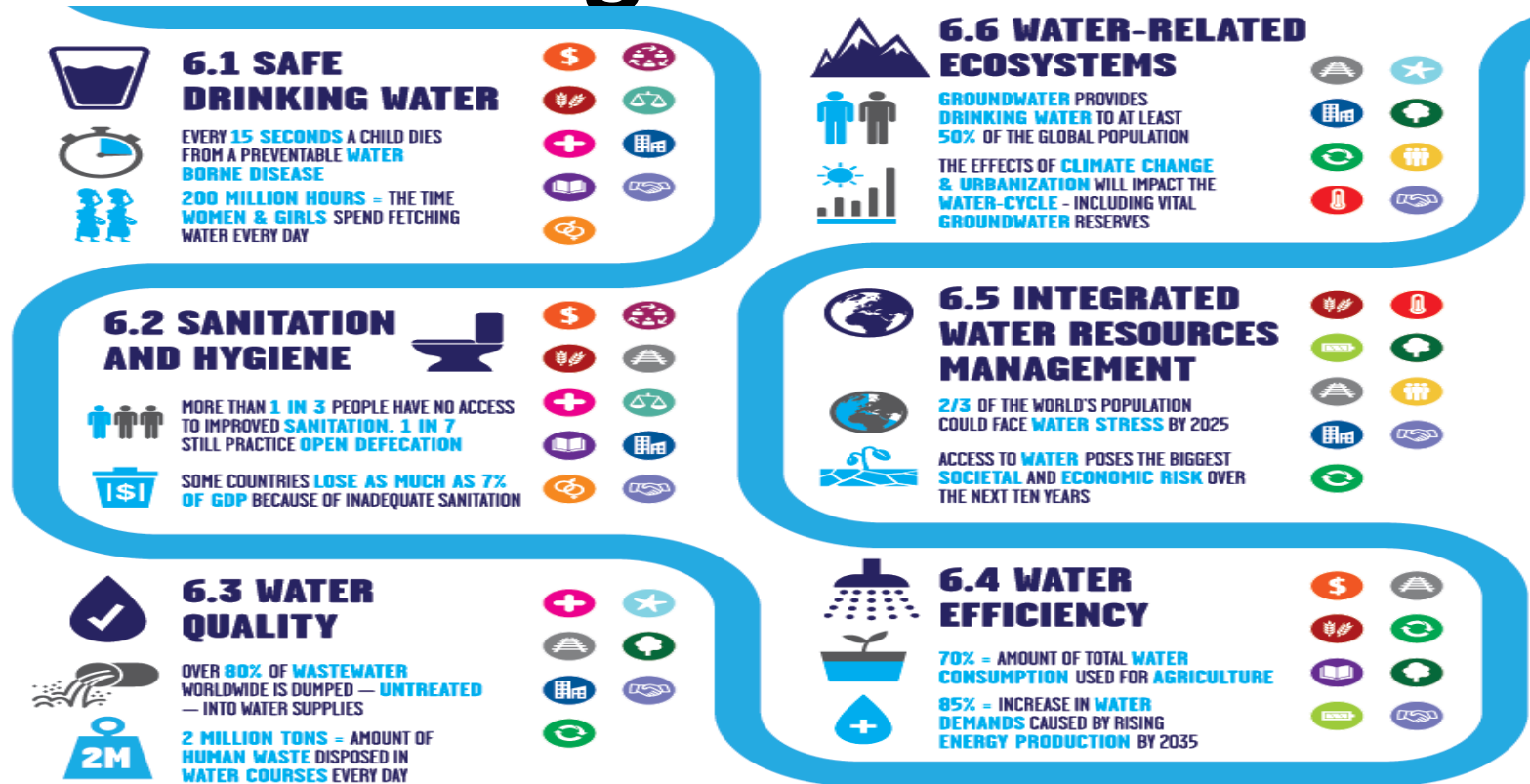
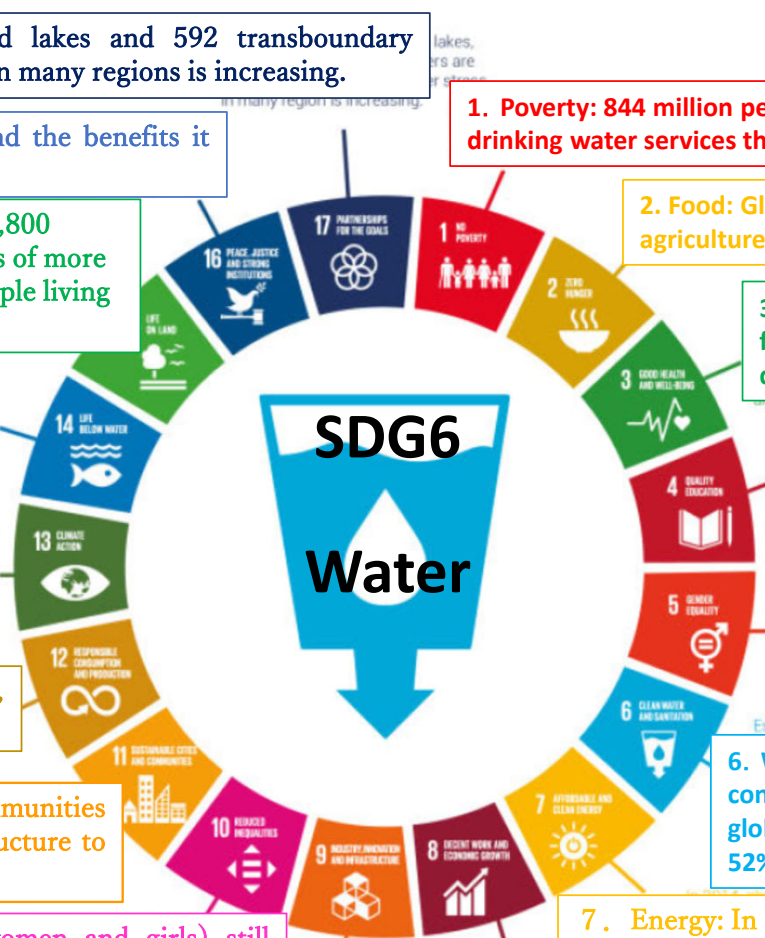


Six Targets of SDG6



- ✓ Very ambitious targets. Praise the UN and the world.
- ✓ The targets are related to other development agenda such as health, food, education, and gender
- ✓ IWRM is included as Target 6.5 as an “integrator” of SDG6

How water-related SDG can bring immense benefits for sustainable development



17. Partnership: 286 transboundary rivers and lakes and 592 transboundary aquifers are shared by 153 countries, water stress in many regions is increasing.

16. Peace: Equitable sharing of water and the benefits it creates a powerful tool for cooperation

15. Land: Some 28% of global forest ecosystems, covering 4,800 million km² purify and supply 60–80% of the freshwater needs of more than half of the world’s population, including 1.7 billion people living in the world’s largest cities.

14. Ocean: Around the world, 400 so-called “dead zones” in coastal waters exist, where excess nutrients lead to areas of low to no oxygen that can kill fish and other marine life

13. Climate: Between 1990 and 2015, water-related hazards accounted for 62% of deaths, 96% of the people affected and 75% of total damage costs amounting to USD2.5 trillion- numbers likely to increase in a changing climate

12. About one third of produced food is lost or wasted, commodities with a significant water footprint

11. Cities: By 2030, building sustainable cities and communities will require USD 7.5 trillion investment in water infrastructure to meet existing deficiencies and cope with future demand.

10. Inequality: In 2015, 169 million people (mainly women and girls) still collected drinking water from distant surface water sources and 892 million people still defecate in the open, with the majority residing in rural communities.

9. Industry: Water is fundamental to industry, and both quality and quantity matter. In 2017, 81% of companies surveyed consider sufficient amounts of good quality freshwater to be “important” or “vital” for their operations.

