Wastewater – Key Messages (Cont.)

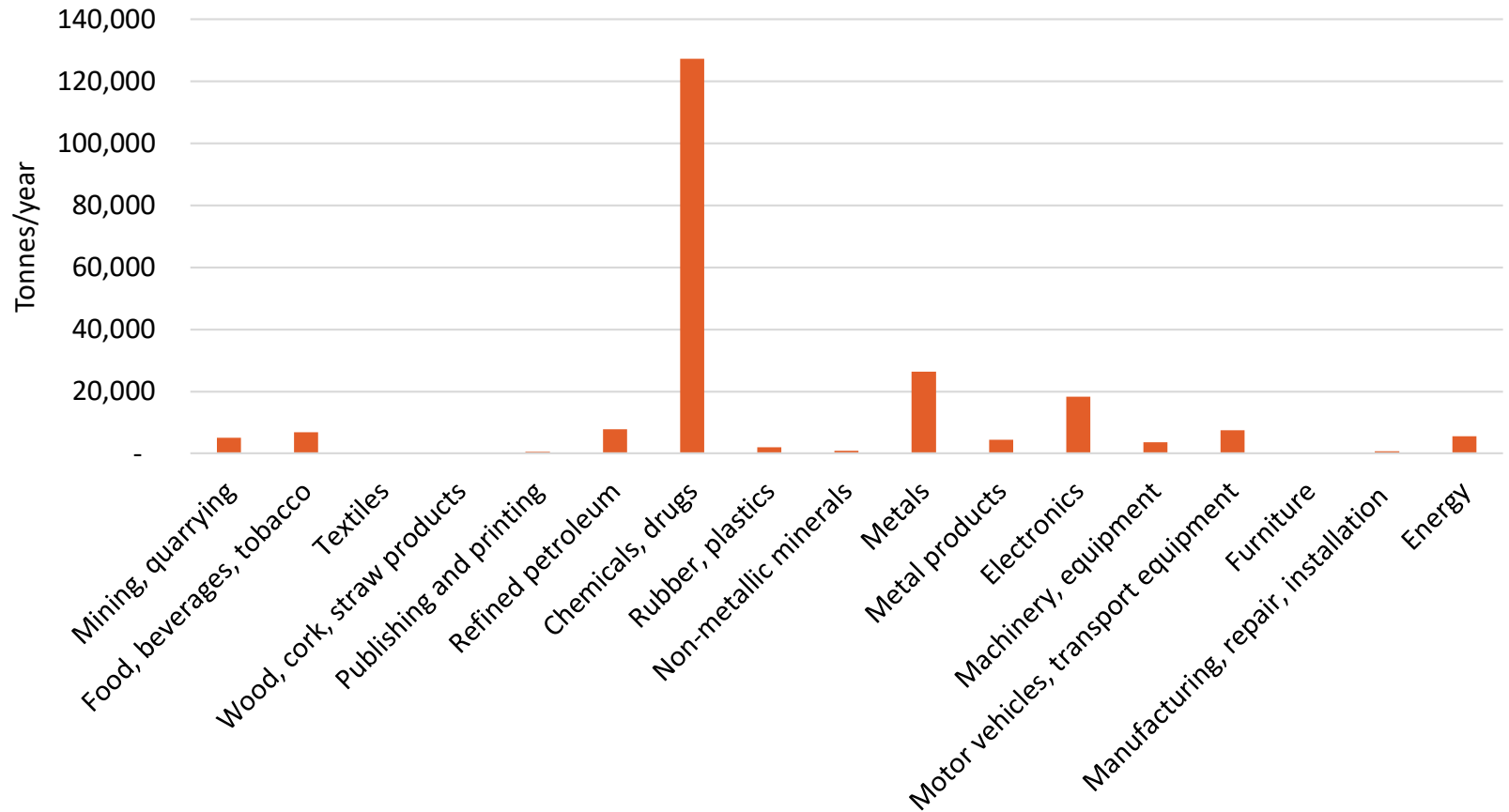
- **In parallel there was a rise of 30% in the number of municipal wastewater treatment plants**
- **The quality of wastewater treatment has also improved. The percentage of tertiary treatment rose to 55%, on the expense of primary and secondary treatment**

Effluents Integrated information system

- **The IT system serves several government offices:
The ministry of health, the ministry of environmental protection and the water authority**
- **The system is operating since mid 2019**
- **Includes info on ~60 intensive and extensive WWTP that discharge over 1,000 m³/day**
- **It enables data analysis and alerts on exceedances online.**

IND6.3.1- quantity of generated hazardous waste by industrial sectors (2017)

IND6.3.1- quantity of generated hazardous waste by industrial sectors (2017)



Hazardous Waste - Key Messages

- **Most of the hazardous waste is produced by the industrial sector**
- **The industry that produces by far the most hazardous waste is the chemicals and drugs sector- 58% of the total industrial hazardous waste**
- **Metals and electronics industries are also significant contributors**
- **All of the industrial hazardous waste is treated in an environmentally sound manner.**

Thank You for your attention!

