Presentation from

2016 World Water Week in Stockholm

www.worldwaterweek.org

Monitoring and Reporting on Access to Water Supply and Sanitation Services in Egypt

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Vice-Chairman

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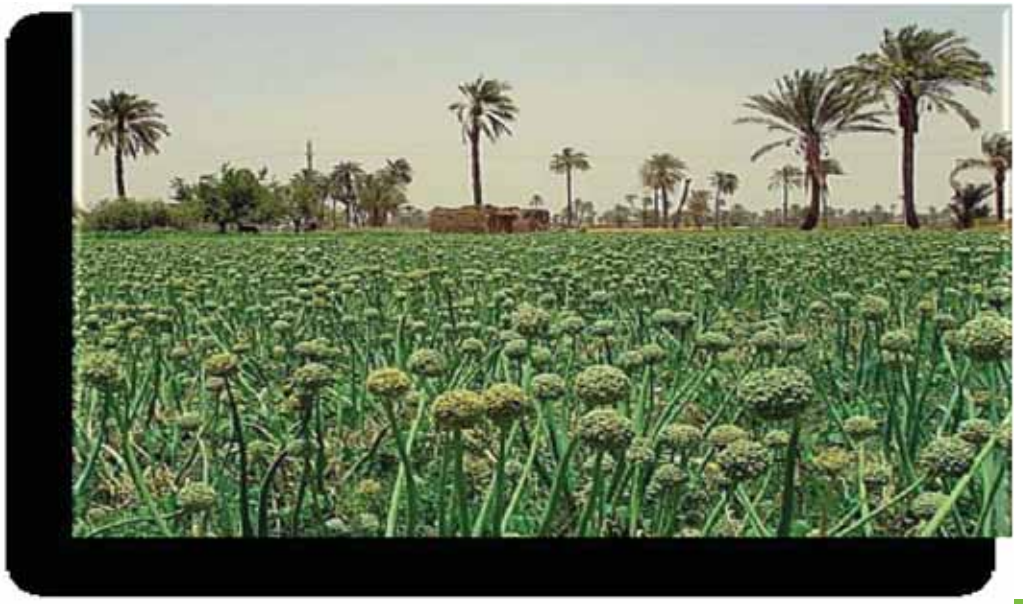
Introduction

Holding Company for Water and Wastewater

Official Population No. for year 2015=85.7 million capita

254 cities



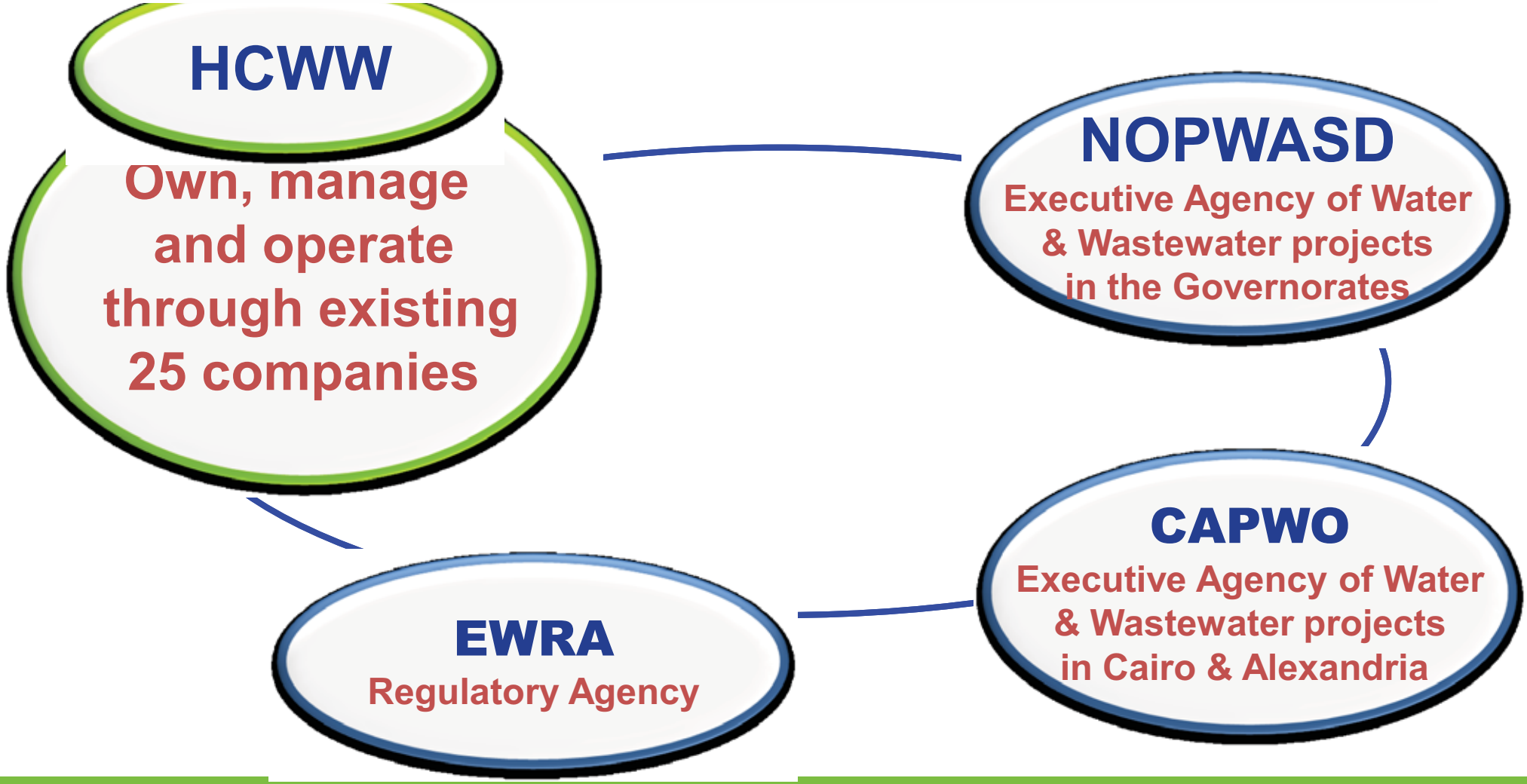
4770 villages

Most of the population is allocated in only 5% of the total area of Egypt in the Delta and Nile Valley.

Water Resources (57 BCM/yr)

- River Nile (55.5 BCM/yr)
- Groundwater (0.5 BCM/yr)
- Rainfalls (1.0 BCM/yr)

Stakeholders after Reform Of HCWW



General Information About HCWW

Number of Affiliated Companies

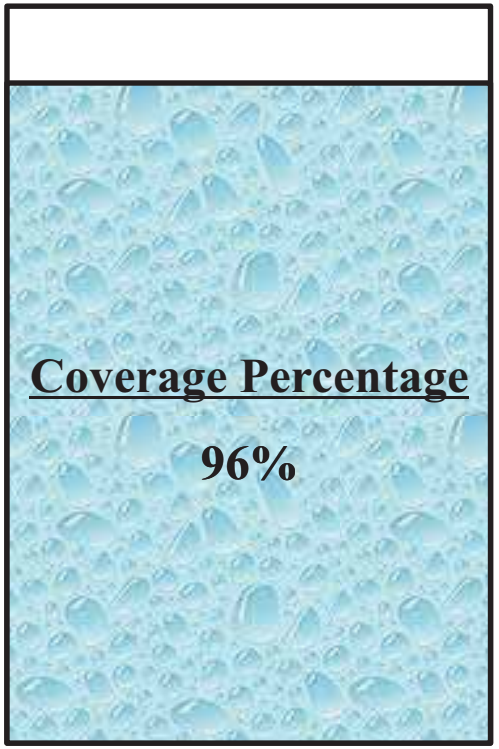
- 25 Company

Service Area

- 27 Governorates

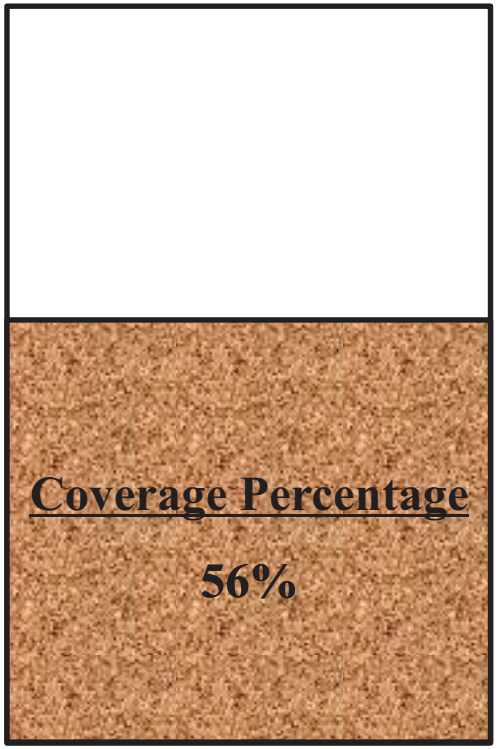
General Information About Water Sector In Egypt

Water Production (Millions m3/day)	24.9
Number of Water Treatment Plants	2,705 222 Filtration + 814 Compact + 1,629 Well Plants + 40 Desalination
Water Distribution Networks (km)	157,000
Number of Subscribers (Millions)	14.36

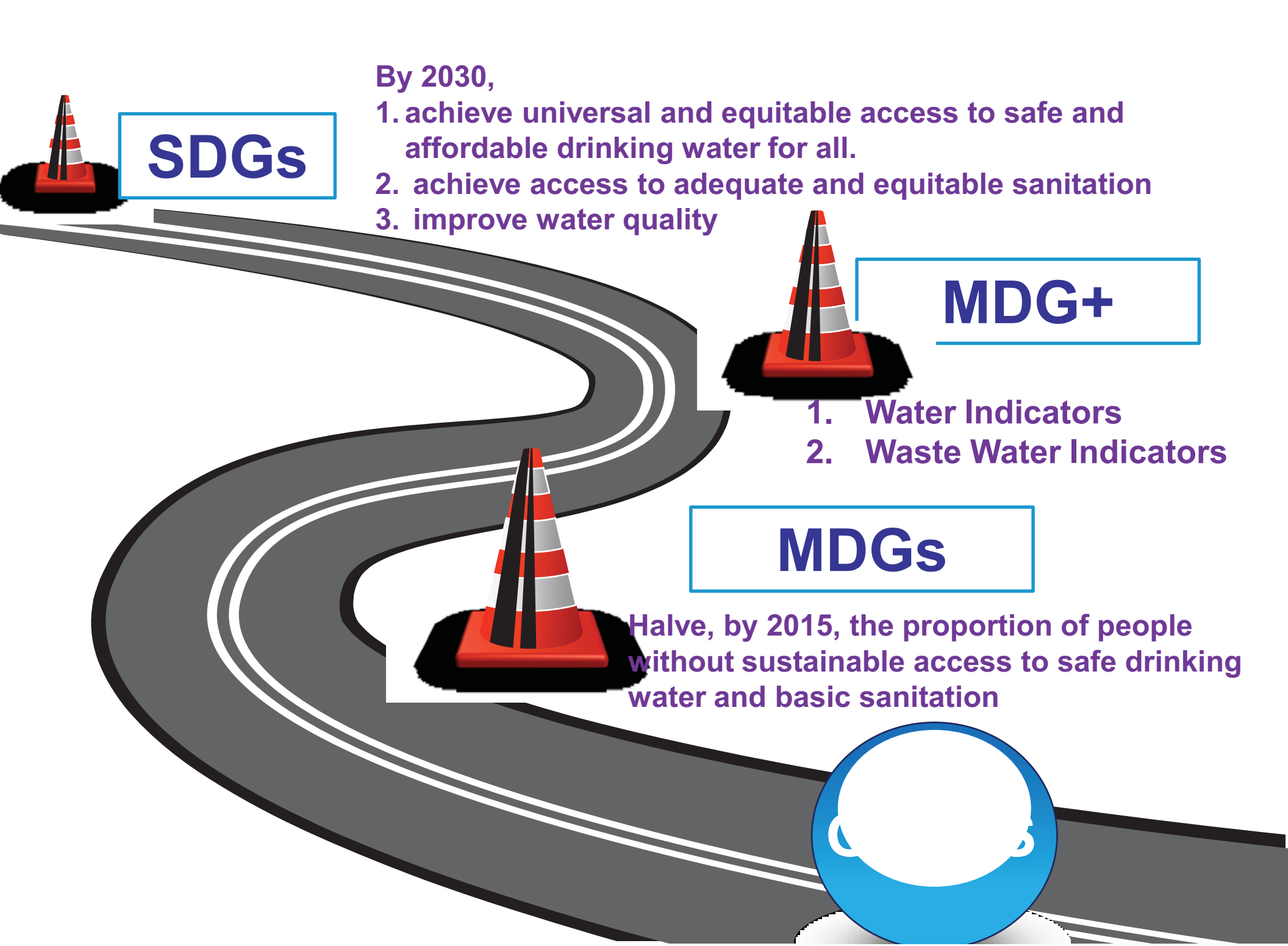


General Information About Wastewater Sector In Egypt

Waste Water Production (Millions m3/day)	10.5
Number of Waste Water Treatment Plants	400
Waste Water Networks (km)	44,000
Number of Subscribers (Millions)	7.4

