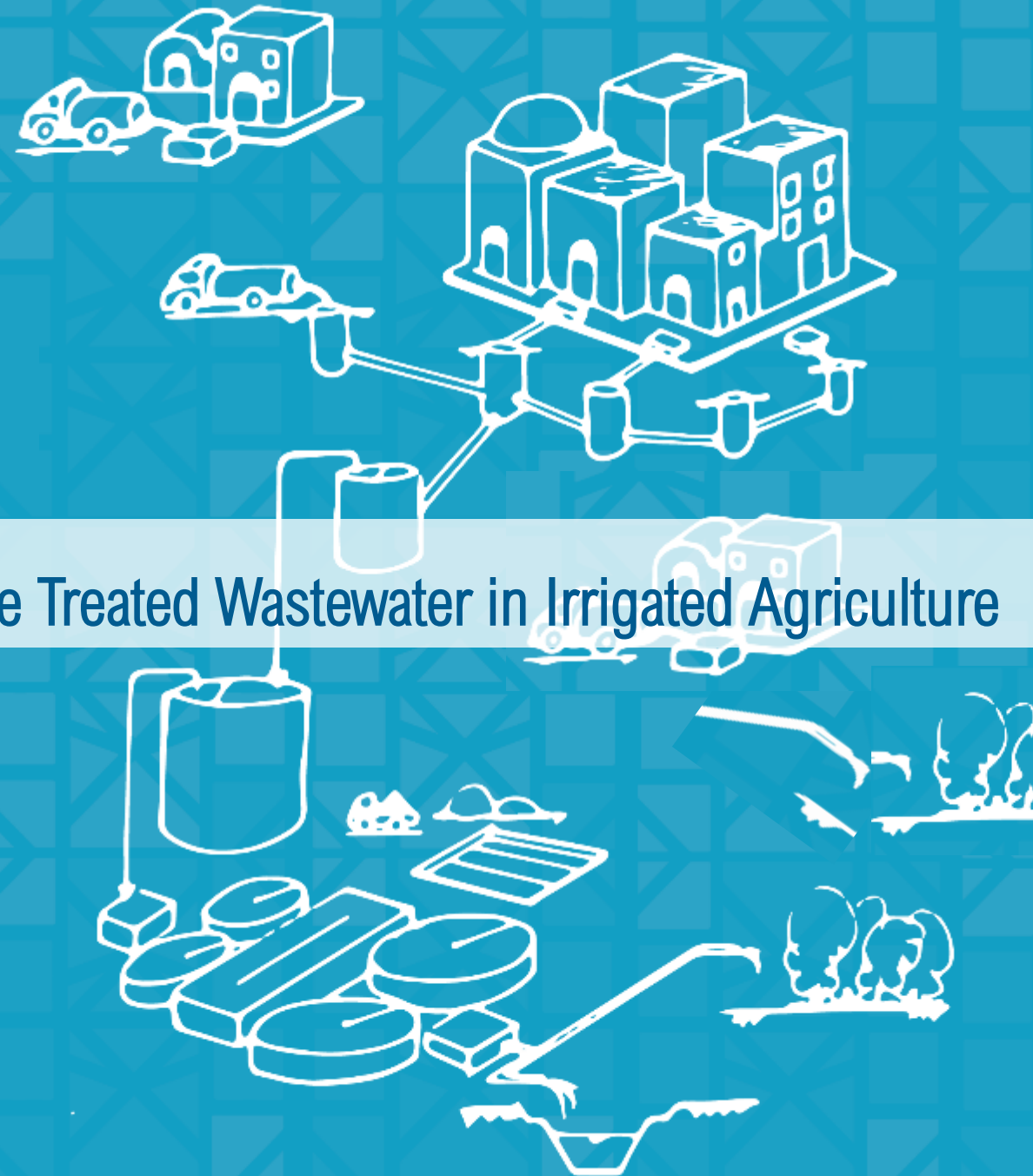


DUPC2 Webinar Series

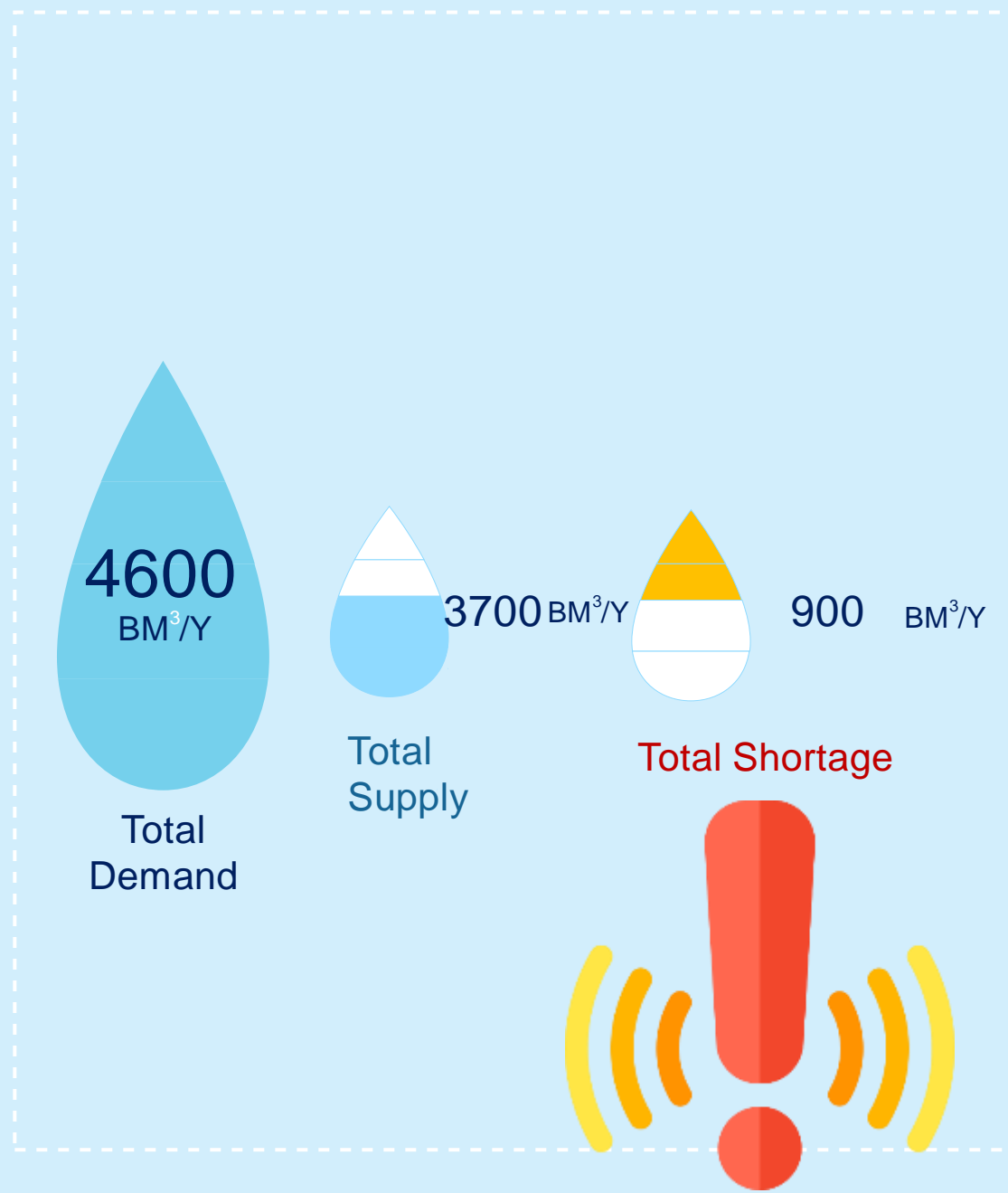
