



## Statement on the Status of the Global Climate in 2016

2016 was the  
warmest on record  
at about 1.1 °C above  
the preindustrial period



Carbon dioxide  
reached new highs  
at 400.0±0.1 parts per  
million in the atmosphere

Global sea ice  
extent dropped  
more than 4 million square  
kilometres below average



"Even without a strong El Niño in 2017, we are seeing other remarkable changes across the planet that are challenging the limits of our understanding of the climate system. We are now in **truly uncharted territory**," said World Climate Research Programme Director David Carlson.



Global sea levels  
rose strongly during the  
2015/2016 El Niño, with  
early 2016 values reaching  
**new record highs**

Global ocean heat  
was the second highest  
on record, contributing to  
**coral bleaching** and  
**mortality** in  
tropical waters



Severe droughts  
and floods  
displaced hundreds of  
thousands of people

Find out more at  
**public.wmo.int**



INDEPENDENT

ews

Politics

Voices

Culture

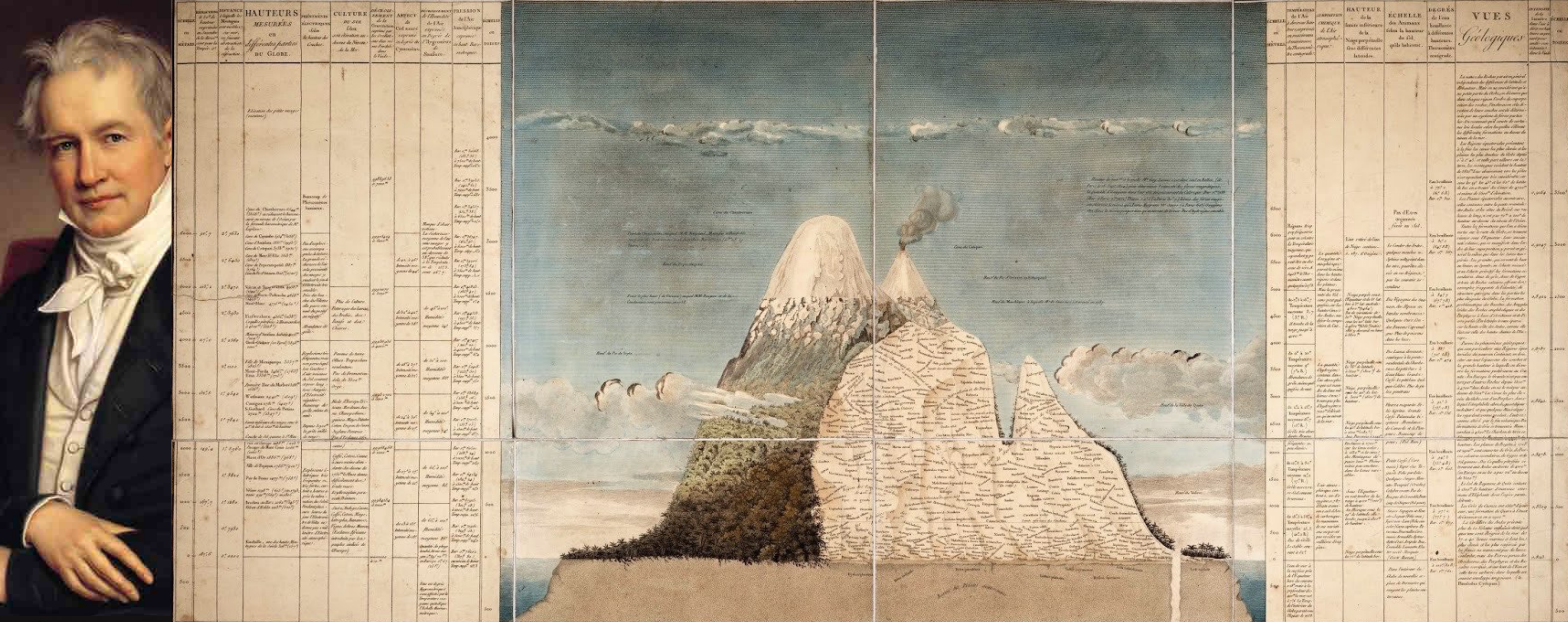


# US 'forces G20 to drop any mention of climate change' in joint statement



WATER





The  
INVENTION  
of  
NATURE  
ALEXANDER  
VON HUMBOLDT'S  
NEW WORLD  
ANDREA WULF  
Author of *Founding Gardeners*

# GÉOGRAPHIE DES PLANTES ÉQUINOXIALES.

Tableau physique des Andes et Pays voisins

Dressé d'après des Observations & des Mesures prises Sur les lieux depuis le 10. degré de latitude boréale  
jusqu'au 10. de latitude australe en 1799, 1800, 1801, 1802 et 1803.

PAR  
ALEXANDRE DE HUMBOLDT ET AIMÉ BONPLAND.

Exposée et corrigée par M. de Humboldt, dessinée par M. de Bonpland, gravée par Bonquet, la lettre par Bonnet, imprimée par Langlois.



