

The European House

Ambrosetti



ThinkTankBasilicata
Energie per un futuro sostenibile

FORUM

“Energie per un futuro sostenibile”

Venerdì, **25 febbraio 2022**

modalità phygital
Matera, *Palazzo Viceconte*

PRESENTATION BY
HAREL GAL

Water Management and Effluents Reclamation in Israel

Dr. Harel Gal

harelg@water.gov.il

Director of the Water Quality Department

Israel Water Authority

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The Israeli Water Law 1959

“The country's water resources are public property, controlled by the state and are designated for the needs of its residents and the development of the country.”

“Water resources”: springs, streams, rivers, lakes, reservoirs, either surface or ground water, natural or artificial, standing or flowing, including drainage water and sewage”.

Regulation

Regulator



Suppliers

Consumers

Agriculture



Nature



Households



Industry



Diplomatic Agreements



Future Generations



56 Water Corporation
(Urban sector)



~1,000 Local Suppliers
(Regional Councils & Rural Sector)

Regulation:

- One decision making regulatory body
- Professional (not political) level
- Integrative approach

Finance:

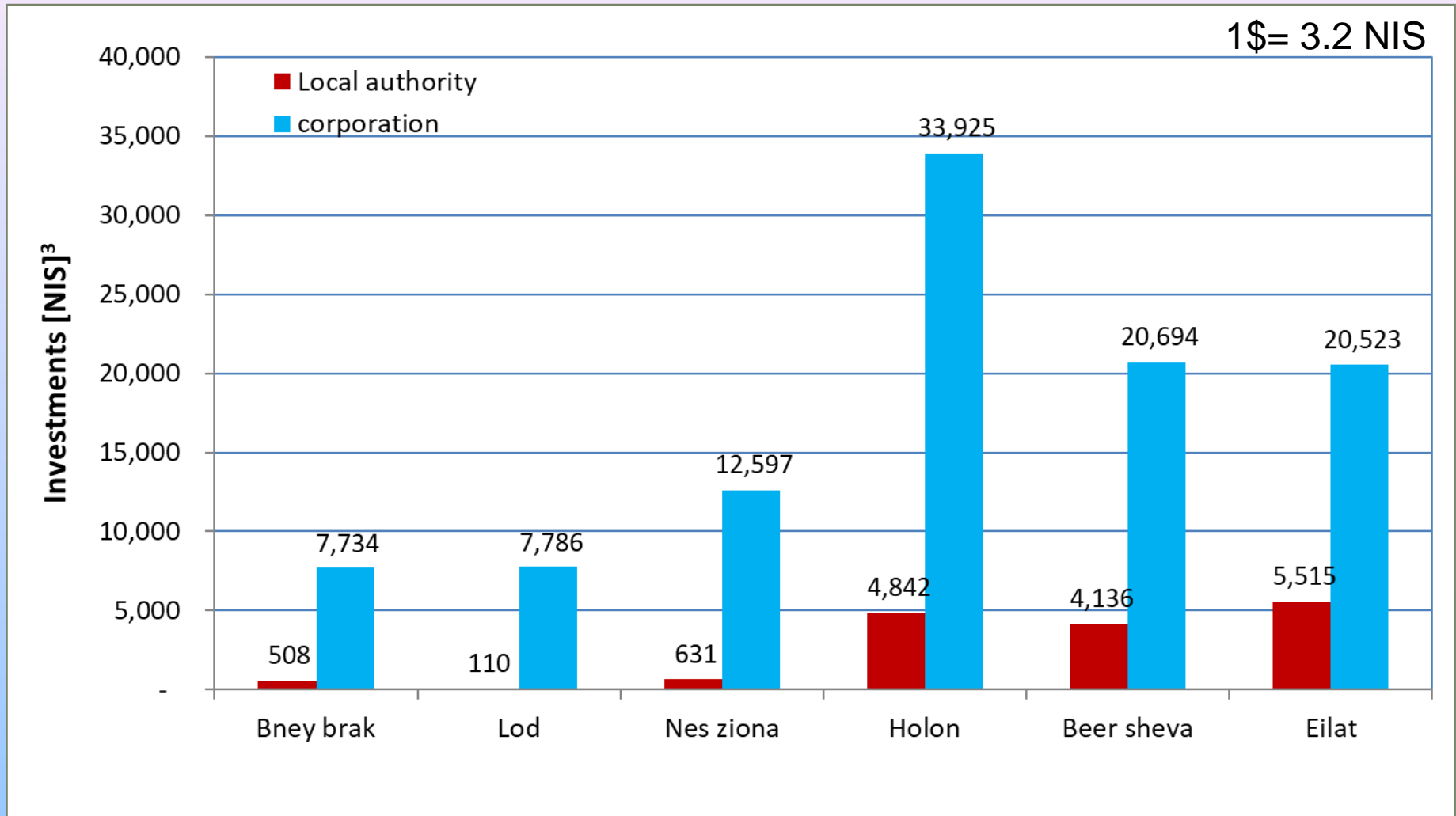
- Cost recovery for suppliers
- Fairness and uniformity for consumers