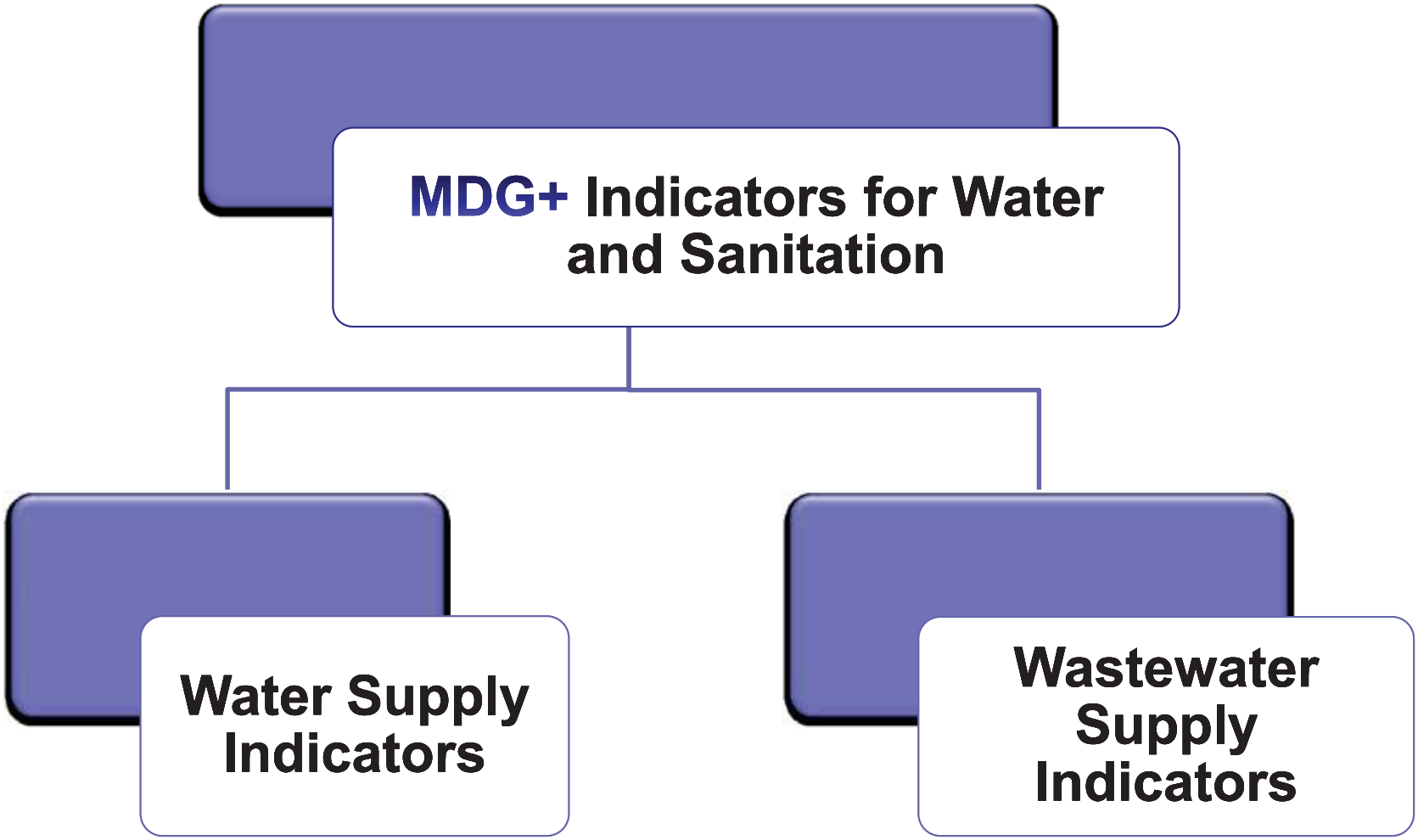


The Millennium Development Goals (MDGs)

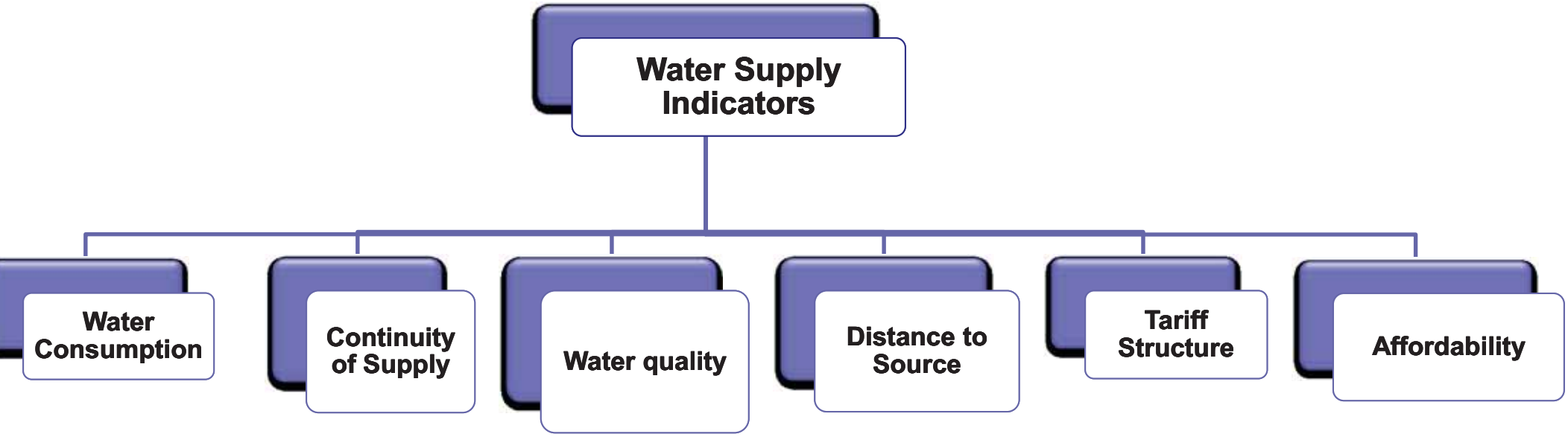

SDGs
By 2030,
1. achieve universal and equitable access to safe and affordable drinking water for all.
2. achieve access to adequate and equitable sanitation
3. improve water quality
MDG+
1. Water Indicators
2. Waste Water Indicators
MDGs
Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

MDG+
Indicators

Holding Company for Water and Wastewater

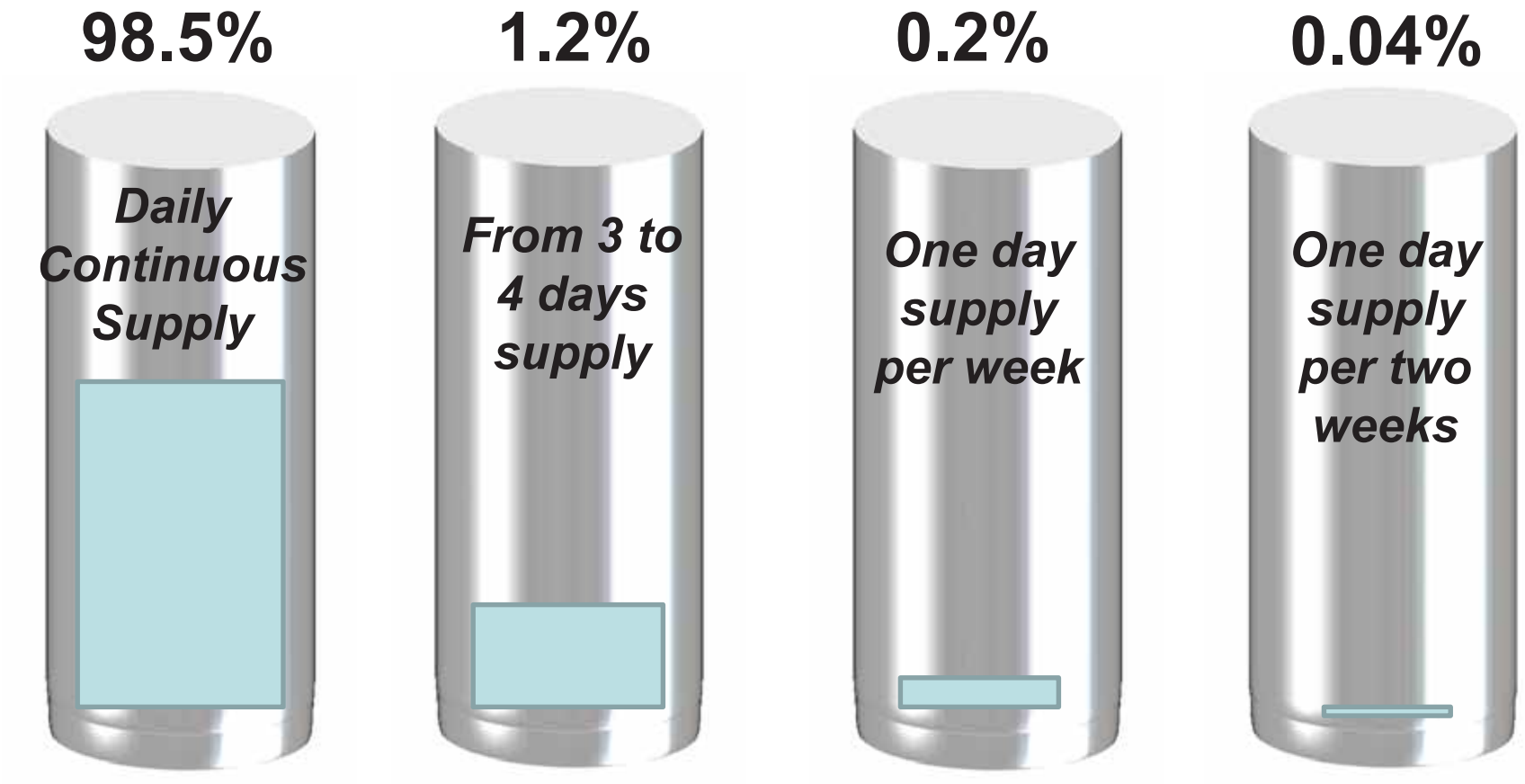


Holding Company for Water and Wastewater



Continuity of Water Supply - Water Networks (2012)

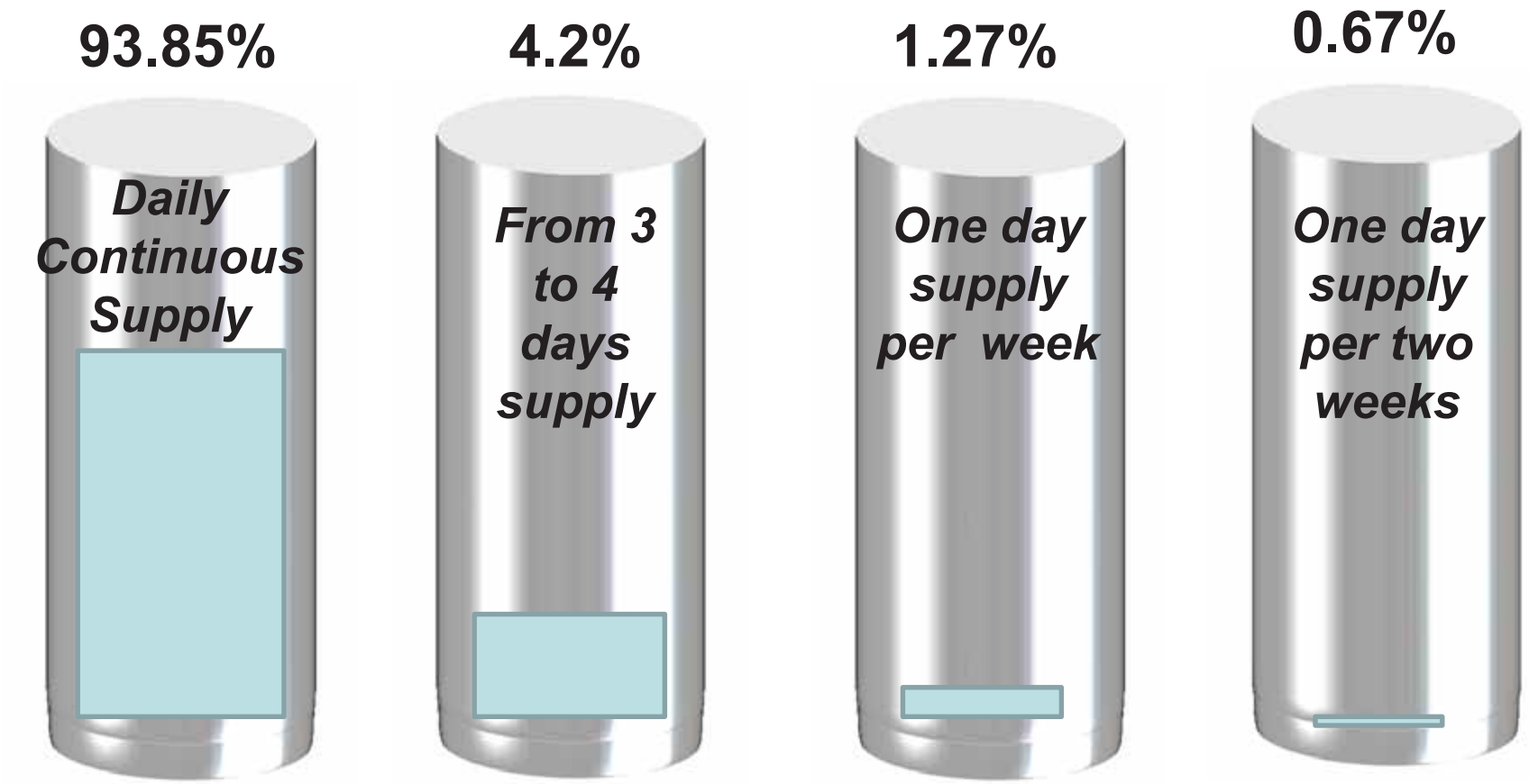
Measured by Population (1000 capita)



Total Population for Water Networks =78 Million Capita

Continuity of Water Supply - Public Tap (2012)

Measured by Population (1000 capita)



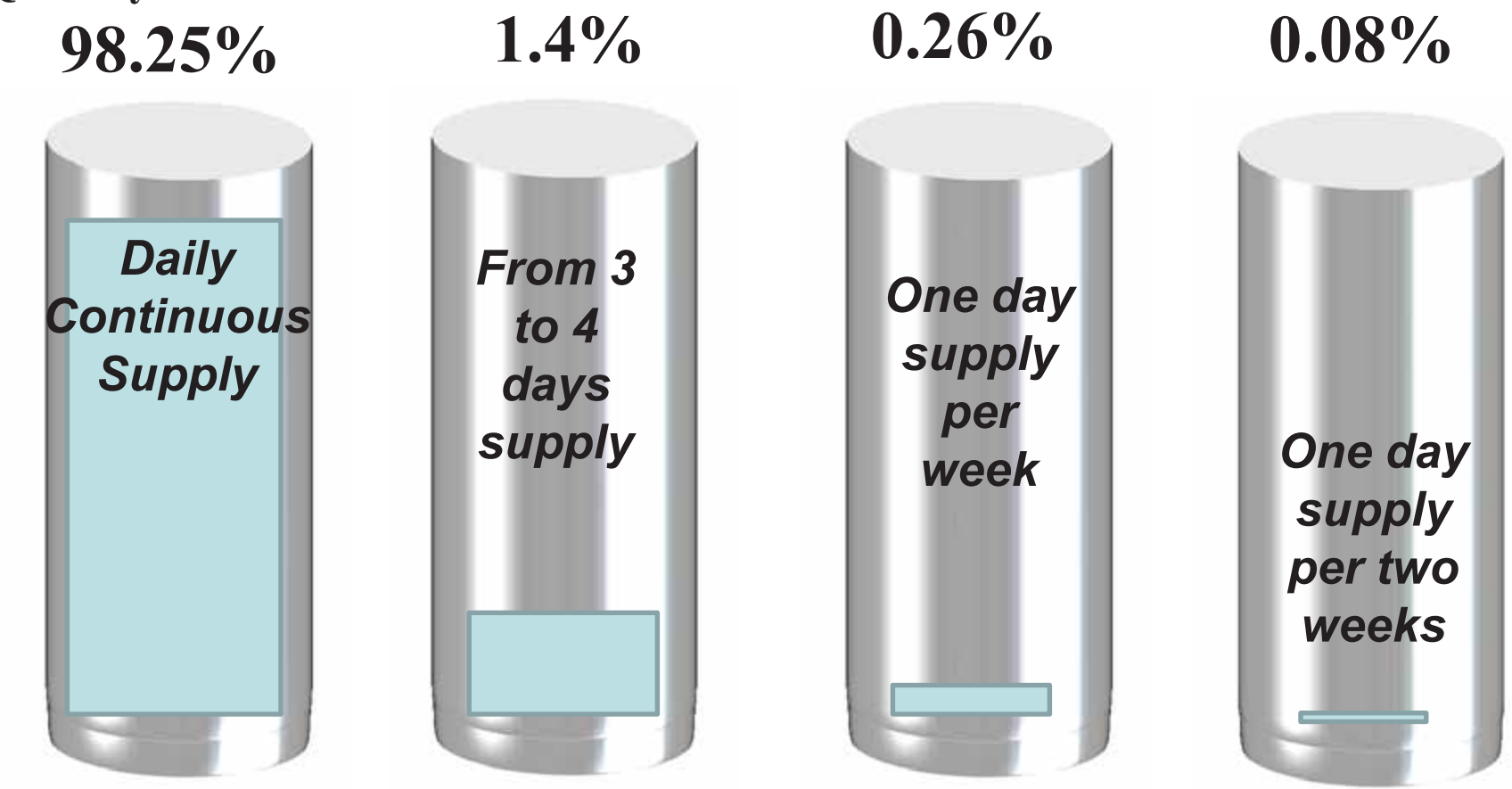
Total Population for Public Tap =1 Million Capita

