

# **Southwest Asia**

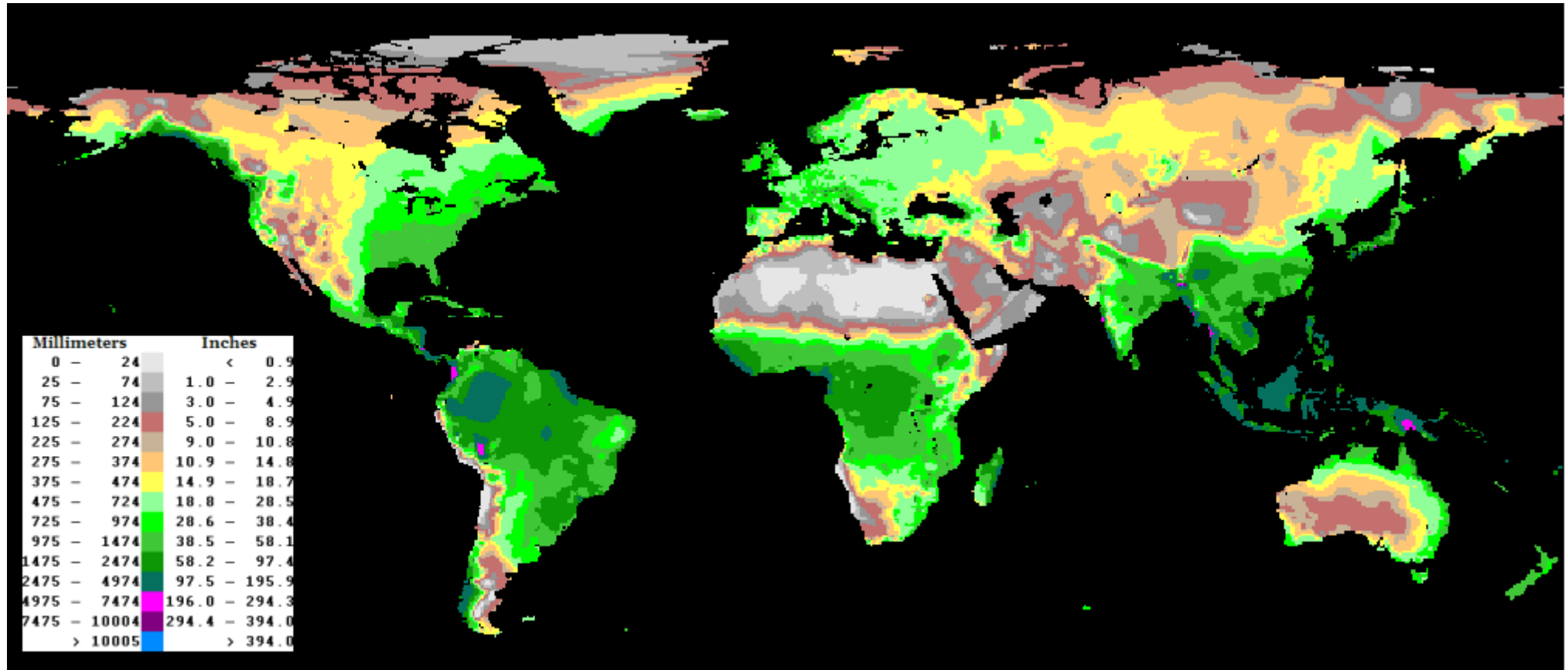
**Environmental Issues**

**#9**

Everything written in **RED**, **Highlight!**

# Pollution

- **Many countries in Southwest Asia are experiencing the increasing problem of water pollution.**
- **Per-capita (per person)** availability of safe drinking water here is the worst of any region in the world.
- **Contaminated water sources have greatly reduced the amount of clean water available for drinking.**



# Pollution Causes

- **Southwest Asia's biggest pollution problems come from human sewage, agricultural runoff, and industrial waste.**
- Rapid growth of industry in cities and towns has caused garbage and sewage to build up in rivers and streams.
- Towns without proper sewer systems dump untreated human waste directly into rivers.
- Pesticides used in farming are washed into rivers or seep into groundwater.