1. Poverty: 844 million people still lacked even basic drinking water services that exacerbate poverty

2. Food: Globally 70% of all water withdrawals are used for agriculture more than 80% in Africa and Asia

3. In low and middle-income countries, 20% of healthcare facilities lack basic sanitation and 33% lack access to safe drinking water, as well as water and soap for hand washing

4. Quality Education: In 2013, although 71% of the world’s primary schools had adequate access to water supplies and 69% had adequate sanitation, in the 49 LDCs the figures were only 52% and 51%, respectively

5. Gender: Across 61 countries, women and girls are responsible for water collection in 8 out of 10 households, preventing women and girls to engaging in other services (e.g. attending schools)

6. Water: Estimates suggest that if natural environment continues to be degraded and unsustainable pressure put on global water resources, by 2050 this will put at risk 45% of GDP, 52% of the world population and 40% of global grain production

7. Energy: In 2014, about 10% of all water withdrawals were used for energy generation that requires water to cool thermal power plants, grow biofuels, extract primary fossil fuels, and provide hydropower

8. Labor: Globally, 1.4 billion livelihoods are directly water-dependent. This includes jobs in the food and beverage industry, energy as well as in the water industry. In many developing countries, millions of small-holder farmers rely on water for irrigation and livestock farming for their livelihoods.

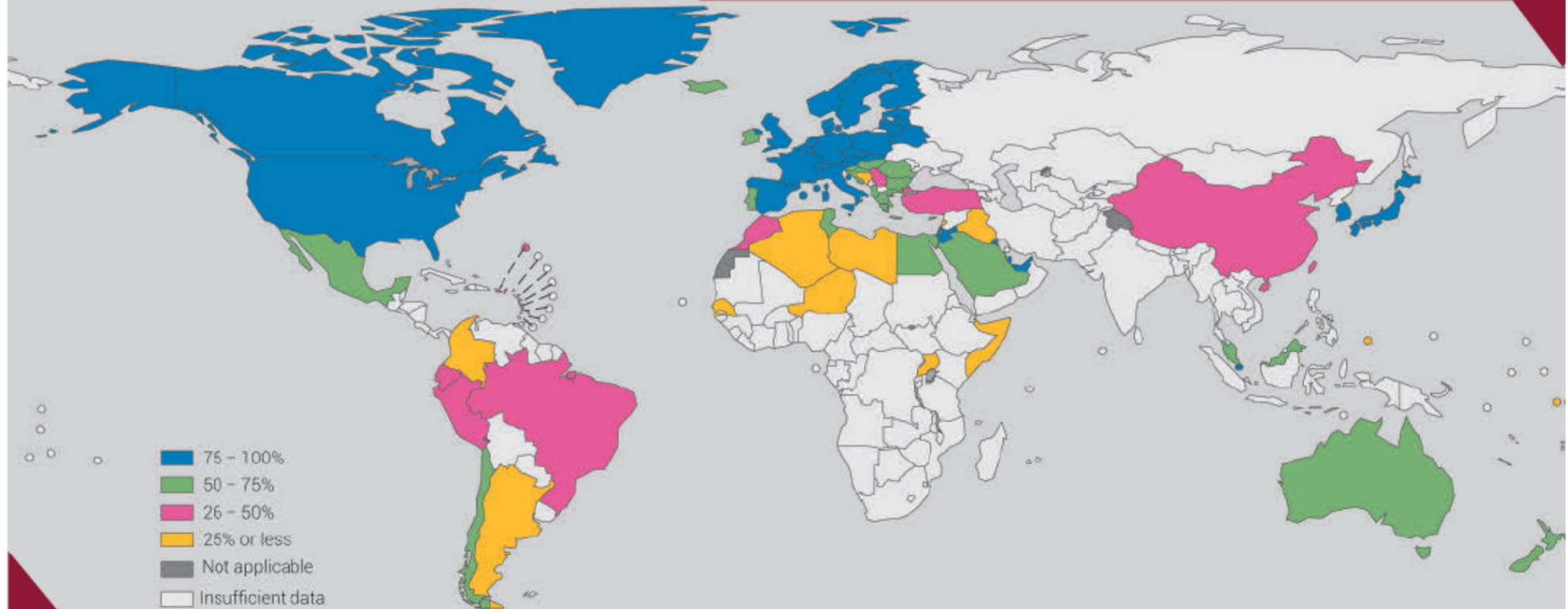
Achieving WASH Targets of SDGs by 2030 will require a quadrupling of current rates of progress



FIGURE 1 Global coverage of WASH services, 2015-2020 (%), and acceleration required to meet targets by 2030

SDG6.3 water quality: SDG6.3.1 (2017)

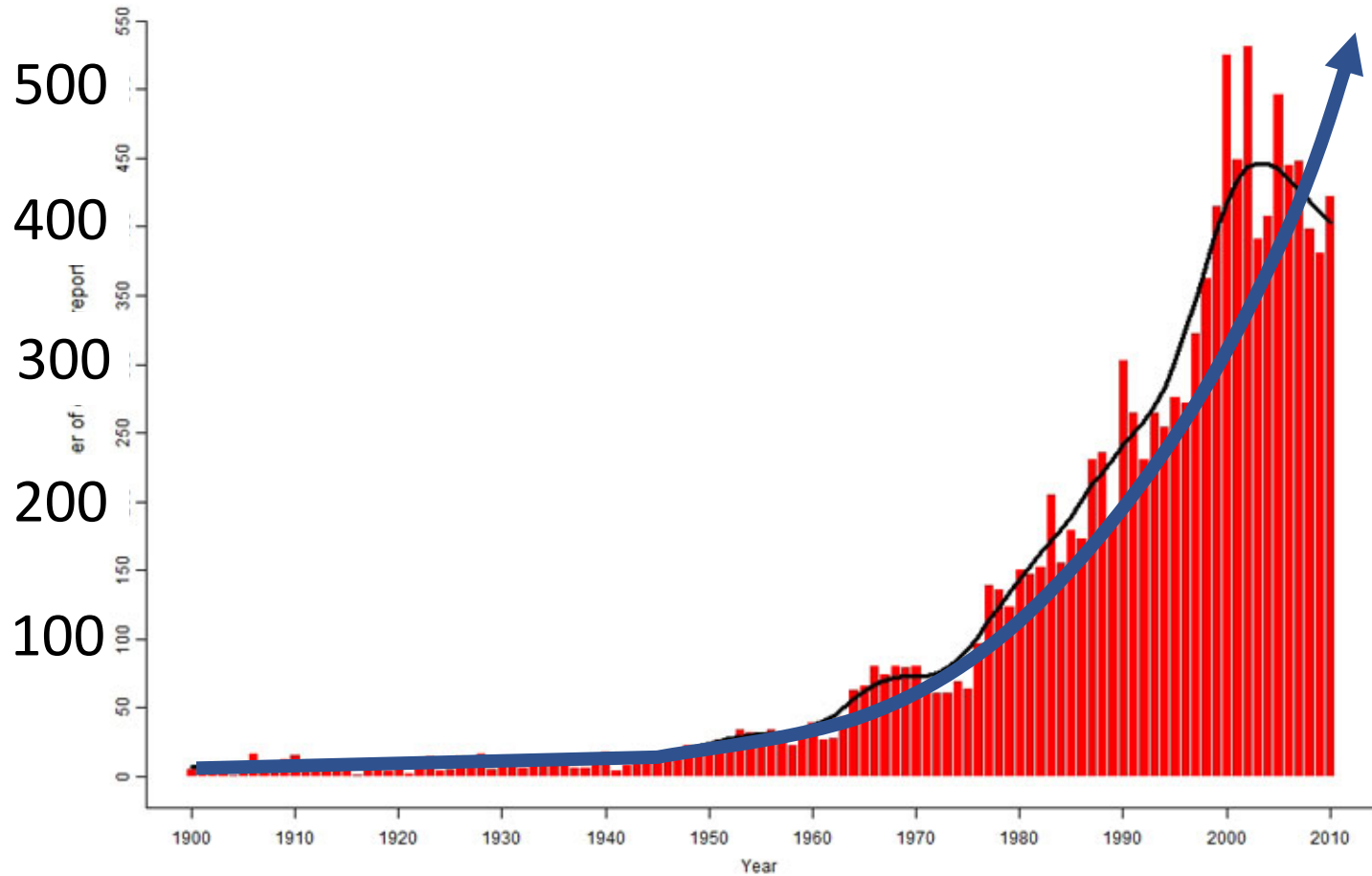
In 22 of the 79 countries with data, the safe treatment level of household wastewater flows is 50 per cent or less.



