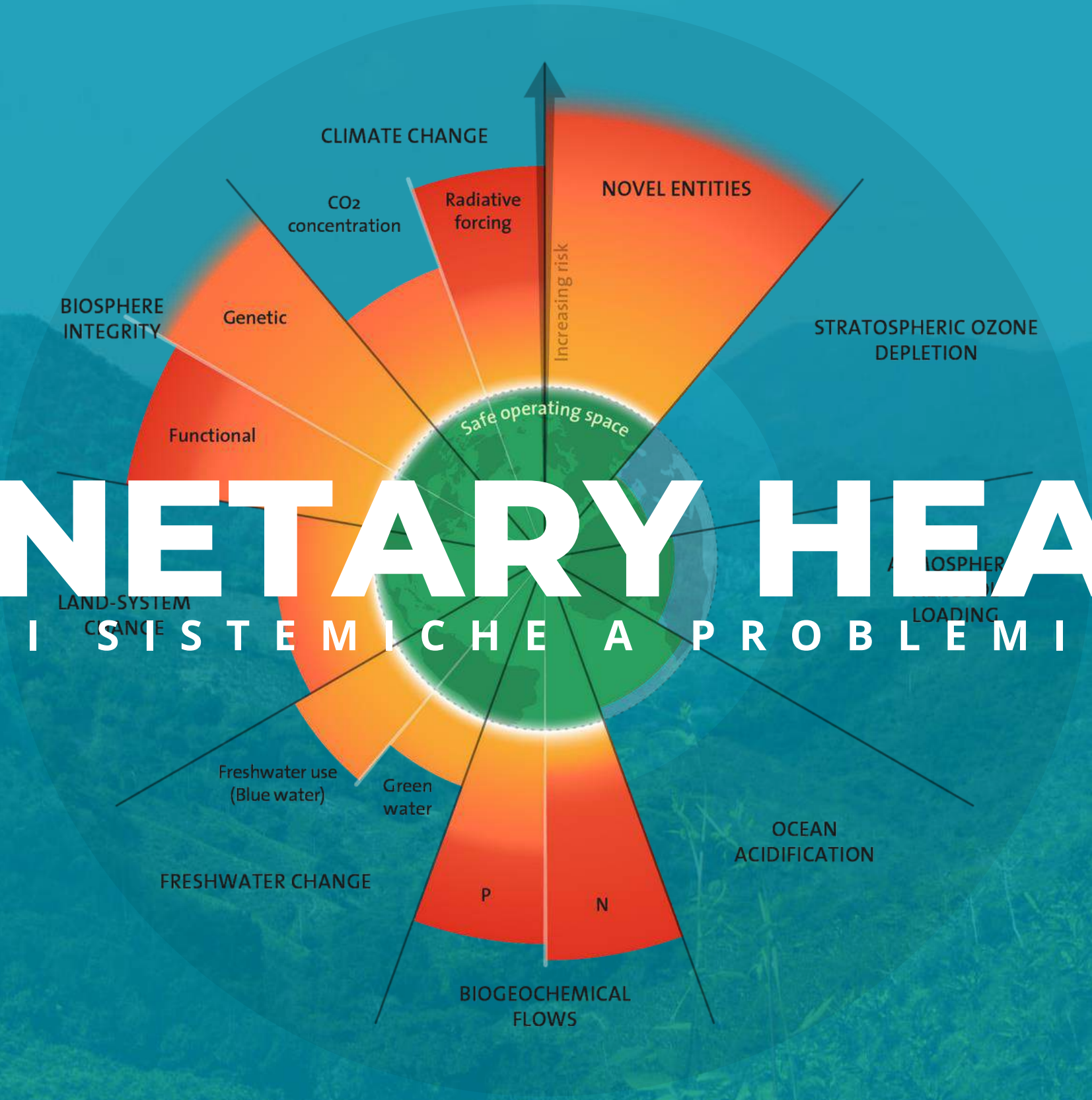


# PLANETARY HEALTH

SOLUZIONI SISTEMICHE A PROBLEMI GLOBALI



DOTT.SSA LETIZIA PROSERPI  
MEDICA E DIVULGATRICE SCIENTIFICA  
ISDE FIRENZE E ISDE GIOVANI

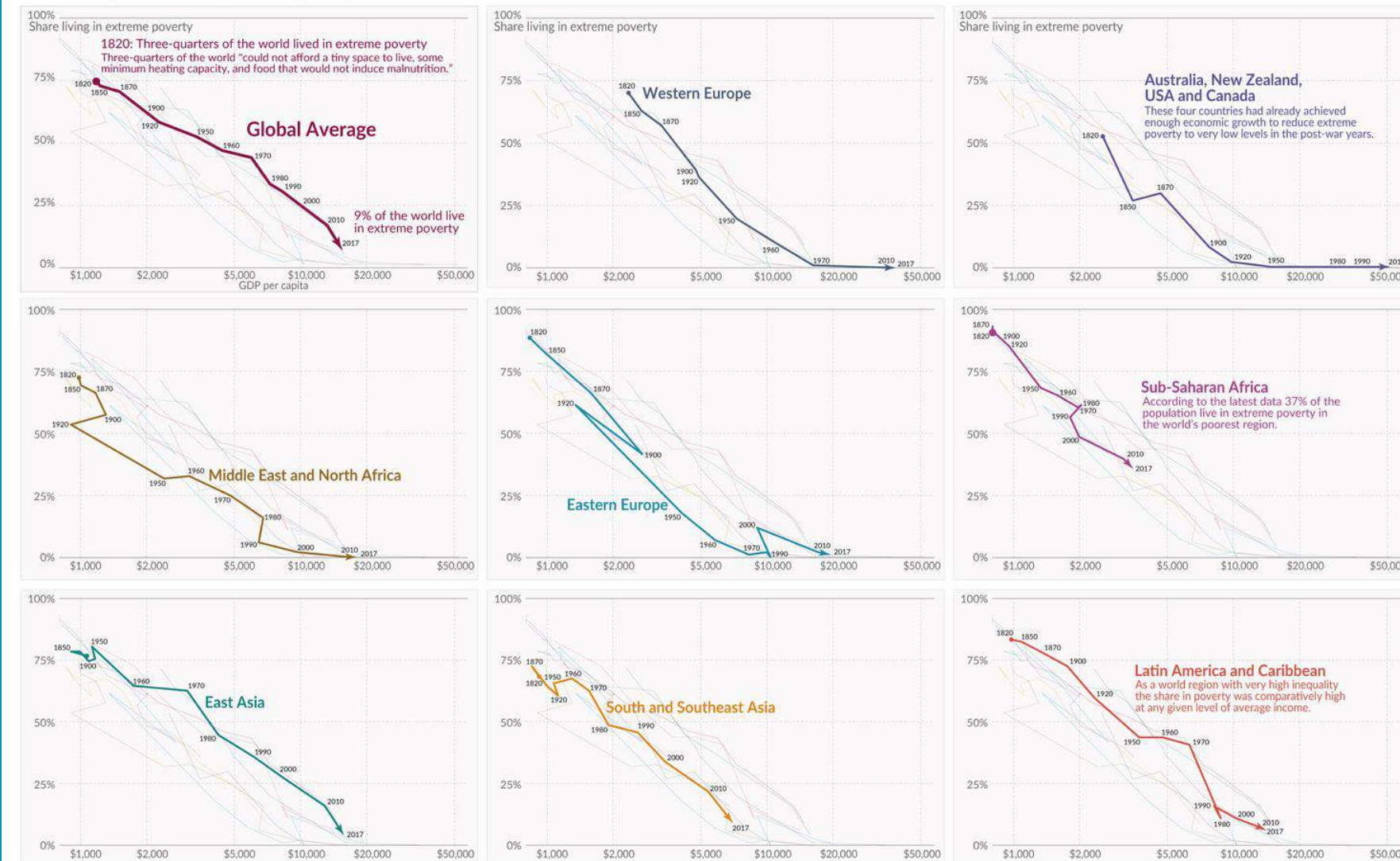
# UN'ERA D'ORO PER L'UMANITÀ



## By world region: Share living in extreme poverty vs. GDP per capita (1820-2017)

Our World in Data

Poverty is measured by the 'cost of basic needs'-approach. It represents the share which was unable to obtain a bundle of very basic goods and services. Price changes over time (inflation) and price differences between countries are taken into account in both measures.