# Tigris River Pollution

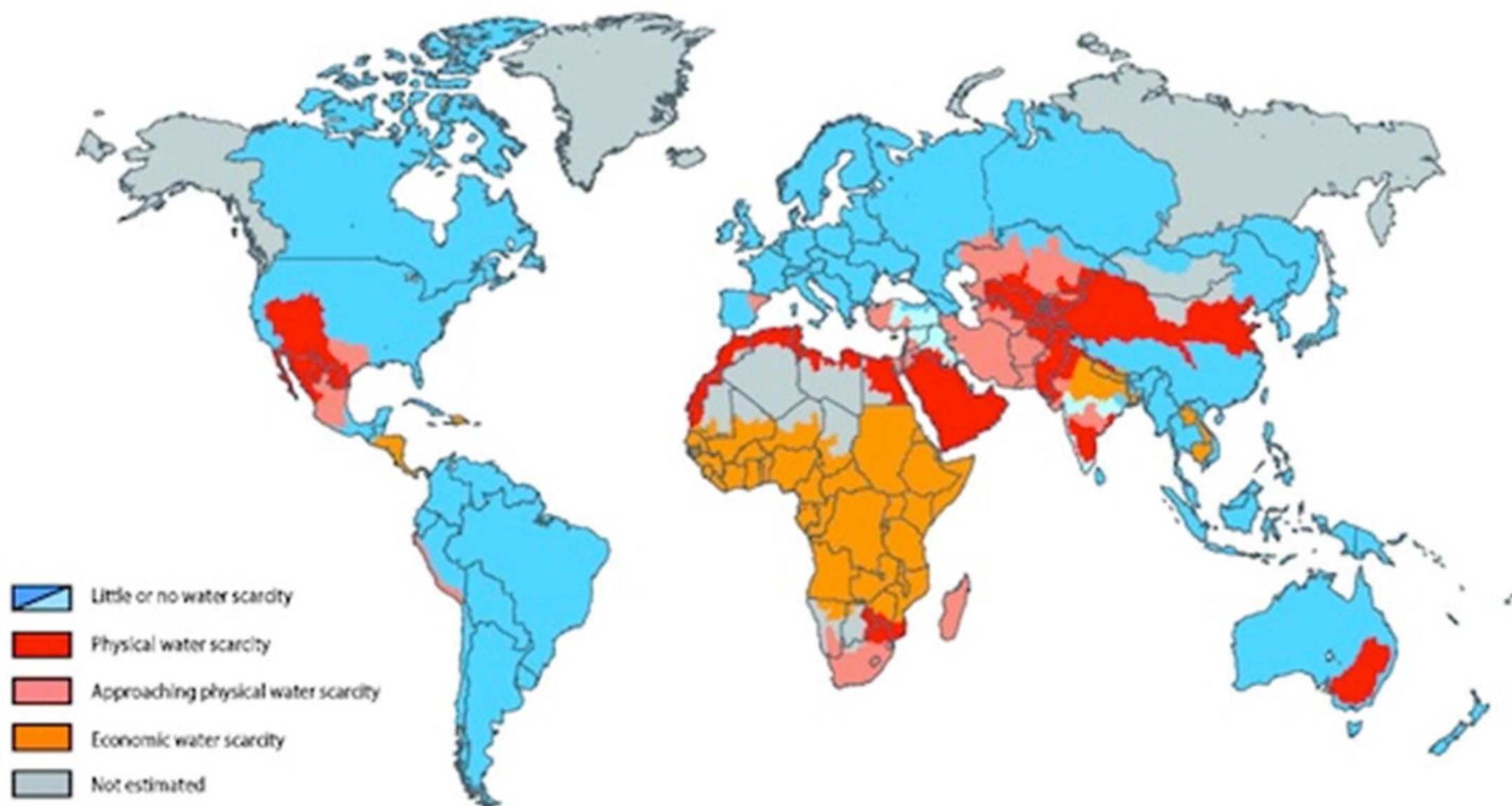




# Water Access

- **Water availability is also a major concern in Southwest Asia.**
- Less than 1% of the world's fresh water is available to the area's inhabitants (5% of the world's population).
- Main Rivers: Tigris & Euphrates

## Areas of physical and economic water scarcity





# Scarcity

- Water is a precious resource and there is simply not enough available to meet the population's needs.
- **Middle Eastern countries are constantly in conflict over these water problems.**
- Let's take a look at how water is distributed in several of these countries.



# Turkey

- **Turkey has a “water advantage” over other Middle Eastern countries because the Tigris and Euphrates rivers form here.**
- Turkey has developed the Southeastern Anatolia Project, which consists of 22 dams and 19 hydroelectric plants along the Euphrates River.
- This project has greatly improved the standard of living for Turkey’s citizens.







# Turkey

- Unfortunately, the country has had to deal with the increasing problem of water pollution.
- Chemical fertilizers from agriculture and industrial wastes from industries pollute the rivers.
- Pollution also comes from oil spills in the Black Sea.