Less than 25 per cent of the population is connected to sewerage services in 102 countries (mostly in Africa and Asia). High-income countries are predominantly served by sewerage, and treatment plant performance rates are higher. Low- and middle-income countries have predominantly on-site facilities and very few collect data on treatment for on-site facilities.

Data sources:
UN-Habitat; WHO

Number of reported natural disasters(1900-2010)

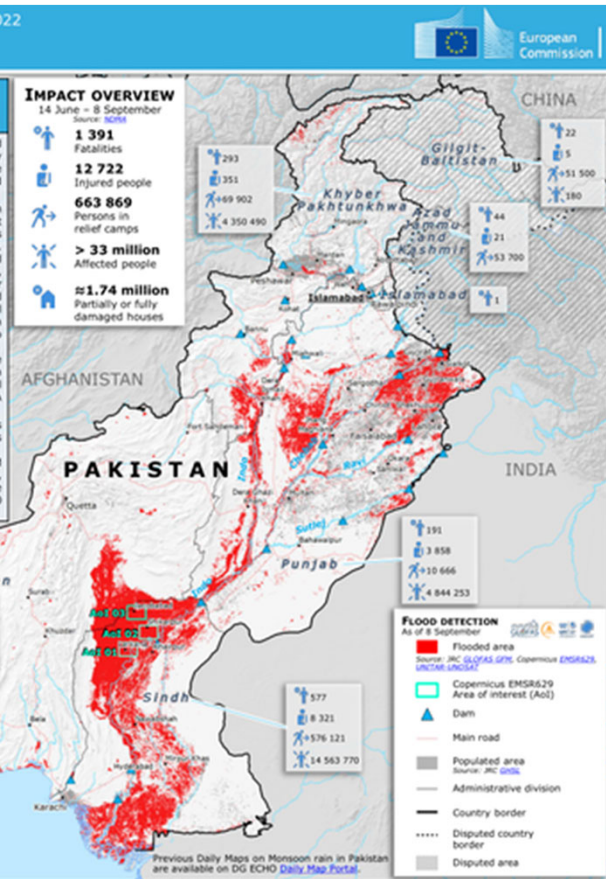


Year

EM-DAT: The OFDA/CRED International Disaster Database - www.emdat.be - Université Catholique de Louvain, Brussels - Belgium

Source: ISDR "EM-DAT"

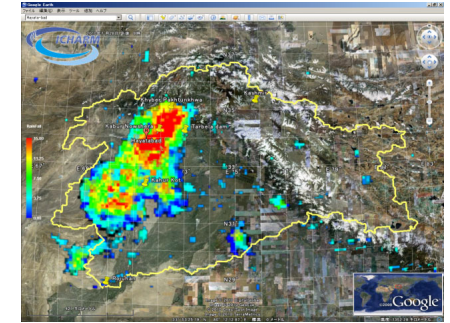
Floods in Pakistan in July-August, 2022



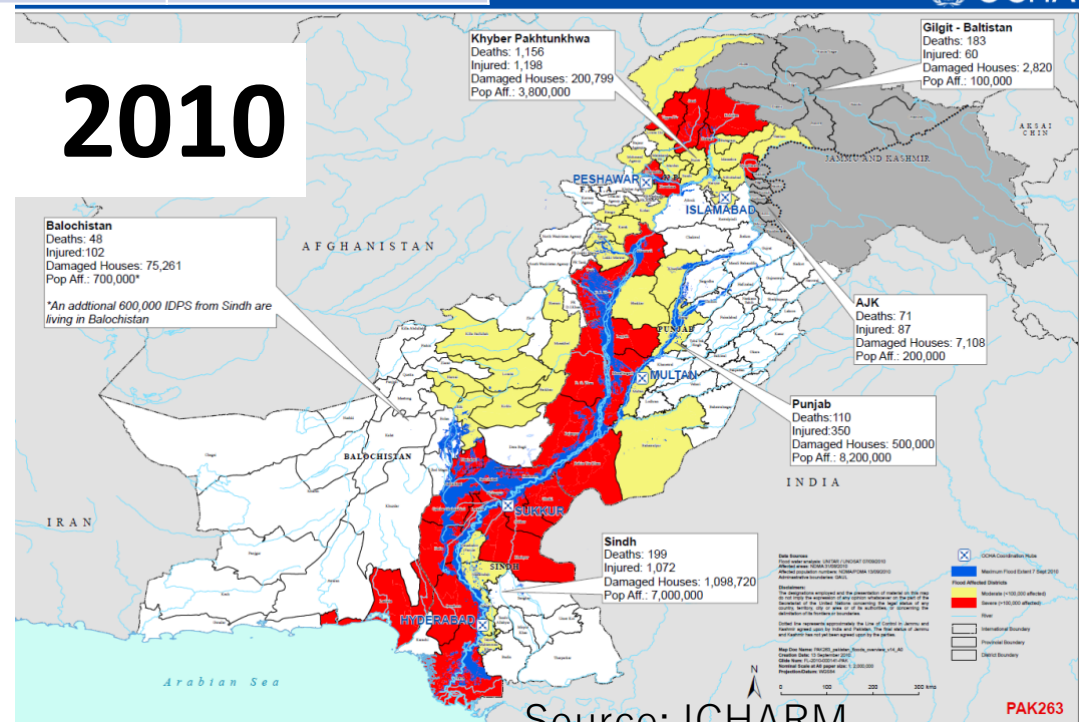
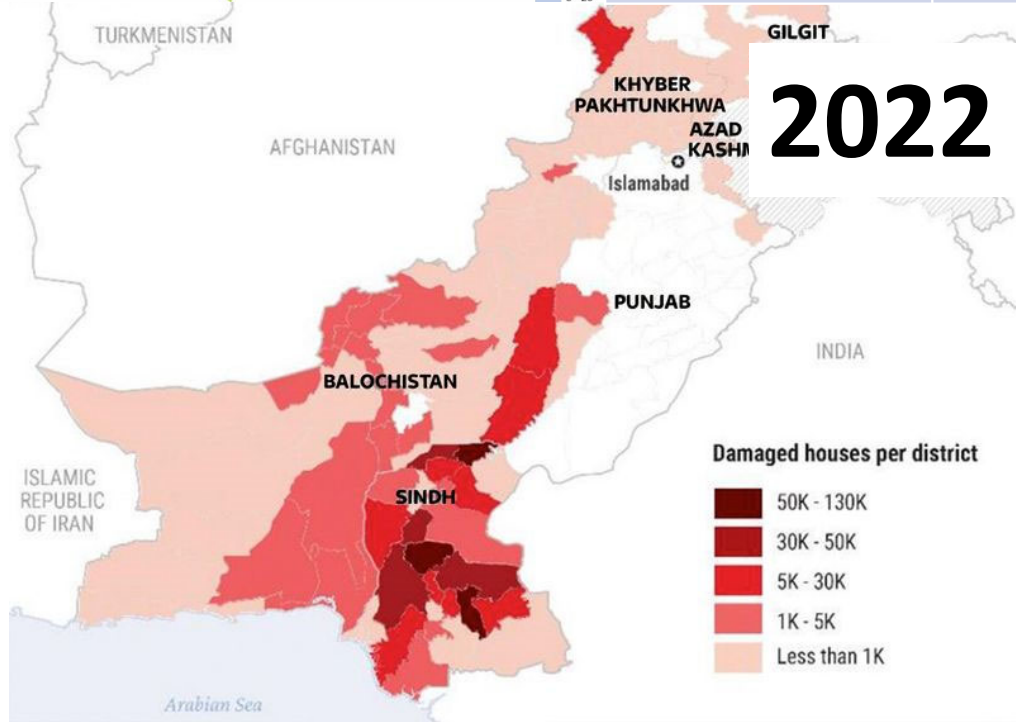
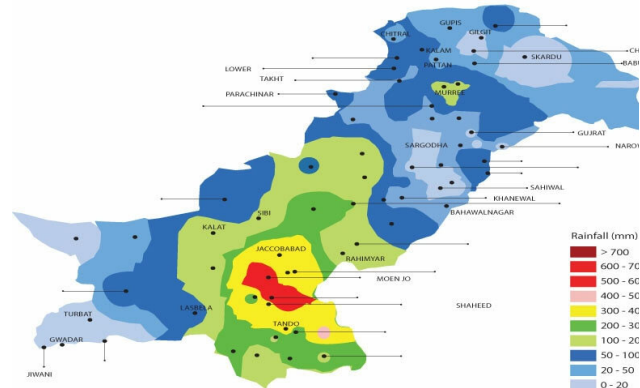
Death: 1,717