Continuity of Water Supply - Water Networks (2012)

Measured by water quantity

Total Quantity Of Produced Water = 8381.6 Million m3/Year

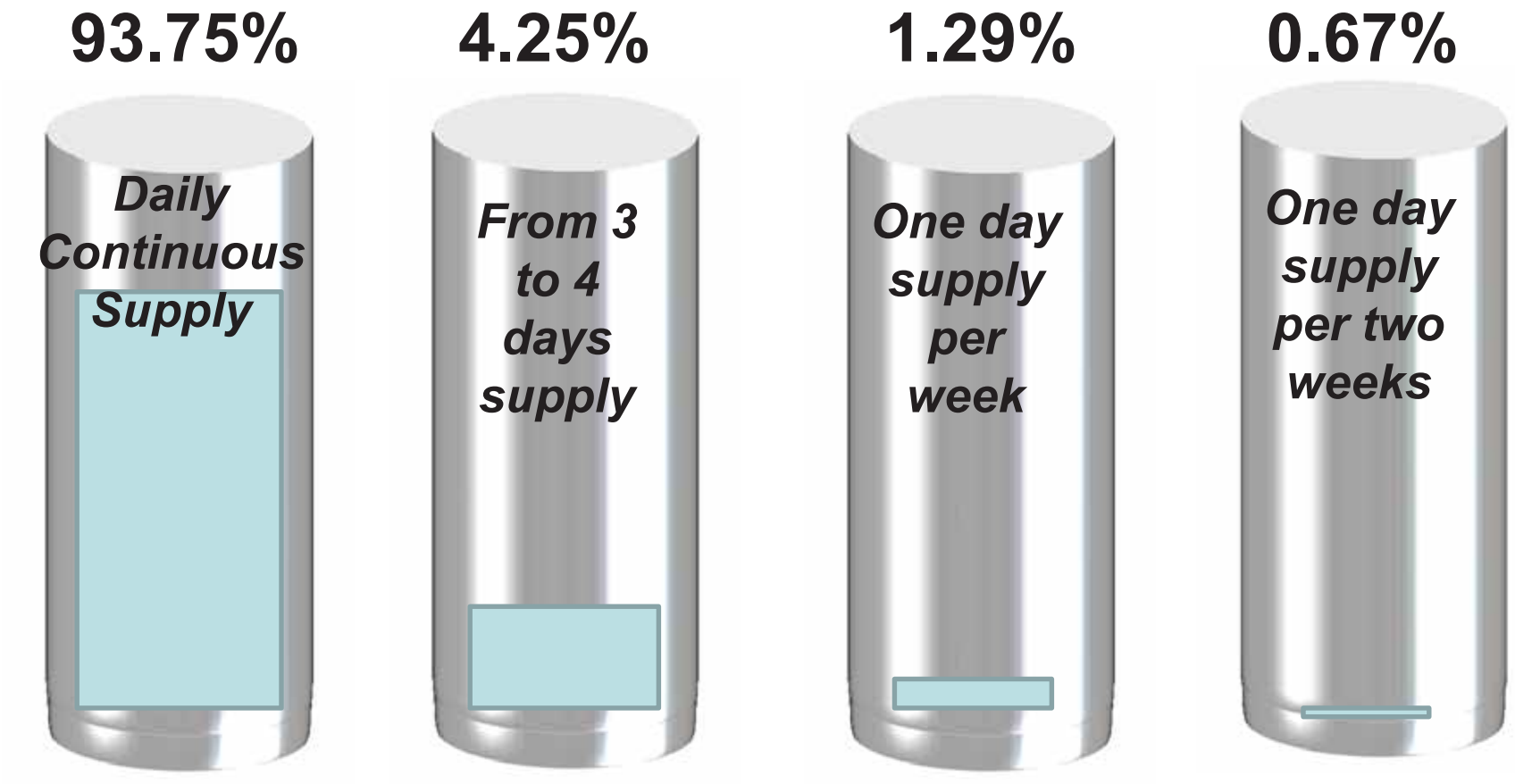
Total Quantity of billed for Water networks = 5664.2 Million m3/Year



Total Quantity of Water Capacity billed for Water networks = 5664.2 Million m3/Year

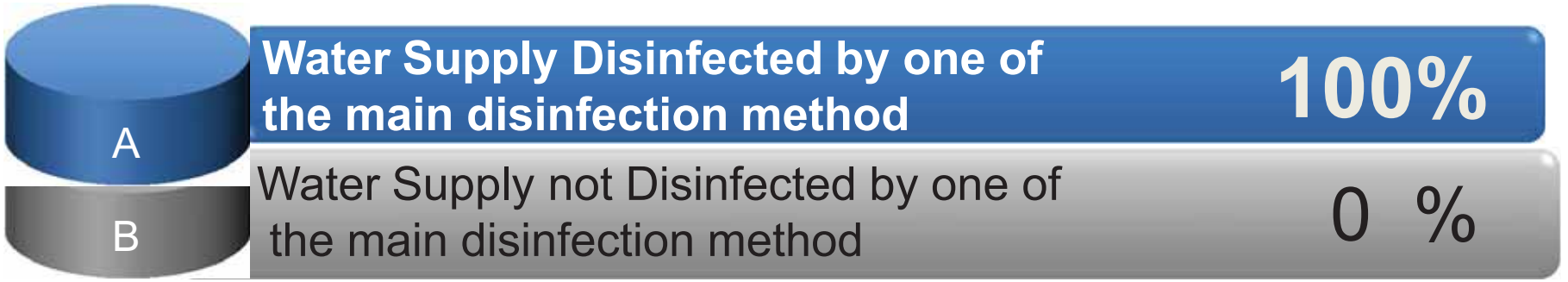
Continuity of Water Supply - Public Tap (2012)

Measured by water quantity (Million m^3 per year)



Total Quantity of Water Capacity billed for Public Tap =12.8Million m3/Year

Water Quality (Year 2012)



- Total Population for water Network = 78.09 Million Capita .
- Total Population for Public Tap = 1.1 Million Capita .
- Total quantity of water for water Network = 8381.68 Million m3/y.
- Total quantity of water for Public Tap =289.7 Million m3/y.

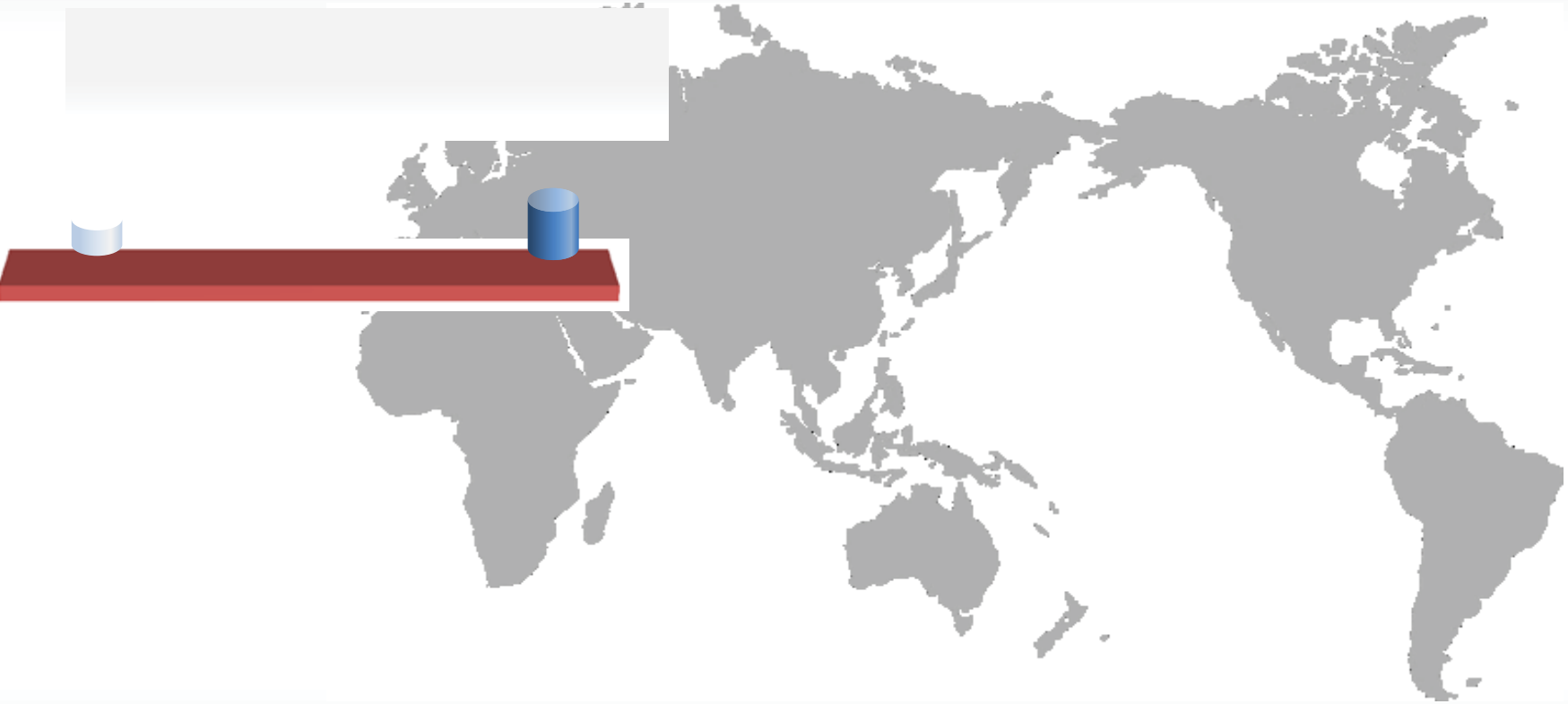
Holding Company for Water and Wastewater

Tariff Structure (Year 2012)

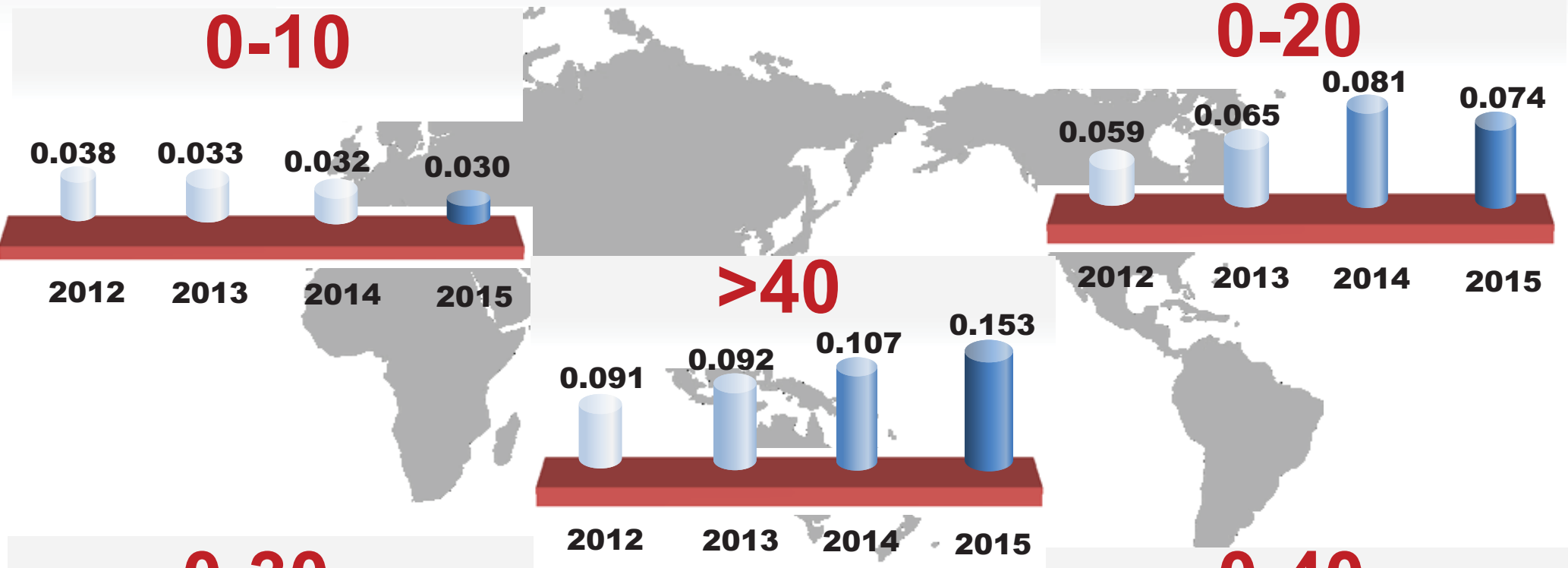
Measured by Population

- **Variable Ascending Tariff = 78 Million capita**

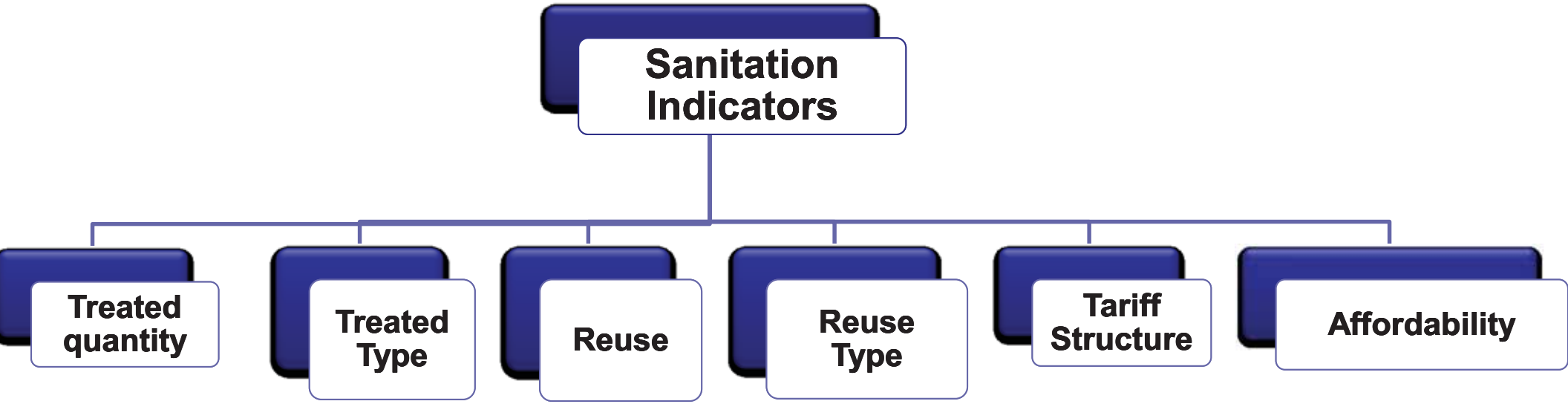
Different tariff with different segments of consumption (L.E)