**TO CHANGE EVERYTHING IT TAKES EVERYONE**





# THE ENTREPRENEURIAL STATE



Debunking  
Public vs. Private  
Sector Myths



MARIANA MAZZUCATO

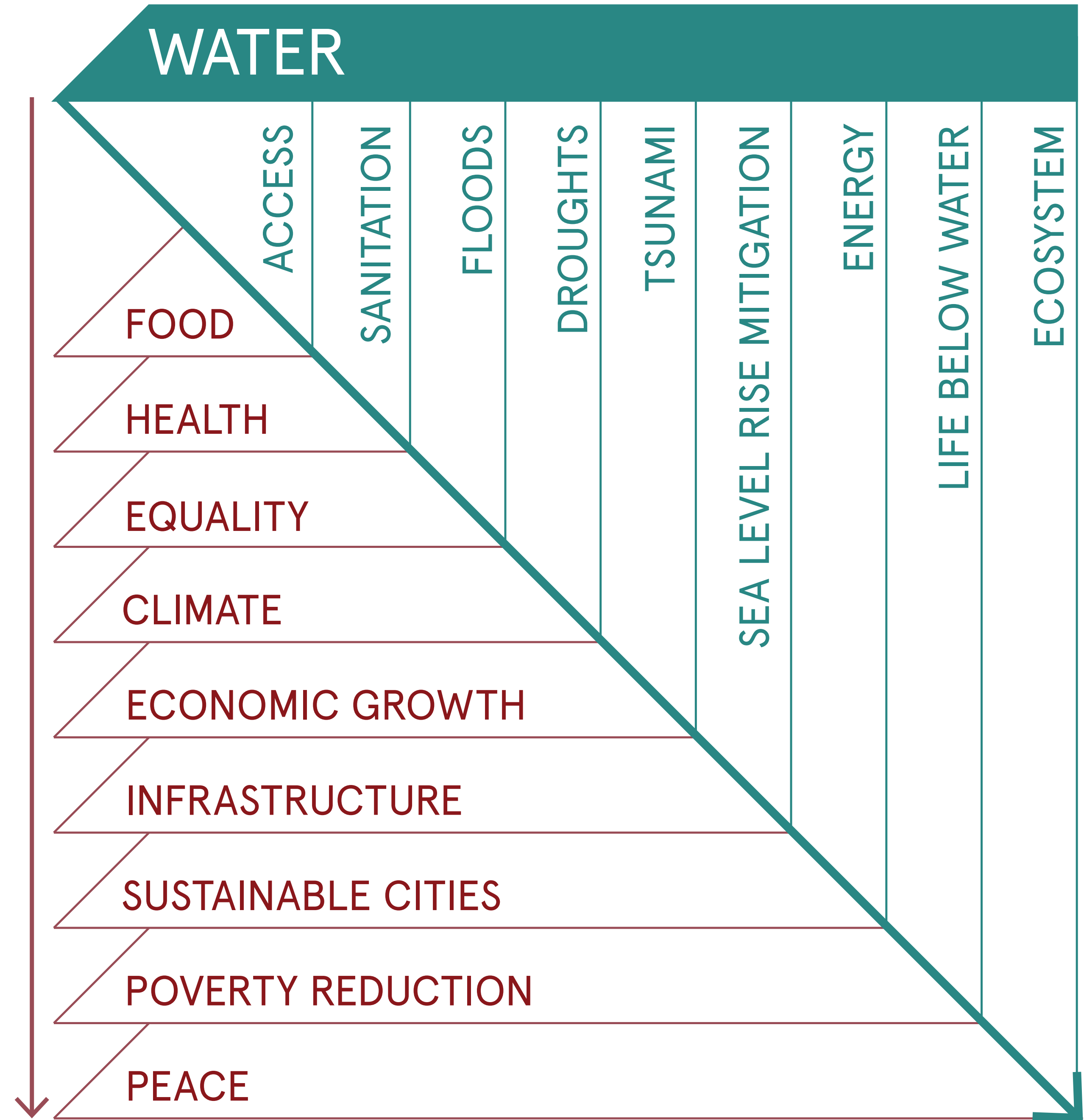
"You can ignore the facts; you can't deny the facts."





