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# Megatrends

**The importance for climate adaptation**



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Coast to Coast Climate Challenge

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# State of the Earth - We MUST live more sustainable!

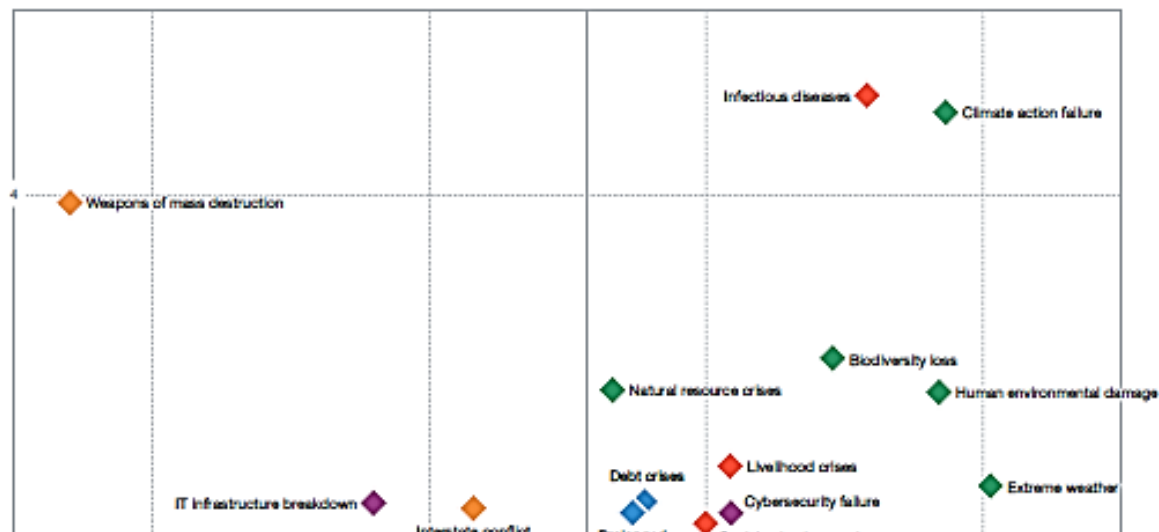




# The Global Risks Report 2022

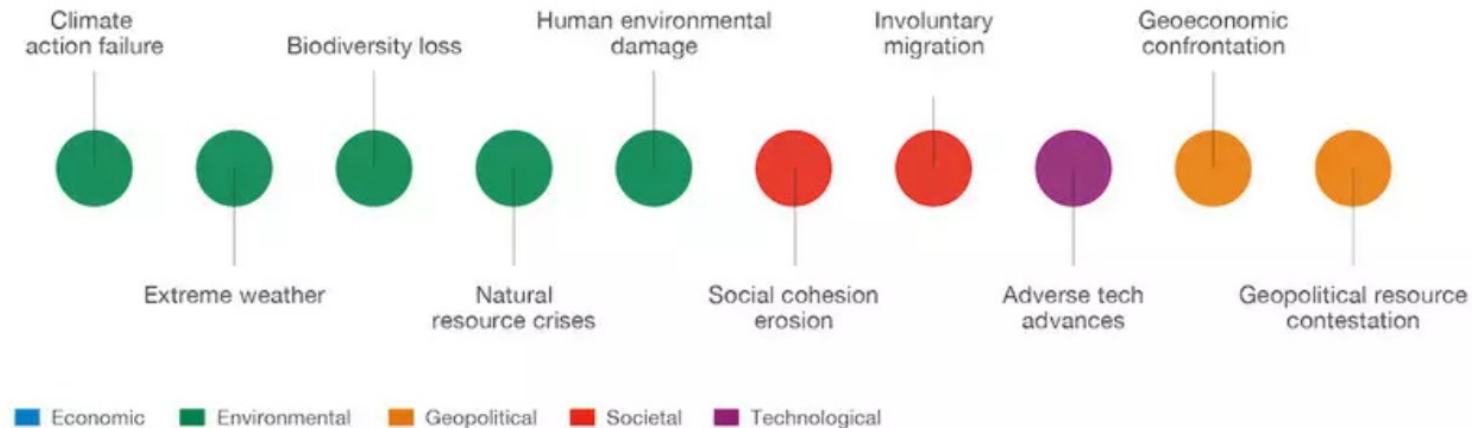
17th Edition

INSIGHT REPORT



## Top Long-Term Global Risks

Over the next 5-10 years





# Water

CC adaptation, water and sanitation



# Biodiversity, Ecology, Environment



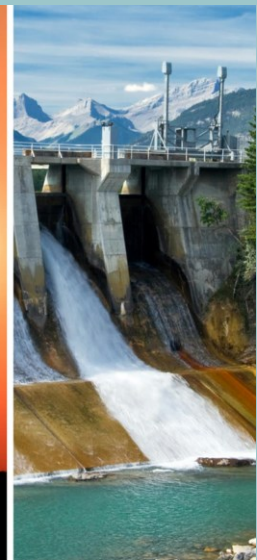
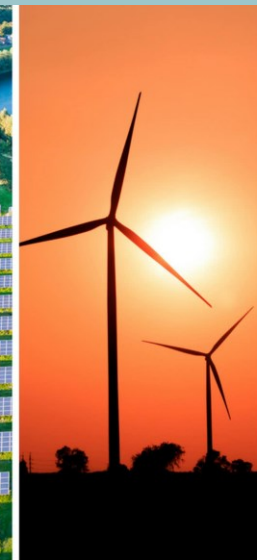
# Resources