Different tariff with different segments of consumption ($)

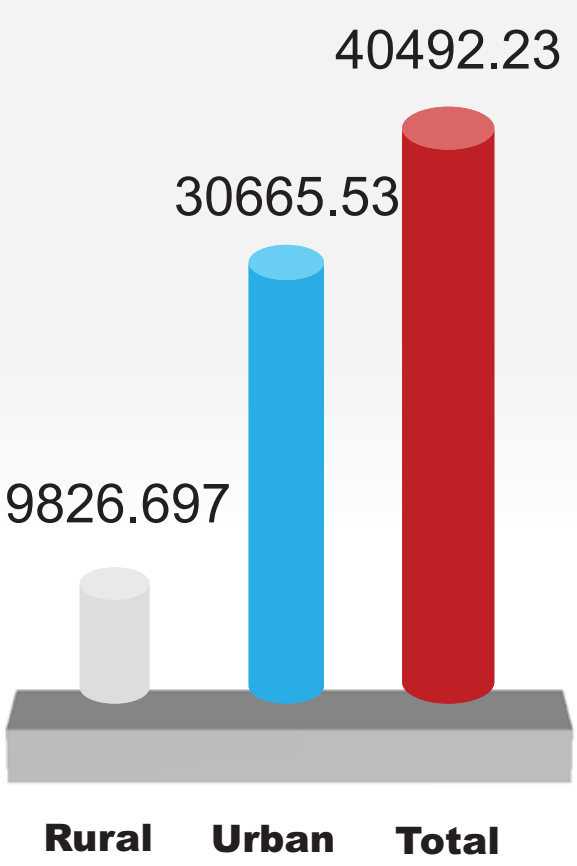


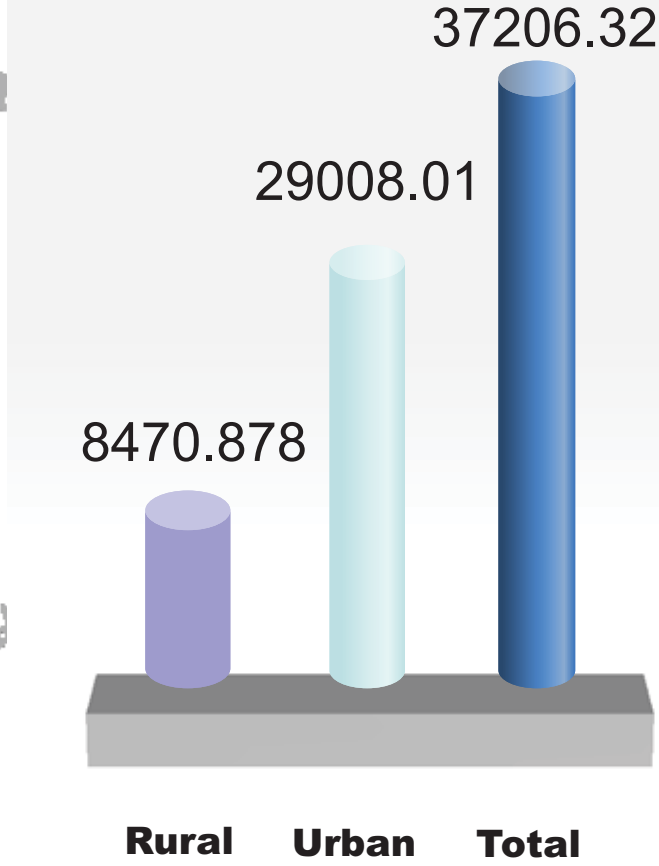
Holding Company for Water and Wastewater



Treated Quantity (Year 2012)

According to population (1000 capita)



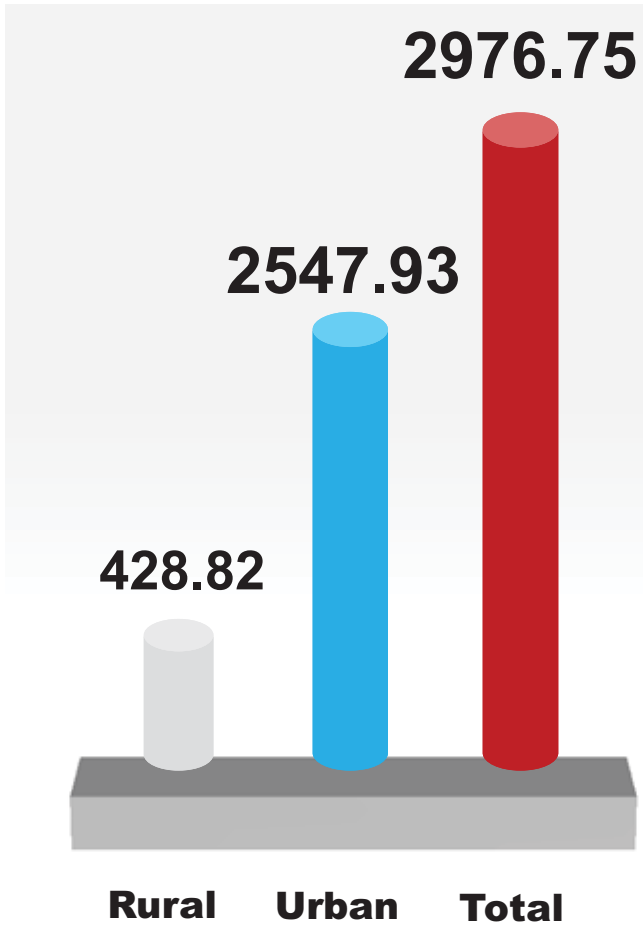


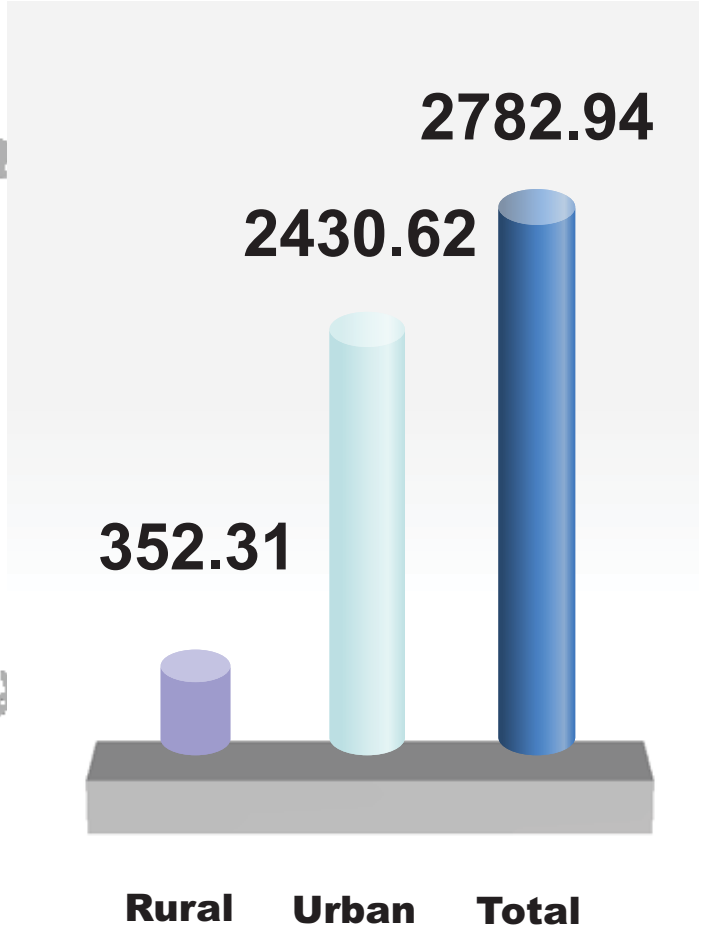
Population Served

Population with Treated Sewage

Treated Quantity (Year 2012)

Measured by water quantity (Million m^3 per year)



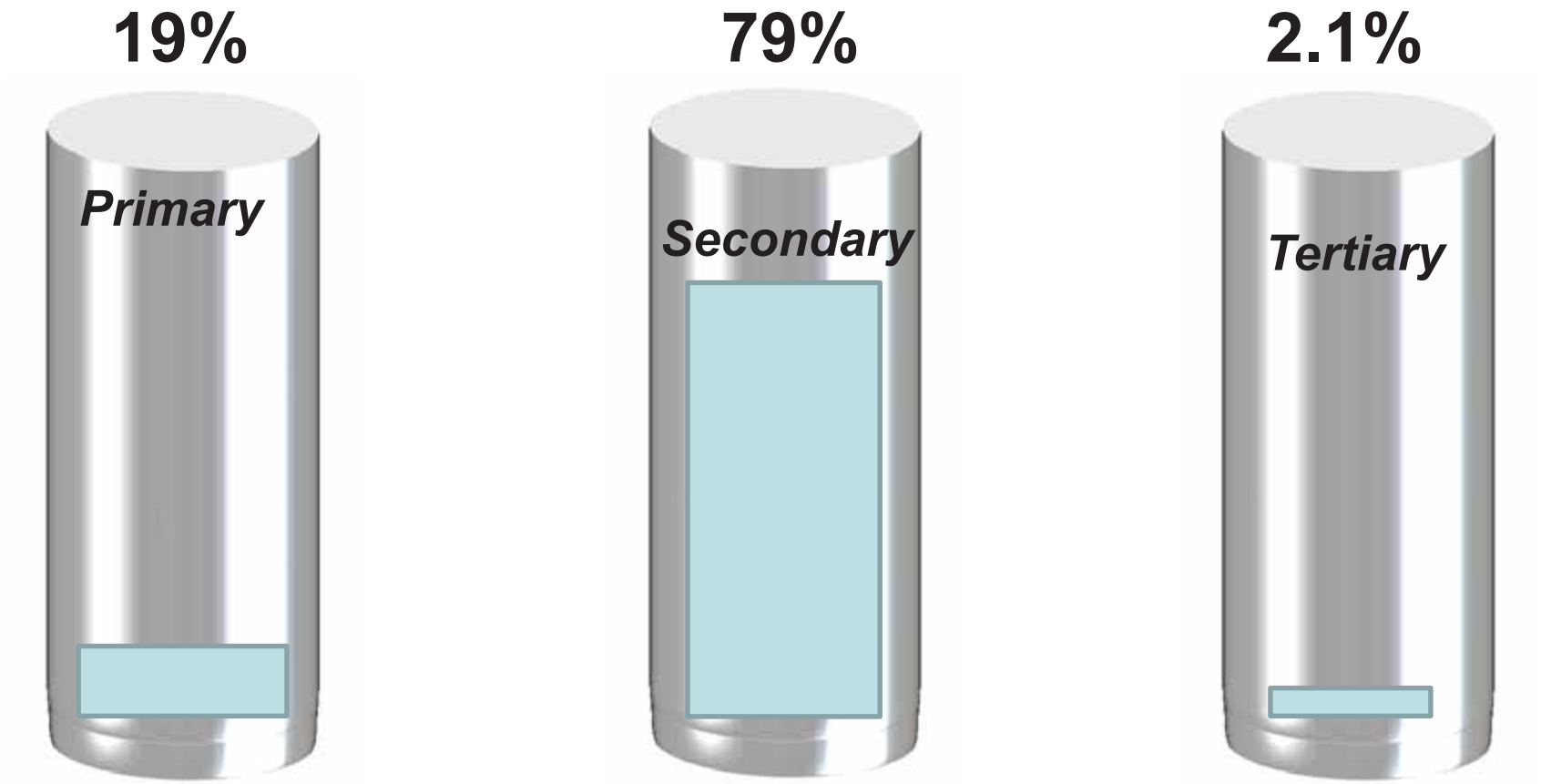


Quantity Of Collected Sewage

Quantity Of Treated Sewage

Treatment Type (Year 2012)