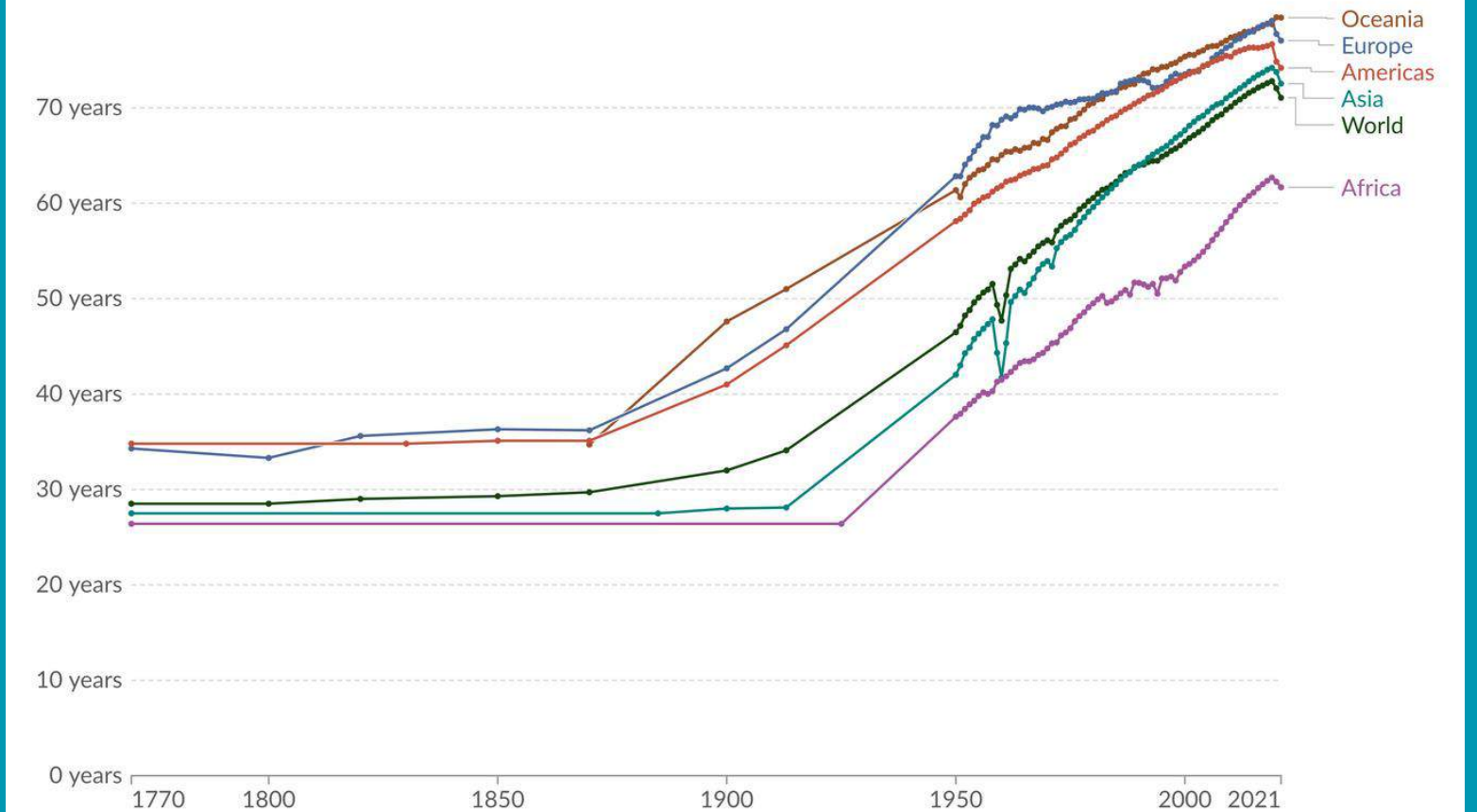


Data sources: Michail Moatsos for data on extreme poverty and Jutta Bolt and Jan Luiten van Zanden for GDP data - both published in How was life? Volume II, OECD 2021. OurWorldinData.org - Research and data to make progress against the world's largest problems. Licensed under CC-BY by the author Max Roser

## Life expectancy

The period life expectancy<sup>1</sup> at birth, in a given year.

