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Regional meeting of the **Megacities Alliance for Water and Climate (MAWAC)**

(Tehran)

Presenter: (Ali CHAVOSHIAN, Director, Regional centre on Urban Water Management, Tehran Megacity)



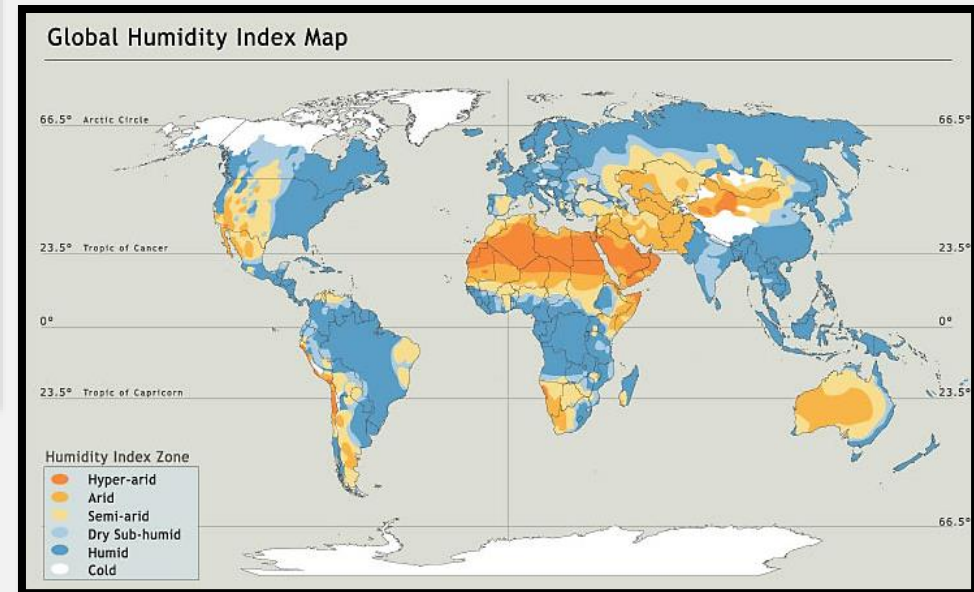
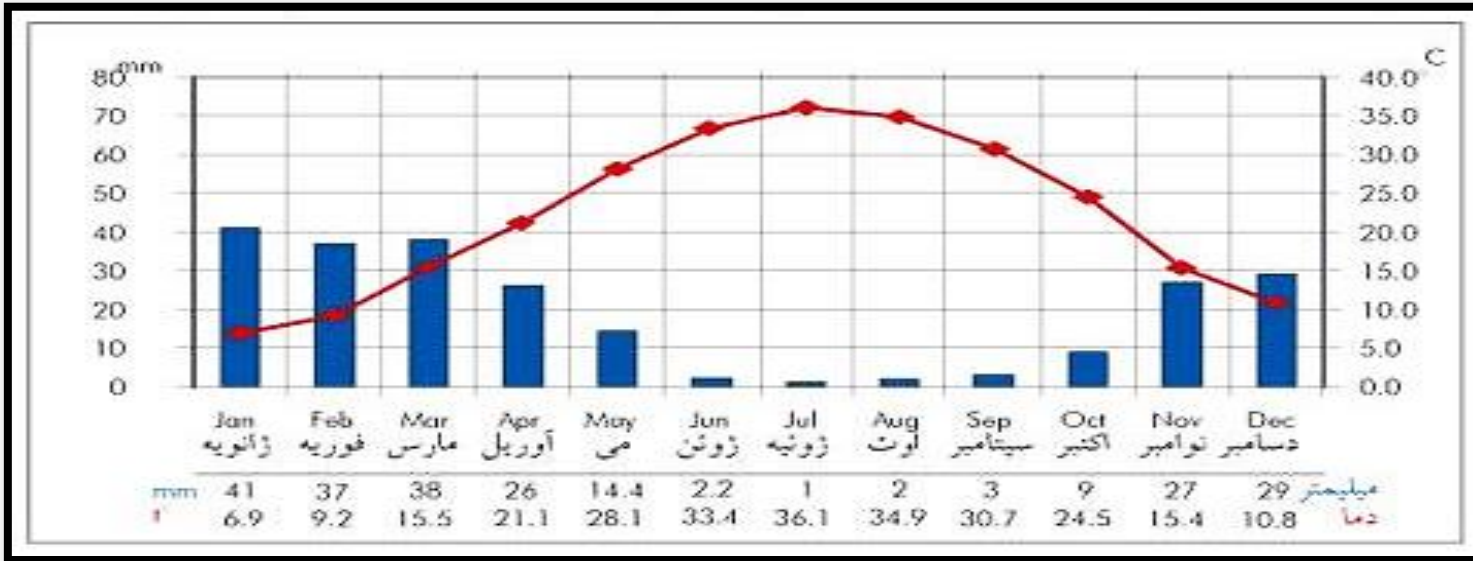
A brief about Tehran