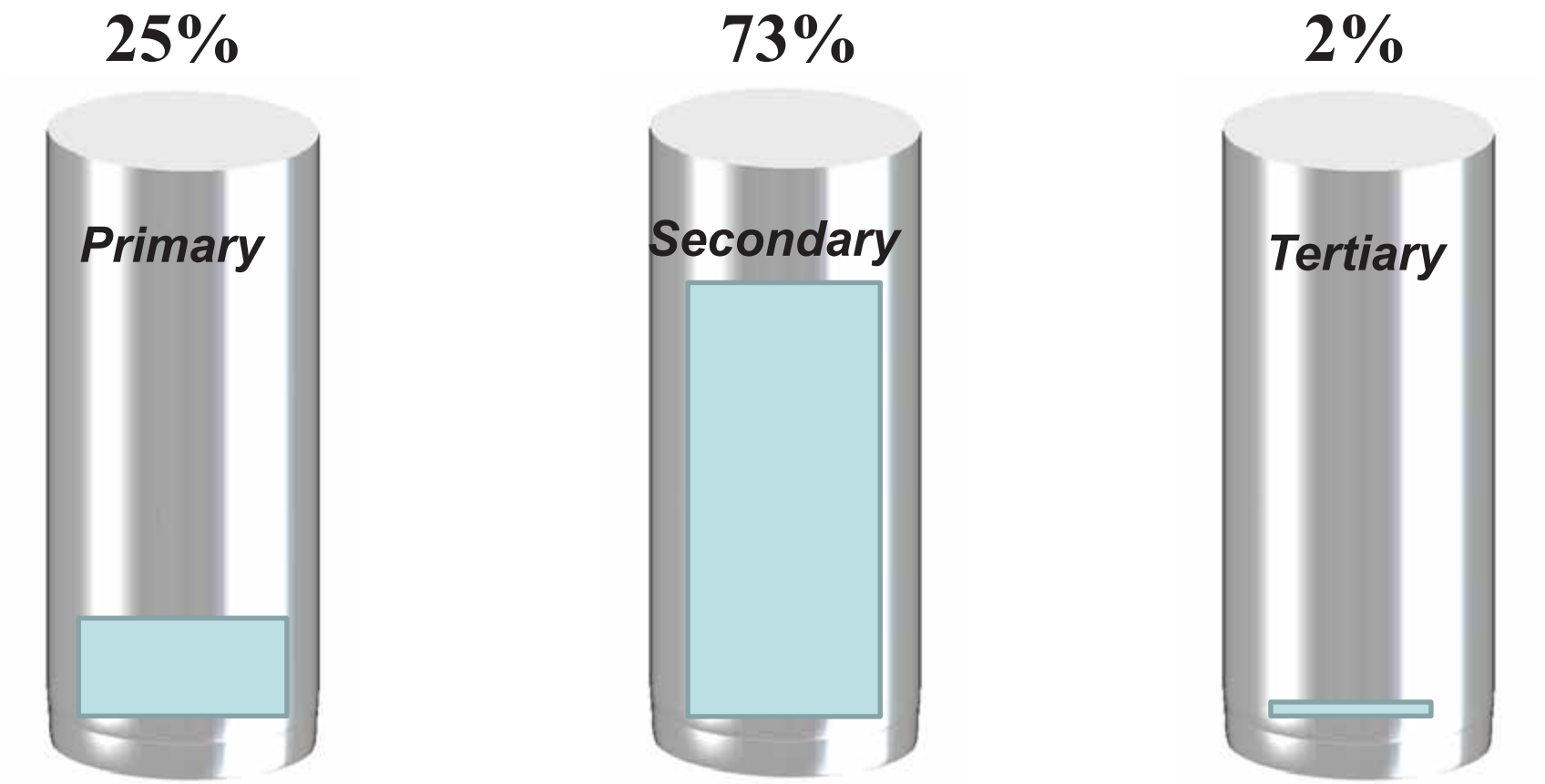
Measured by Population



Total Population for Waste Water Networks = 37.206 Million Capita

Treatment Type (Year 2012)

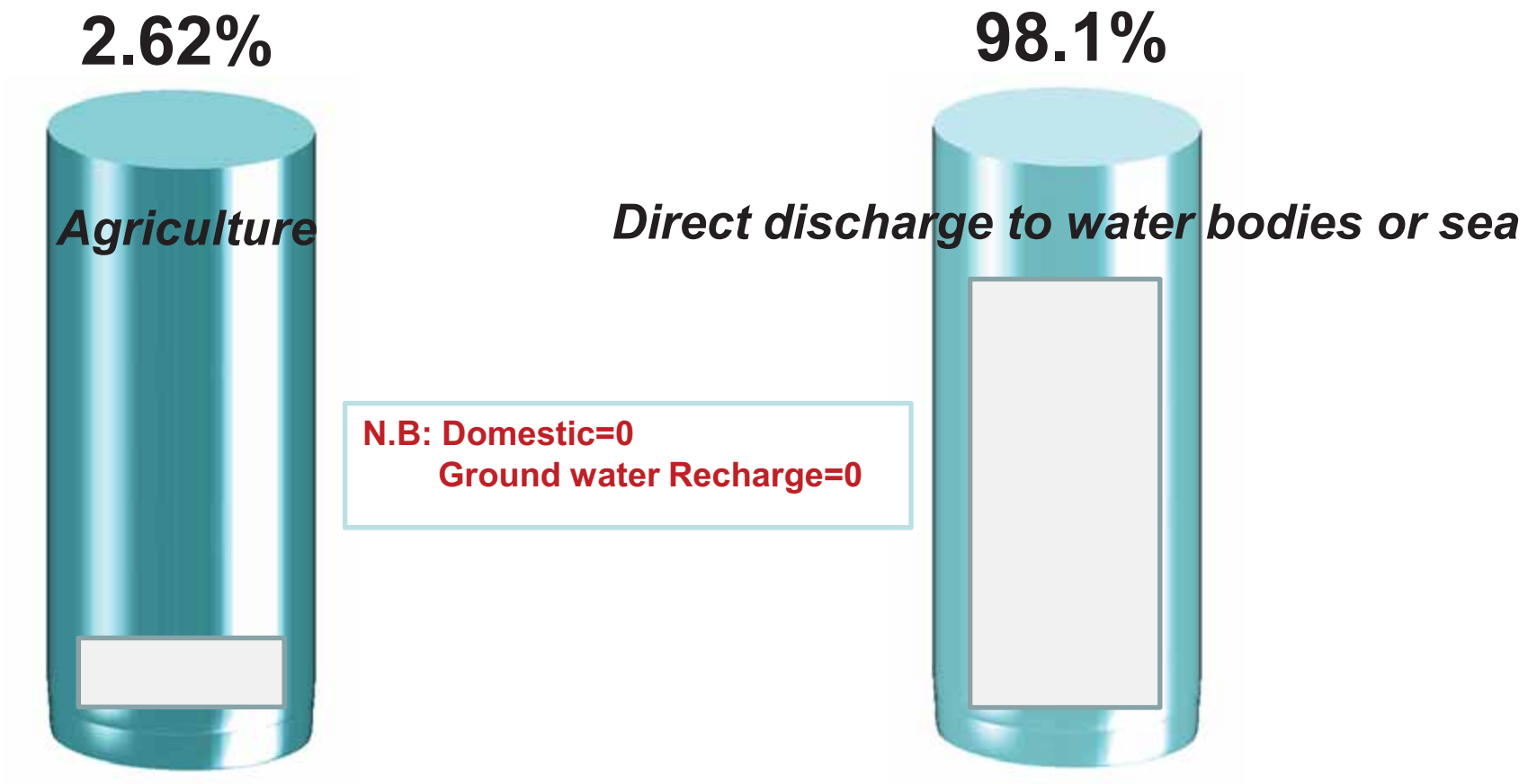
Measured by Wastewater Quantity Unit Per Year



Total Treated Sewage =2782.94 Million m3/year

Reuse Fields After treatment (Year 2012)

Measured by Population



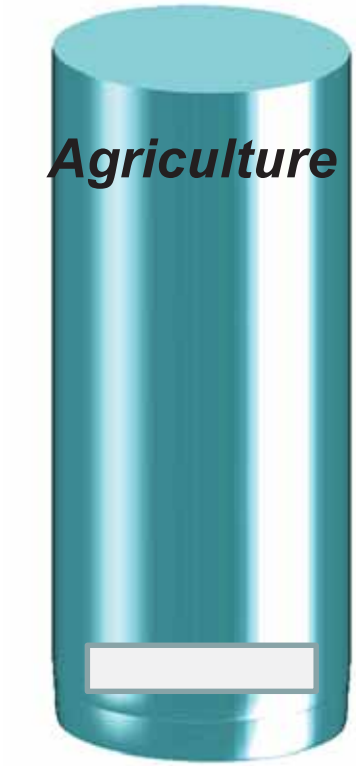
Total population =37.206 Million capita

Reuse Fields After Treatment (Year 2012)

Measured by Wastewater Quantity per year

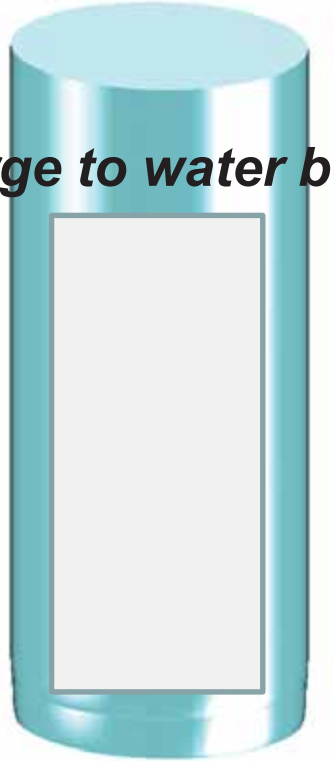
1.23%

98.46%



Agriculture

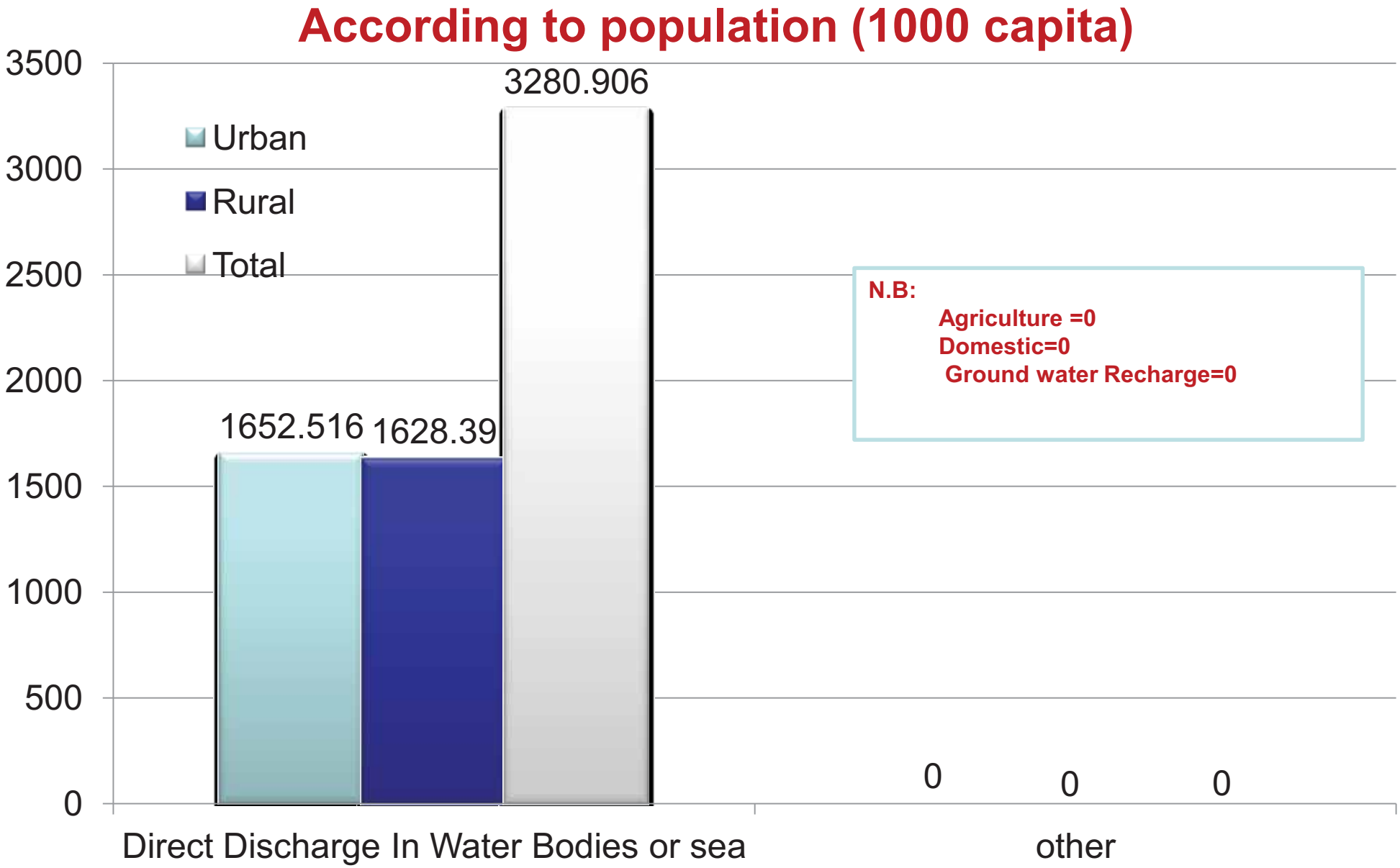
Direct discharge to water bodies or sea



N.B: Domestic=0
Ground water Recharge=0

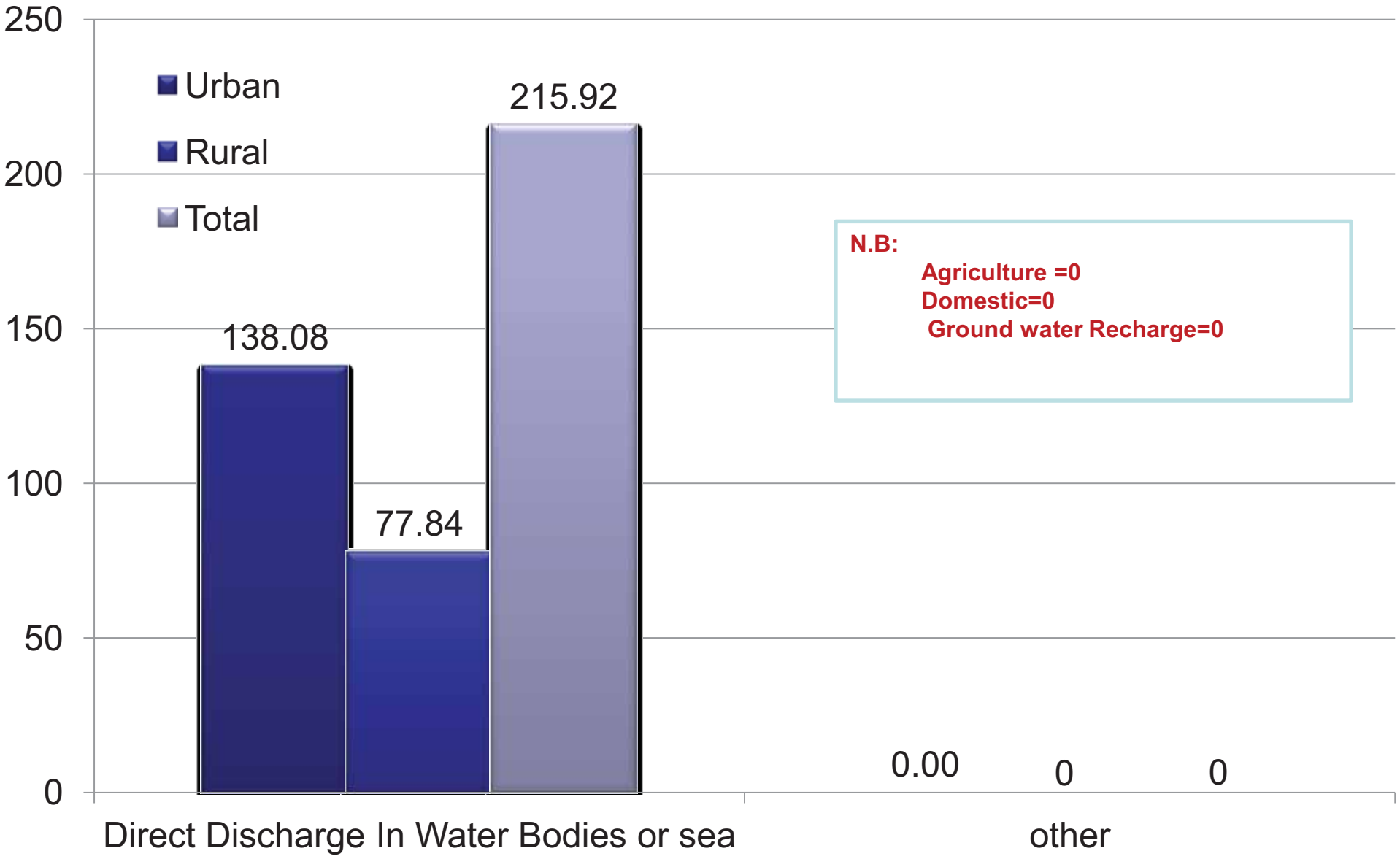
Total Treated Sewage =2782.94 Million m3/year