Materials, waste



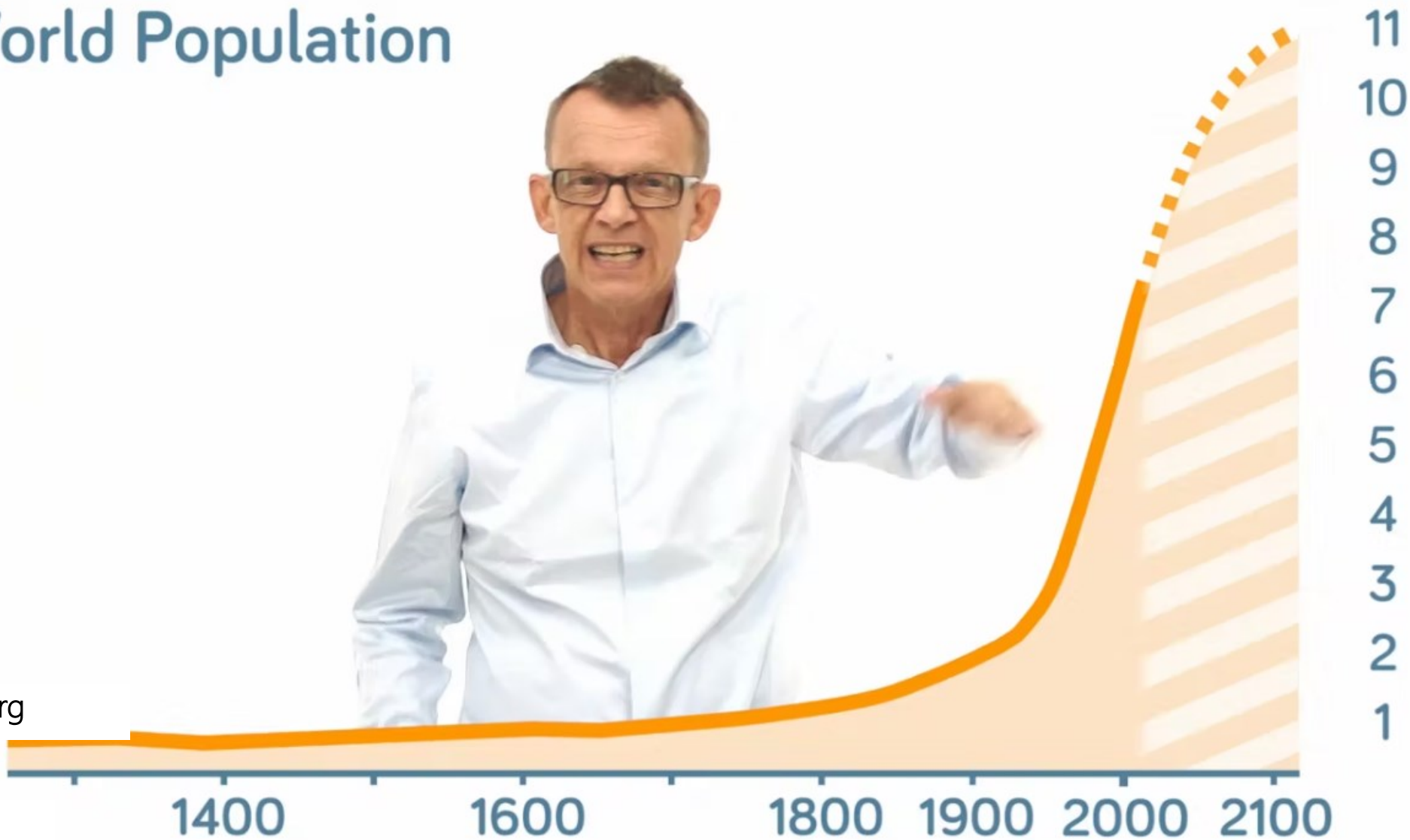
# Energy

GHG's



# Growing global population

## World Population



Gapminder.org  
Hans Rosling



# Demography

The demography PIN: 1115

**There are roughly eight billion people in the world today. Which map best shows where they live? (Each figure represents 1 billion people.)**