Service Standards:

- Investments in infrastructure
- High quality standards for end users

Infrastructure investments

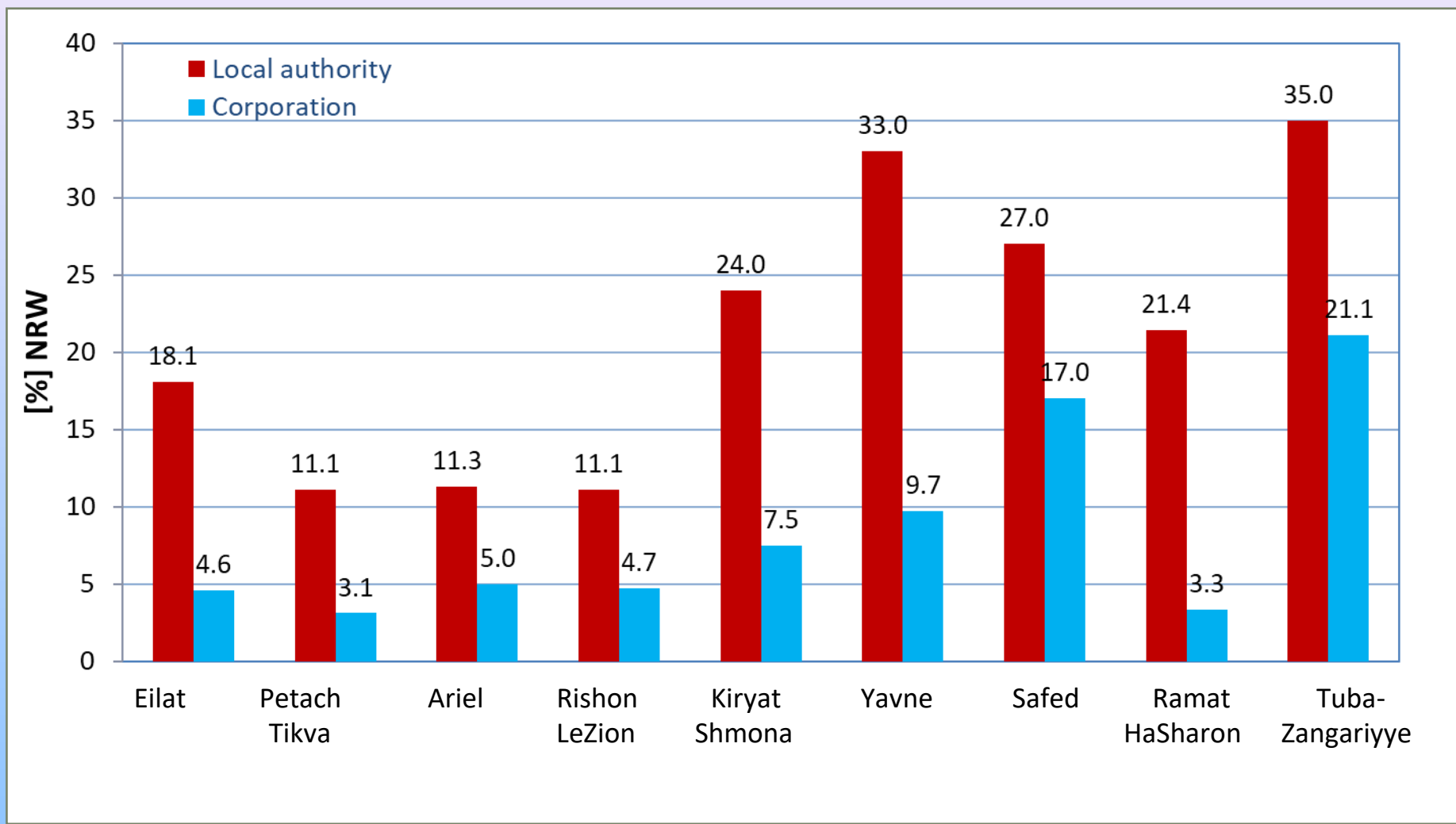
ISRAEL



Total investments in water and sewage: 1-1.2 billion NIS/yr

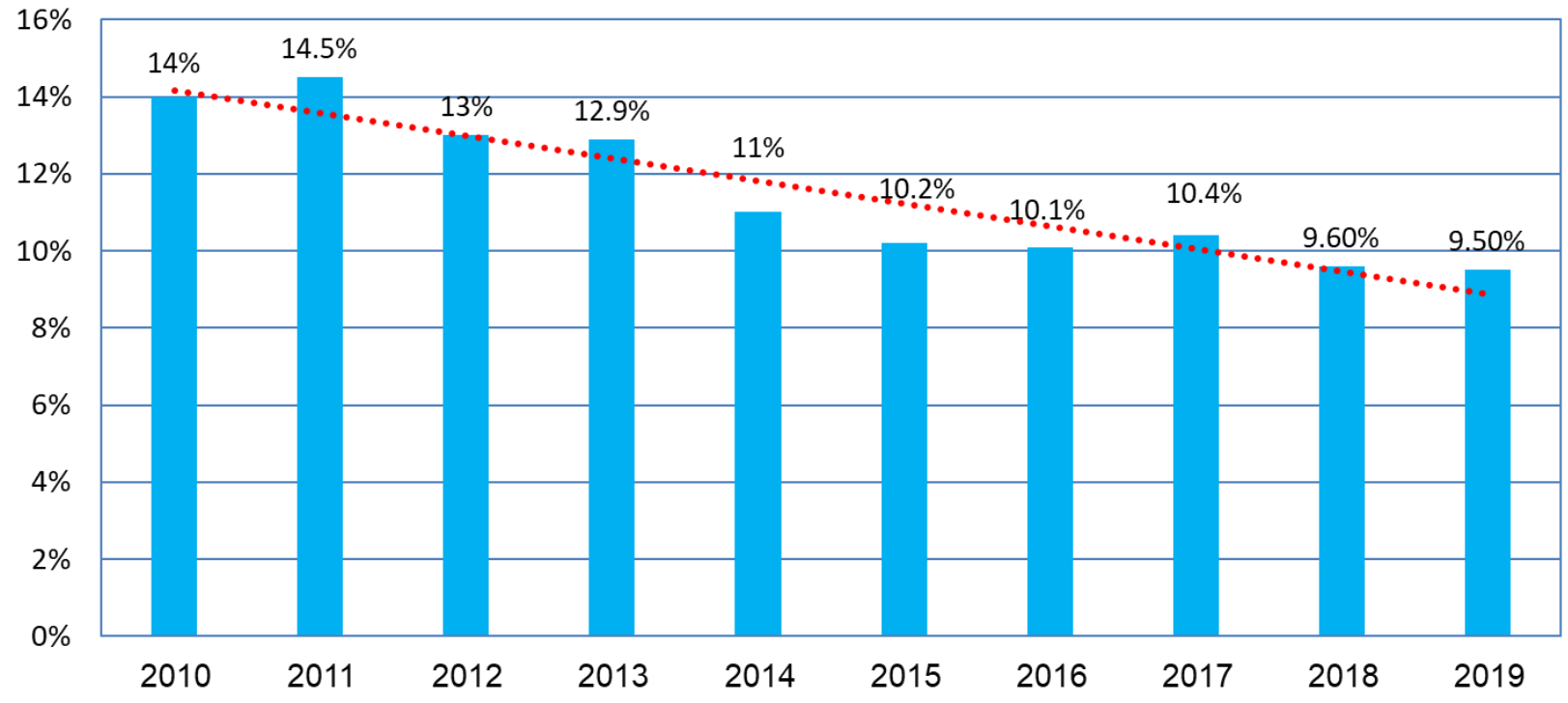
Non-Revenue water Improvement

ISRAEL



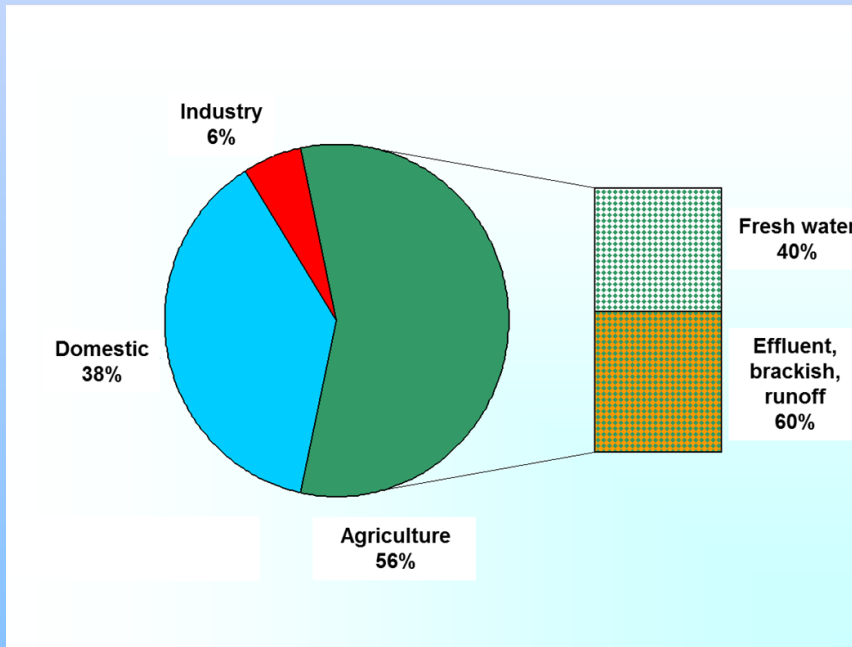
Non-Revenue water Improvement

ISRAEL