Reuse Fields for non-treated sewage (Year 2012)

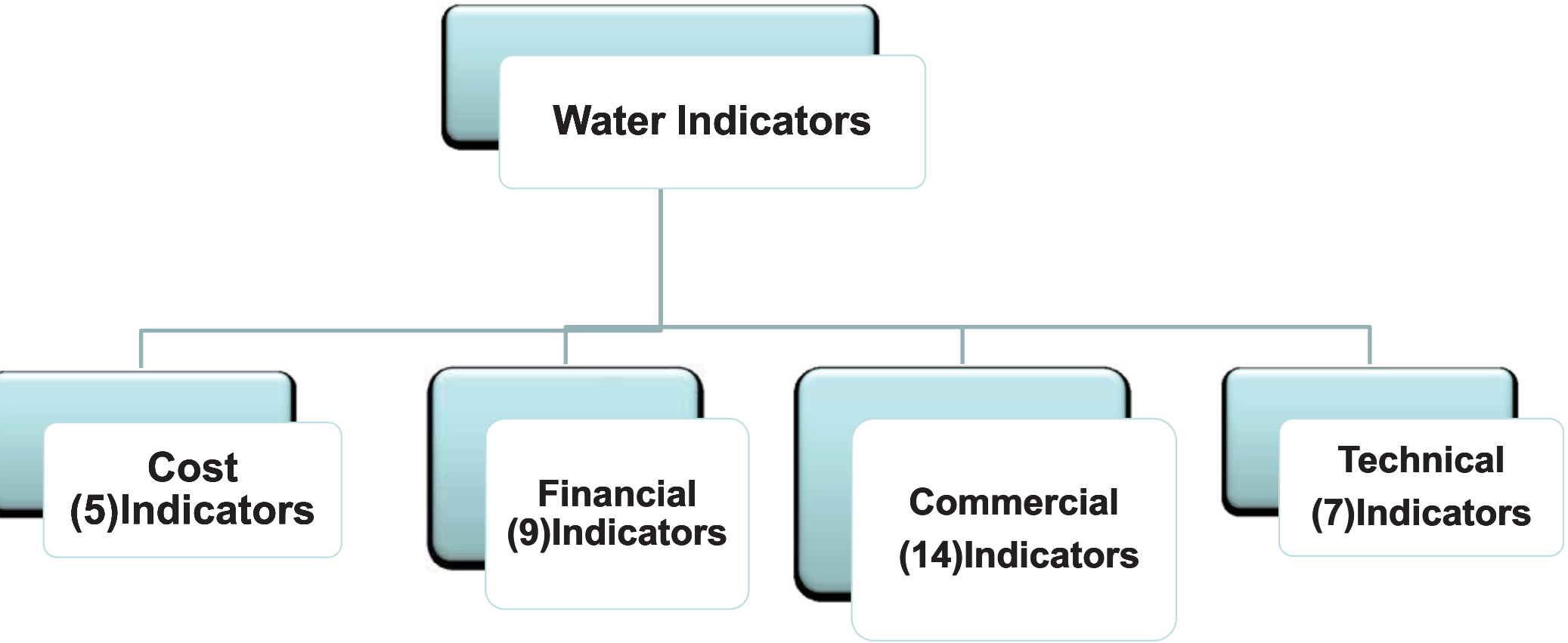


Reuse Fields for non-treated sewage (Year 2012)

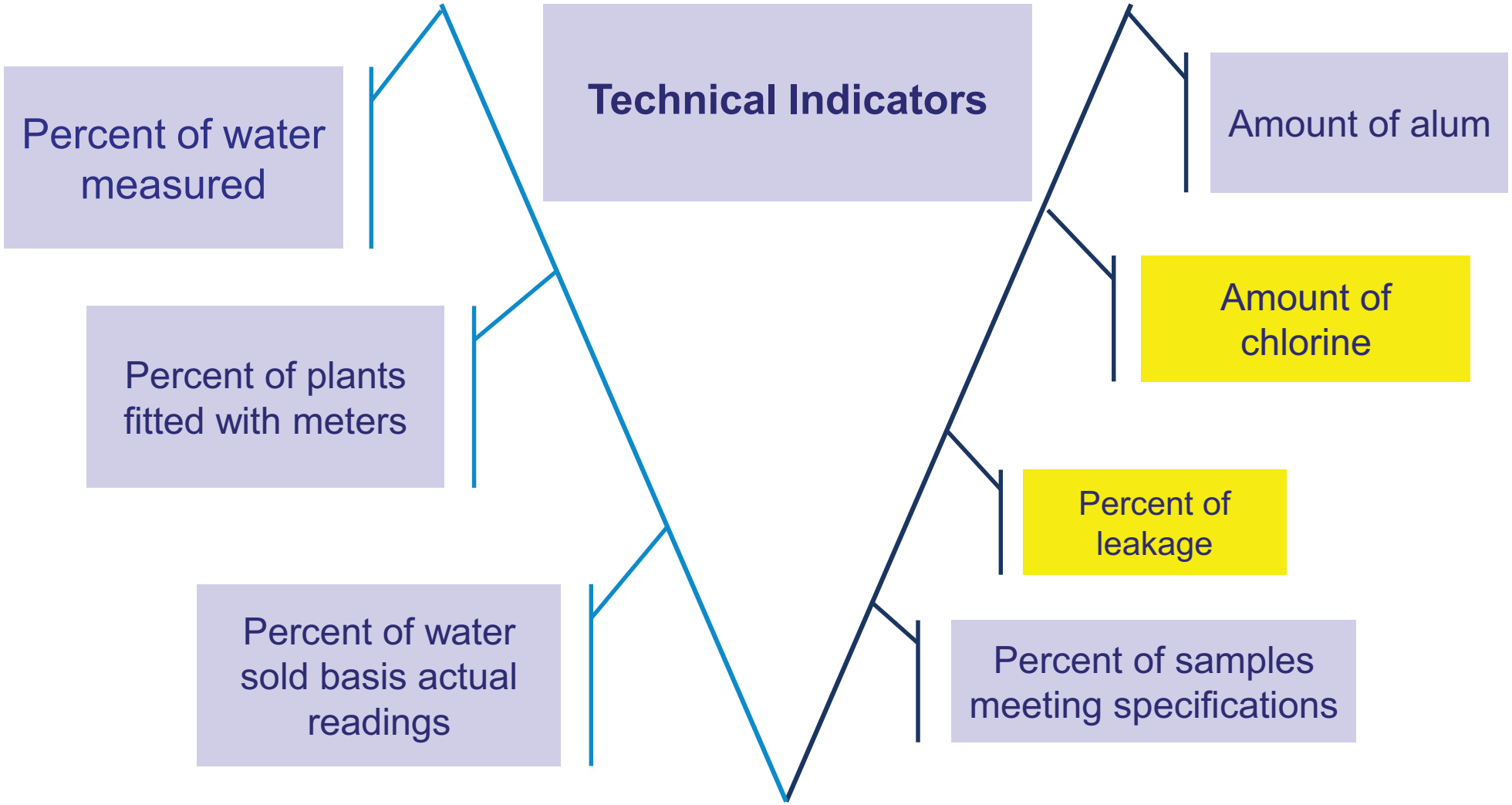
According to water quantity per year



Egypt Performance Indicators

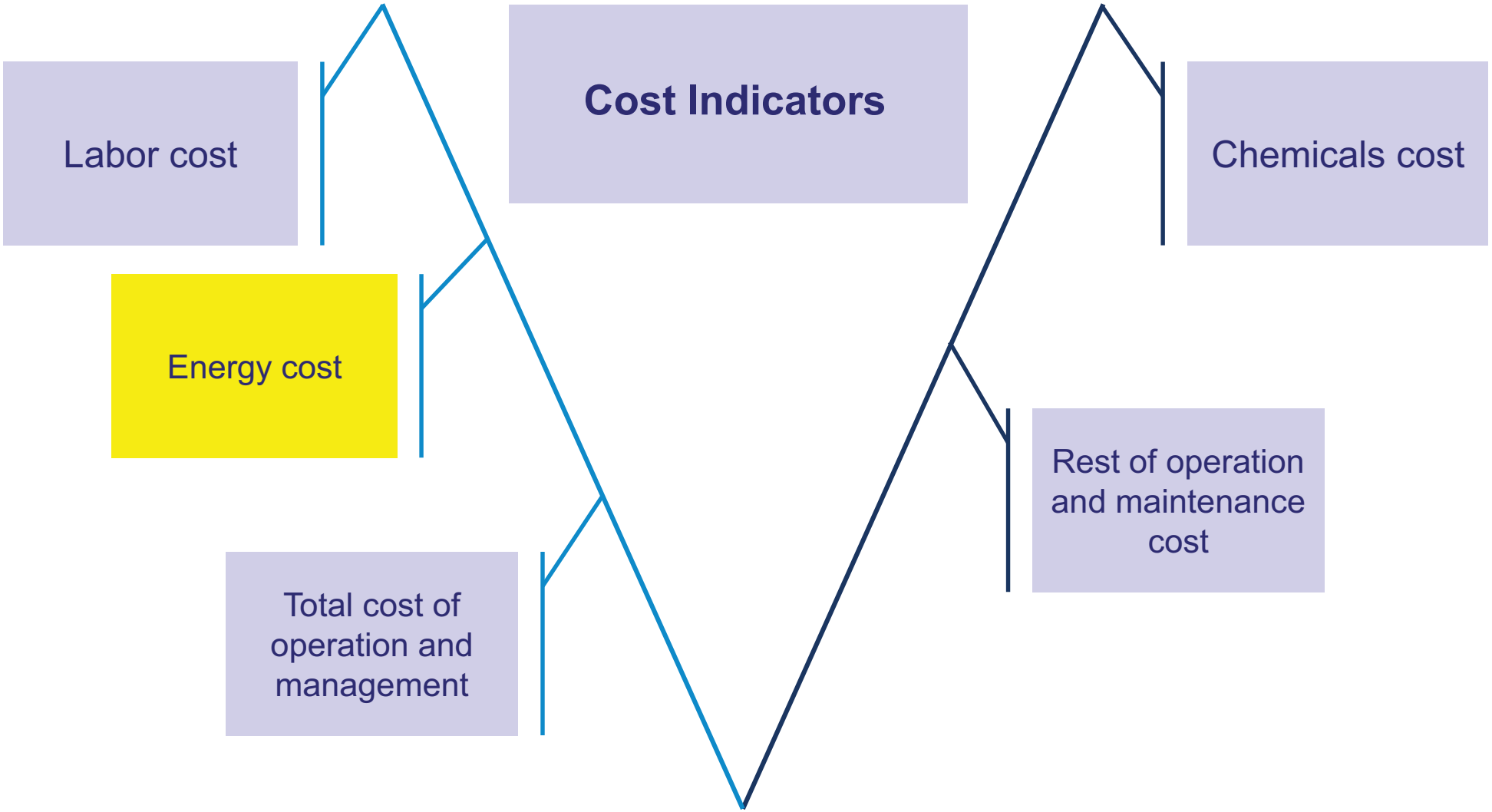

Water Indicators
Cost (5)Indicators
Financial (9)Indicators
Commercial (14)Indicators
Technical (7)Indicators