Tehran Megacity is the most populous city in Iran and Western Asia with a population of around 8.8 million in the city and 15 million in the larger metropolitan area of Greater Tehran.

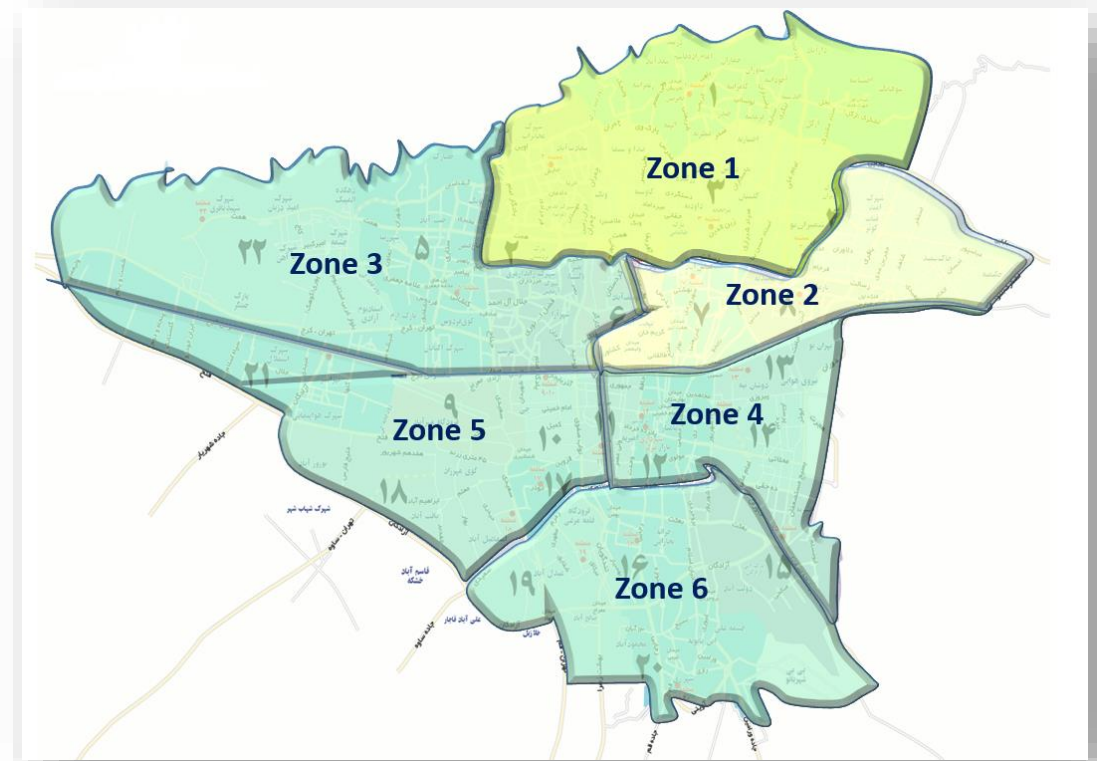