**B**

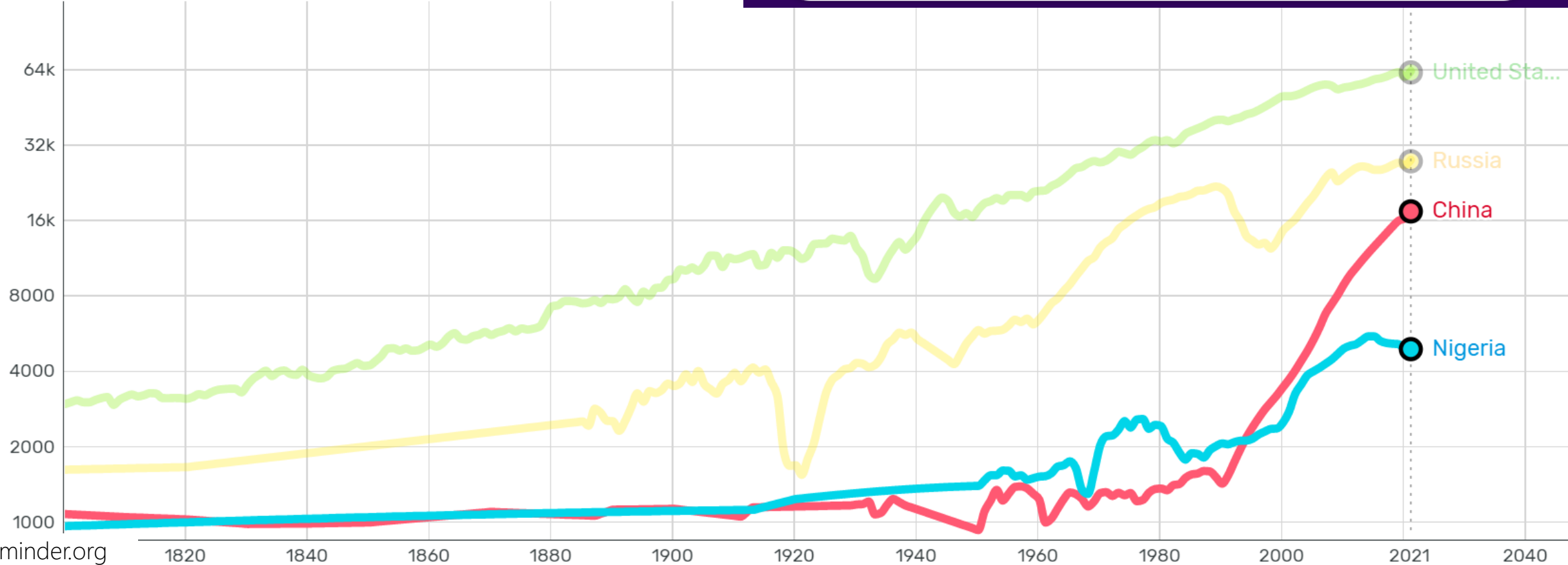


# Global wealth

In 1990, 58% of the world's population lived in low-income countries. What is the share today?

Around 9%

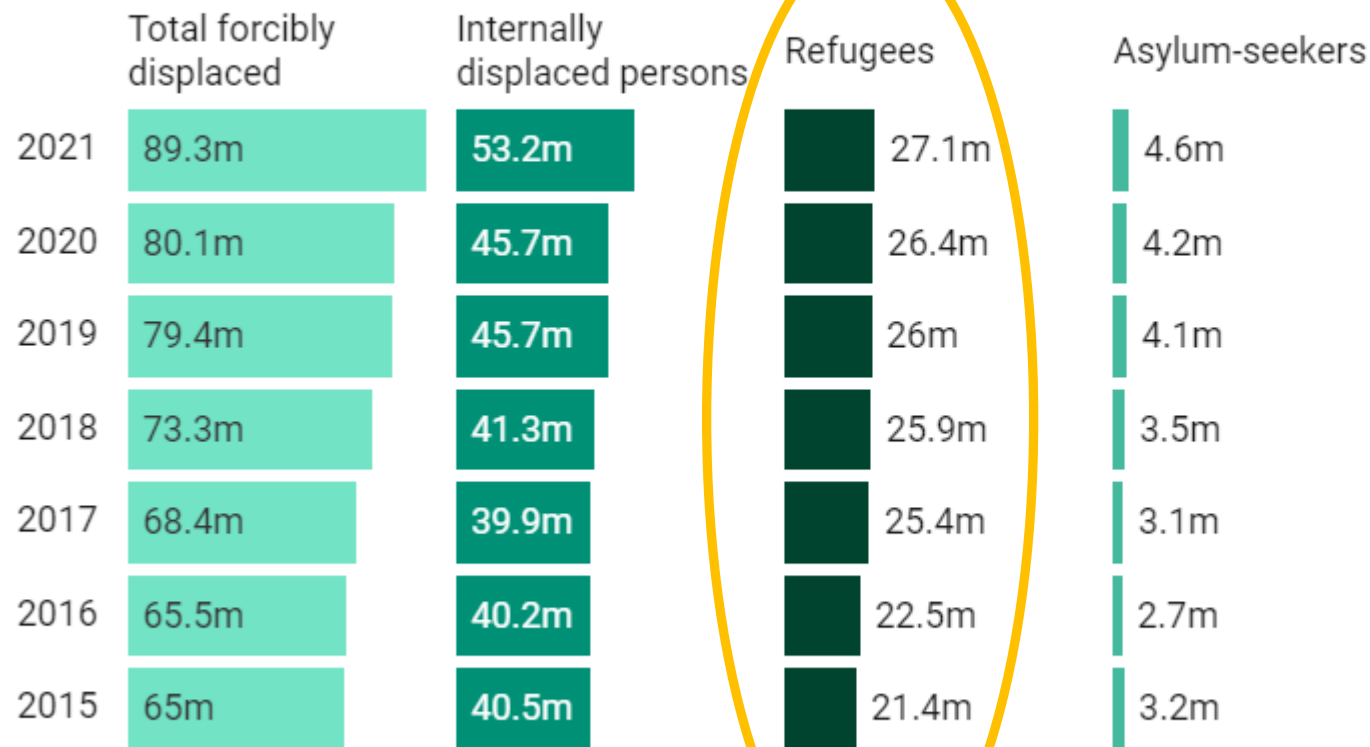
Income per person (GDP/capita, PPP\$ inflation-adjusted)



# Current # of refugees in the world

## How many refugees are there in the world?

Numbers of people (in millions).