Our World in Data



Data source: UN WPP (2022); HMD (2023); Zijdeman et al. (2015); Riley (2005)

OurWorldinData.org/life-expectancy | CC BY

**1. Period life expectancy:** Period life expectancy is a metric that summarizes death rates across all age groups in one particular year. For a given year, it represents the average lifespan for a hypothetical group of people, if they experienced the same age-specific death rates throughout their whole lives as the age-specific death rates seen in that particular year. Learn more in our articles: "Life expectancy" - What does this actually mean? and Period versus cohort measures: what's the difference?

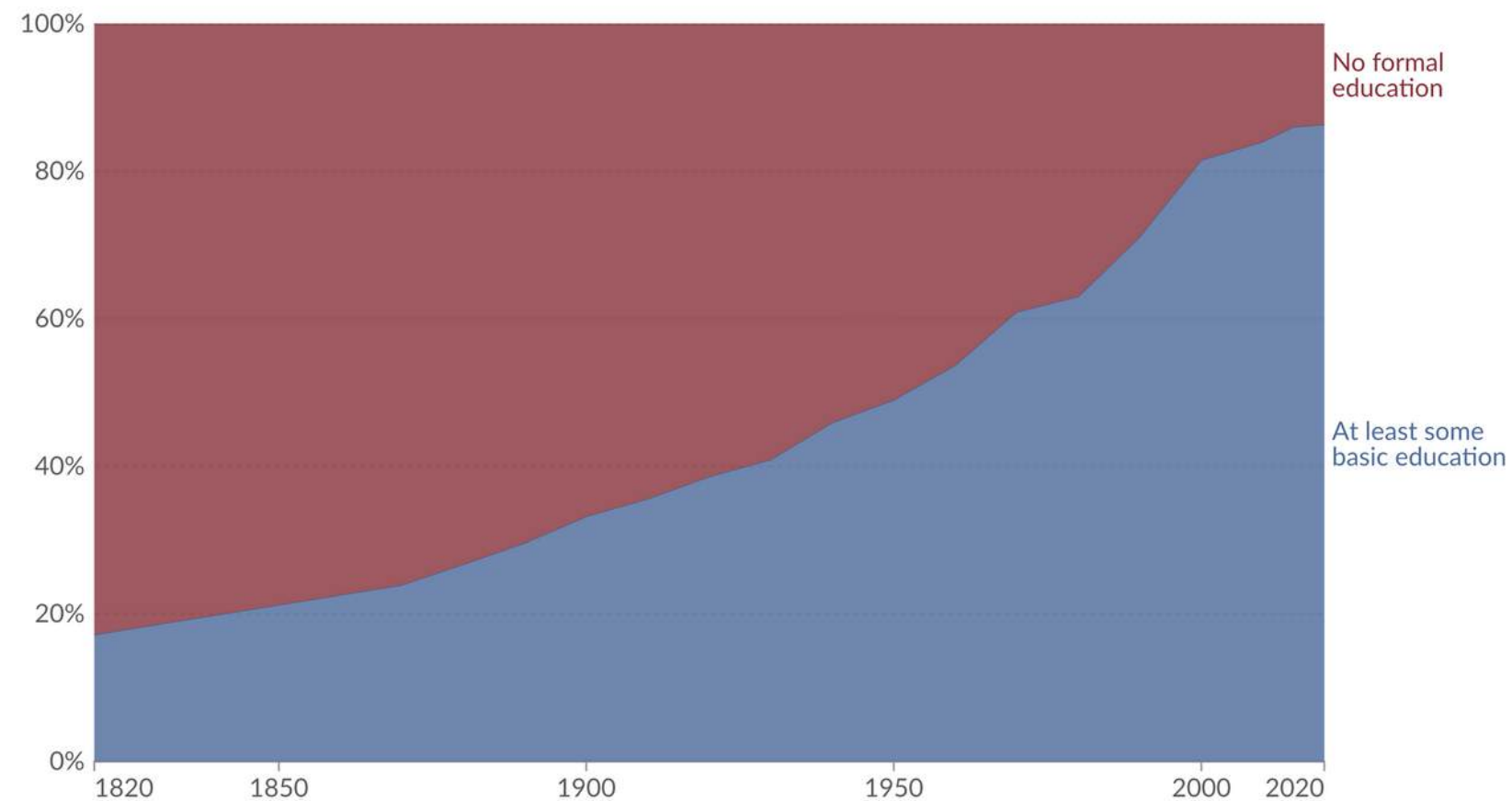


# UN'ERA D'ORO PER L'UMANITÀ



## Share of the world's population with formal basic education

Share of people aged 15 or older who received some formal primary<sup>1</sup>, secondary<sup>2</sup>, or tertiary<sup>3</sup> education.