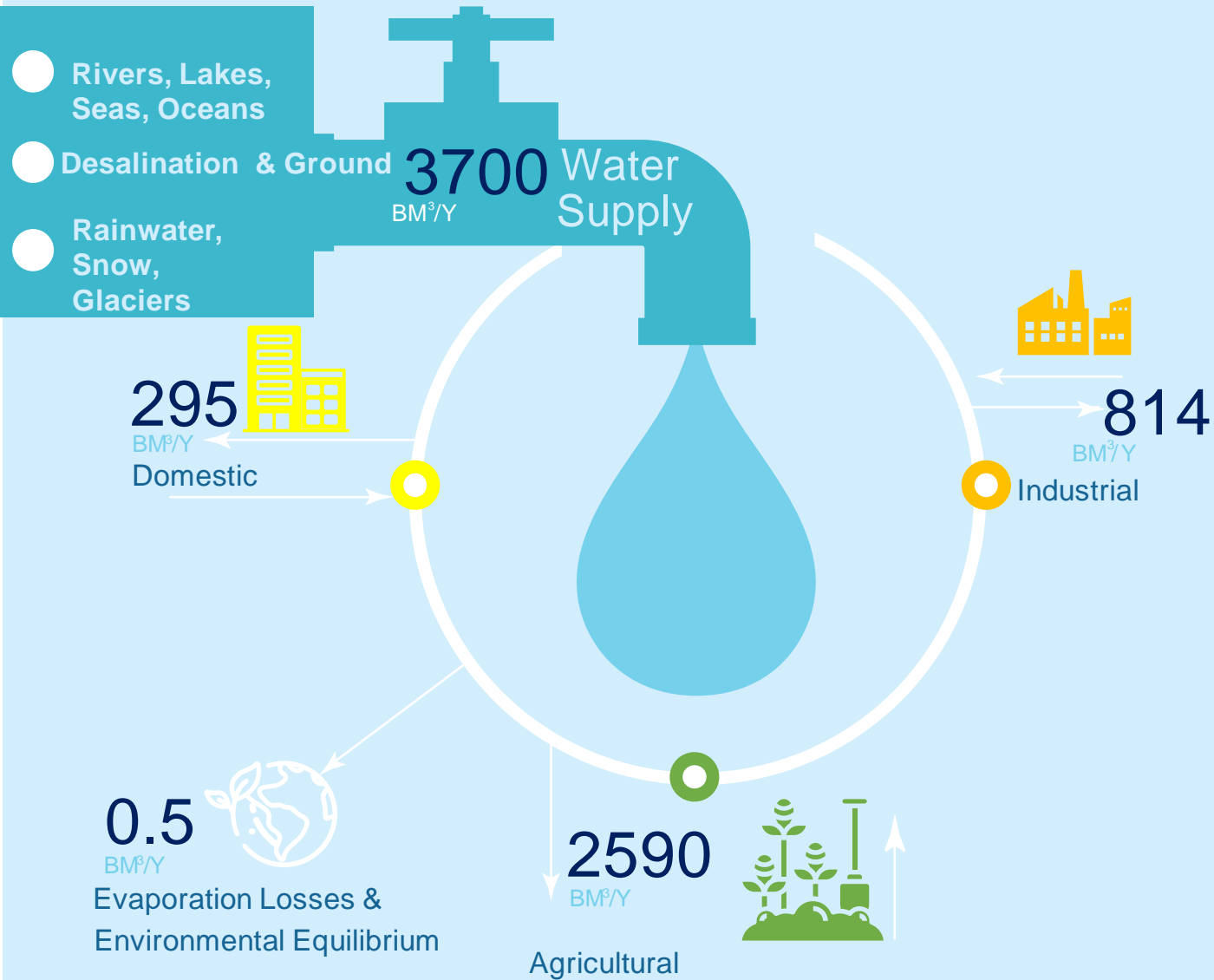
Drivers, Opportunities, and Constraints of Reuse the Treated Wastewater in Irrigated Agriculture