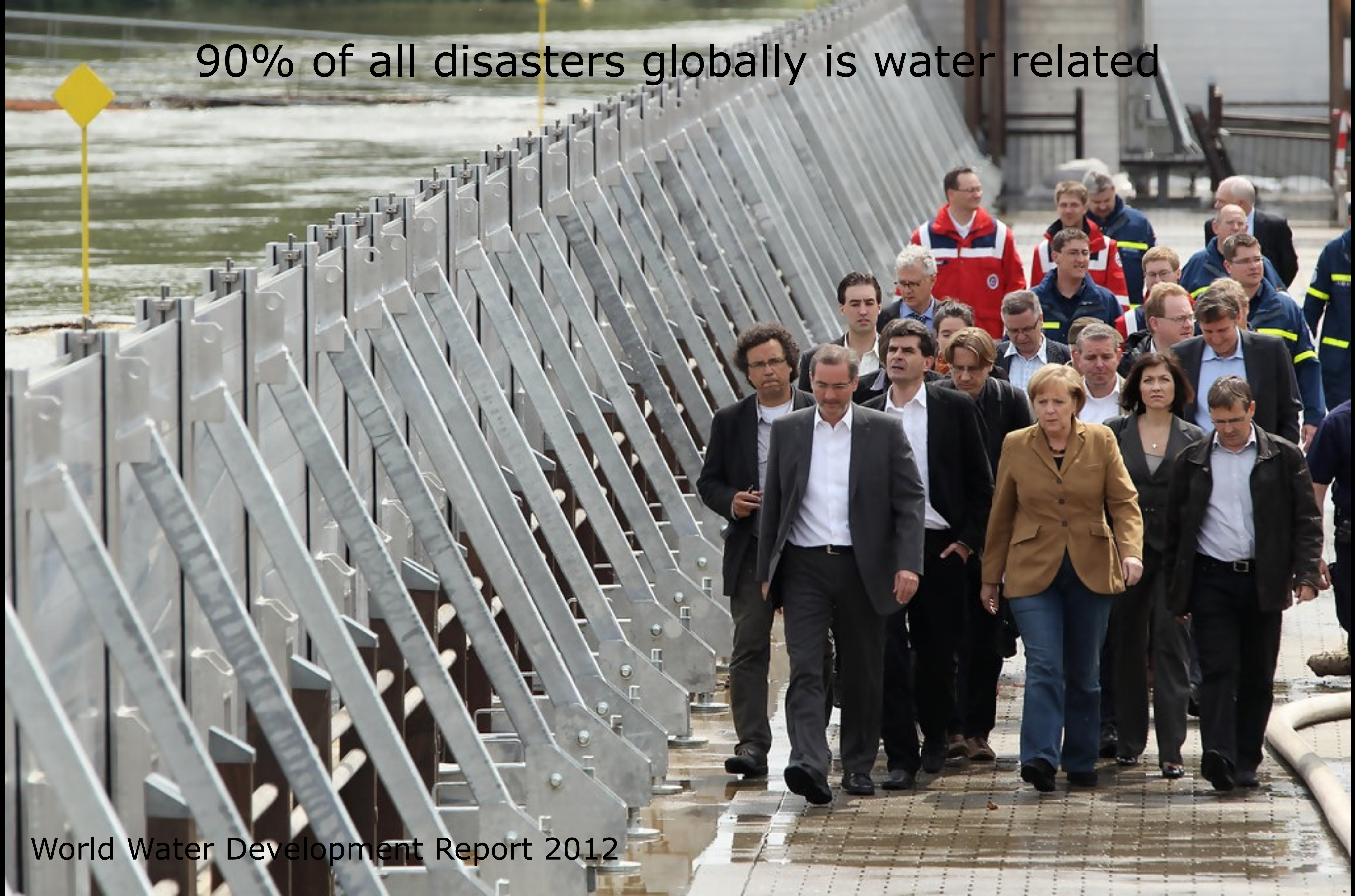
WATER







90% of all disasters globally is water related





By 2050 the number of people vulnerable to flood disaster is expected to increase to 2 billion





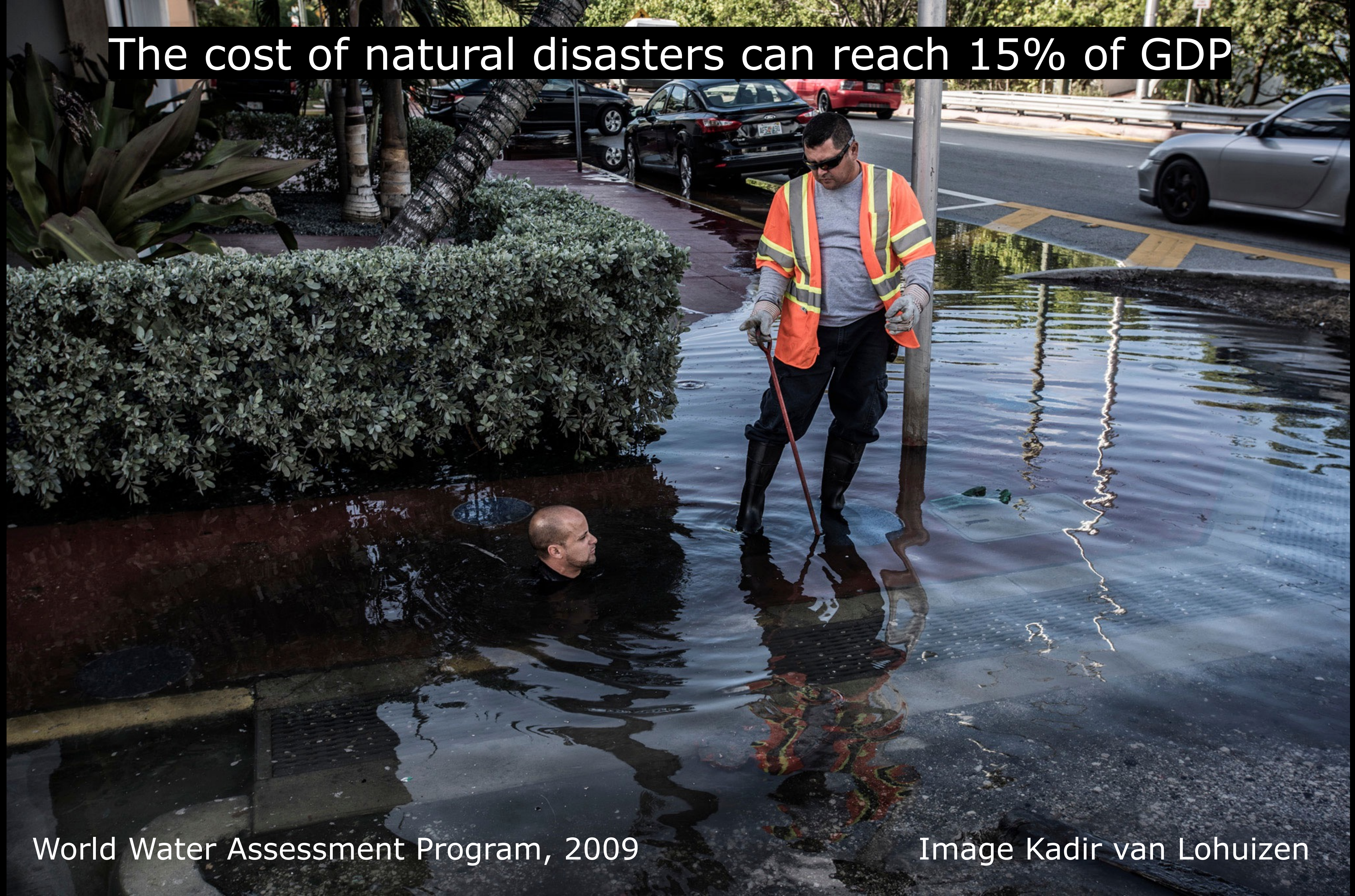
Climate change could force an additional 1.8 billion people to live in a water scarce environment by 2080