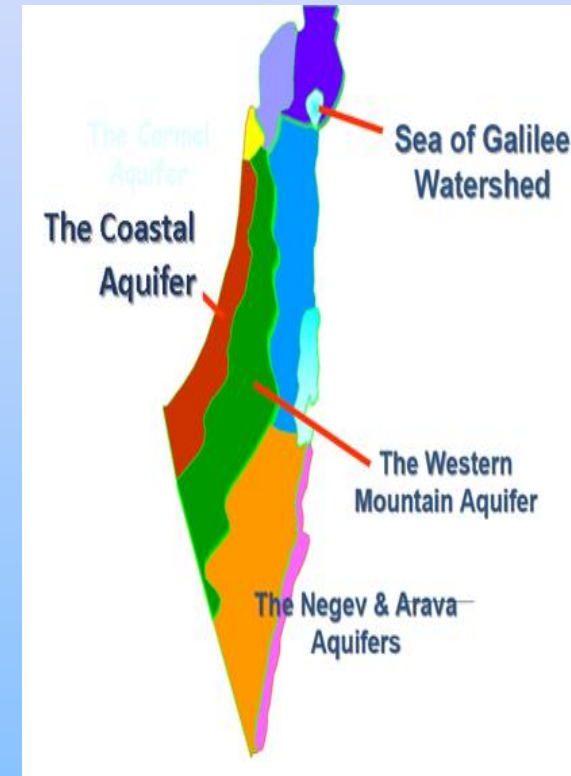




- Average total natural enrichment – **1.2** billion m³/annum
- Water consumption – **2.3** billion m³/annum
- Annual Shortage of over ~50%



Main Natural Sources



The constant water scarcity in Israel and multiple years of drought have led the Israeli government to develop two main systems for increasing the water quantity and closing the gap between available water and water demand:

Desalination



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Effluents reclamation

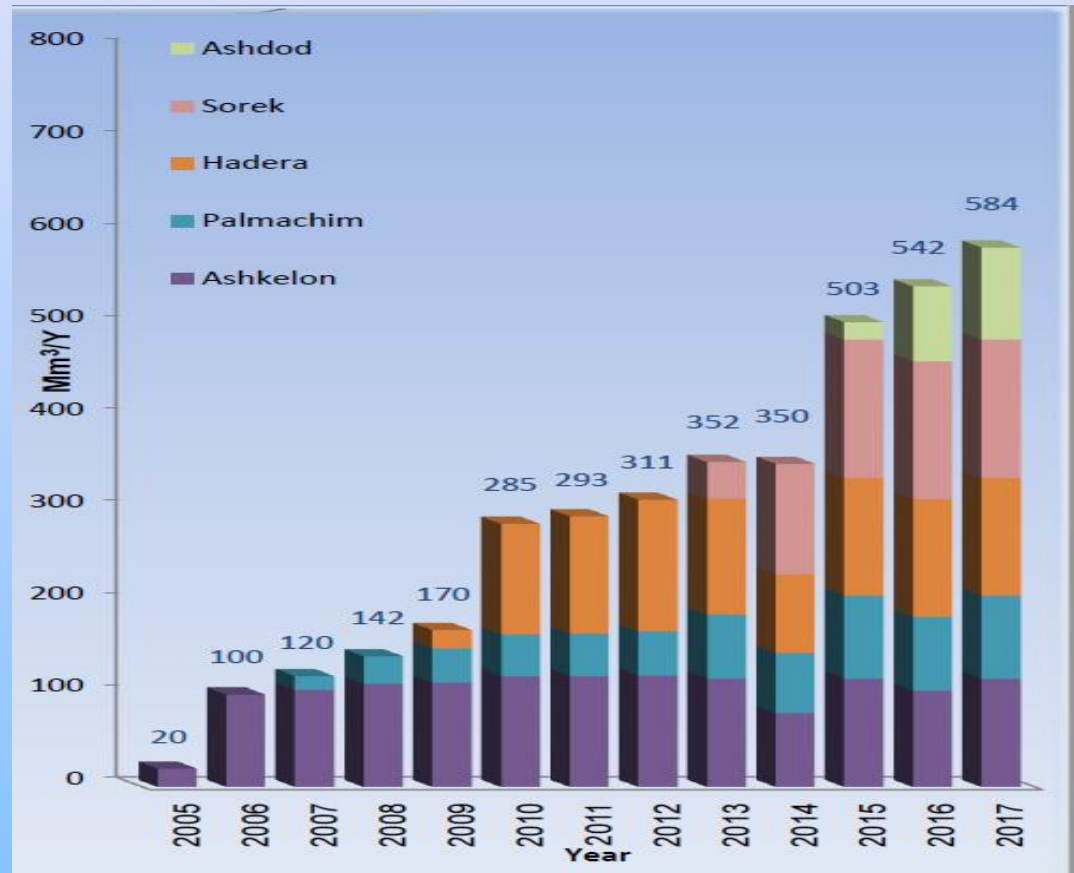


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Desalination in Israel

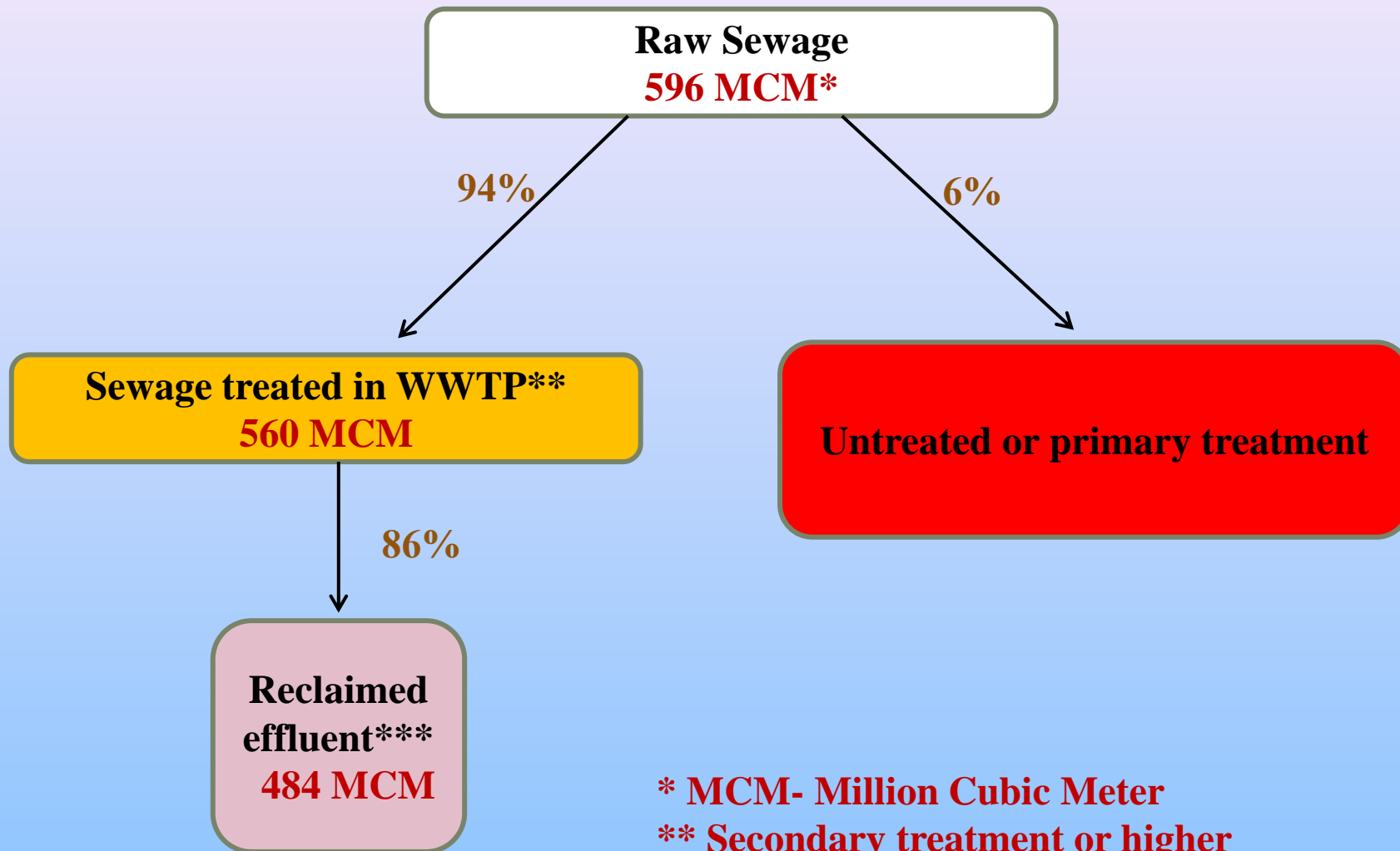
ISRAEL

- In accordance with the government's decision from 2001, 5 desalination plants have been established in Israel, which currently supply about 600 million cubic meters/year
- Two additional plants are in various stages of construction



Sewage and Effluent (2018)

