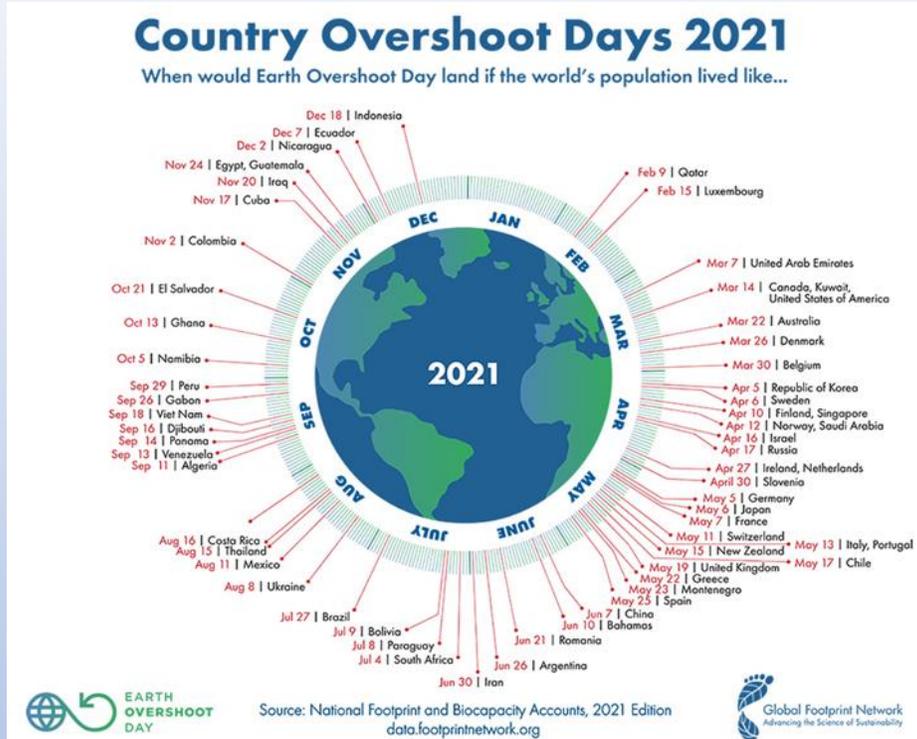


Global water crisis. SDG6 as a driver for sustainable development.

Dr. Prof. Elpida Kolokytha
lpcol@civil.auth.gr

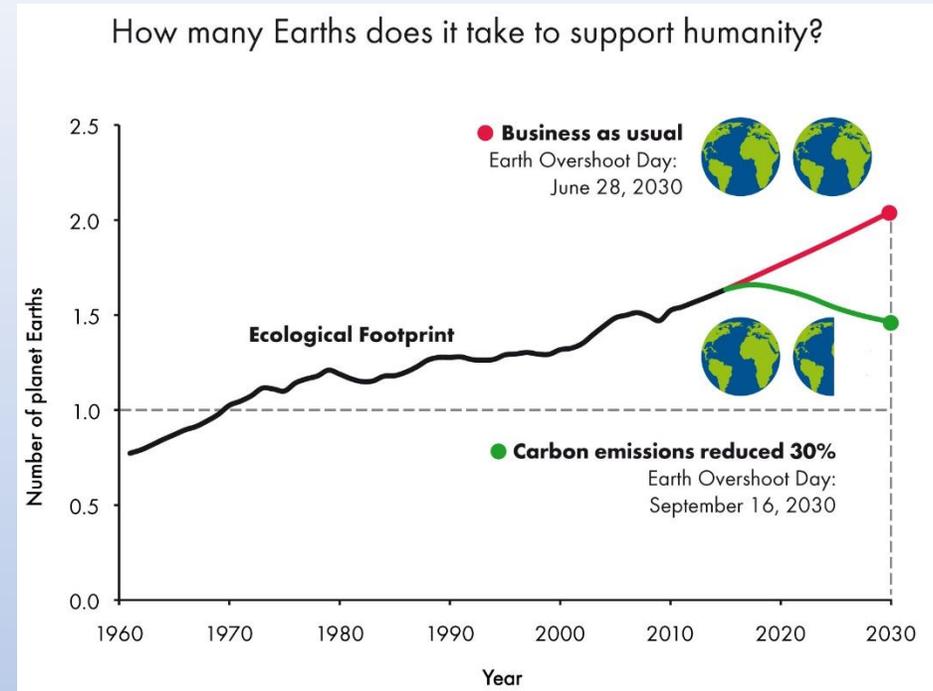
Thursday, 14/12/2021

THE WORLD TODAY



<https://www.overshootday.org/newsroom/country-overshoot-days/>

Earth Overshoot Day is the day on the calendar when humanity has used the resources that nature can renew in a full year.