UNDP: Human Development Report, 2007/2008



The cost of natural disasters can reach 15% of GDP



World Water Assessment Program, 2009

Image Kadir van Lohuizen



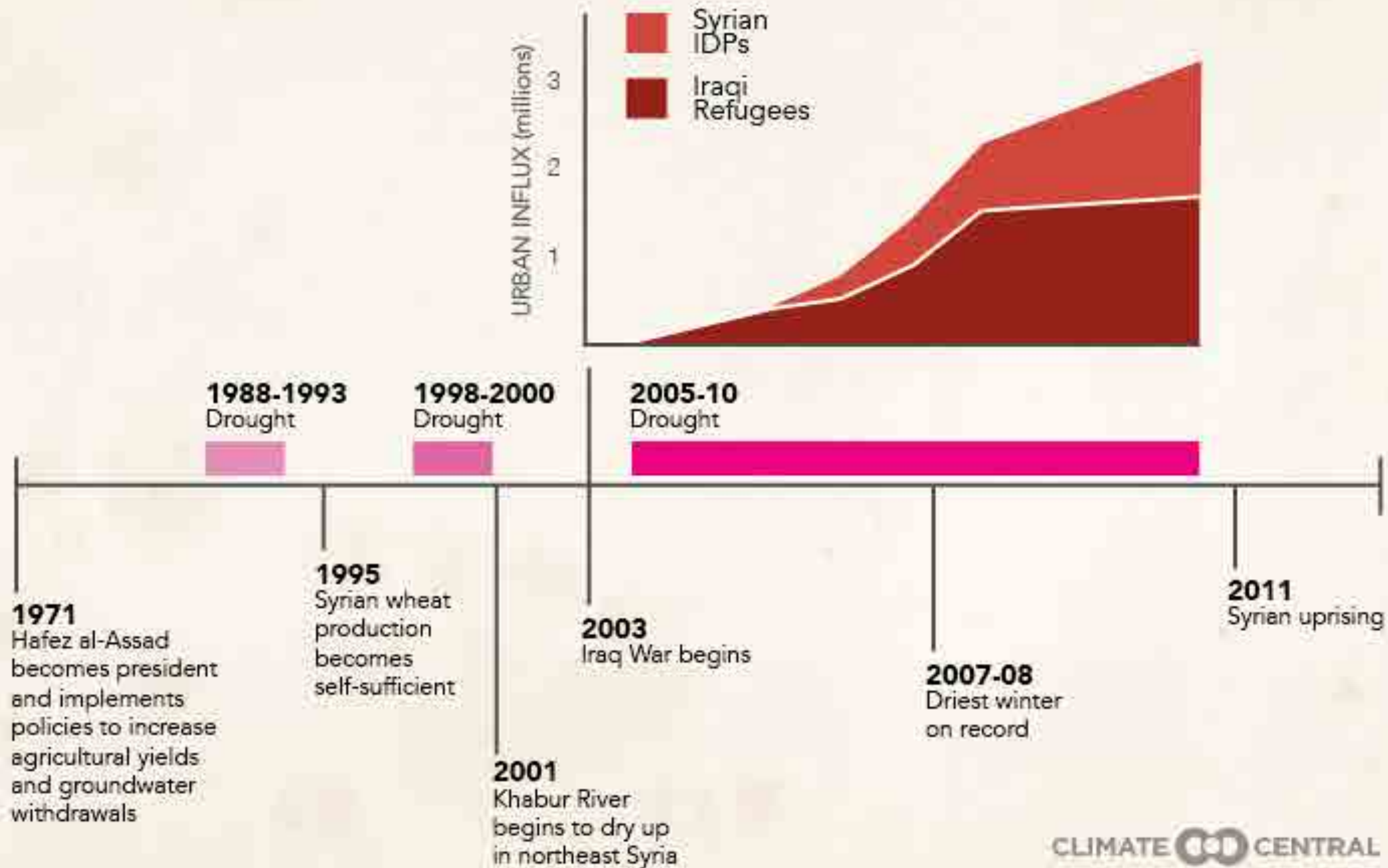
People will feel the impact of climate change  
most strongly through water.