Hadeel Hosney,
IHE Delft Institute for Water Education
8th June 2023

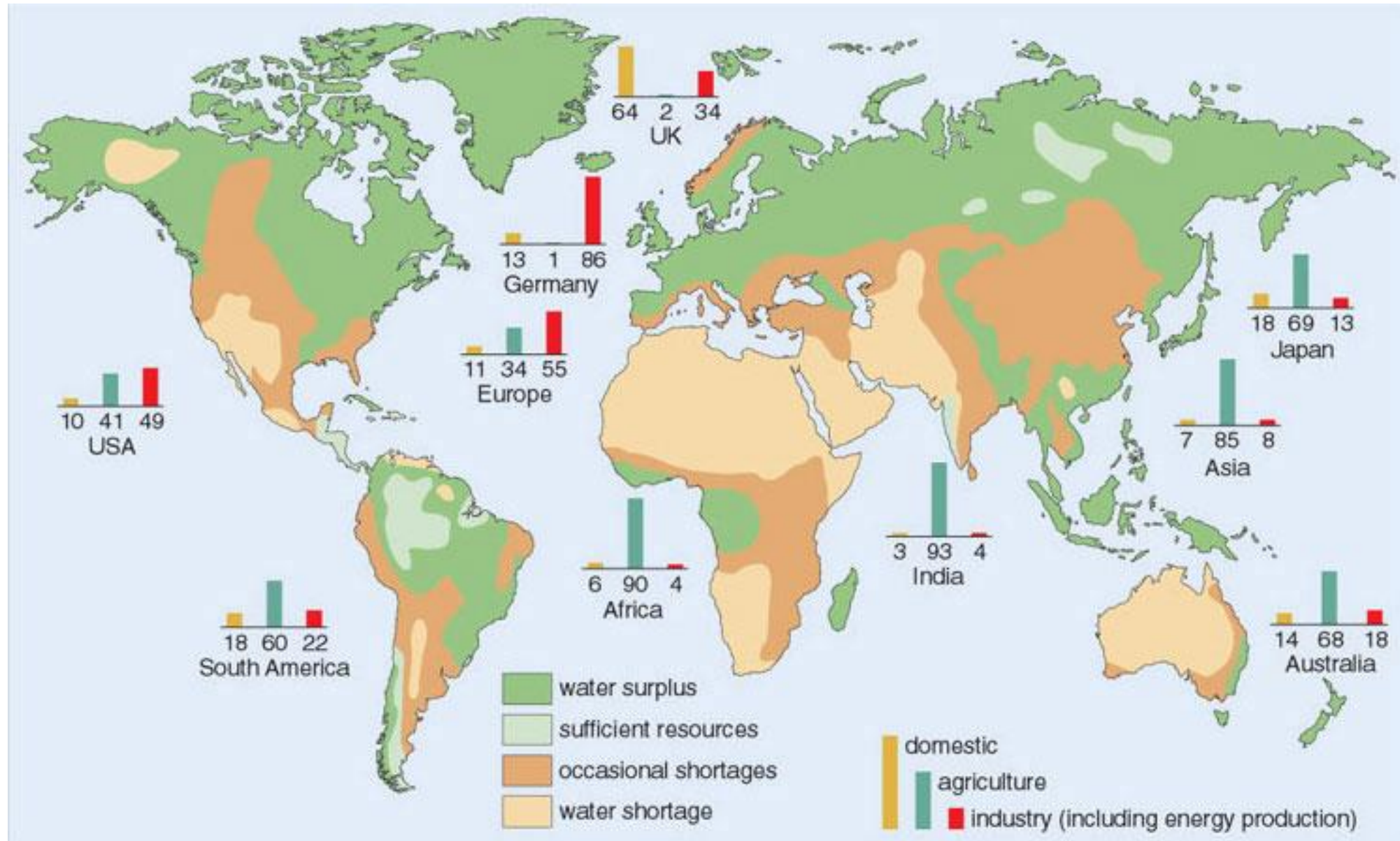




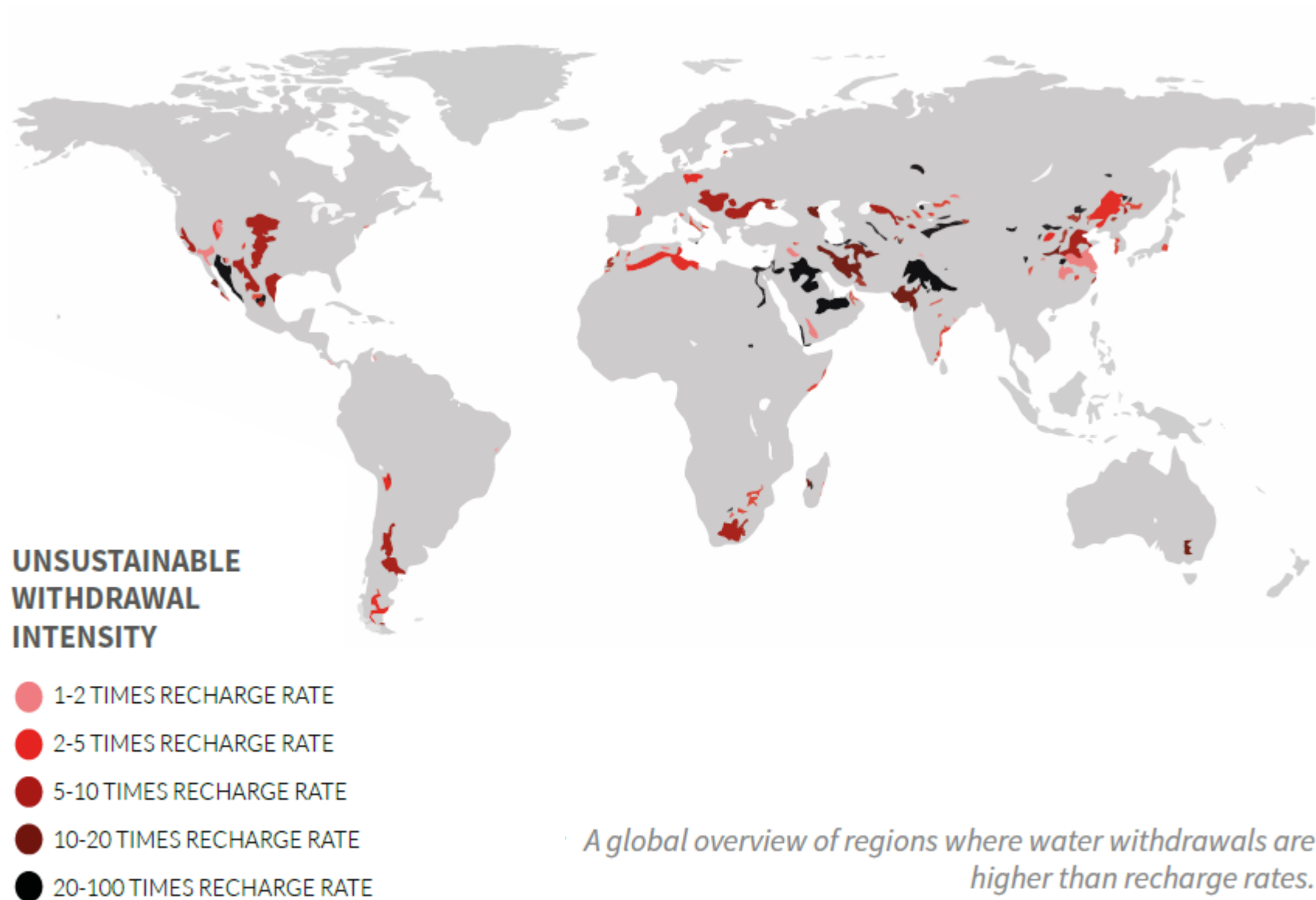
