



**Ministry of Housing, Utilities & Urban
Communities**



**General Organization for Physical
Planning**

Cairo's experience with green infrastructure to detect water leakage and reduce losses

Prepared by

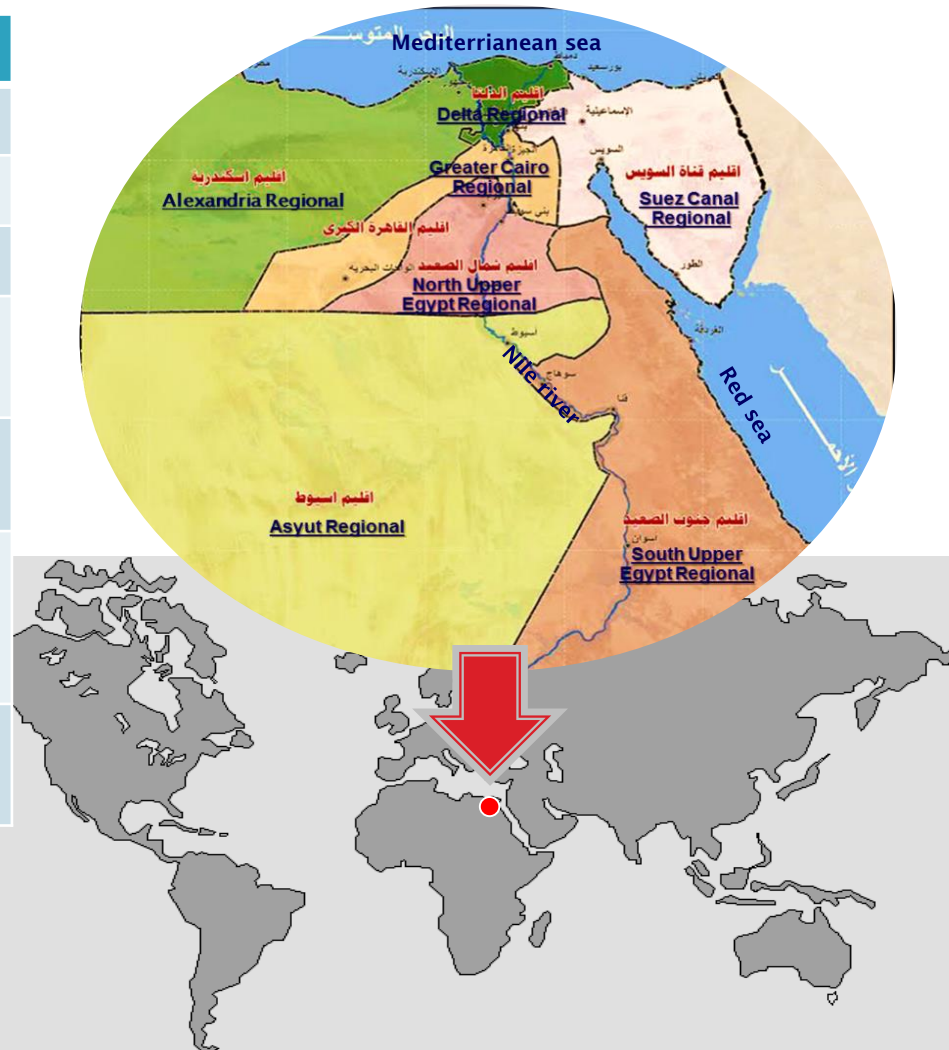
Dr. Ahmed Saad Abou Srea

**The head of central department of
infrastructure planning - GOPP**

Arab Republic of Egypt

Egypt is located in the north-eastern of Africa.

Total area	1 million Km²
Number of regions	7 (27 gov)
Population	100 million
water production	30 mcm/d
Water service coverage	98%
Annual rate/ capita	650 m³ < 1000
Treated domestic waste water	13.4 mcm/d (45% of water production)
Waste Water service coverage	65%



Water consumption rationalization plan and utilization of the available water resources

- The first Pillar: (Alternative resources): **desalination** for sea water in **coastal governorates** and **groundwater plant**
- The second Pillar: (Water reuse): by **expanding construction of sewage treatment plants** (WWTP) in Upper Egypt and **rehabilitation** and **converting secondary to tertiary treatment**.
- The third Pillar: (Reducing the rate of losses in drinking water): rationalizing water consumption (**installing** saving private parts), **reducing commercial and industrial losses**, providing household meters, **and raising awareness to reduce** consumption.

Cairo Governorate

Cairo is the capital of Egypt, and the largest Arab city in terms of population.

Total area	3085 Km
Number of water stations	11
Total design capacity of WTP	6 mill m ³ /c
Actual capacity produced of WTP	5.3 mill m ³ /c
Population	14 million (includes v
Rate of consumption (Including domestic, services, commercial, industrial)	380 l/ (280 l/c/d A
Coverage area	100
Number of serviced districts	39
Total length of water network	13370 thousand km



Current Situation

- Reducing the rate of drinking water losses in networks from:

34 % (2014)

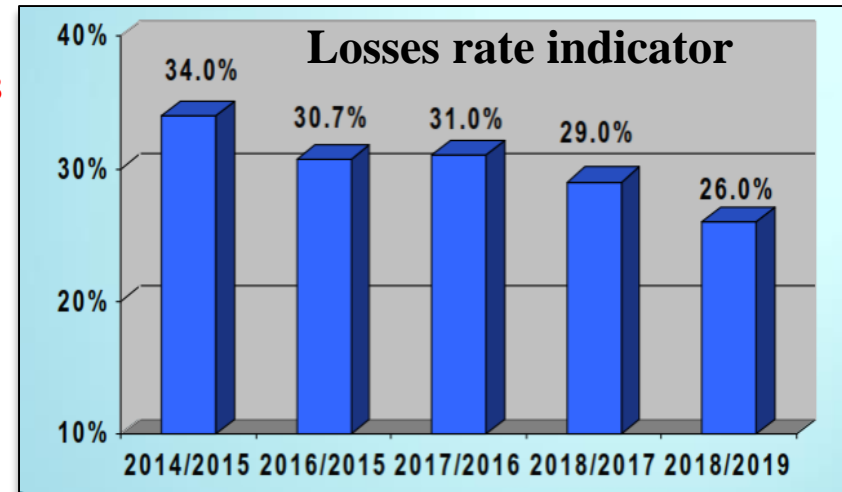


26 % (2019)

- To save amount of water = **491428 m³**

Challenges

- Lower Nile water level.
- New urban expansion.
- Increasing the demand of water supply due to changing from low-density residential to High-density.
- Negative effect of implementation of infrastructure after water networks.



Rehabilitation plans for water network projects