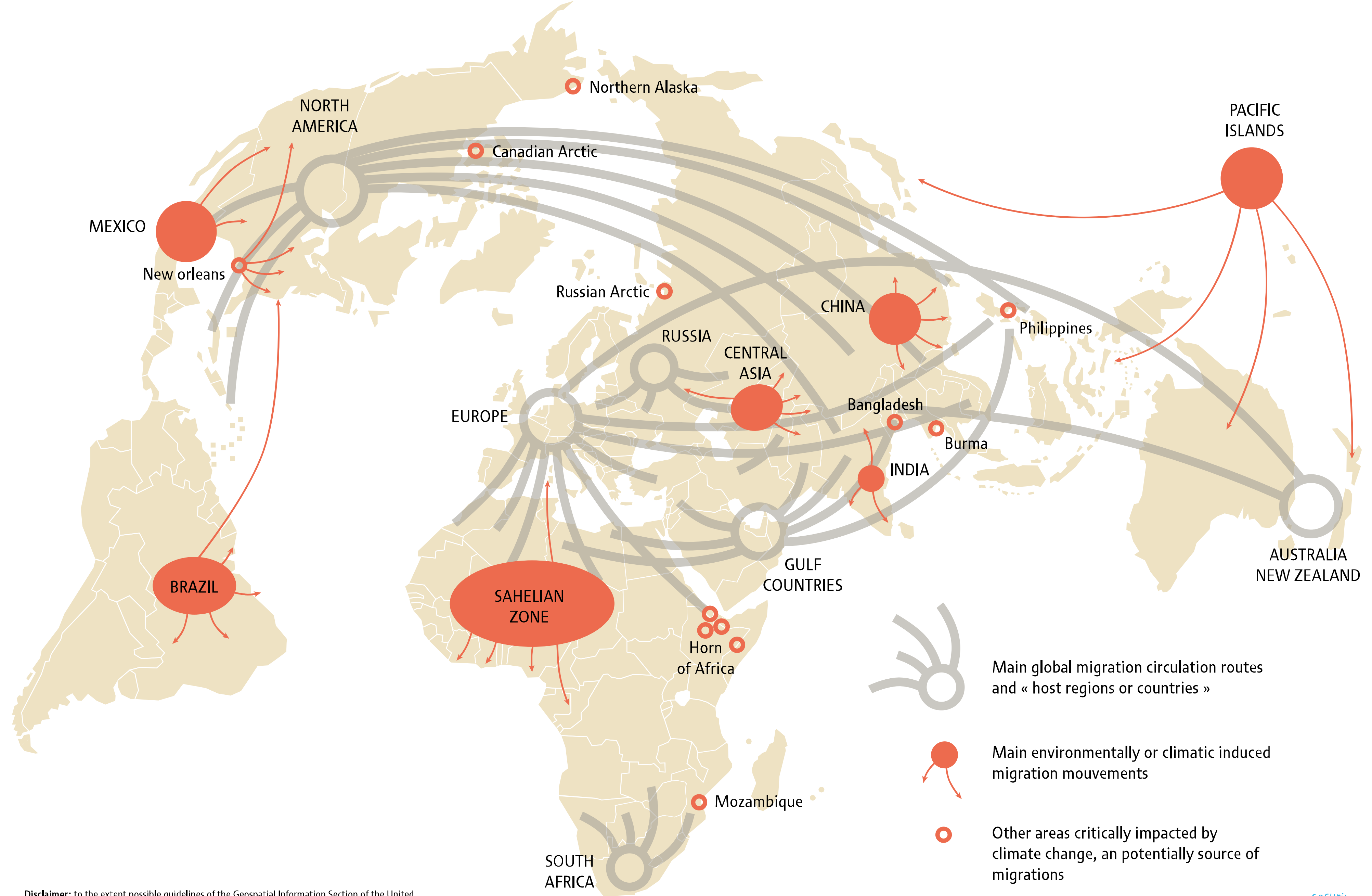


# A Syria Timeline: Policy, Drought and Conflict:

A series of social and climate factors became confounding elements that contributed to the uprising in Syria.