Under a business-as-usual path, human demand on the Earth's ecosystems is projected to exceed what nature can regenerate by about 75 % by 2030.

<http://data.footprintnetwork.org>

THE WORLD TODAY

- The average person is now over 5 times more likely to die in an extinction event (such as climate change) than in a car accident.
 - Still humanity's demand for renewable resources remains 68 % higher than what the planet can renew.
- Food shortages
 - Disease epidemics and pandemics
 - Water shortages
 - Mass die offs of ocean life
 - The extinction of other species
 - Larger, more frequent forest fires
 - Resource wars and other conflicts
 - Extreme weather events
 - Massive floods—both coastal and inland
 - Mass migrations of refugees
 - Economic collapse
 - Violence and social unrest
 - Worsening quality of life for everyone, especially the poor

<http://data.footprintnetwork.org>



1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



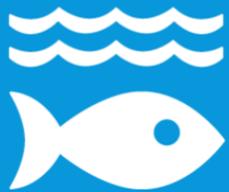
12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



16 PEACE AND JUSTICE STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



THE GLOBAL GOALS
For Sustainable Development

<https://sustainabledevelopment.un.org/sdgs>

2030 Agenda for Sustainable Development



“plan of action for people, planet and prosperity”

- People** (SDGs 1–6)
- Prosperity** (SDGs 7–10)
- Planet** (SDGs 11–15)
- Peace** SDG 16
- Partnership** (SDG 17)

5Ps

“We are determined to take the bold and transformative steps ... to shift the world onto a sustainable and resilient path”



How many countries are required to meet the demand of its citizens...



Source: Global Footprint Network National Footprint Accounts 2019



How many Earths do we need if the world's population lived like...



Source: Global Footprint Network National Footprint Accounts 2019



**“Earth provides enough to satisfy every man's need, not every man's greed”.
Mahatma Gandhi**

SDGs

- Universality
- Integration
- Transformation



[What are the needs for knowledge sharing partnerships?](https://sustainabledevelopment.un.org/topics)

What is new and different about the 17 SDGs?

These Goals apply to *every* nation ... and every sector. Cities, businesses, schools, organizations, *all* are challenged to act. This is called

Universality



It is recognized that the Goals are all inter-connected, in a system. We cannot aim to achieve just one Goal. We must achieve them all. This is called

Integration



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THESSALONIKI



It is widely recognized that achieving these Goals involves making very big, fundamental changes in how we live on Earth. This is called

Transformation



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6 CLEAN WATER AND SANITATION