Water Resources System - Globally



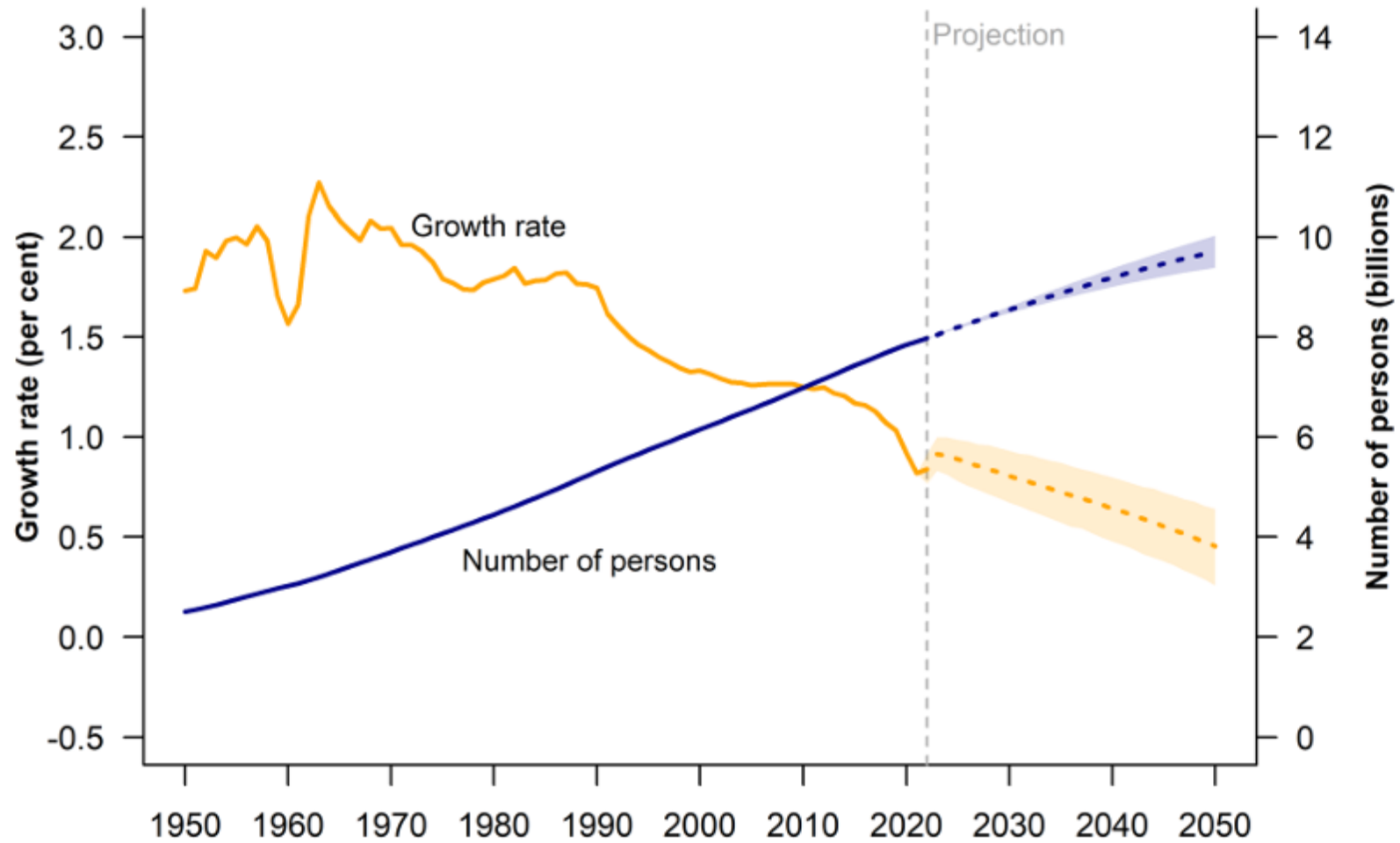
Charting the global water situation



Intensity of Unsustainable