Water Indicators



Holding Company for Water and Wastewater

Water Indicators



Holding Company for Water and Wastewater

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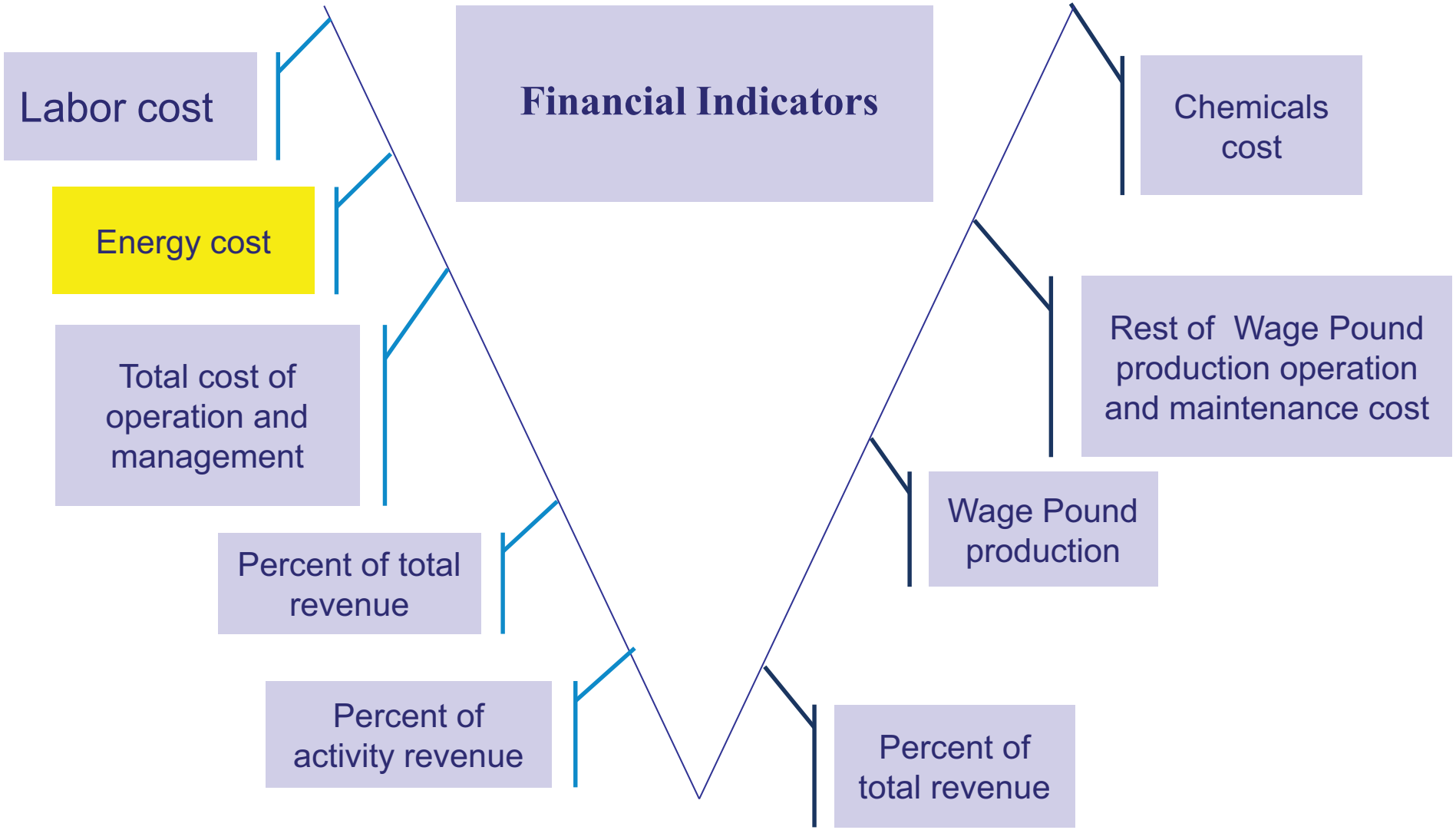
Water Indicators



Holding Company for Water and Wastewater

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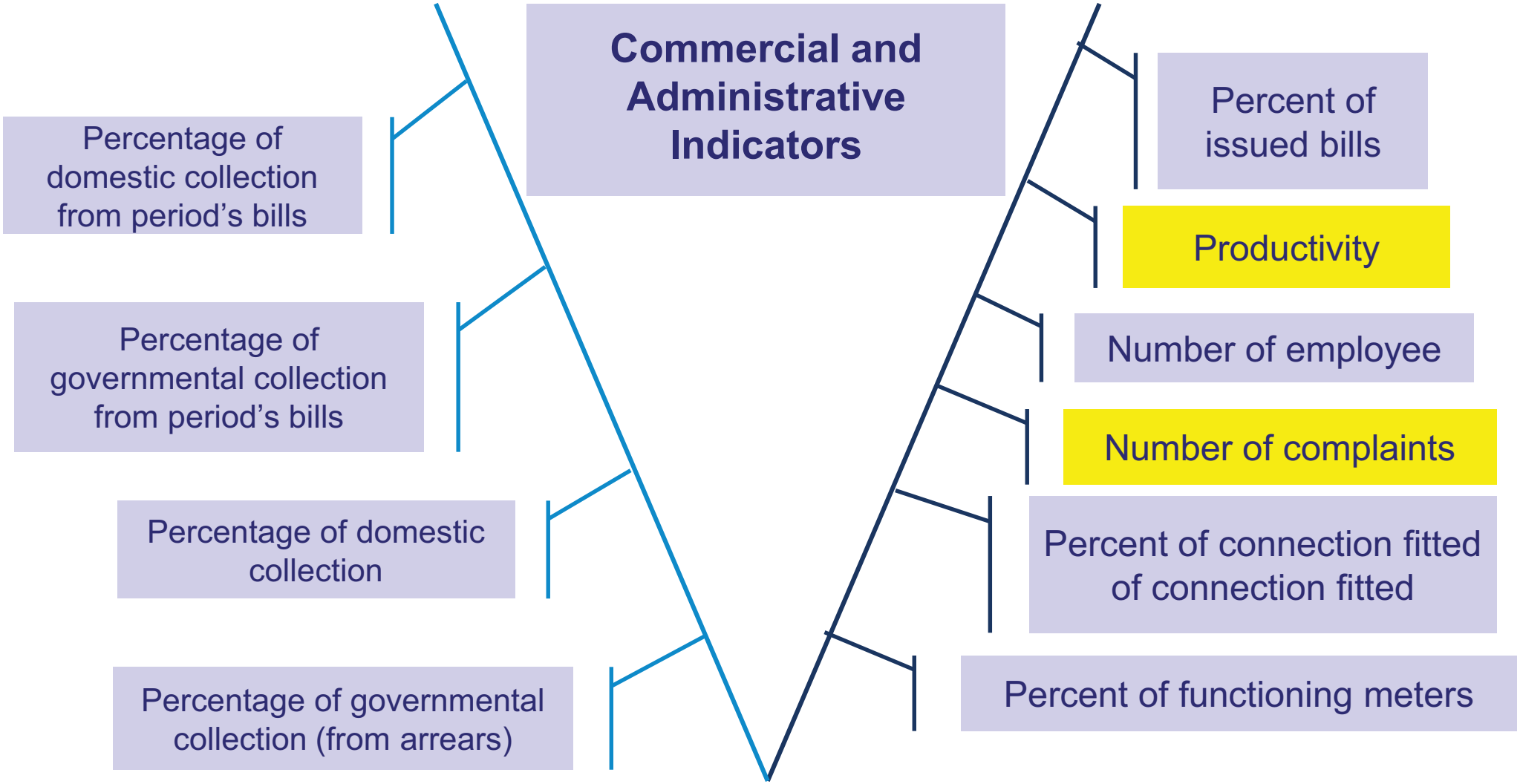
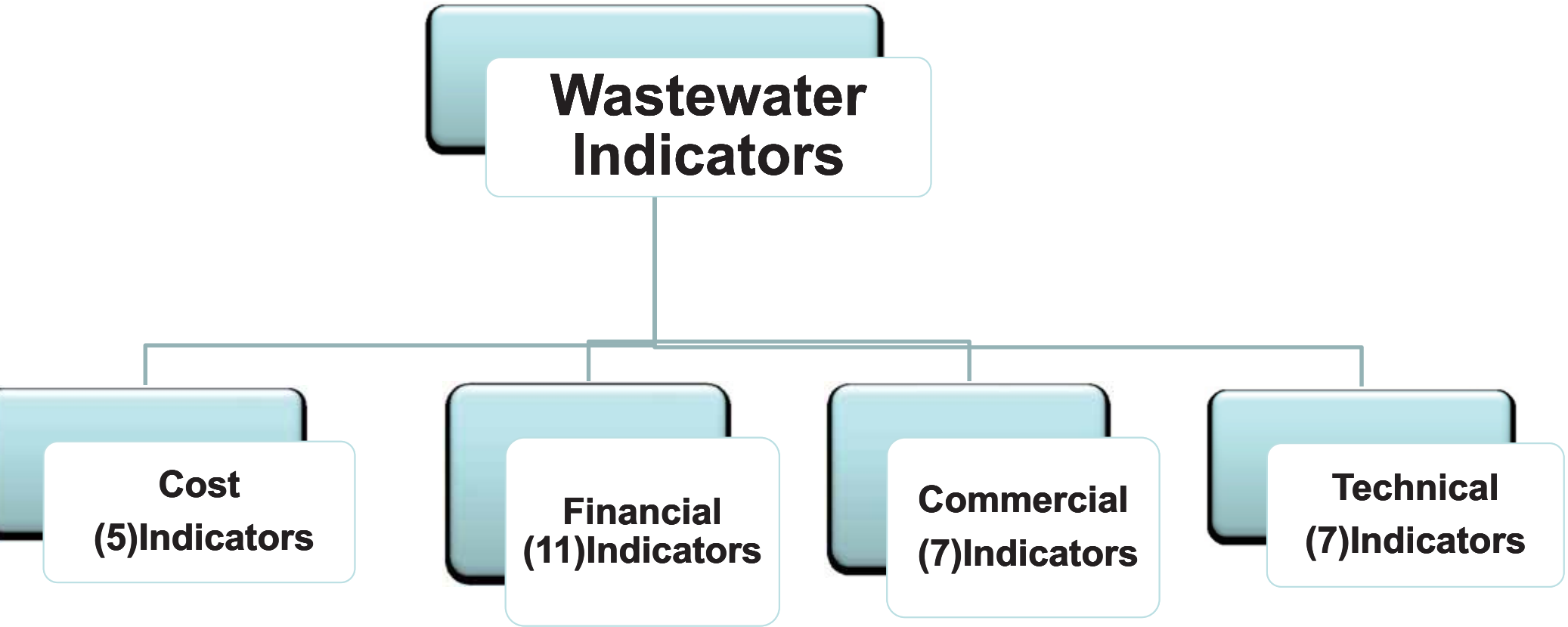
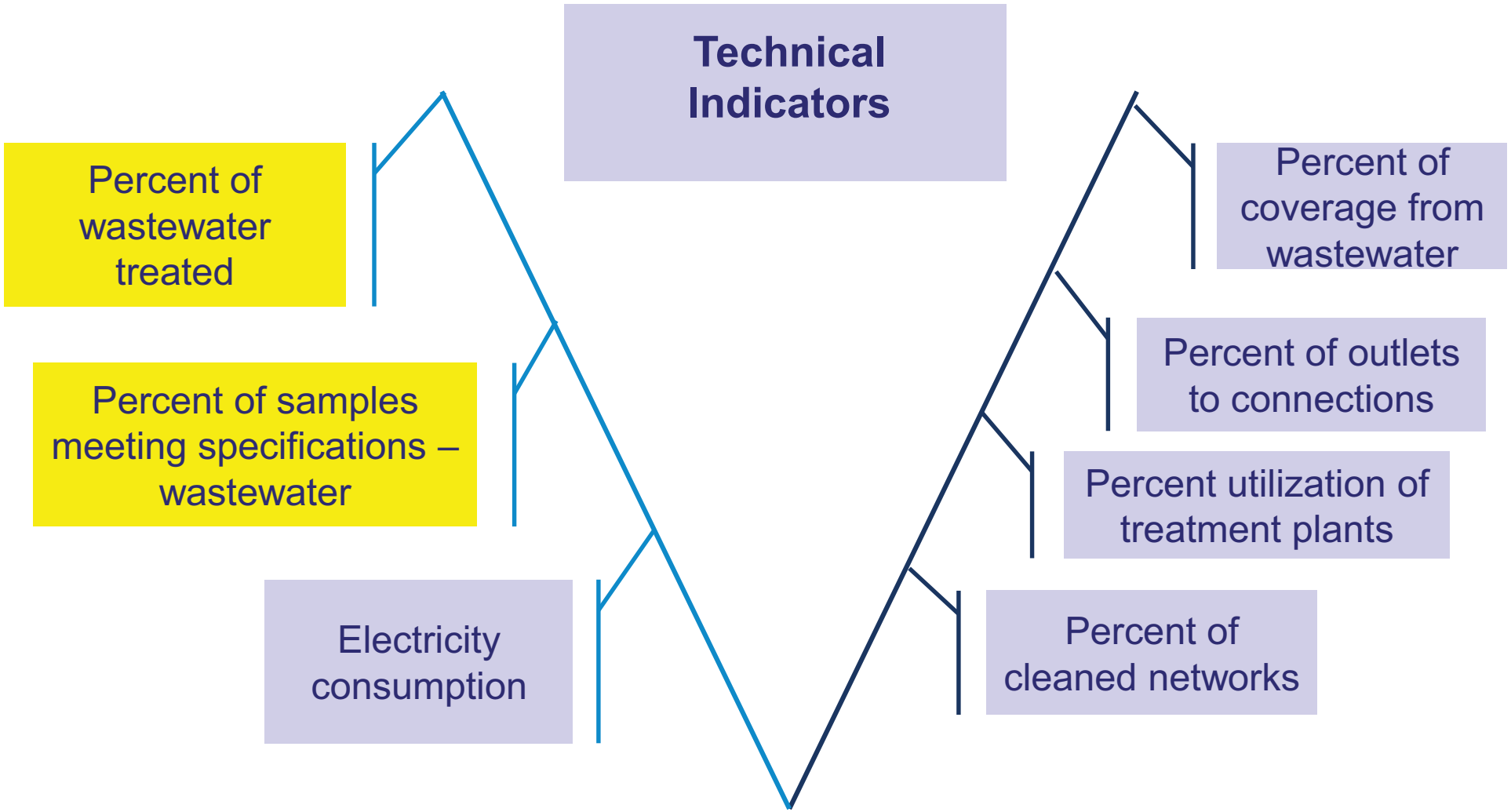
Water Indicators



