

# Global human Health is a One-health, Sustainability and Equality problem altogether - raising awareness and promoting actions



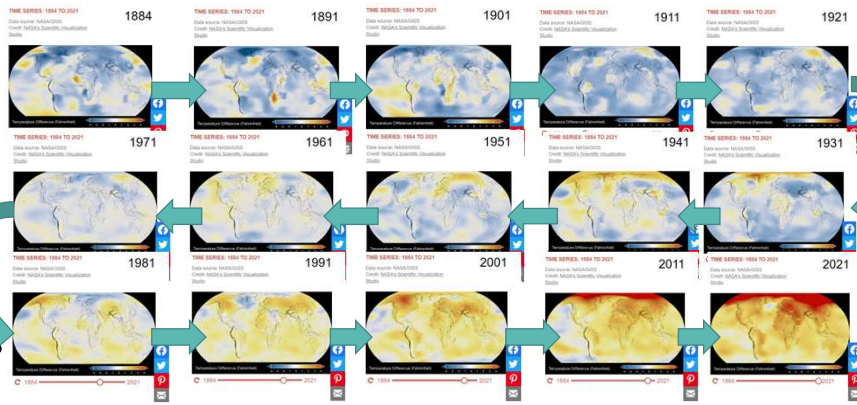
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## JUST THE REALITY

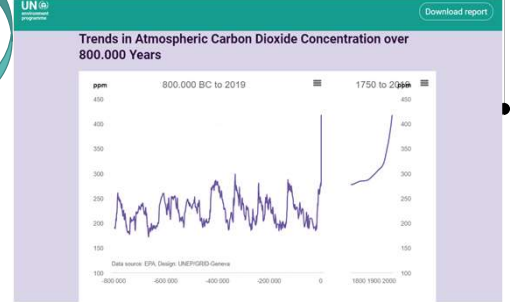
CLIMATE HAS CHANGED QUITE SIGNIFICANTLY ALL AROUND OUR PLANET AND KEEPS CHANGING AT HIGH RATE (BTW, "THERE IS NO PLANET B!")

DATA ARE UNCONFOUNTABLE AND OVERWHELMING

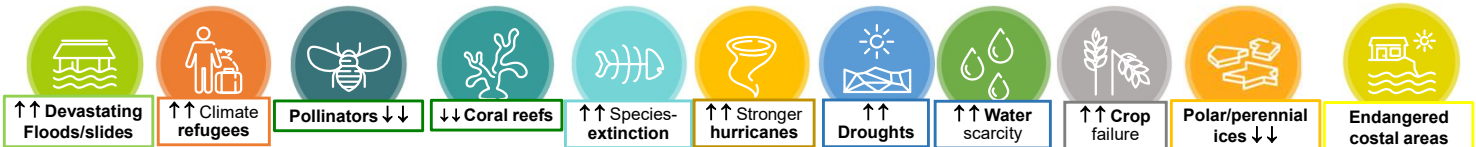


Global temperatures recorded at the NASA in the past 140 year (selected snapshots approximately every 10 years)

Retrospective analysis of Global temperatures of the planet Earth up to 0.8 billion years ago (indirect measurements from atmospheric CO<sub>2</sub> - UN accessible data - note the x axis is in eons)



Ecosystems are either breaking up or migrating to new geo-locations resulting in new challenges to the living sphere, as we know it



Microbiomes are the first to be impacted; new pathogens are emerging or jumping to uncommonly infected species; and arthropod disease-vectors have demonstrated an elevated adaptability to environment changes

**2022 - Catastrophic floods in Pakistan (twice the area of the all UK) affected about 30 million people**

The record-breaking floods have killed over 1,700 people and 12 million livestock. Over 7.9 million people are now displaced.

The impact is unimaginable. Livelihoods have been destroyed after two months of continuous rainfall, and people are in need of shelter, food, clean water, and toilet facilities.



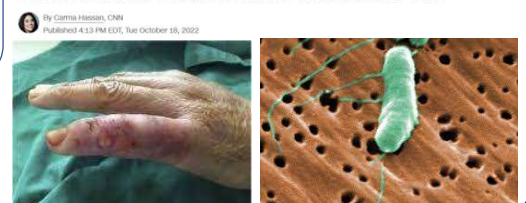
With the increased risk of **waterborne diseases**, Red Cross teams are also on hand with free medicines and treatment for diseases like cholera and diarrhoea. In the Sindh province alone, one of the hardest hit by the floods, over 134,000 cases of diarrhoea have been reported, and hundreds of people have been admitted to hospital with dengue.

**2022 - Floods in London paralyzed the city**



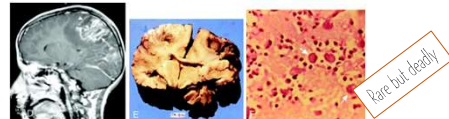
**2022 - A rare flesh-eating bacterium, *Vibrio vulnificus*, normally living in warm seawater, has caused thousands of infections**

**Dangerous flesh-eating bacterial infections increased in Florida after Hurricane Ian**



**2023 February - A Florida resident has died after becoming infected with a rare brain-eating amoeba after rinsing their nasal sinuses with tap water**

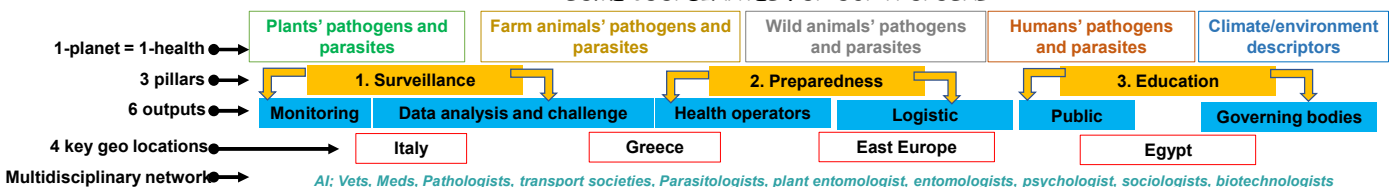
**2022 - The death of a child in Nebraska this summer put the rare but deadly *Naegleria fowleri* - more commonly known as brain-eating amoeba - back in the headlines**  
**2014 - 13-years old, KH, (USA) survived a brain-eating amoeba she contracted after swimming at an Arkansas water park.**



Climate and environment changes directly and greatly endanger our health independently from the wealth of each country, exposing people and all life forms to unknown or long-forgotten threats  
Astonishing level of public disinterest and aggravating societal unpreparedness for the events, both occurring and approaching demand

us to fill in the significant gaps in ability to monitor risks, contain and counteract emergency situations  
My lab is building up a surveillance and preparedness network that encompass all life domains (human, animals and plants) looking at pathogens and insects associated to climate and environment changes

### SOME COORDINATES FOR OUR PROPOSAL



You are all invited and welcomed to help and/or join our efforts either with constructive discussions or direct involvement, whatever you prefer  
If interested, contact me at [i.russo@keele.ac.uk](mailto:i.russo@keele.ac.uk)