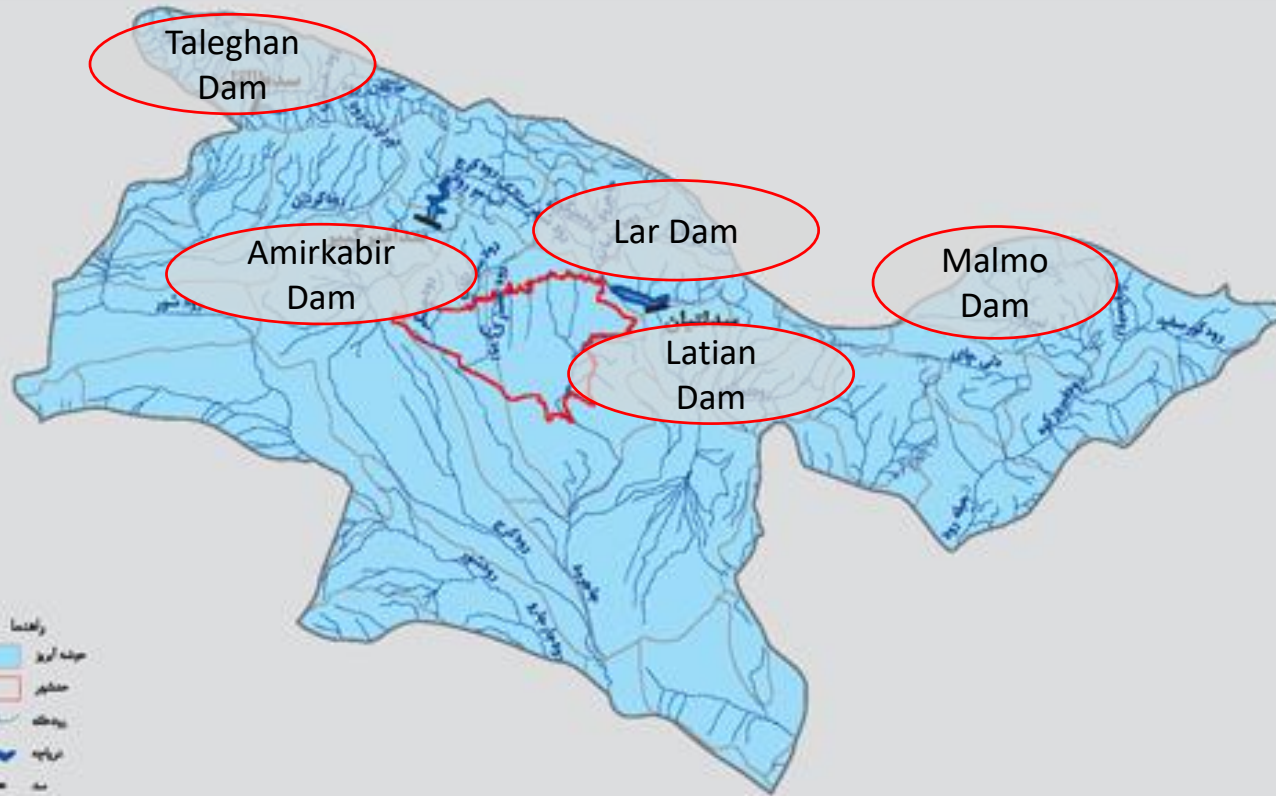


Climate of Tehran

- Tehran's climate is arid to semi-arid
- Average annual precipitation in the North of Iran is over 700 mm and in the South of Iran is less than 200 mm.