Comparison of Pakistan Floods in 2022 and 2010

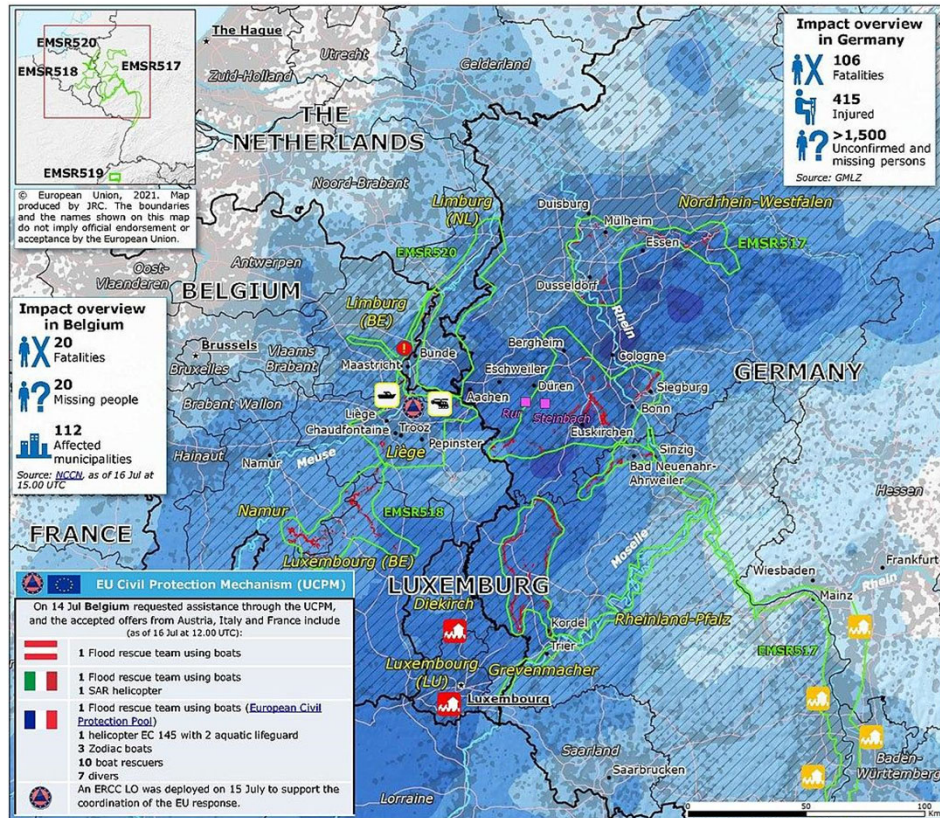
	2022	2010
Affected Areas	30% of territory	20 % of territory
Death	1,717	1,985
Affected people	33 million	20 million
Lost houses	1.7 million	1.1 million
Economic loss	43 billion USD	30 billion USD



Sept 2010) and Flood Losses (13 Sept 2010) OCHA

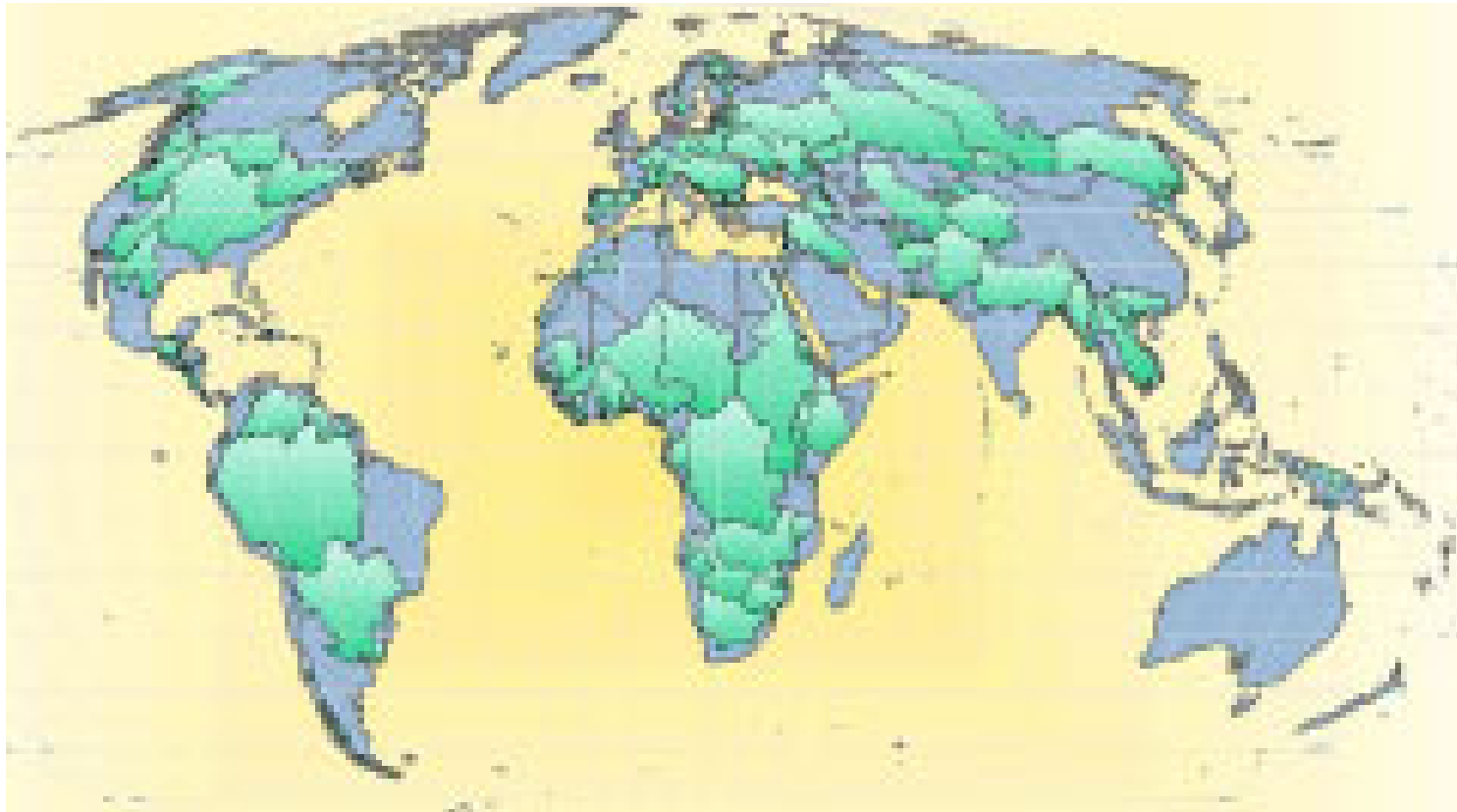


European Floods in July, 2021 (Germany, Belgium, Austria, Croatia, Italy, Luxembourg, the Netherlands, Switzerland, and others)