# Water Pollution in Istanbul



# Syria

- **The dams that Turkey built along the Euphrates have greatly reduced the amount of water reaching Syria (40% less).**
- Syria already suffers from food shortages, and irrigating (to supply water to) new land is extremely difficult with the diminished water supply from the Euphrates.
- In order to keep some water in the country, Syria has also built dams along the river.
- This has reduced the river's flow into Iraq, thus causing more conflict









# Lake Assad – Syria's largest reservoir was created in 1974



# Iraq

- **The dams that Turkey & Syria built along the Euphrates have also greatly reduced the amount of water reaching Iraq (80% less).**
- **This has negatively impacted the country's food supply.**
- Wheat and rice production has decreased dramatically, and many farmers are now without jobs.
- Iraq also faces water pollution problems as a result of industry and petroleum drilling equipment.
- Also, three decades of warfare have caused damage to Iraq's water treatment plants.







**The Glory Canal (built by Saddam Hussein in 1993) was a disastrous project that diverted natural water flow from the country's marshes and converted wetlands into desert.**



# Israel

- Since its creation in 1948, Israel has developed new technology and advanced farming techniques that have turned the once-barren desert land into farmland.
- Because rainfall is down, Israel has to rely on drawing water from its aquifers (access to underground water).
- Unfortunately, the aquifers are in jeopardy because more water is taken out than is replenished by rain.
- **Israel has been involved in many conflicts over water rights to the Jordan River with Syria, Jordan, and Palestine.**