6 CLEAN WATER AND SANITATION



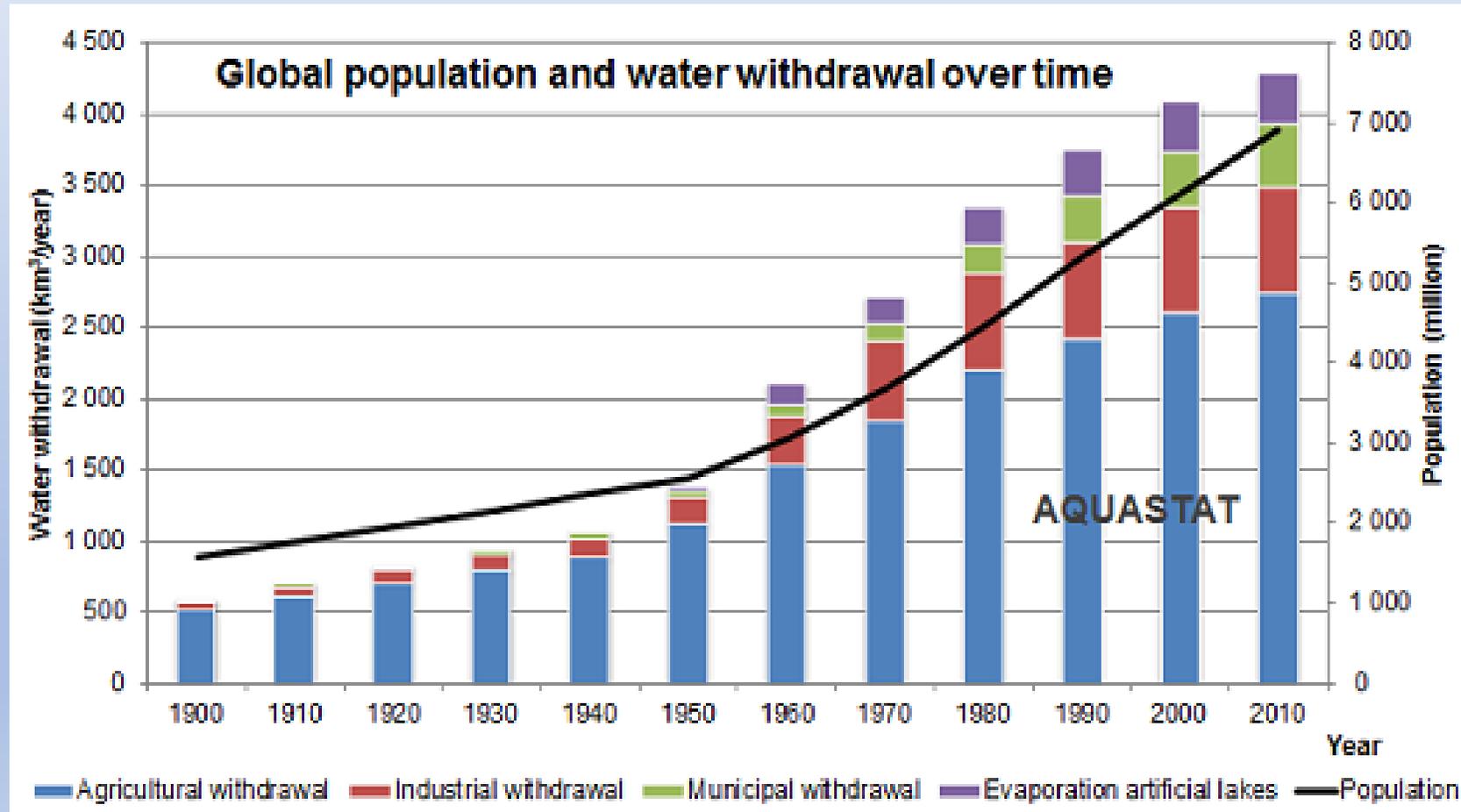
6.1.1	Safely managed drinking water services
6.2.1	Safely managed sanitation and hygiene services
6.3.1	Wastewater safely treated
6.3.2	Good water quality
6.4.1	Water use efficiency
6.4.2	Level of water stress
6.5.1	Integrated water resources management
6.5.2	Transboundary basin area with water cooperation
6.6.1	Water-related ecosystems
6.A	Enhance international water cooperation
6.B	Participation of local communities

Achieving SDG 6 is essential for progress on all other SDGs and vice versa

Synthesis Report SDG6
(due in July 2018)



GLOBAL WATER WITHDRAWALS OVER TIME



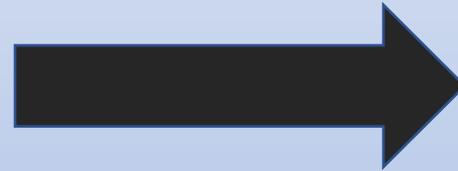
- **SOCIAL DIMENSION**

PEOPLE

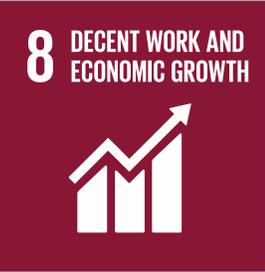
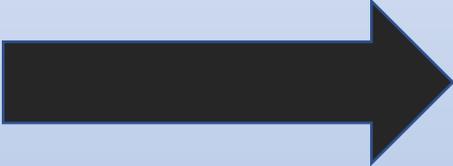