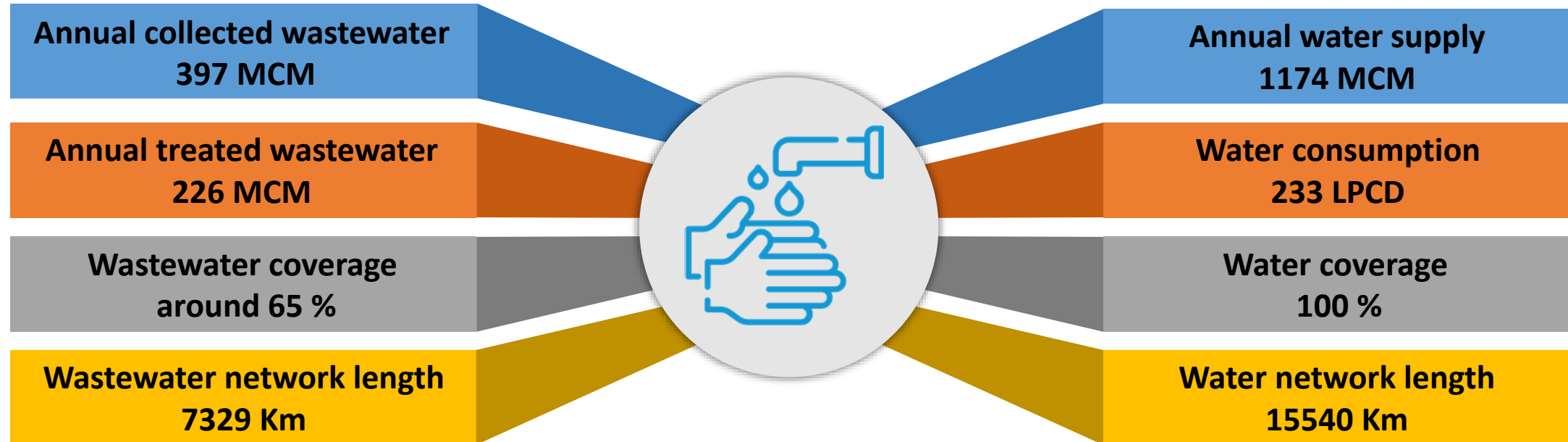


Major Water Resources and Water Supply Zones



- 5 dams are contributing to around 50% of water supply network of Tehran Megacity. The rest is coming from groundwater.
- Tehran water supply has divided 6 zones. The coverage is 100%
- 53 specialized laboratories are checking water quality of Tehran Megacity in close cooperation with Ministry of Health.