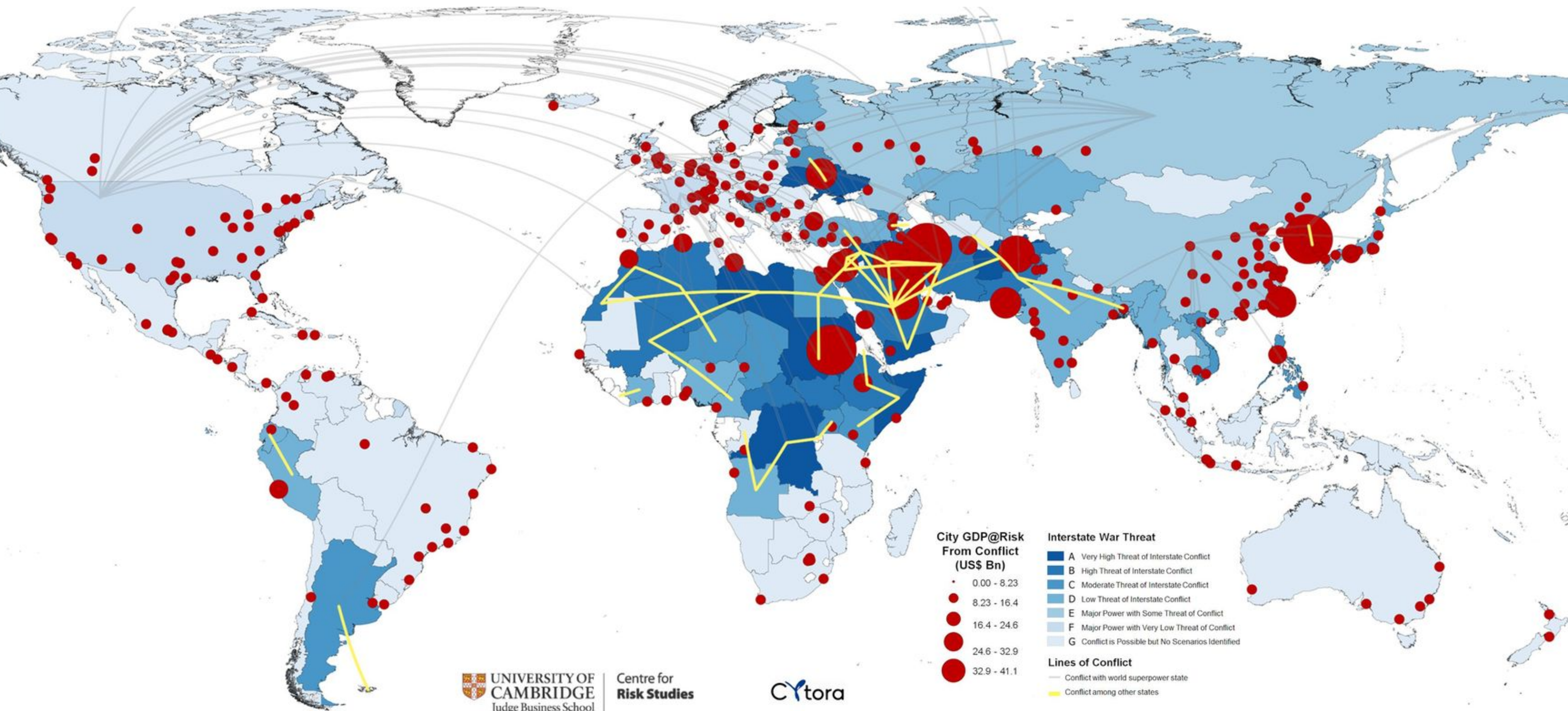






**Disclaimer:** to the extent possible guidelines of the Geospatial Information Section of the United Nations have been followed in the creation of this map. The boundaries, names and symbols on this map in no way imply formal acceptance or recognition of them by the Kingdom of the Netherlands.







# HEAT MAP

## Where is the highest risk of water conflict?

### HOTSPOTS

1

By the end of 2015, Turkey expects to complete the Ilisu Dam on the Tigris River, part of a national push to boost electrical power capacity. Besides submerging the 12,000-year-old settlement of Hasankeyf, the dam may damage the already fragile Mesopotamian marshes downstream in Iraq. Germany, Austria, and Switzerland withdrew funding for the dam in 2009.

2

Tajikistan is planning the Rogun hydroelectric dam on a tributary of the Amu Darya river. The dam would be the tallest in the World and help alleviate the country's energy shortages. Uzbekistan, fearing irrigation shortfalls, has imposed tariffs and travel restrictions on its neighbor to the east.

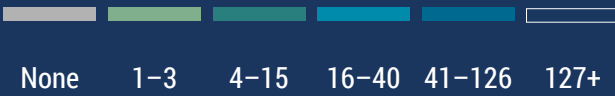
3

In 2011, Ethiopia began building the Grand Renaissance Dam on the Blue Nile, a tributary that provides about 60 percent of the Nile's water. Egypt and Sudan are concerned about the dam's effect on water flow downriver. Ethiopia says it will finish the project in 2017.

4

In a channel of the Mekong two miles north of the Cambodian border, Laos intends to construct the Don Sahong Dam. The power project could affect fishing in Cambodia, Vietnam, and Thailand, so those countries are demanding a say in the plan.

The color of each international river basin indicates the total number of interactions there from 1990 to 2008.



Circle size indicates the number of hostile events in each basin.



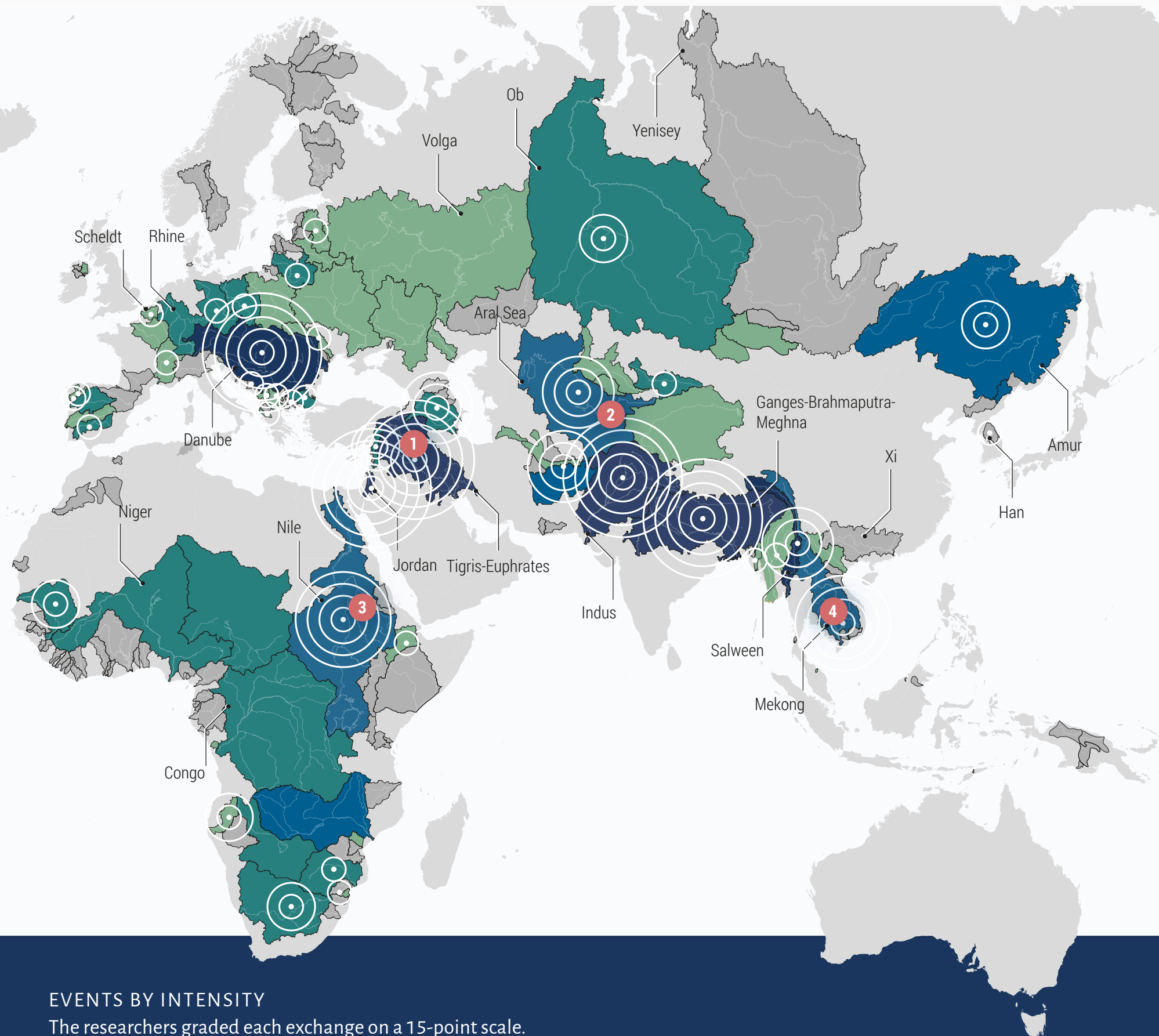
Map reproduced from the June 2014 issue of Popular Science courtesy of Katie Peek. Data visualization by Pitch Interactive.