Water Withdrawals

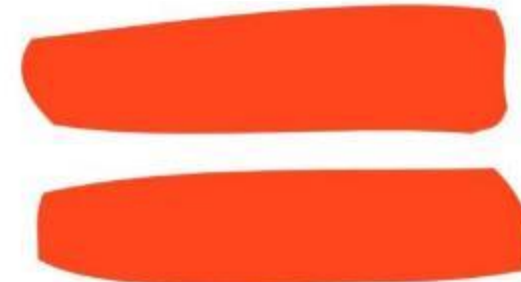
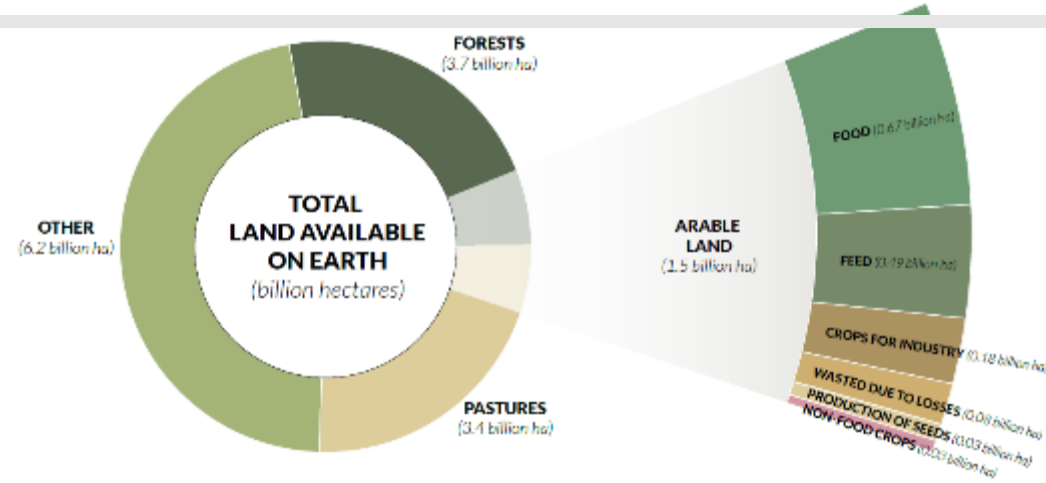
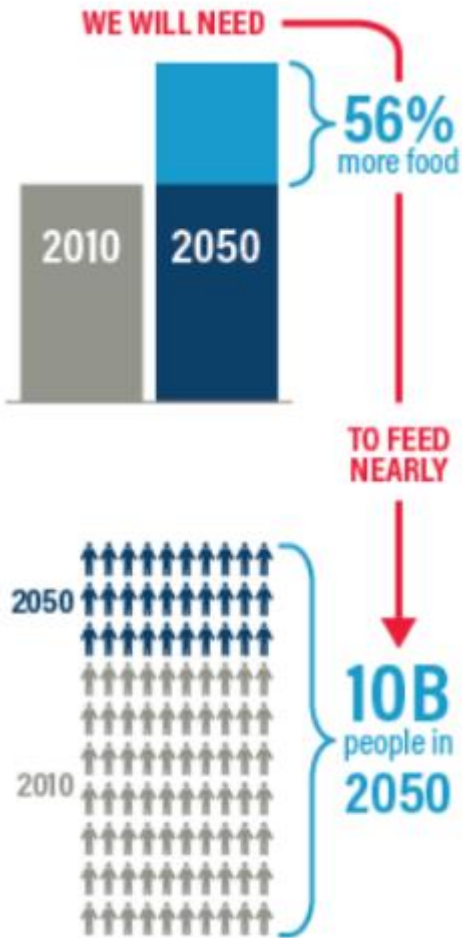