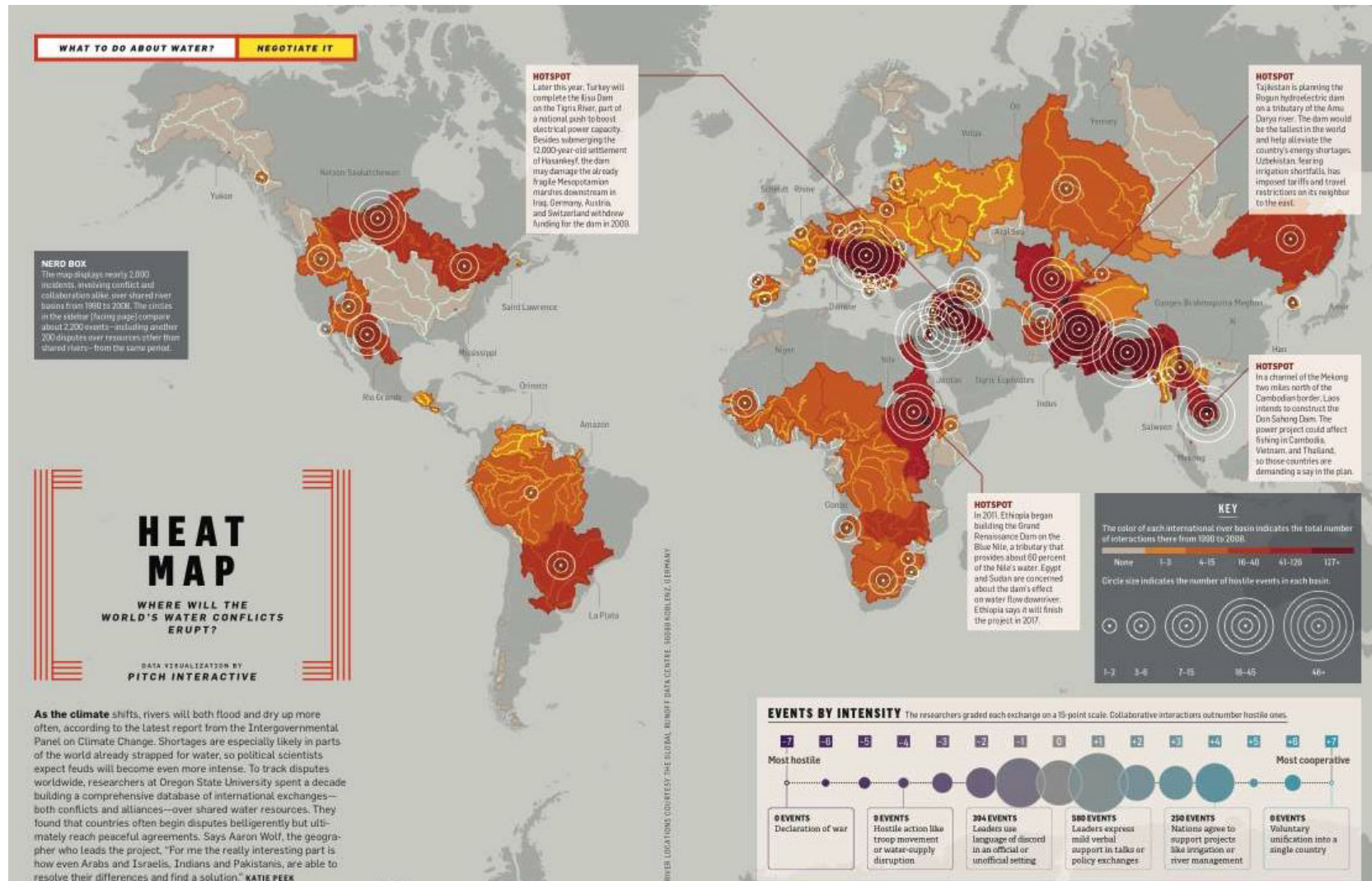


Transboundary Water in the World

- There are 263 transboundary rivers in the world.
- They share 45% of land, 60% of discharge, and 40% of the population of the world.

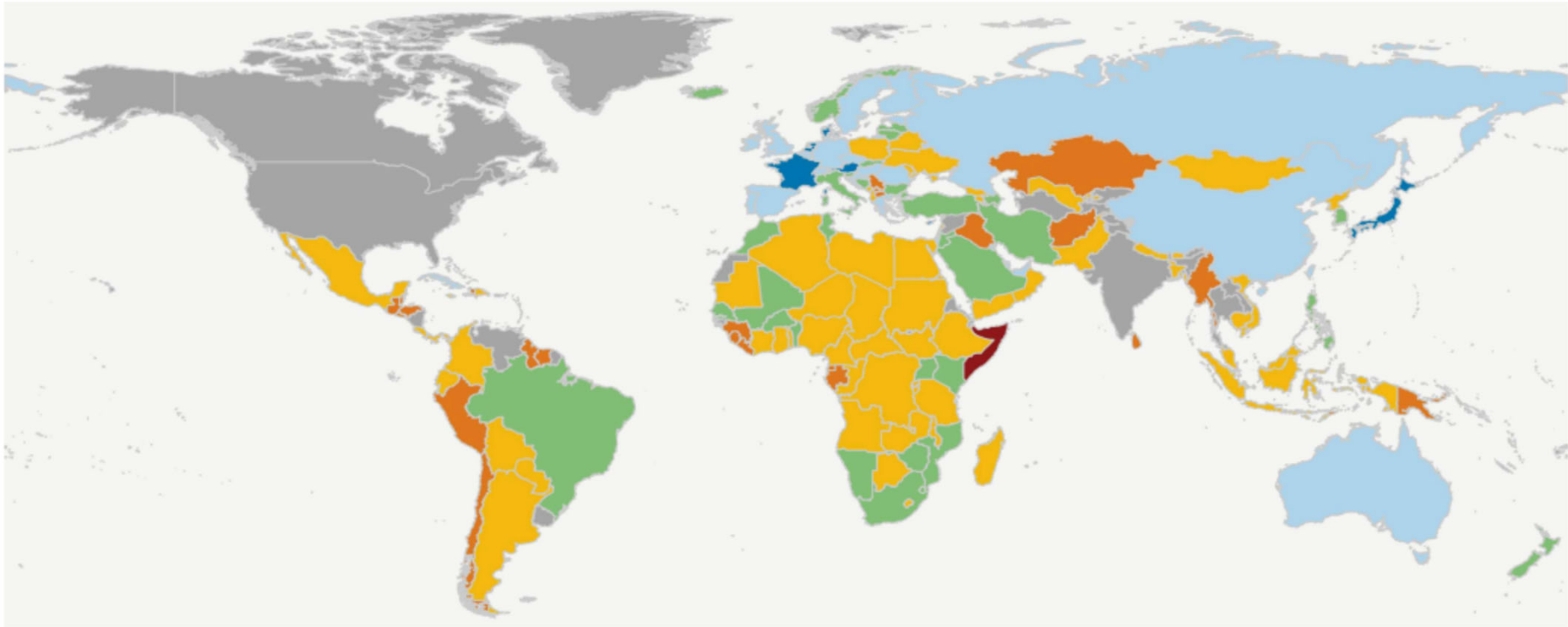


World Map of Water Conflict

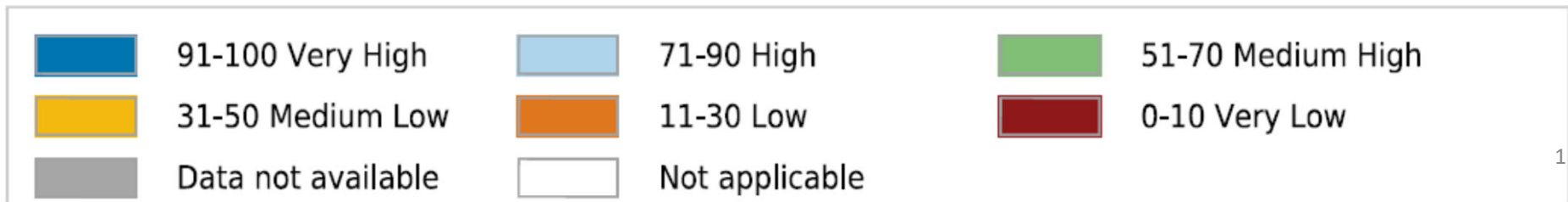


SDG6.5 IWRM: SDG6.5.1 Status of IWRM Implementation (2017年)