Drinking Water and Wastewater Collection System



Tehran Water and Wastewater Treatment Capacity

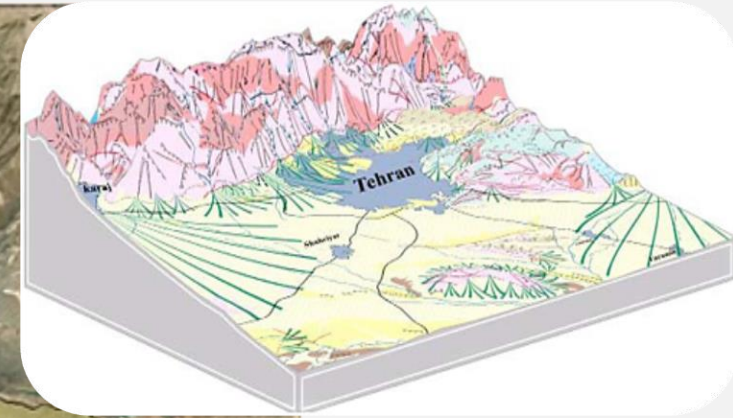
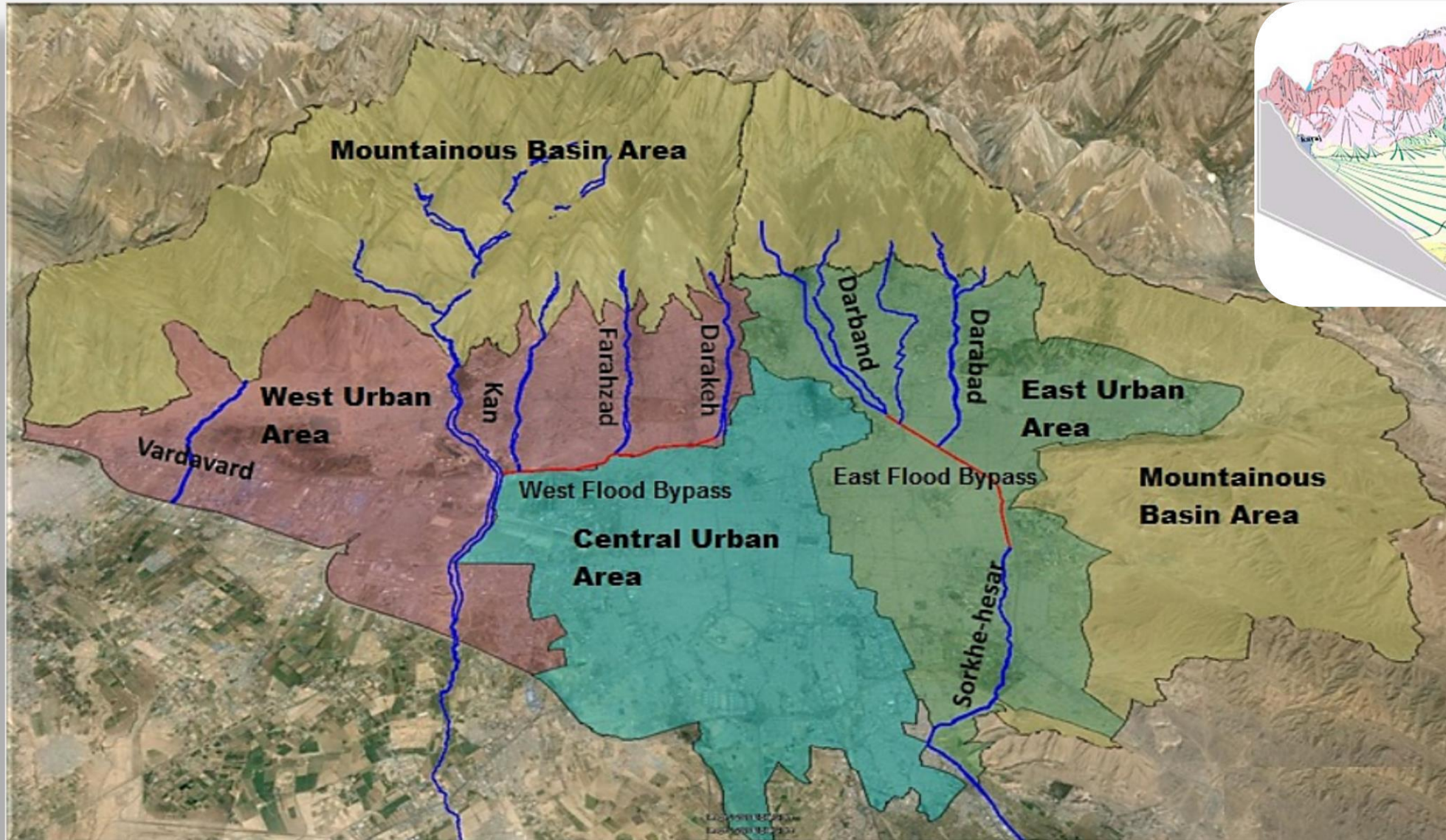
Water Treatment Capacity: 2,782,000 m³/day
32.2 cms