Map based on the Transboundary Freshwater Dispute Database by the Department of Geosciences, Oregon State University.

### WATER: A map on conflict and cooperation

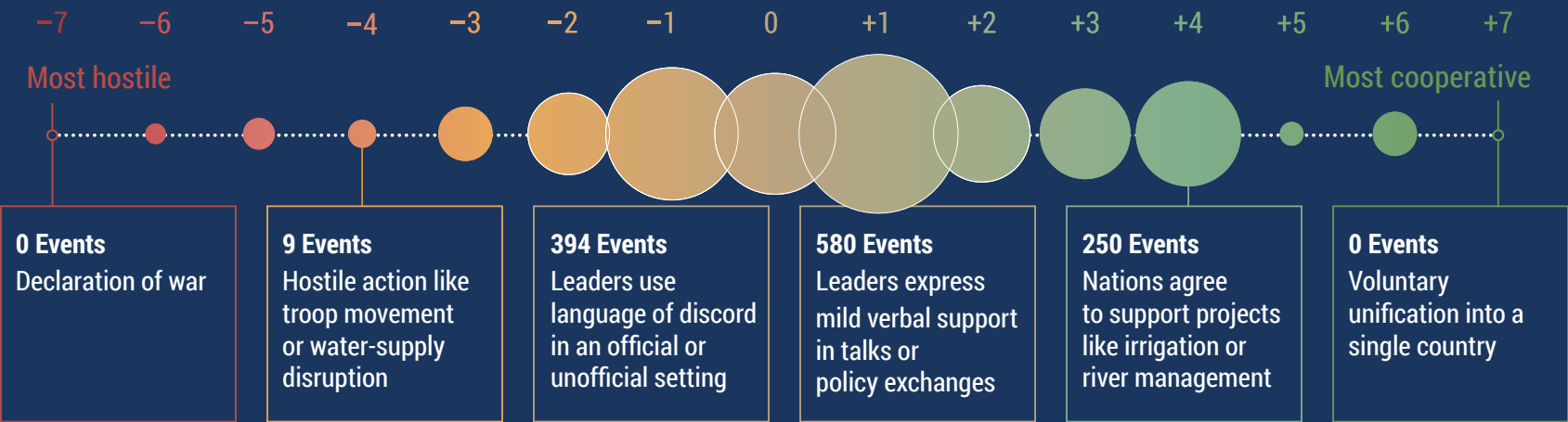
This map shows almost 2,000 incidents related to conflict and cooperation in transboundary basins that took place between 1990 and 2008. The coloured circles include an additional 200 disputes over resources other than shared water resources. Overall, there were approximately twice as many cooperative events as conflictual events during this period. Circle size does not automatically translate into conflict danger, as the circles illustrate the

total number of events with varying degree of hostility. However, when external events overwhelm institutional coping mechanisms, conflict becomes dangerous (Wolf et al. 2003). This is reflected in the hotspots on the map, which coincide with regions where resilient conflict resolution mechanisms are absent. In the Danube River basin, for example, conflictual events were mitigated by the presence of strong cooperation incentives, embedded in the process of European integration (Pohl et al. 2014).



### EVENTS BY INTENSITY

The researchers graded each exchange on a 15-point scale. Collaborative interactions outnumber hostile ones.





MON

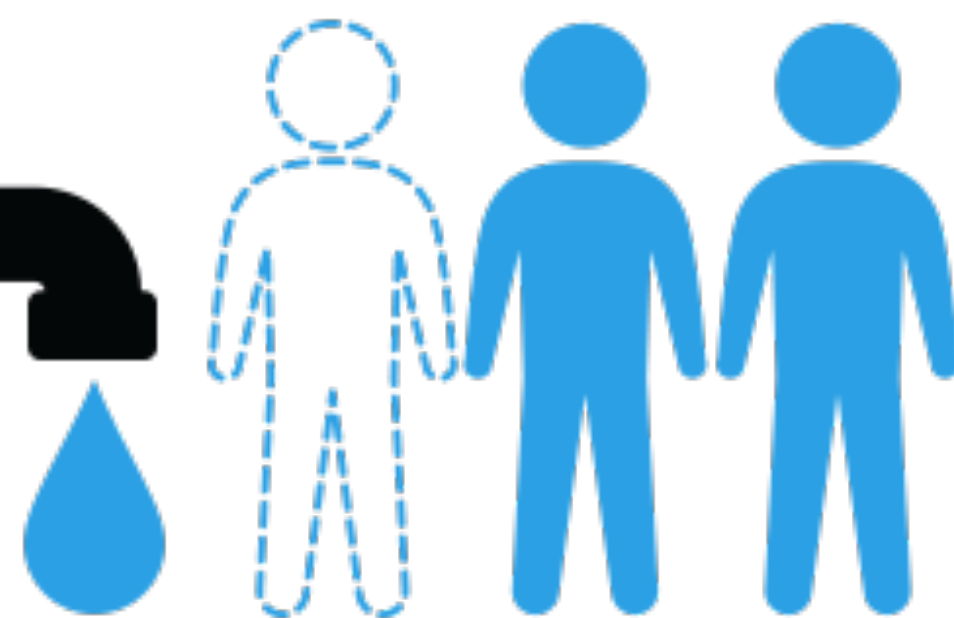
Each day  
an average of  
**5,000**  
**PEOPLE DIE**