■ Mount Hermon

■ Hulah Valley

SYRIA

ISRAEL

■ Sea of Galilee

■ Yarmouk River

WEST  
BANK

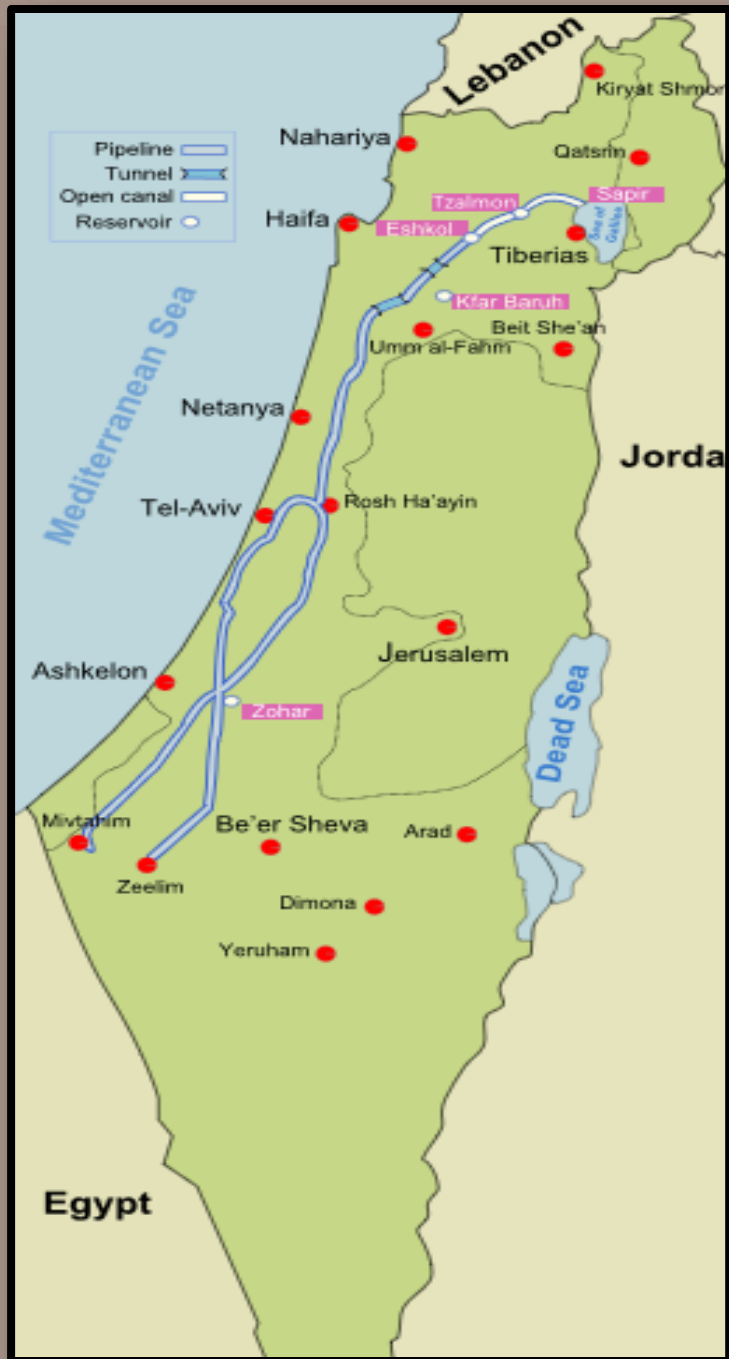
JORDAN

GAZA  
STRIP

■ Dead Sea

== Jordan River





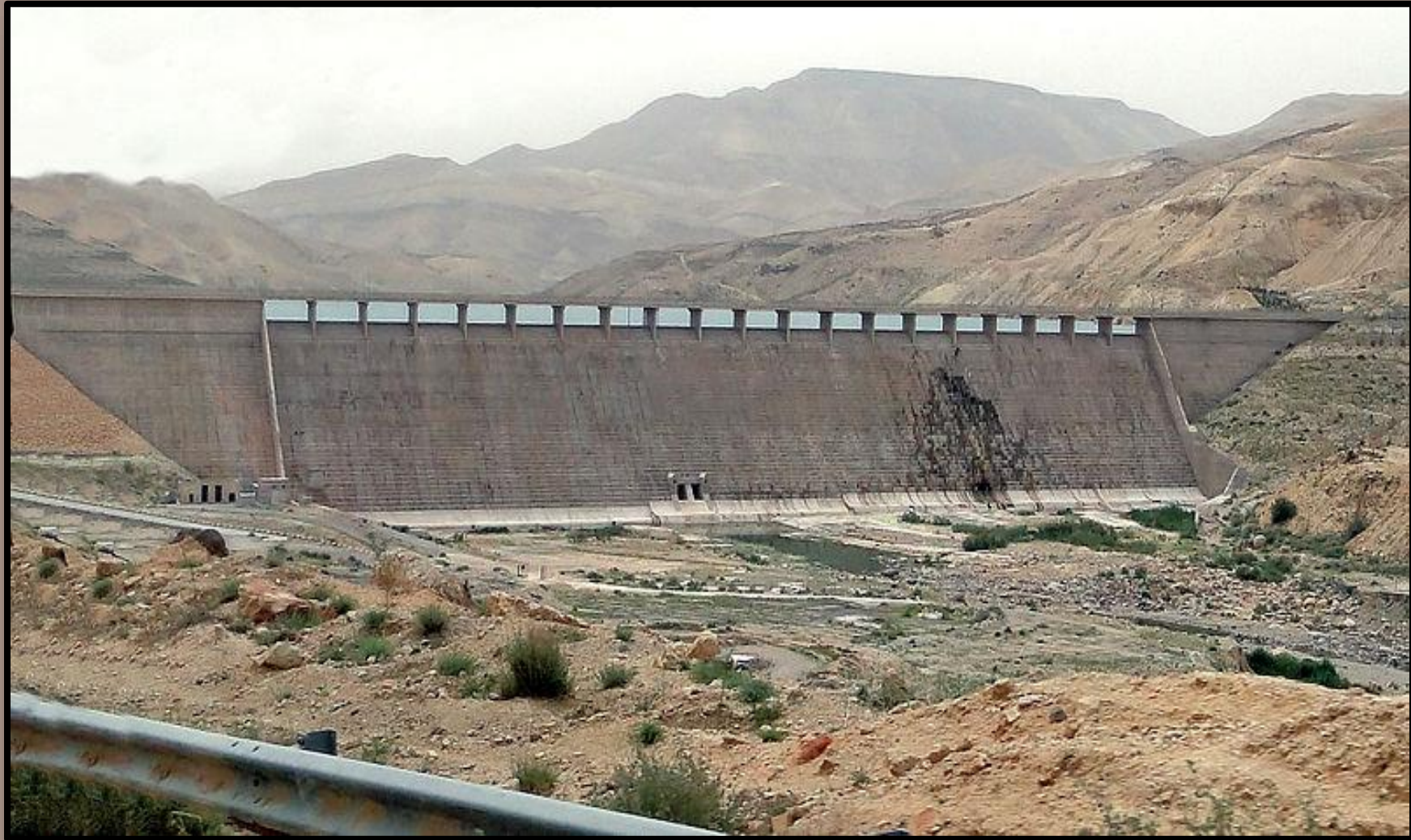
## National Water Carrier of Israel

–  
A pipeline that transfers water from the Sea of Galilee to the highly populated center and arid south.