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* MCM- Million Cubic Meter

** Secondary treatment or higher

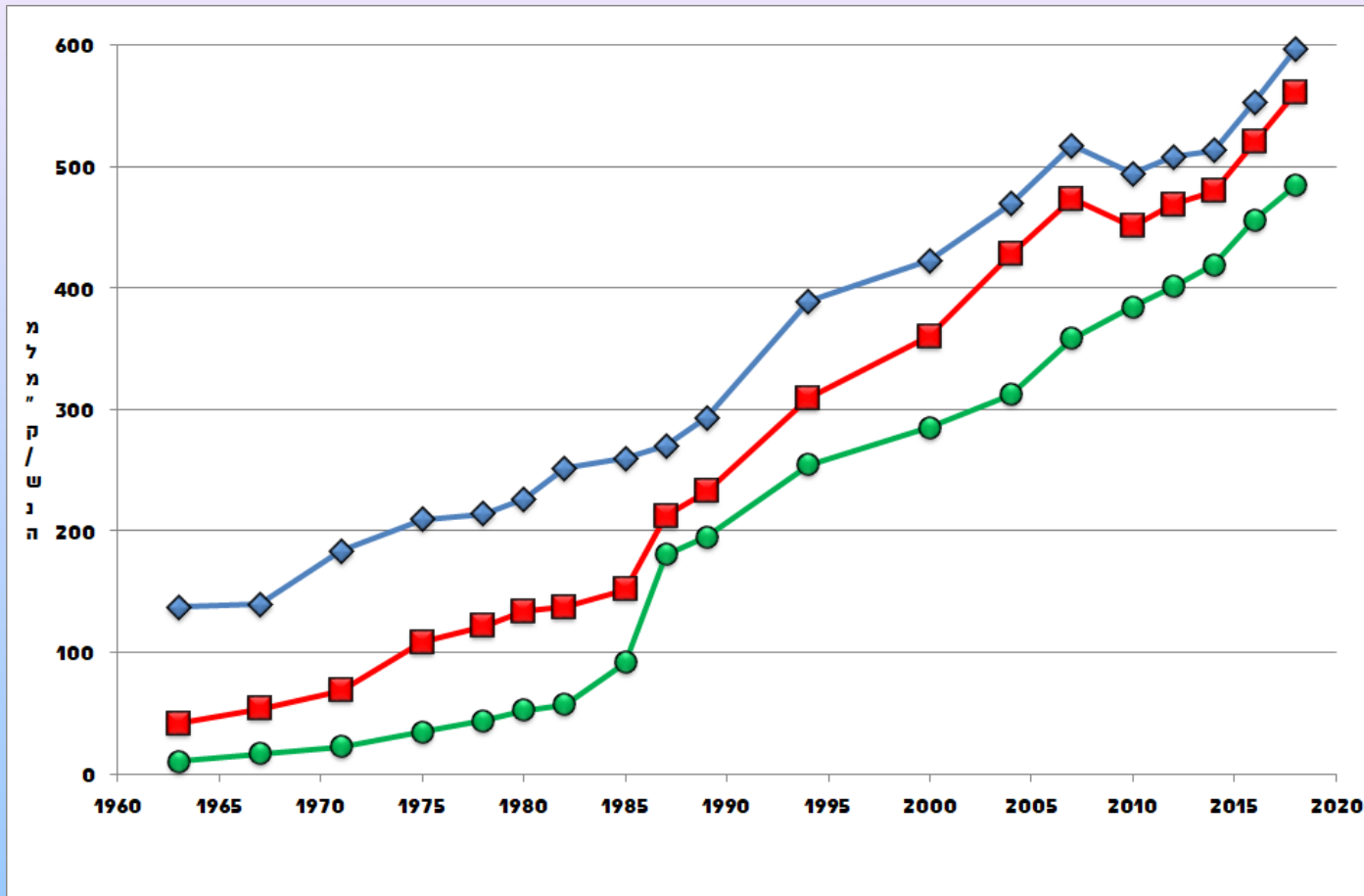
*** Agri.- 473 MCM; Nature- 11.4 MCM

Aims of Reclaiming Treated Wastewater

- Shifting fresh water from agricultural use to domestic use, thus delaying the development of more expensive water sources (e.g., seawater desalination)
- Providing long-term water security to agricultural consumers with regards to water quantity
- Supplying water to agriculture at a suitable quality and at a lower price
- Providing an ecological solution to effluents discharged from WWTPs
- Improving the national water balance through an increase in the water supply by adding a new water source