due to water and  
sanitation diseases  
that are

**EASILY**  
**PREVENTABLE**

**ABOUT 1 IN 3**

Lack access to an improved  
sanitation facility

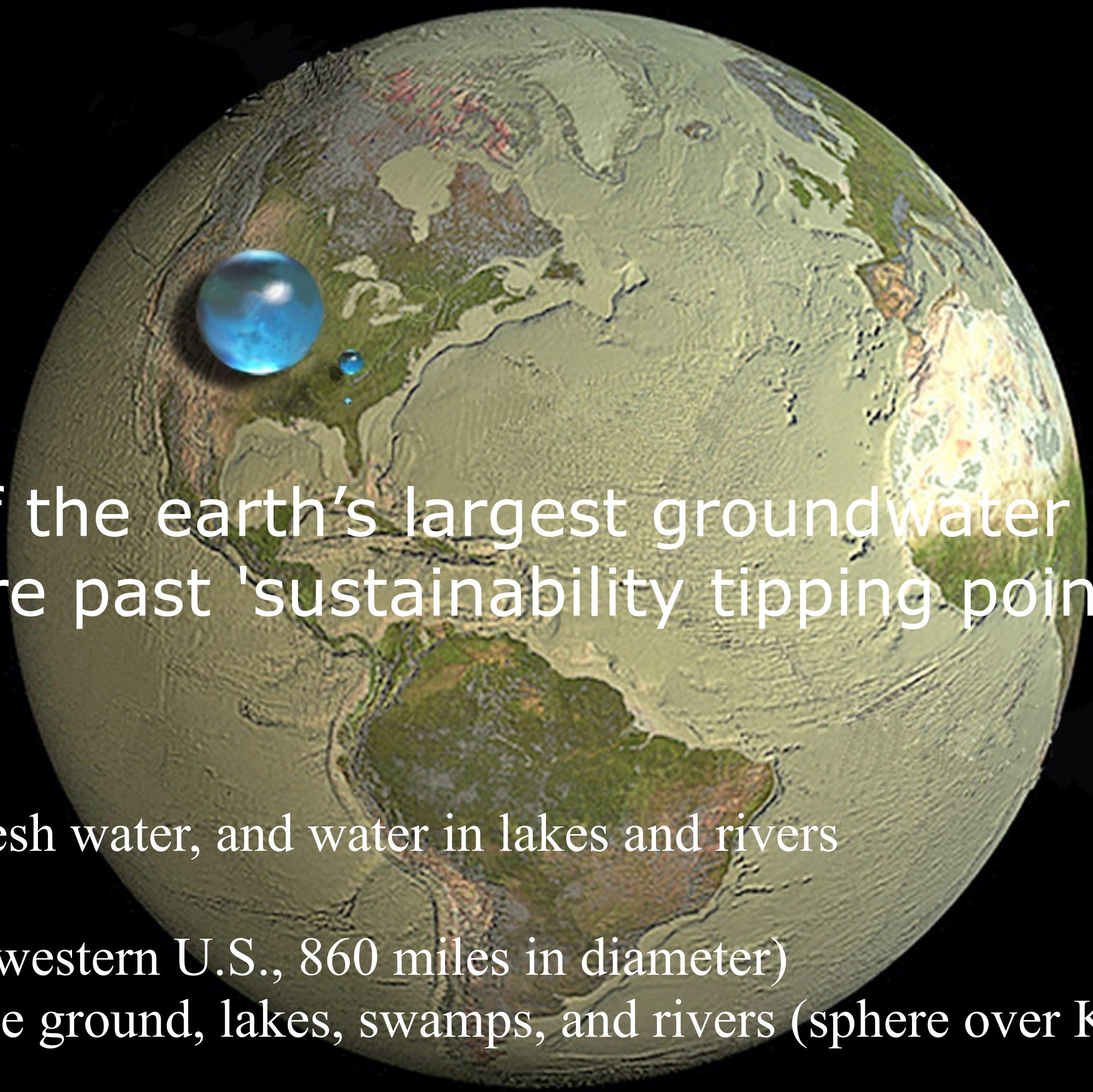


WHO (WORLD HEALTH ORGANIZATION)





# Blue planet?



50% of the earth's largest groundwater aquifers  
are past 'sustainability tipping points'

All Earth's water, liquid fresh water, and water in lakes and rivers

Spheres showing:

- (1) All water (sphere over western U.S., 860 miles in diameter)
- (2) Fresh liquid water in the ground, lakes, swamps, and rivers (sphere over Kentucky, 169.5 miles in diameter), and
- (3) Fresh-water lakes and rivers (sphere over Georgia, 34.9 miles in diameter).