# Jordan

- **Jordan is one of the ten most water scarce countries in the world.**
- Jordan cannot meet the basic needs of its people and has to ration the water supply.
- Citizens can only get water two days a week.
- The country's major surface water sources are shared with Israel and Syria, who leave only a small amount for Jordan.
- Israel has built pipelines that redirect the river's water away from Jordan and into its own lands.
- **Jordan & Israel have been involved in military battles over water rights.**

# Mujib Dam, Jordan – Desalinates brackish water from the Dead Sea

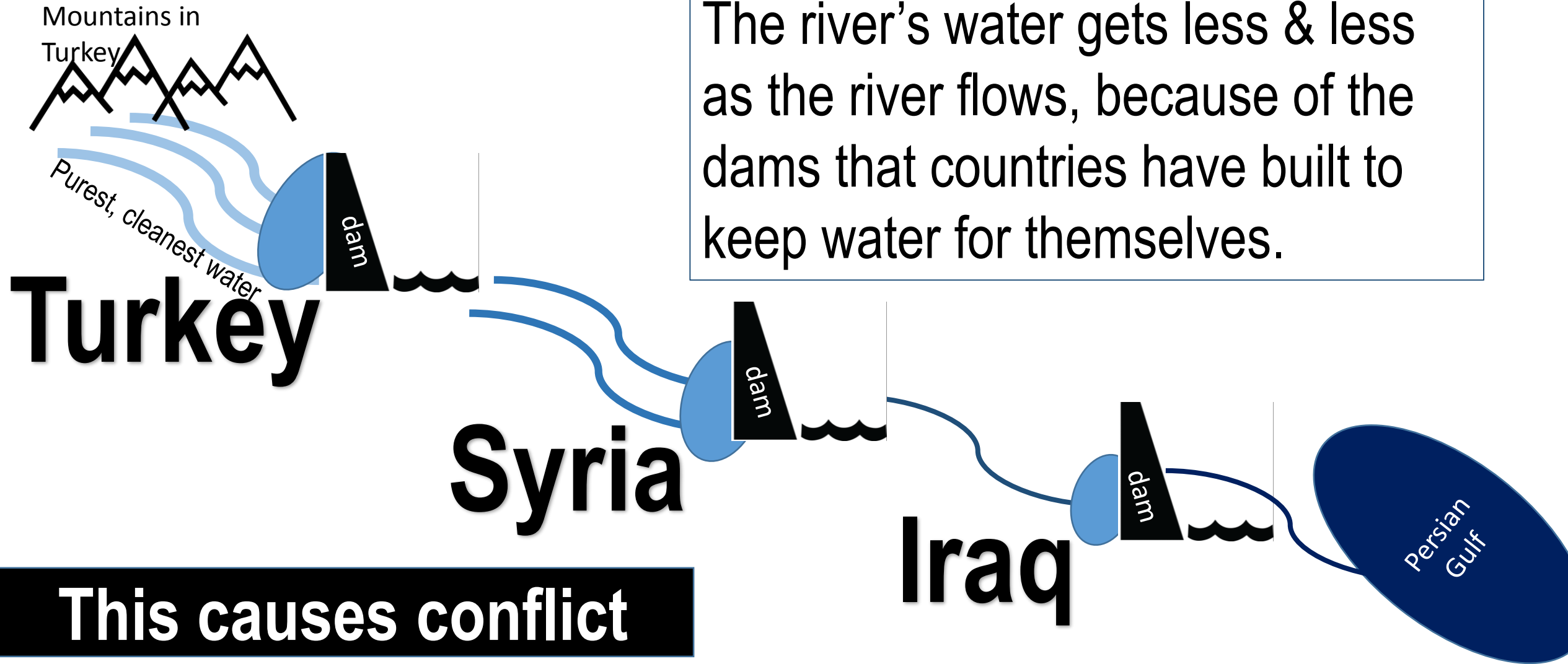




# Saudi Arabia

- Saudi Arabia has a desert climate and has struggled to meet the water needs of its growing population.
- Water is scarce in the country, and what little water that is available is of poor quality because of salt water intrusion.
- The country has built a number of desalination plants that provide most of the country's drinking water.
- **Desalination is the process of taking salt out of seawater and using it for drinking water.**

# Euphrates River Flow



The river's water gets less & less as the river flows, because of the dams that countries have built to keep water for themselves.

**This causes conflict**

# Crash Course- pollution

- <https://www.youtube.com/watch?v=kdDSRRCKMil>