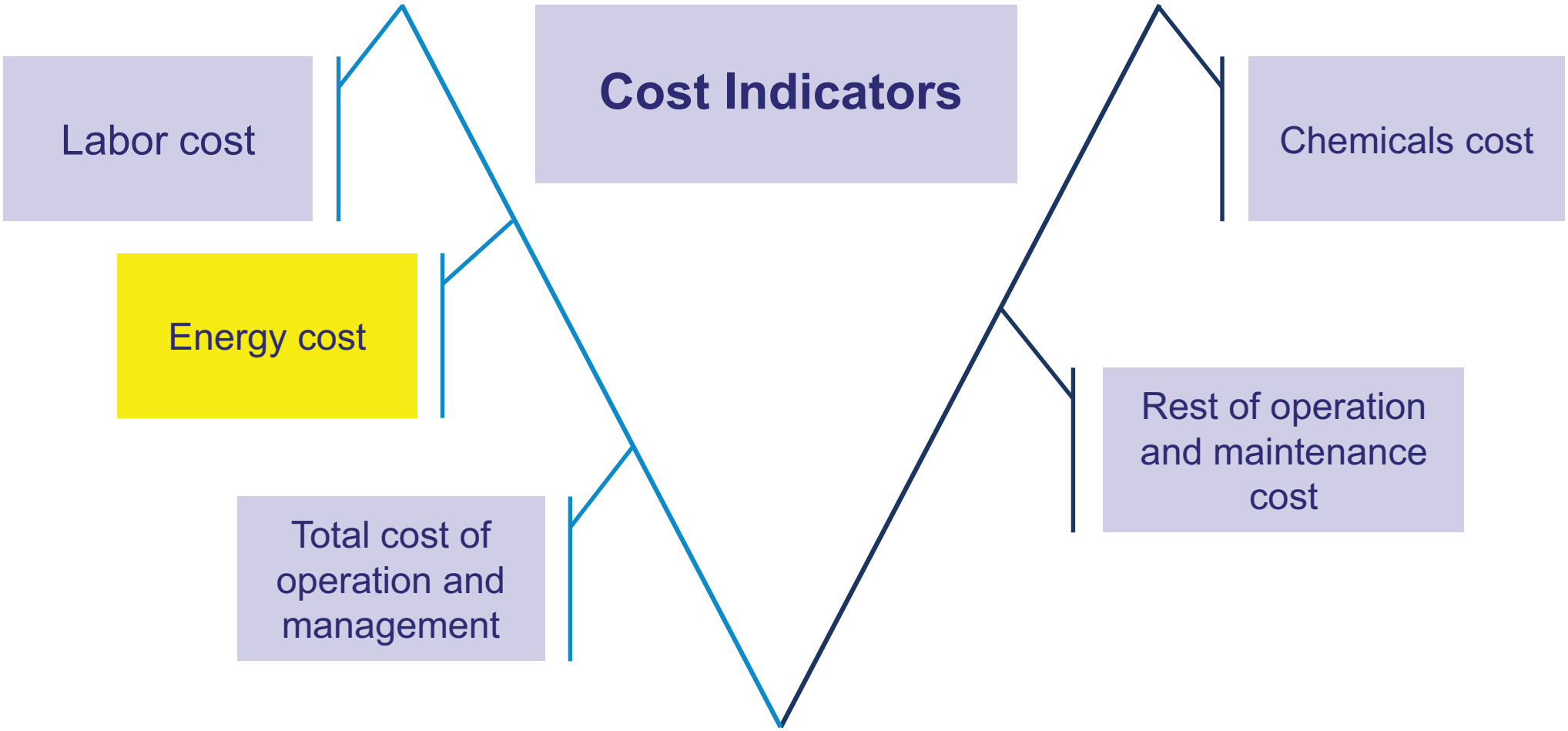
Holding Company for Water and Wastewater



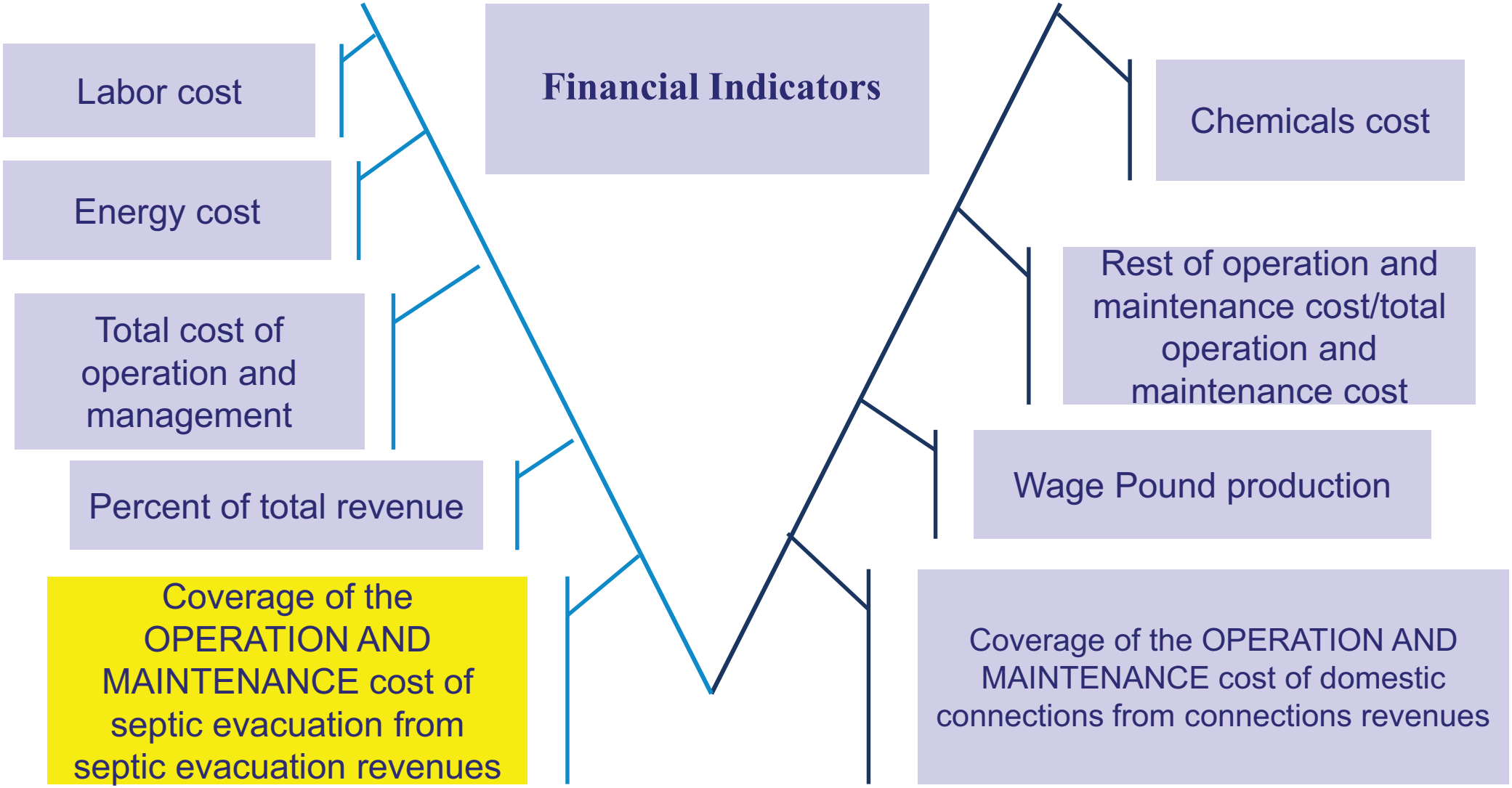
Wastewater Indicators



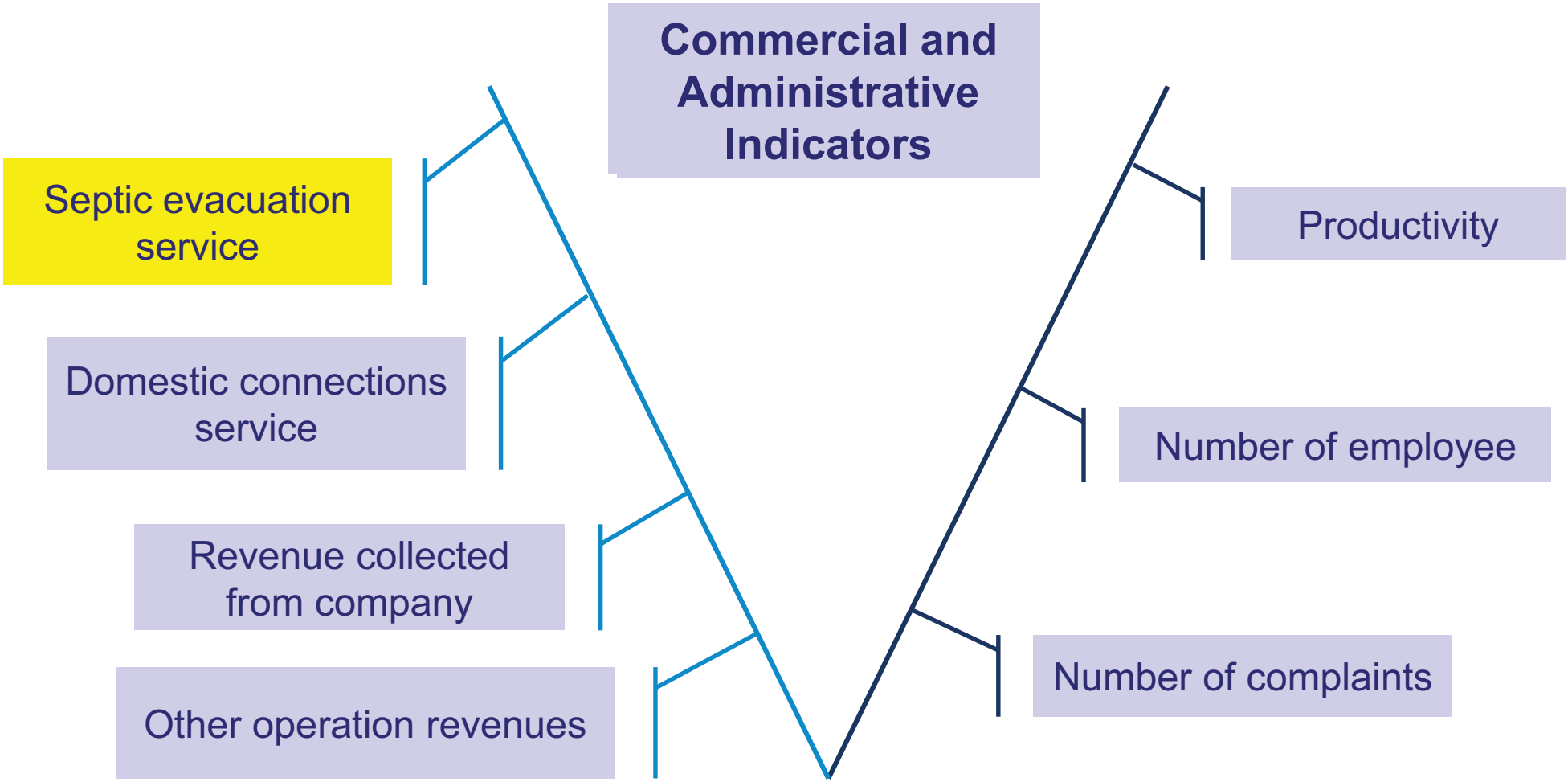
Wastewater Indicators



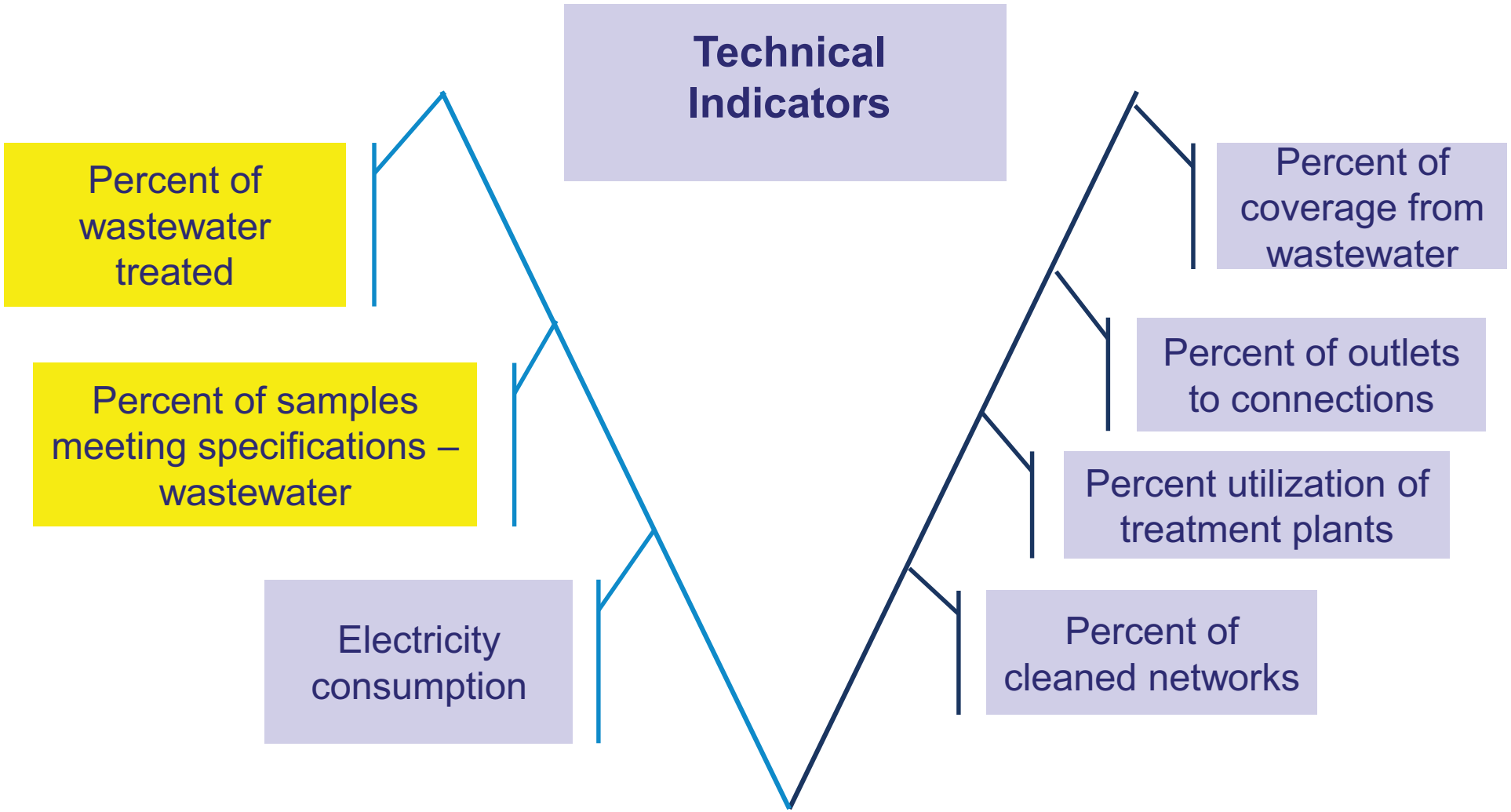
Wastewater Indicators



Wastewater Indicators



Wastewater Indicators



Lessons Learned

1. Sewage Tariff In Egypt is a percentage from Water Bill & there is no constant value (no direct charge) for Sewage Tariff.

2. Water leakage mentioned includes physical leakage & illegal connections so it's hard to separate the two values, and this should be considered when calculating efficiency

3. Population data needed for year 2012 based on mathematical & geometric method, as the last official census is from the year 2006; and some cases it is necessary to make a survey to check the actual population & household size figures, which is not easy.

Challenges

4 It is hard to determine the served population by public taps, and definition of served and un-served differs in Egypt from international definitions.

5 Meters in Egypt are not a reflection of the number of subscribers; and it is hard to determine population served from data collected from meters.

6 Definition and differentiation between *urban* and *rural* is a challenge; proposed to consider alternative of *on-network* and *off-network*

Thank you