- ENVIRONMENTAL DIMENSION

PLANET



- ECONOMIC DIMENSION**
PROSPERITY



Effective water management needs more and better data

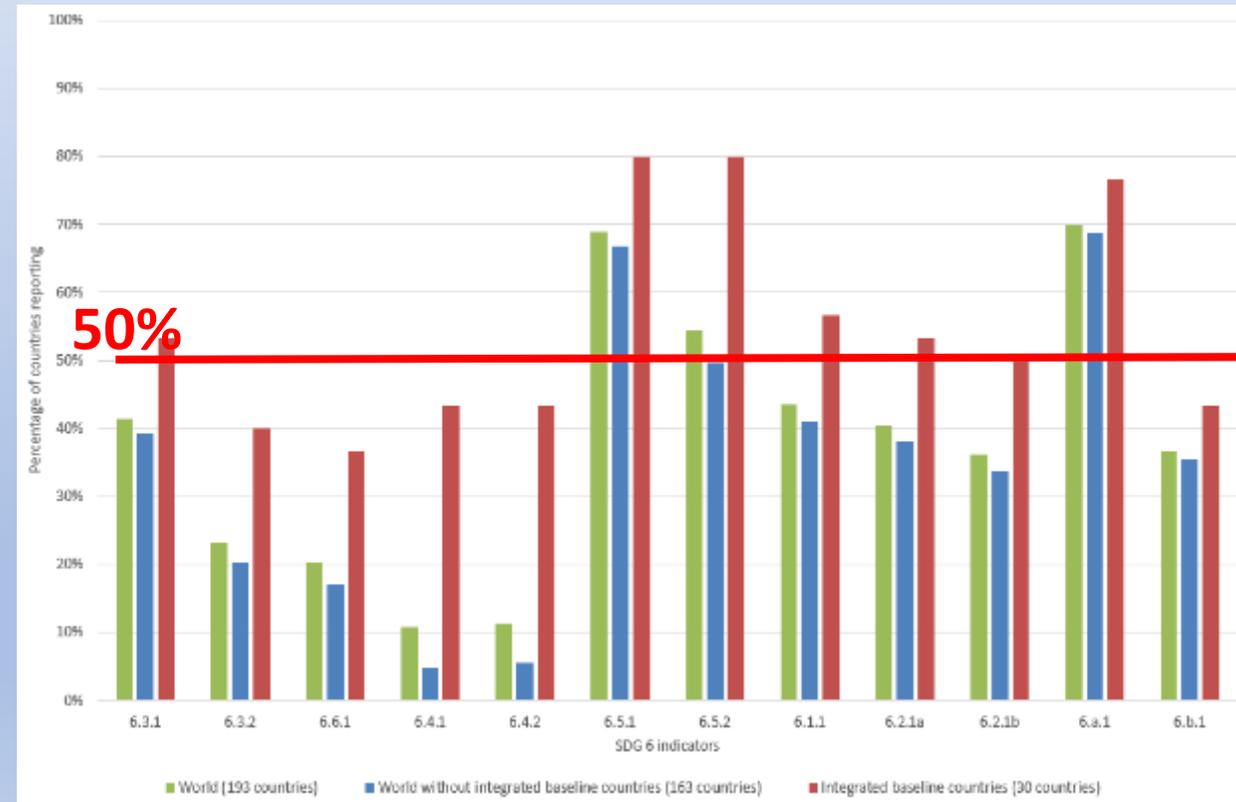


'You cannot manage, what you do not measure'