Sewage, Treated Wastewater and Reclaimed Effluent

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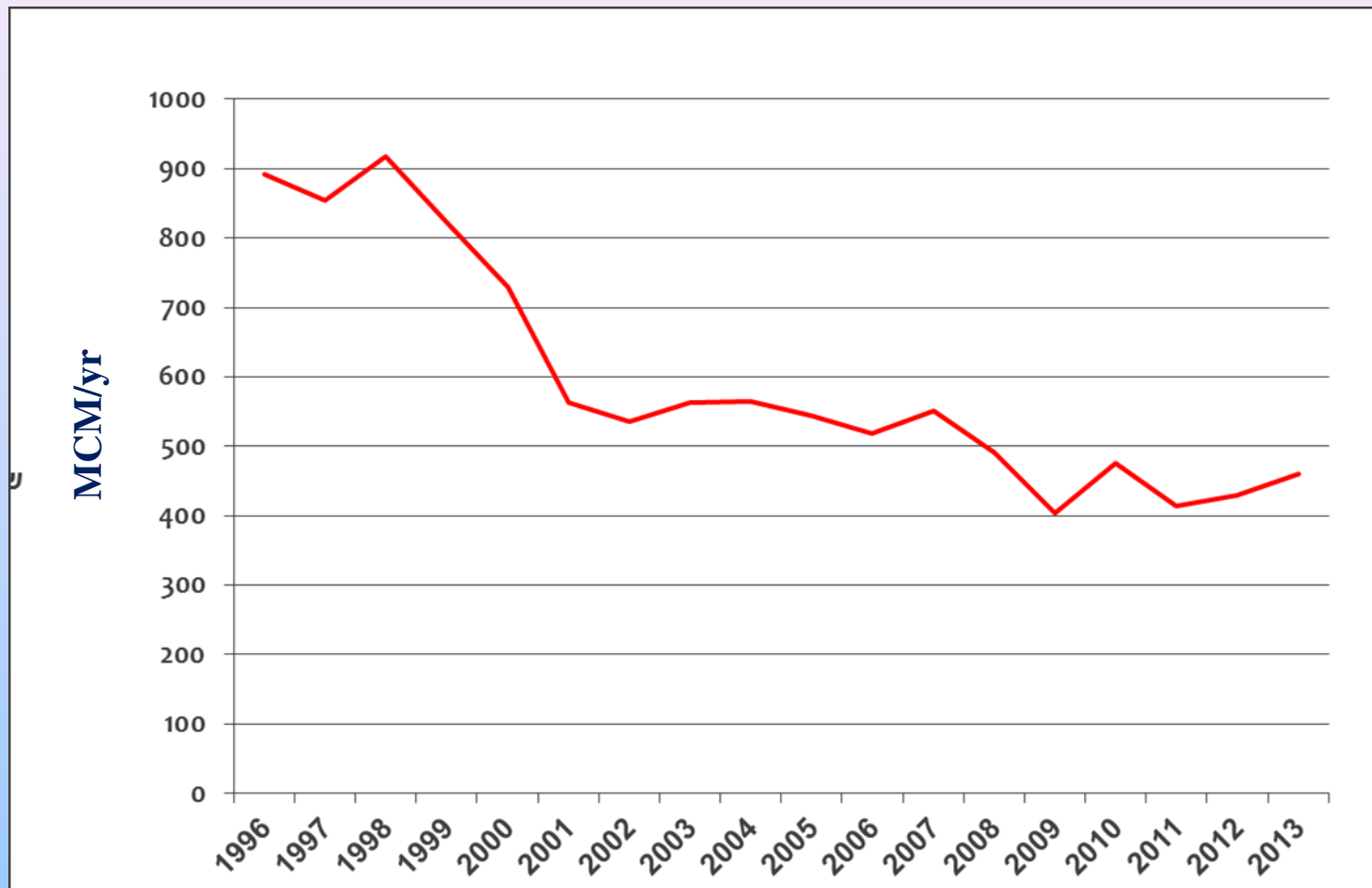
 Sewage

 Treated sewage