Figures for internally displaced persons from Internal Displacement Monitoring Centre. Refugees is the total of those under UNHCR mandate and UNRWA mandate.



# Threatened or perceived threatened

**How many people in the world live in areas that are 5 meters or less above sea level?**

**Around 11%**

**What share of the world's population see climate change as a threat to their country over the next 20 years?**

**Around 65%**

> 1 billion people are potentially migrating due to climate change!



# Urbanization

## Cities

- Cover 2% of the Earth's surface
- 70% of the world's total GDP
- Consume >60% of all energy
- Produce >70% of all greenhouse gasses
- Produce 70% of the world's total waste
- **2.5 billion people will move to cities <2050**
- **60% of the buildings in use by 2050 have not yet been build/renovated**





# Digitalization

**3D  
scan**

**Real time models:  
Meteorological  
Hydrological, Hydraulic  
Mobility etc.**

**Block-  
chain**

**Aug  
r**

**Predictive  
Informative  
Proactive  
Responsive**

**Generative  
design**

**Data informed  
decision making**



health effects **annually**

55,4 million WHO, 2022

**annually**

41,0 million WHO, 2022

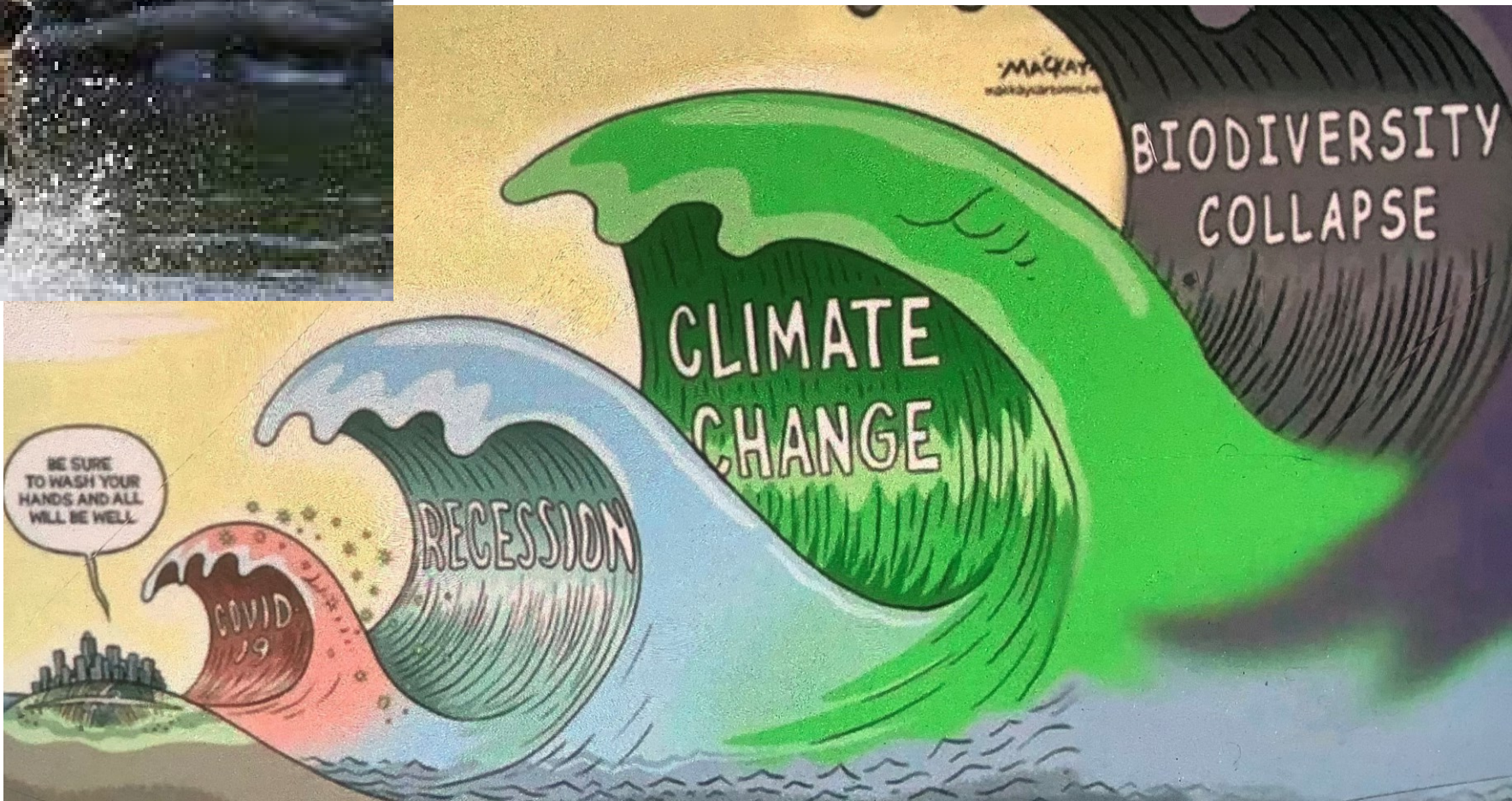
**annually**

1,3 million WHO, 2022

0,6 million WHO, 2022

6,5 million Wikipedia, 09 2022

**Fear**  
as the prime driver!





# National and local scale

- **Awareness and urgency**
- **Competition for people and talent**
- **Increased demands for:**
  - Resilient housing
  - Real time info and emergency response
  - Stakeholder involv. & Individualisation
    - *Solutions for ME!*
  - Convenience, liveability
- **Nature based solutions**
- **Multifunctional solutions, multi-gain appr.**
- **Low-cost solutions**
- **Local solution for global deployment**





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## The power of **Imagination**

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We can not **develop**, what we can not **imagine**

The **desire** for change is essential for the **ability** to innovate