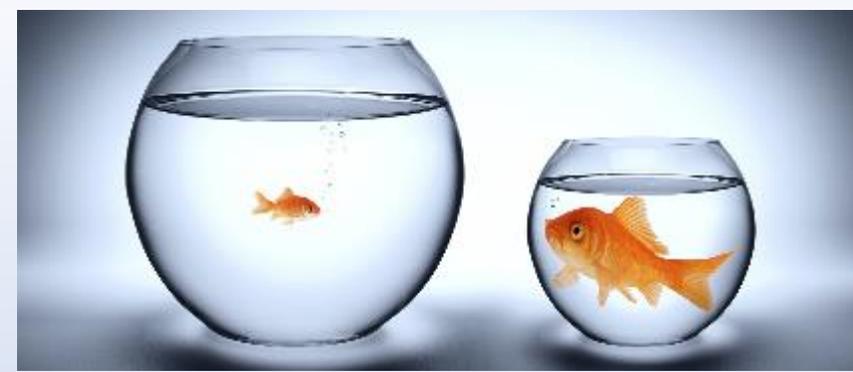
- Reliable (good quality), consistent and disaggregated
- Increase transparency and accountability
- Available and accessible (sharing)

- Less than 50% of Member States have comparable data
- Future: use latest technology (EO, citizen sciences etc.)
- Increase resource and develop capacity!

Synthesis Report SDG6
(in July 2018)



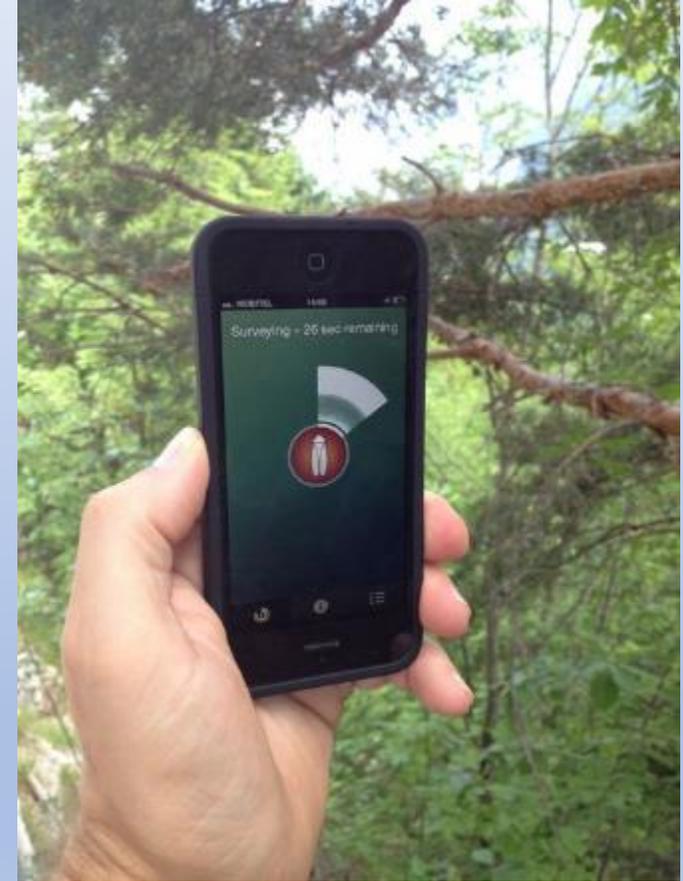
Good water governance is essential



 **HIGH-LEVEL
POLITICAL FORUM
ON SUSTAINABLE DEVELOPMENT**

Synthesis Report SDG6
(due in July 2018)

Smart technologies can improve management and service delivery



WATER EDUCATION- key to water cooperation

- ▶ FREEWAT (FREE and open source tools for WATER resource management) is an HORIZON 2020 project financed by the EU Commission. (18 partners)
- ▶ FREEWAT aims at promoting water resource management by simplifying the application of the Water Framework Directive and other EU water related Directives.

Specific objectives of the FREEWAT project are:

- ▶ to coordinate previous EU and national funded research to integrate existing software modules for water management in a single environment into the GIS based FREEWAT;
- ▶ to support the FREEWAT application in an innovative participatory approach gathering technical staff and relevant stakeholders (primarily policy and decision makers) in designing scenarios for the proper application of water policies.
- ▶ UNESCO IHP is a part of a consortium of 18 other partners implementing the FREEWAT project.

Education for

Sustainable Development Goals

Learning Objectives



THE ROLE OF UNIVERSITIES



“If your plan is for one year, plant rice.

If your plan is for ten years, plant trees.

If your plan is for one hundred years, educate children.”

KUAN CHUNG (7TH CENTURY BC)

Thank you



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Educational, Scientific and
Cultural Organization



International
Hydrological
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