 Reclaim effluent

Agricultural Use of Fresh Water

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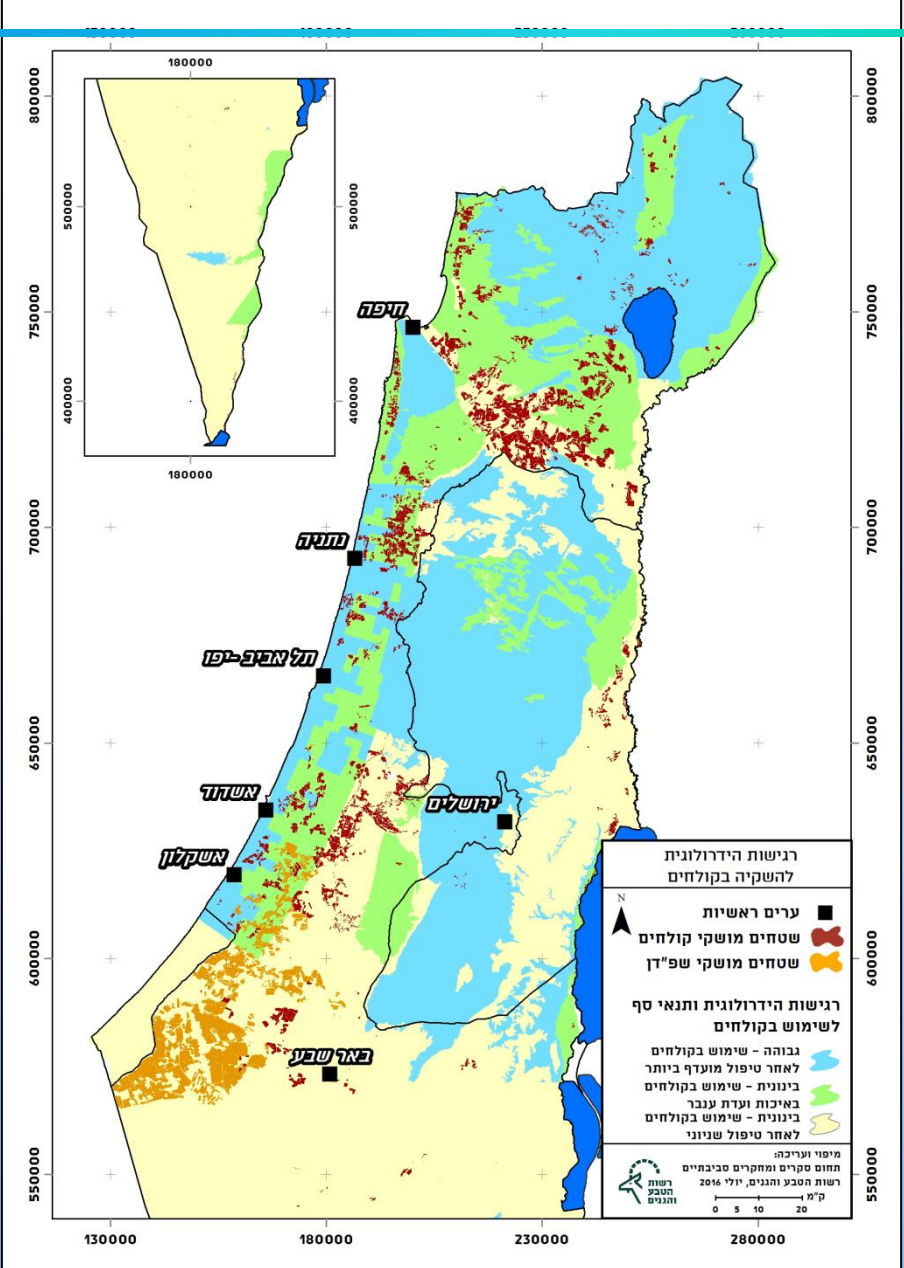
Irrigated Area by Hydrological Sensitivity