Wastewater Treatment Capacity: 735,000 m³/day
8.5 cms

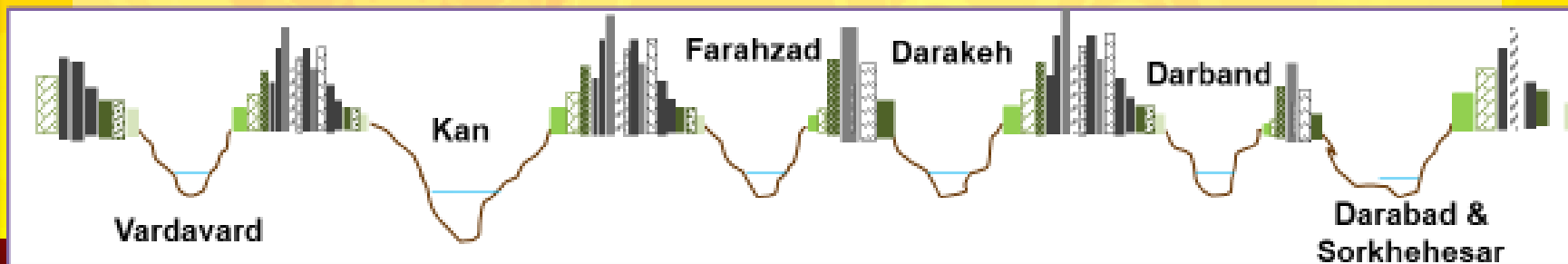


Tehran Megacity Basins and Urban Rivers

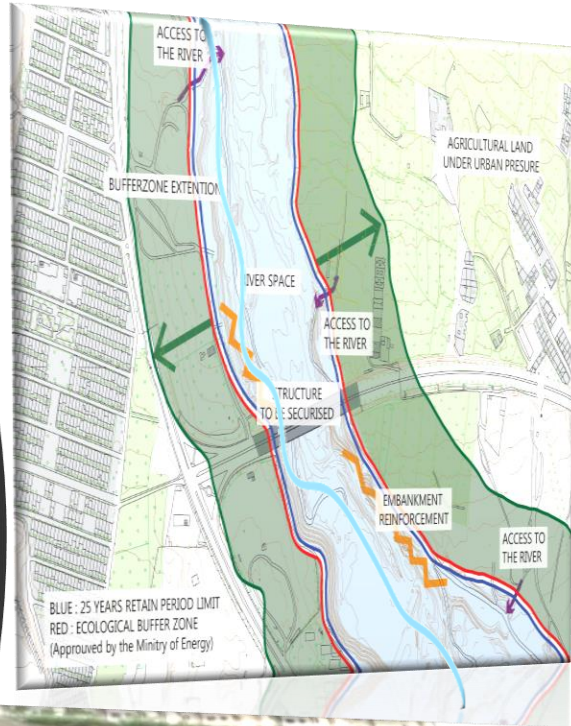


Tehran Rivers Information

River Name	Length (km)	Basin Area (km ²)	Mount. Basin Area (km ²)	Urban Basin Area (km ²)	Peak Elv. (m)	River Flow Regime
Vardavard	18.5	145.0	69.0	76.0	2901	Seasonal flow in about 25% of the year
Kan	95	518.0	204.0	314.0	3400	Perennial
Farahzad	12	39.7	23.1	15.6	3400	Seasonal flow in about 75% of the year
Darakeh	10	43.7	26.7	17.0	3750	Seasonal with flows in about 75% of the year
Darband	5.5	22.8	21.4	1.4	3964	Almost Perennial
Darabad	12.5	45.3	23.6	21.7	3525	Almost Perennial
Sorkhe-Hesar	16.4	132.9	81.5	51.4	3836	Seasonal flow in about 25% of the year