Global Population Size



Intensification of Agriculture Activities

How do we feed 10 billion people...





PROJECTED IMPACTS OF CLIMATE CHANGE

Climate change is affecting our environment, our societies and our cultures

1°C

2°C

3°C

4°C

5°C

GLOBAL TEMPERATURE CHANGE (RELATIVE TO PRE-INDUSTRIAL)



FOOD

Falling crop yields in many areas, particularly developing regions

Possible rising yields in some high latitude regions

Falling yields in many developed regions



WATER

Small mountain glaciers disappear - water supplies are threatened in several areas

Significant decreases in water availability in many areas including Mediterranean and Southern Africa

Sea level rise threatens major cities



ECOSYSTEMS

Extensive damage to coral reefs

Rising number of species facing extinction



EXTREME WEATHER EVENTS

Rising intensity of storms, forest fires, droughts, flooding, and heat waves



RISK OF ABRUPT AND MAJOR IRREVERSIBLE CHANGES

Increasing risk of dangerous feedbacks and abrupt, large-scale shifts in the climate system

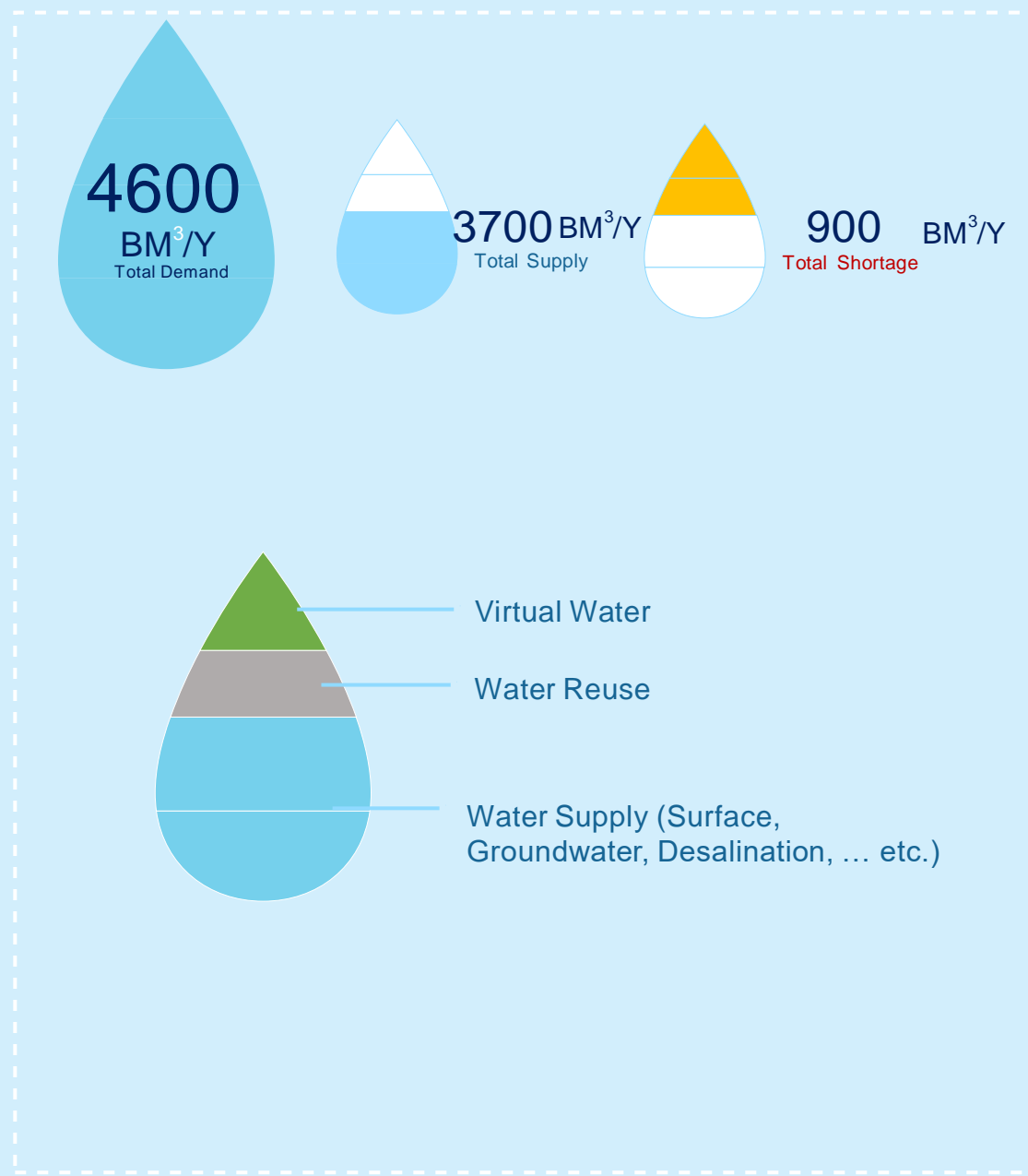
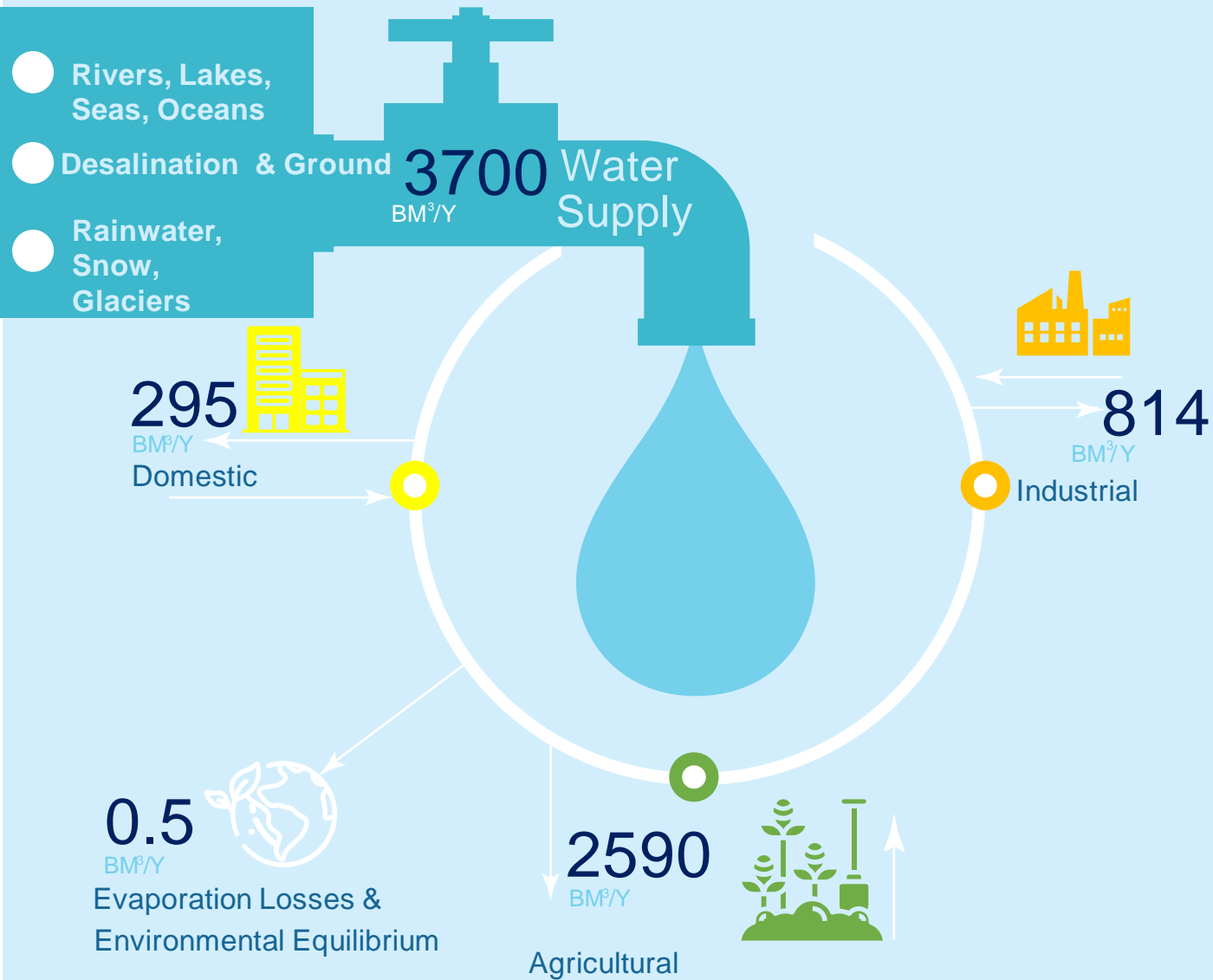
Google has finally revealed how much water its data centres use