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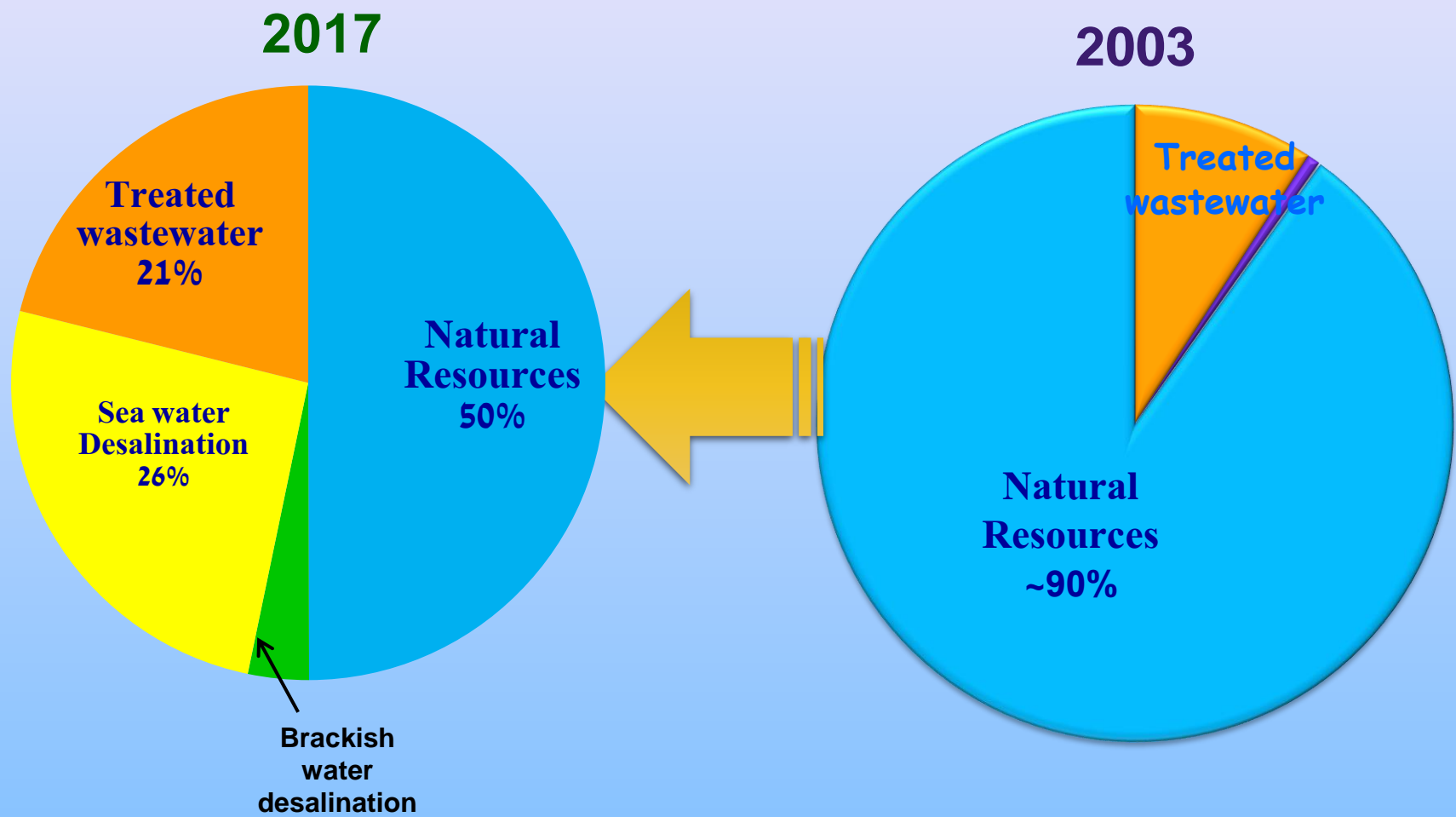
Hydrological Sensitivity

- High**
- Medium**
- Low**

Hydrological sensitivity	Effluent volume - percentage of total volume
High	9
Medium	31
Low	60
Total	100



50% of the total consumption are manufactured water





**Thank you for your
attention**