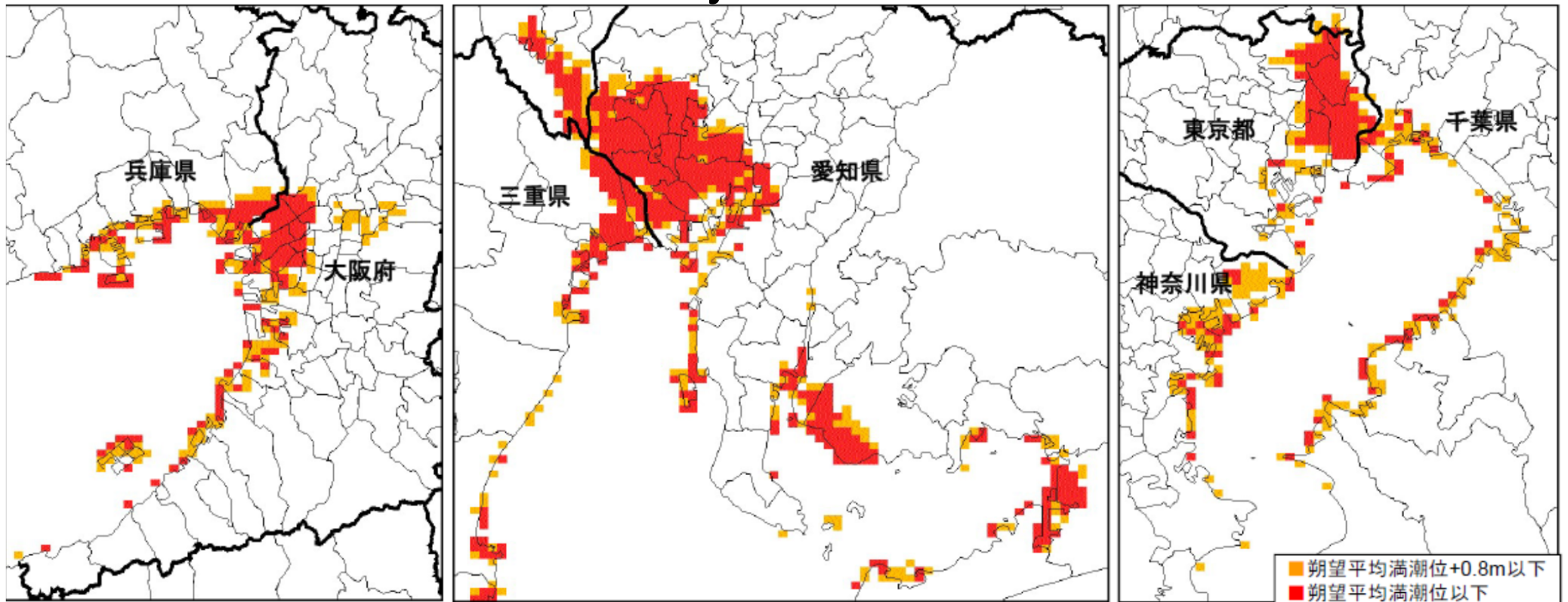
management implementation (0-100) (2017) ^[4]



Degree of IWRM implementation (0-100)



Land areas under sea level in major cities– before and after sea level rise-



Osaka Bay Area

Nagoya (Ise) Bay Area

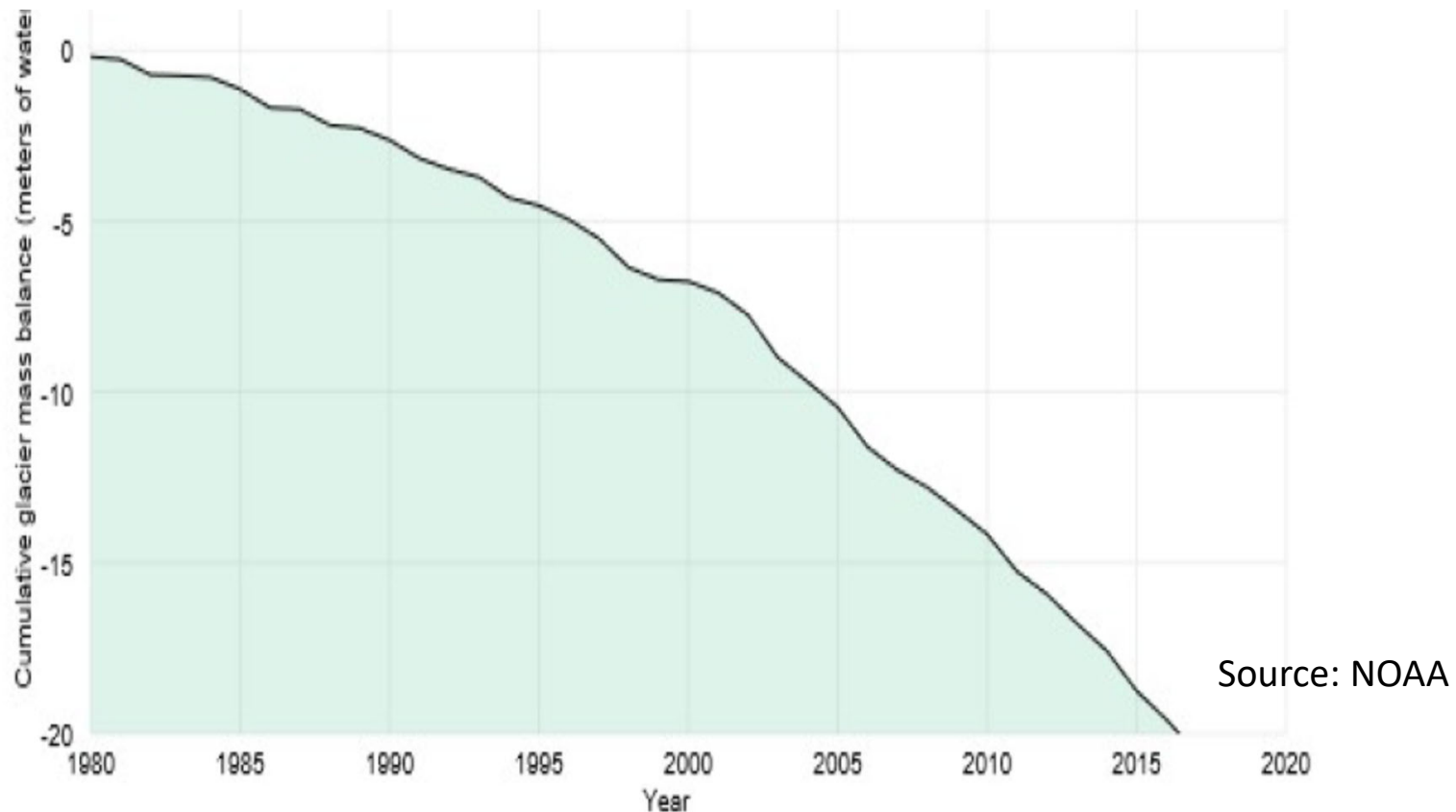
Tokyo Bay Area

	Present	After Sea Level Rise	Rate
Area	500 km ²	780 km ²	160%
Population	3.1 million	4.4 million	140%

局で作成。
潮位を下回
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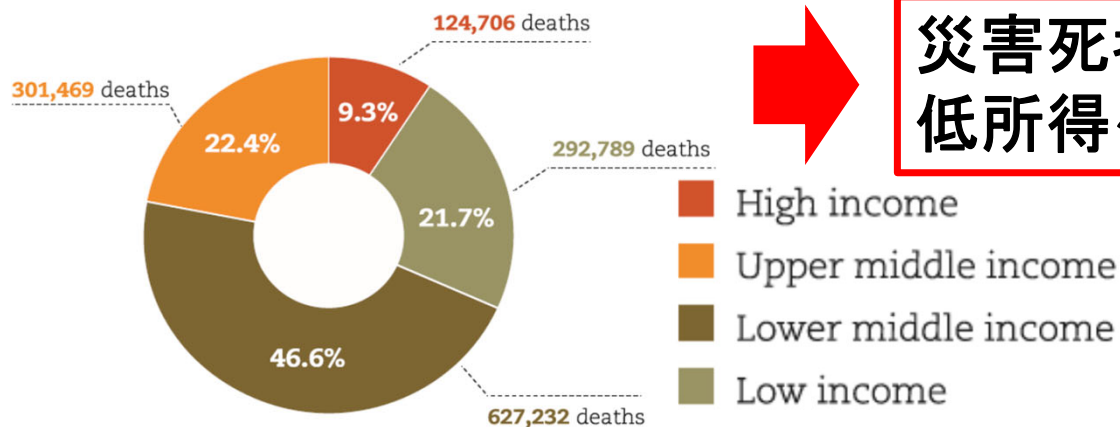
**Glaciers of the world has become thinner by
20 meters in the recent 35 years.**