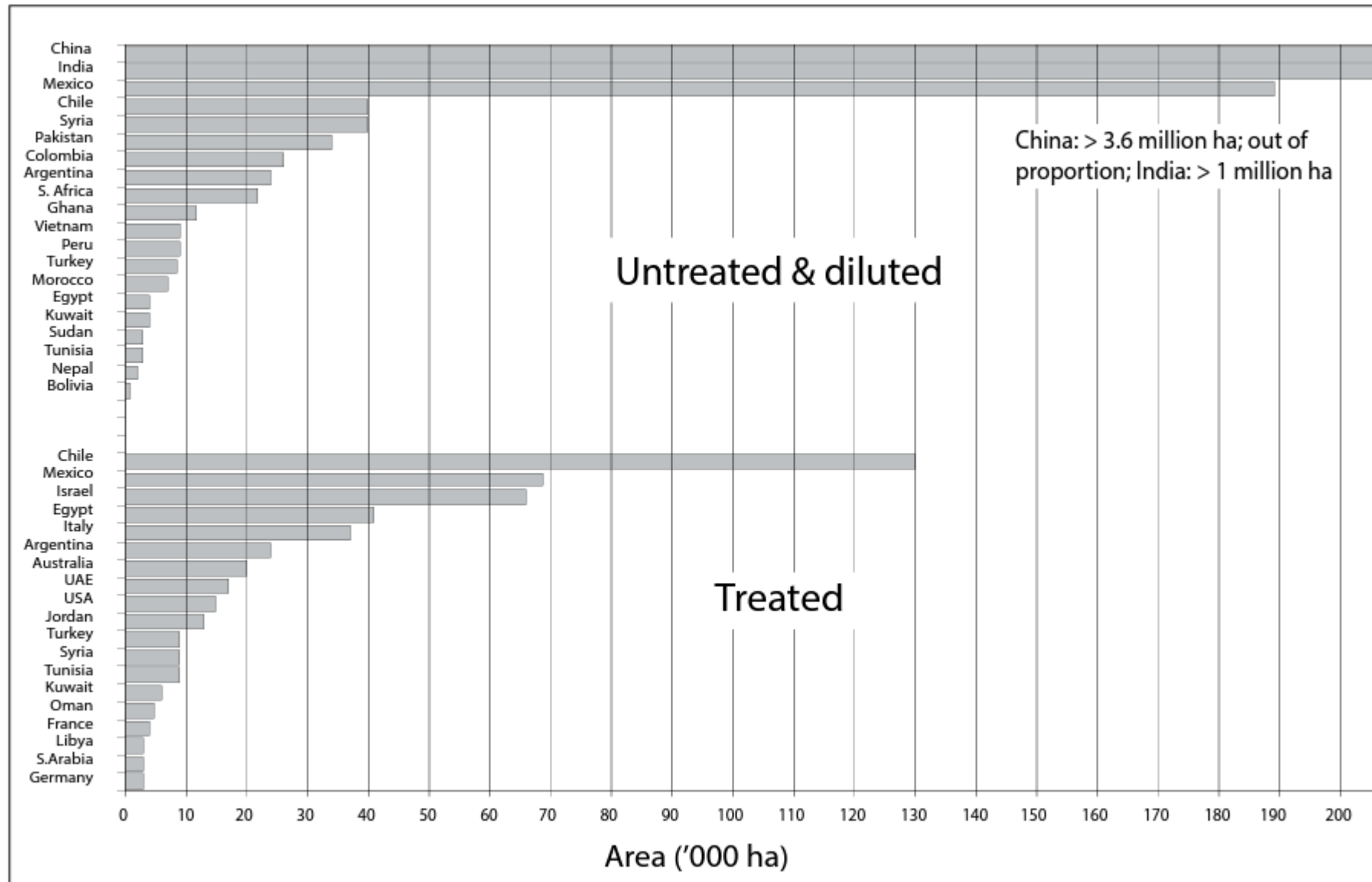
WATER NEVER SLEEPS

ALEX PASSINI

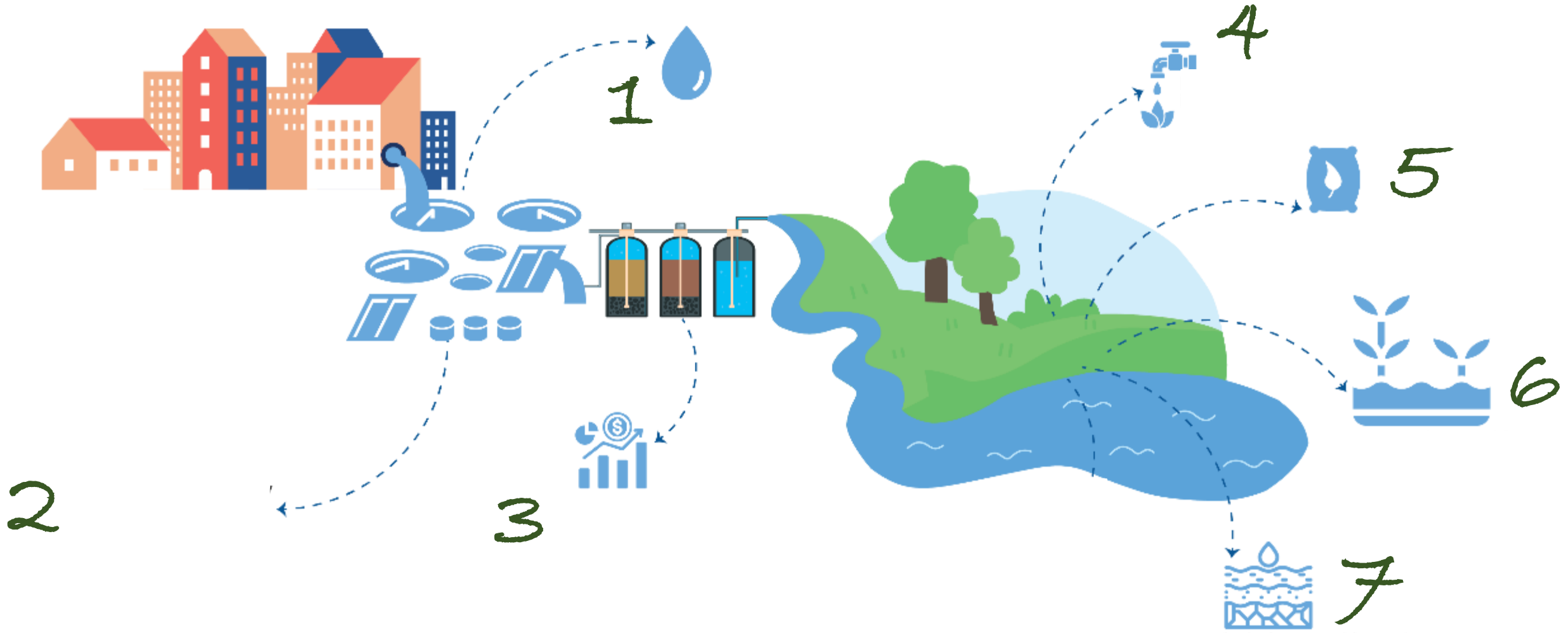
Water Resources System - Globally



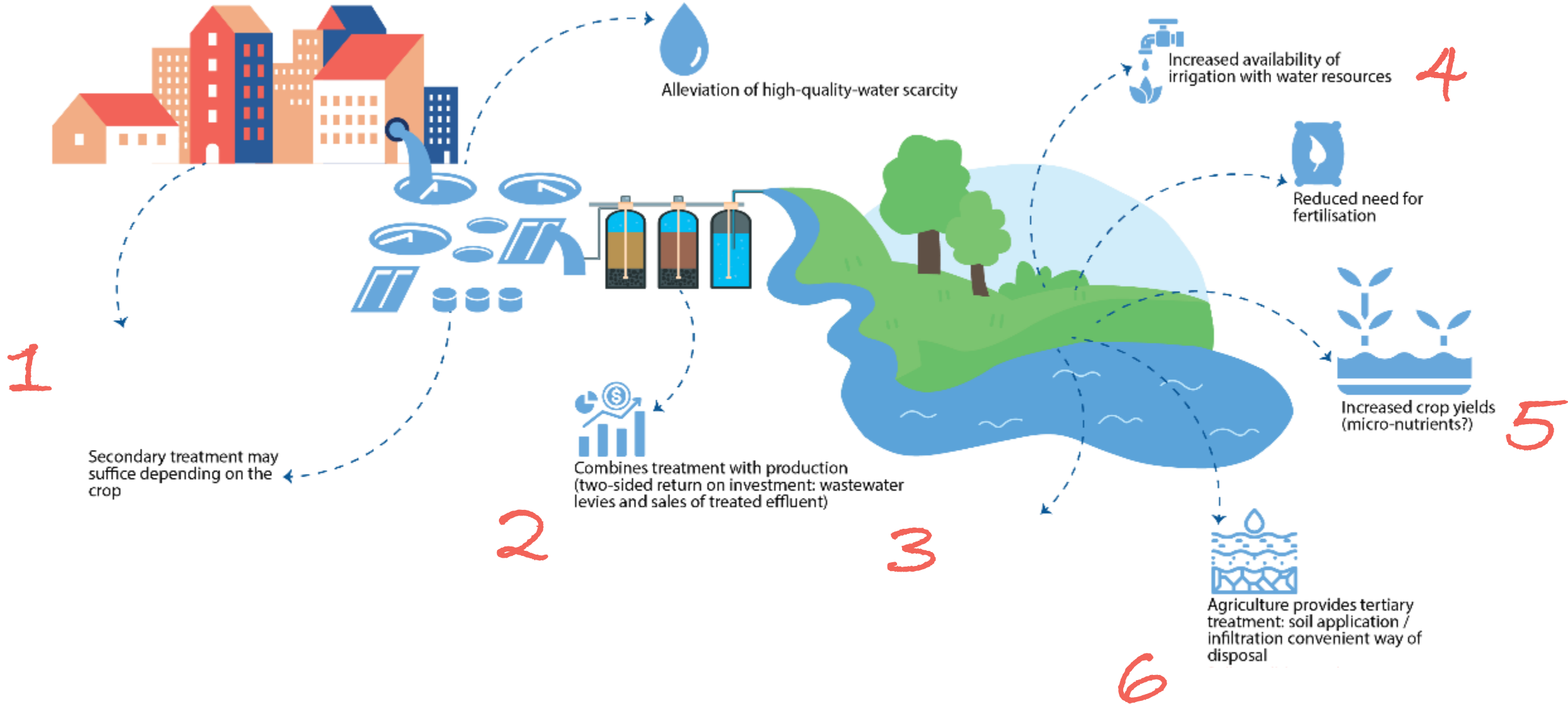
Reuse in Irrigated Agriculture



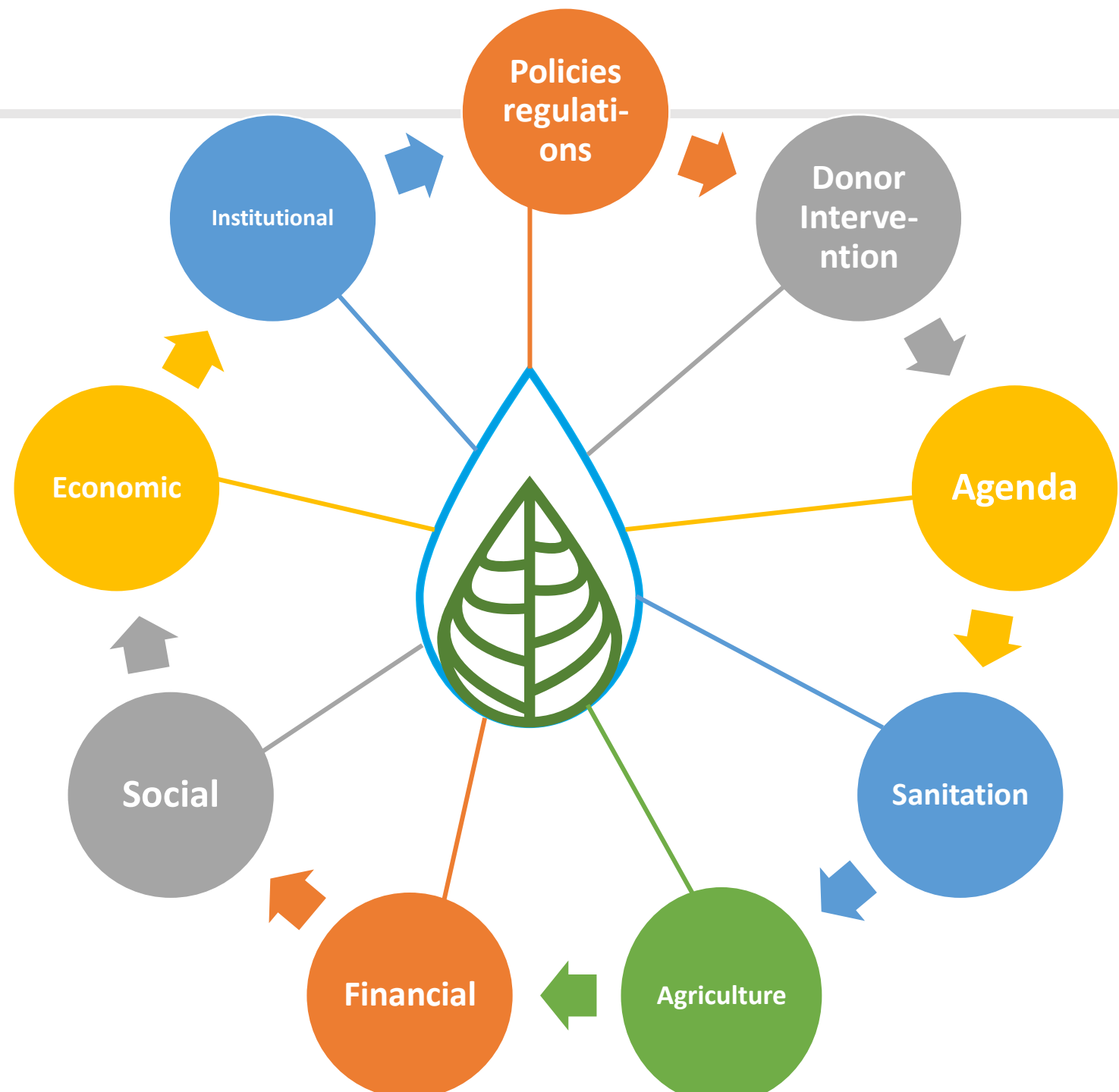
Opportunities of Reuse the treated wastewater



Constraints of Reuse the treated wastewater



Key Message #1



Key Message #2

Reuse projects, or schemes can only work if socially accepted, technically reliable and profitable for farmers. This requires strong links between central administrations and local stakeholders to analyze local practices, develop appropriate infrastructure and negotiate adaptive management arrangements.



Thank You



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8th June 2023