Tehran Urban Rivers Restoration



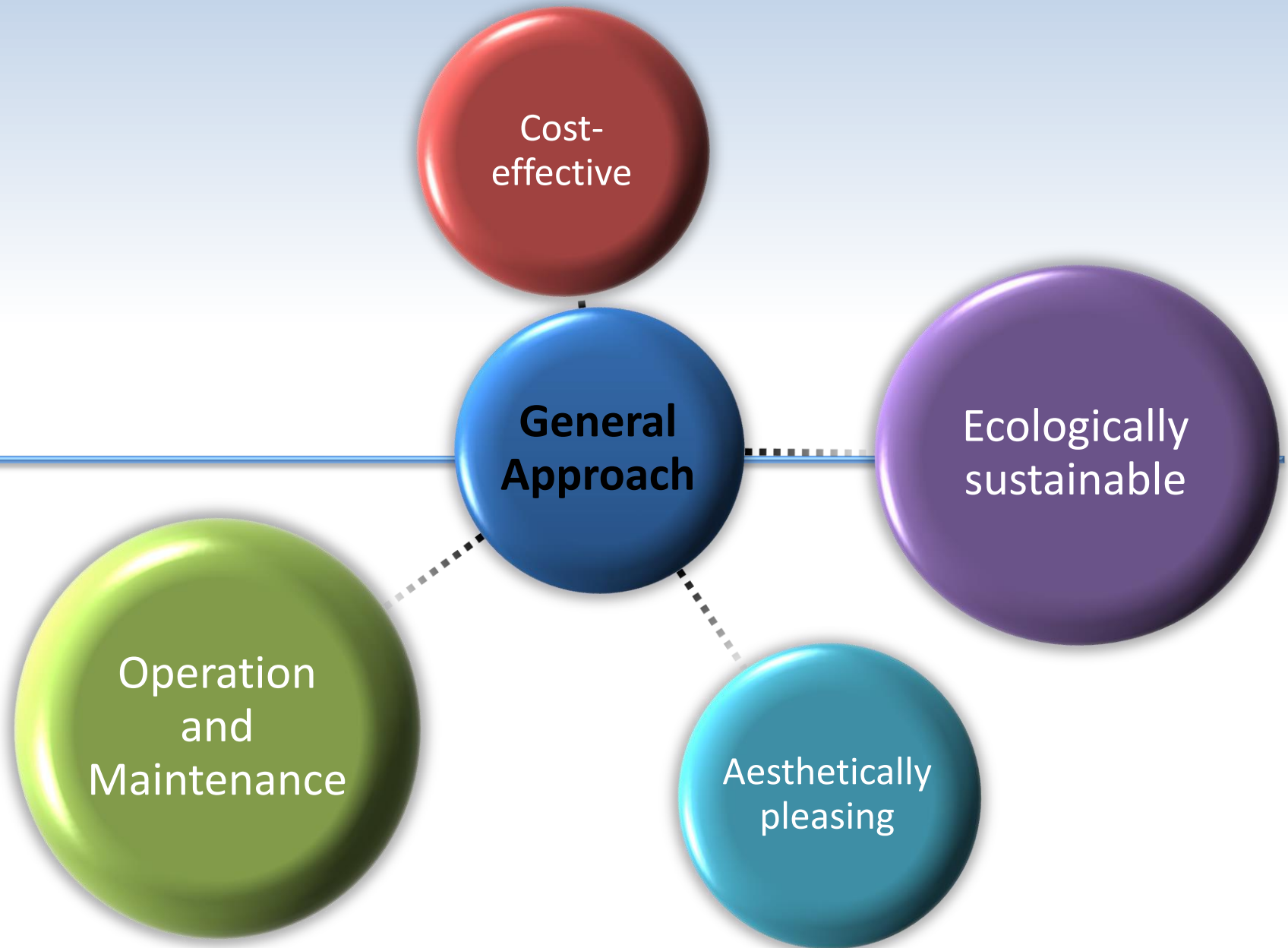
Excellent Merit Award:
International Society of City
and Regional Planners,
ISOCARP



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River Restoration Objectives

Safety



Storm Water Management (Urban Flood)

- **Main Storm Water Drainage Channel Length: 516 km**
- **Sediment Retention : 20 sites**
- **Flood Detention Volume: 710,000 m³**
- **Tehran surface water network within the municipality territory is about 170 km.**



Key Players in Water and Climate in Tehran



Ministry of Energy: In-charge of water resources management and service of drinking water supply and sanitation