**Cumulative mass balance of glacier in the past 35
years (1980-2016)**



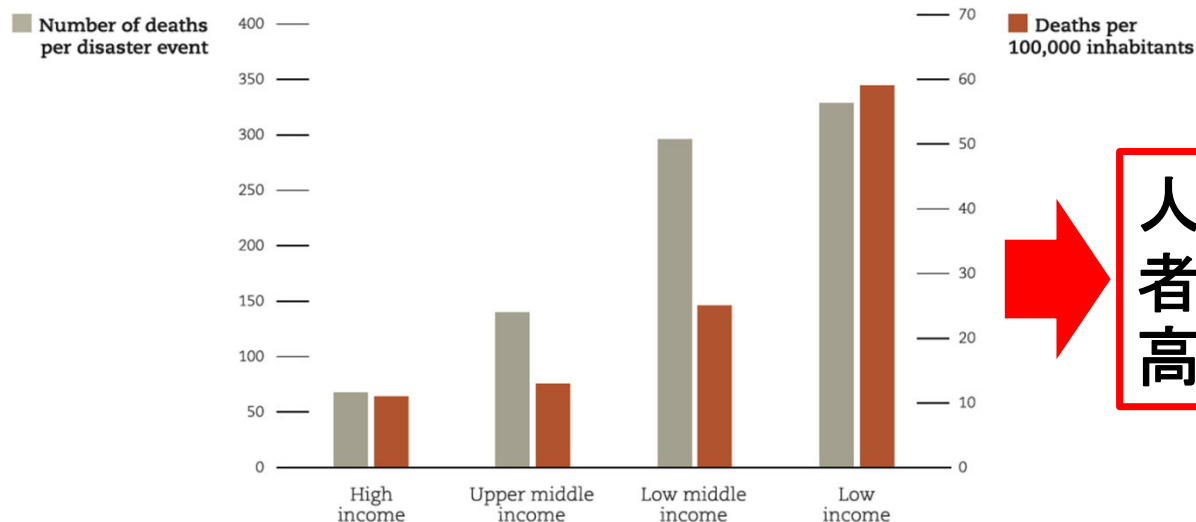
災害と貧困

所得階層別災害死者数(1996-2015)



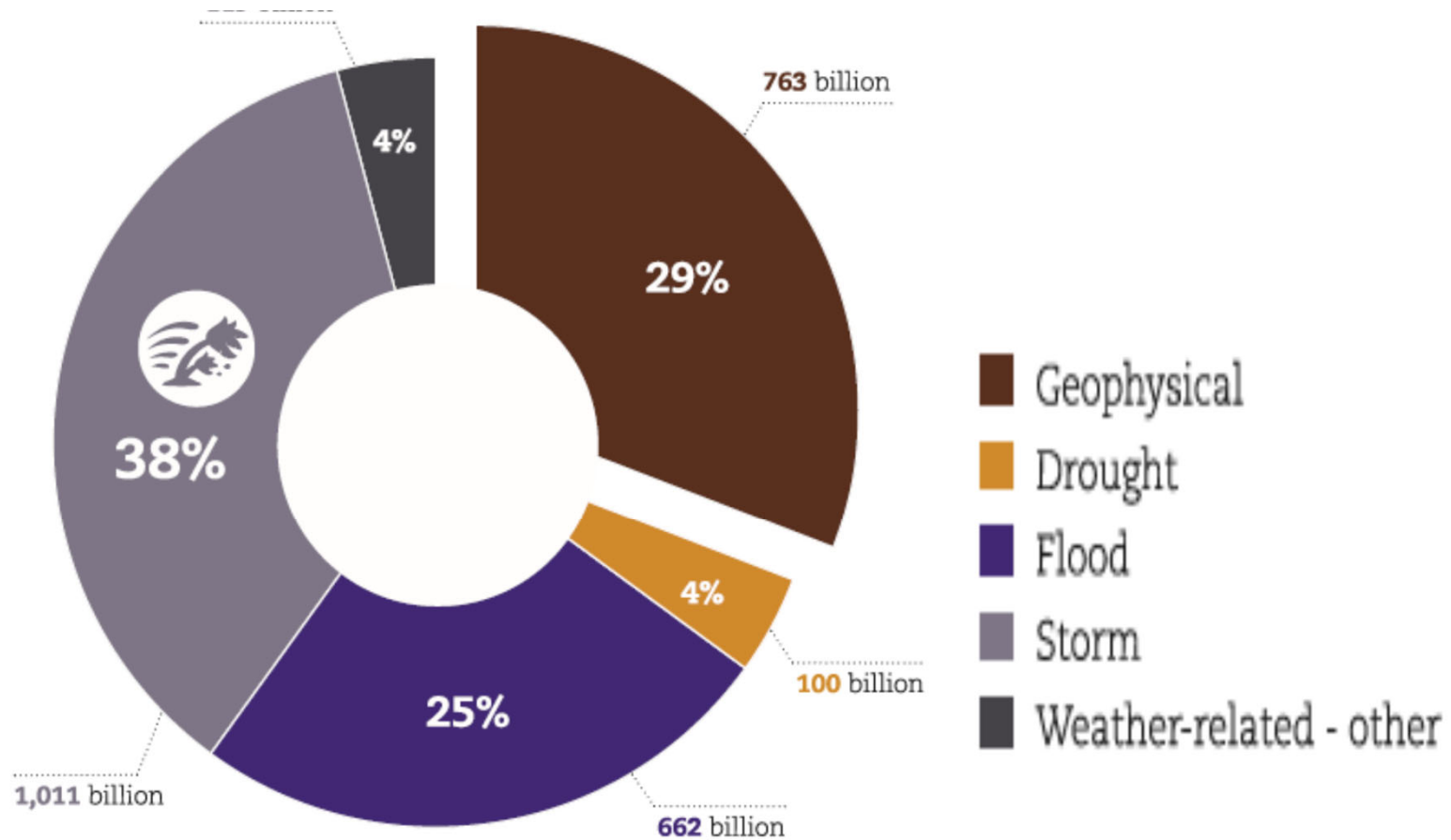
災害死者の68%が
低所得～中低所得層

所得階層別人口十万人当たり災害死者数(1996-2015)