When imagination is spot on....



Mark R. Sullivan, 1953

The Tacoma News Tribune, April 11, 1953.

## *There'll Be No Escape in Future From Telephones*

PASADENA.— *P* —The telephone of the future?

Mark R. Sullivan, San Francisco, president and director of the Pacific Telephone & Telegraph Co., said in an address Thursday night:

"Just what form the future telephone will take is, of course, pure speculation. Here is my prophecy:

"In its final development, the telephone will be carried about by the individual, perhaps as we carry a watch today. It probably will require no dial or equivalent, and I think the users will be able to see each other, if they want, as they talk.

"Who knows but what it may actually translate from one language to another?"

And when it is not....



Arthur Summerfield, 1959



“Before man reaches the moon, your mail will be delivered within hours from New York to Australia by guided missiles. We stand on the threshold of rocket mail” – Arthur Summerfield, U.S. Postmaster General



Thank you 😊



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Competing agendas

Holistic Urban Water  
Management

Digital innovations

Individualized solutions

Convenience, liveability

Nature based solutions

Local solutions with global  
perspective

Power of imagination

Total # deaths annually globally: 55 million  
 Deaths with Covid 19. Totally

The demographic

# of deaths globally (2019) <b>annually</b>	55,4 million
# of deaths due to lifestyle related health effects <b>annually</b>	41,0 million
# of deaths with Covid-19 globally <b>in total</b>	6,5 million
# of deaths due to normal flue <b>annually</b> (WHO, 2022)	0,6 million

# of deaths (2019) <b>annually</b>	55,4 million	WHO, 2022
# of deaths due to lifestyle related health effects <b>annually</b>	41,0 million	WHO, 2022
# of deaths due to traffic accidents <b>annually</b>	1,3 million	WHO, 2022
# of deaths due to normal flue <b>annually</b>	0,6 million	WHO, 2022
# of deaths with Covid-19 <b>in total</b>	6,5 million	Wikipedia, 09 2022