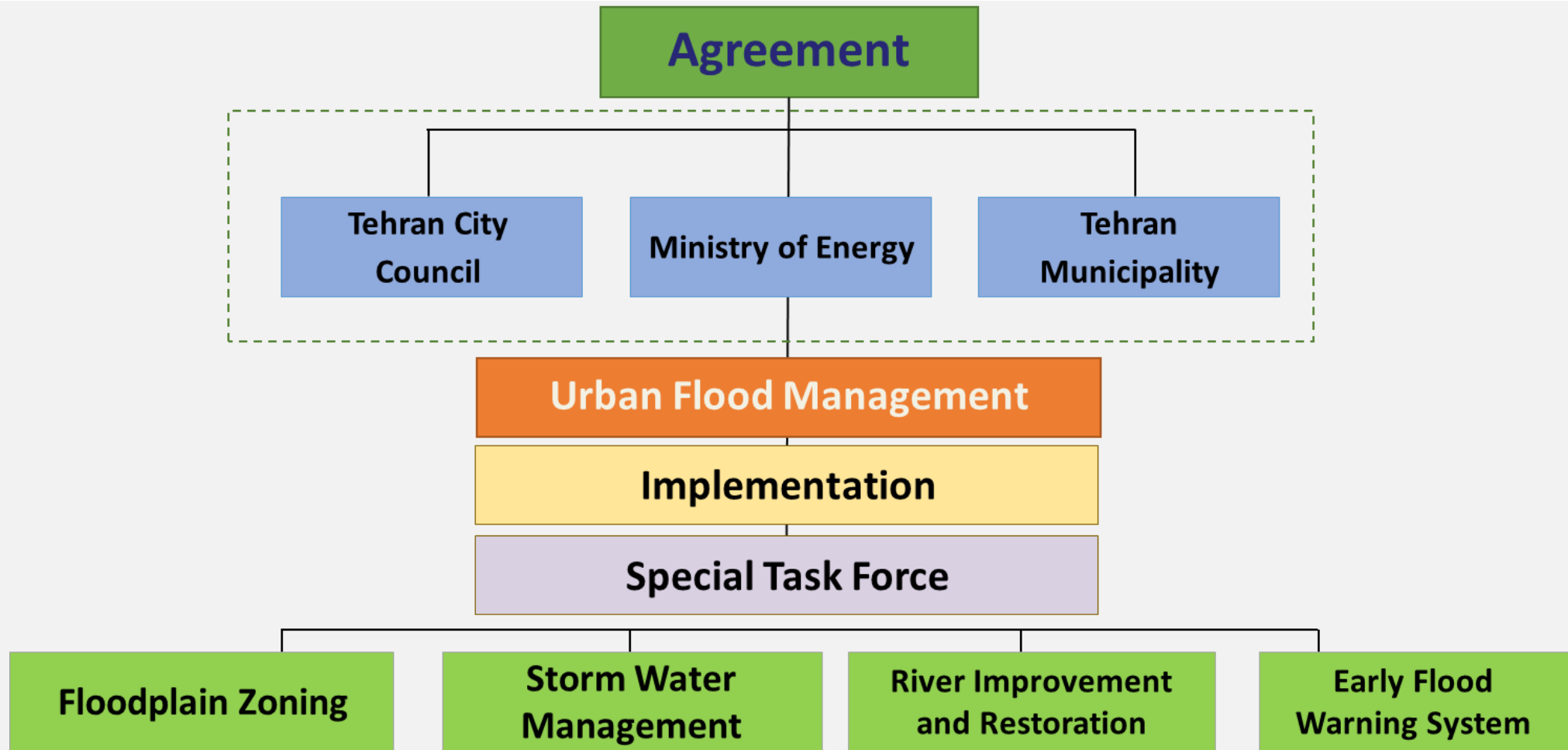


Tehran Municipality: In-charge of urban planning, sustainable environment management, public green spaces as well as urban stormwater management. It is a partner of Ministry of Energy in wastewater collection and urban river management.



Ministry of Interior: In-charge of disaster management via crisis management organization

Cooperation Example 1: Tehran Urban Flood Management Structure



Cooperation Example 2: Water Supply for Green Spaces

- Sustainable water supply for green area of Tehran
- Reduce water consumption from groundwater sources by 60 % during 10 years
- Increase water supply capacity for green areas of city and forestation around Tehran by 20 times during 10 years



Thank you

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