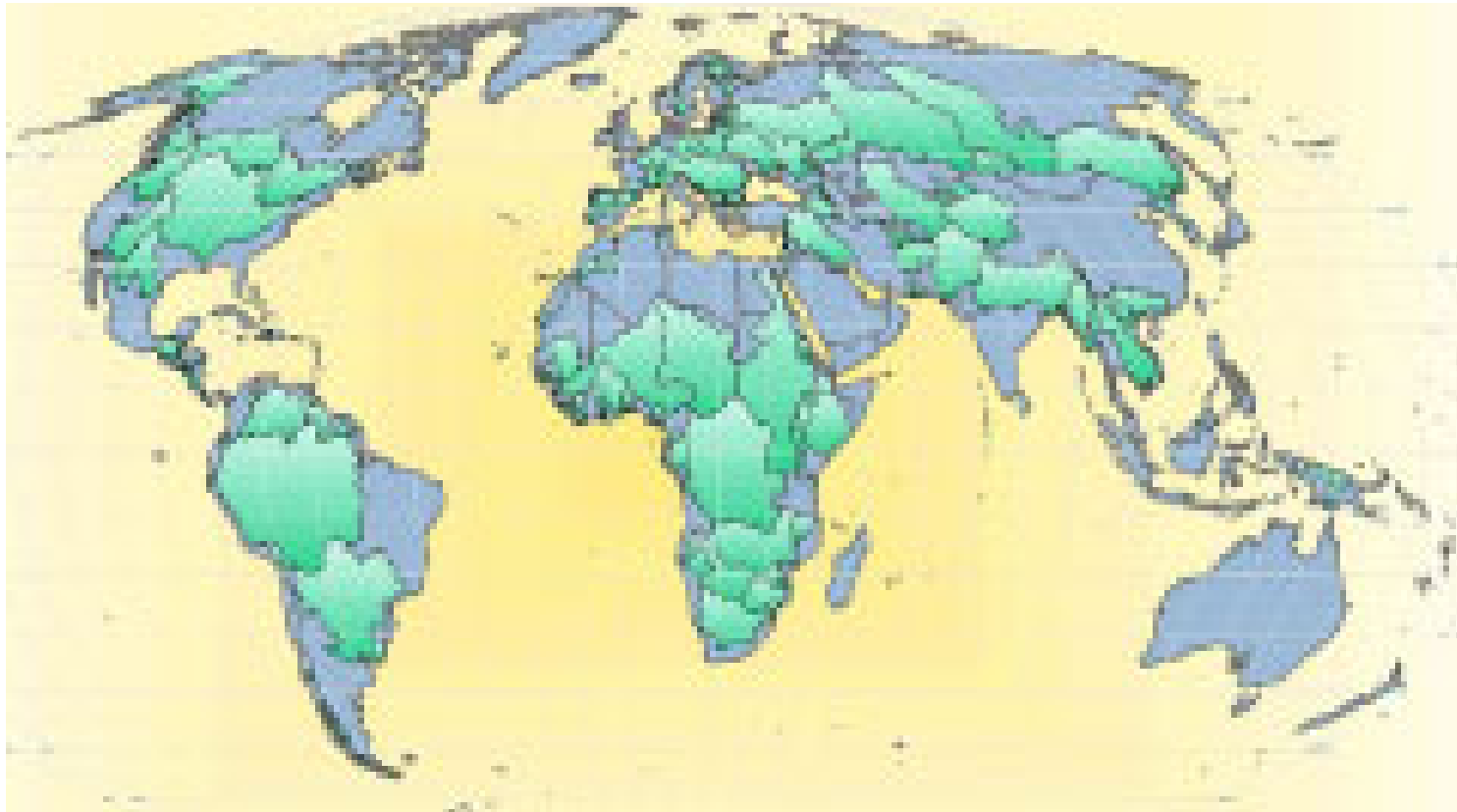
人口当たり災害死者:
低所得者層が高所得者層の6倍

The world has **lost 2.7 trillion USD** in 20 years (1995-2015) by disasters. **70 % of the loss by water-related disasters**

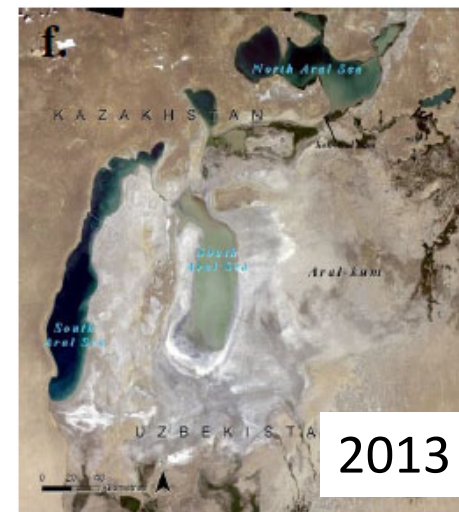
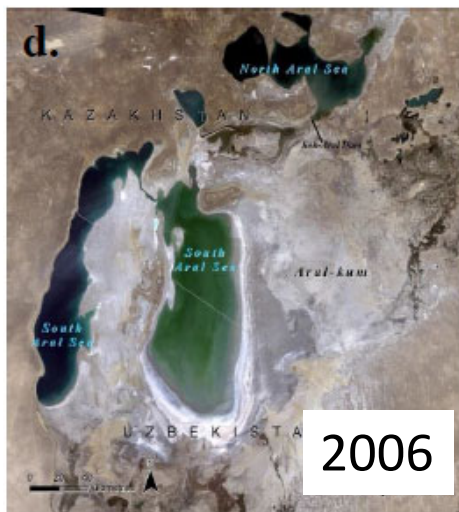
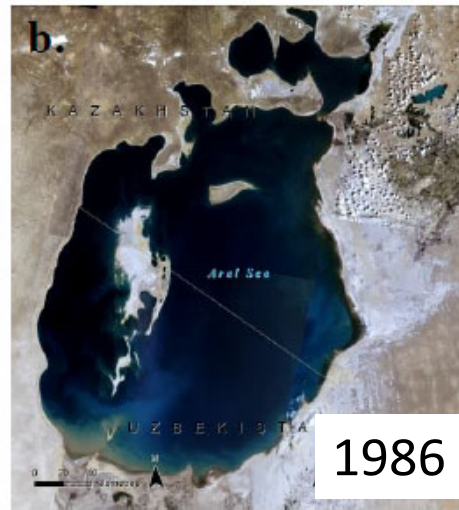


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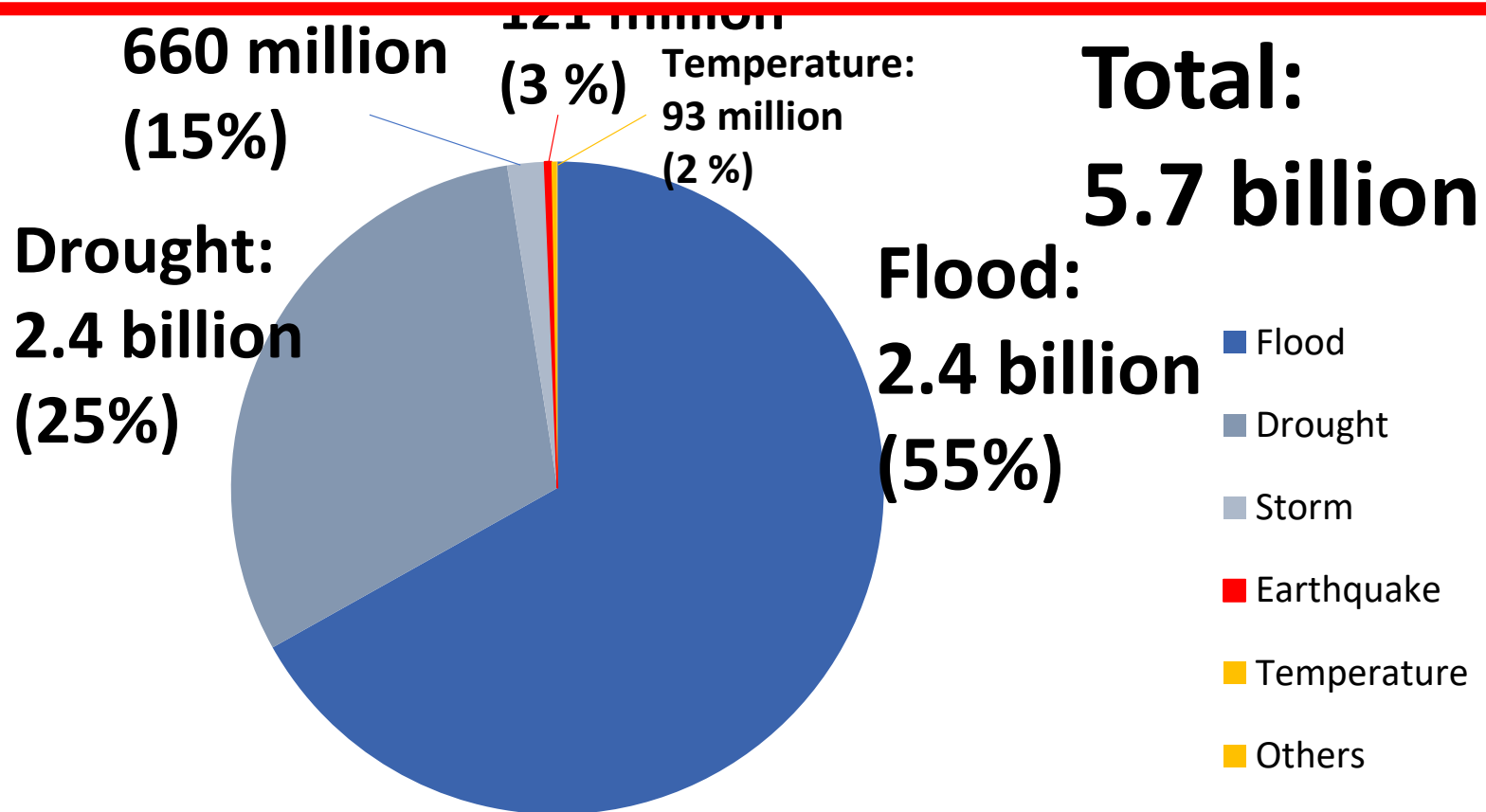


Shrinking Aral Sea



Source : UNEP

95% of disasters are water-related disasters



Source: CRED "The human cost of natural disasters 2015"