Data source: Wittgenstein Center (2023); World Bank (2023); van Zanden, J. et al. (2014)

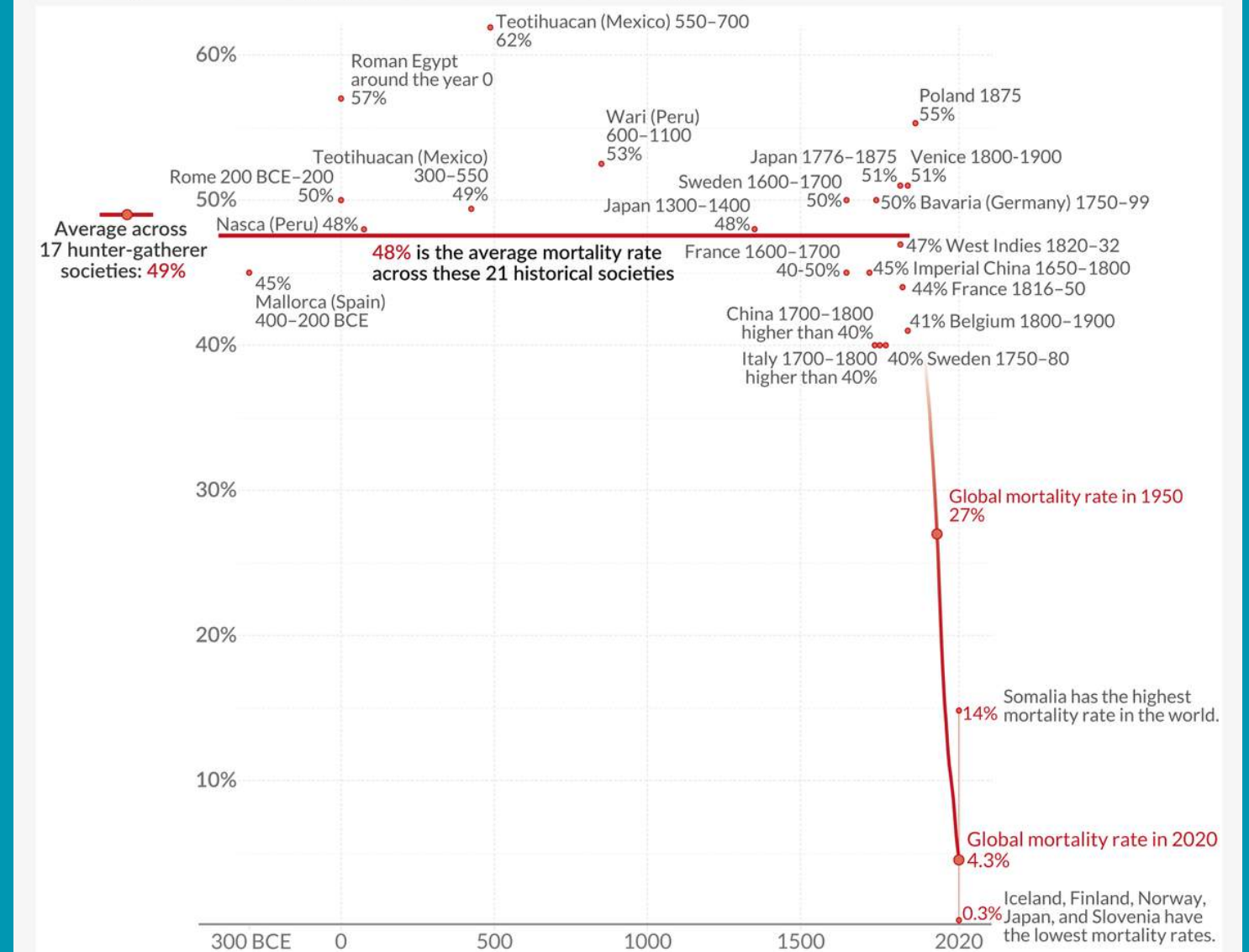
Note: The 2020 data has been revised to incorporate global changes, including the effects of COVID-19, and shifts in mortality, fertility, and migration trends.

OurWorldinData.org/global-education | CC BY

## The long-run history of child mortality

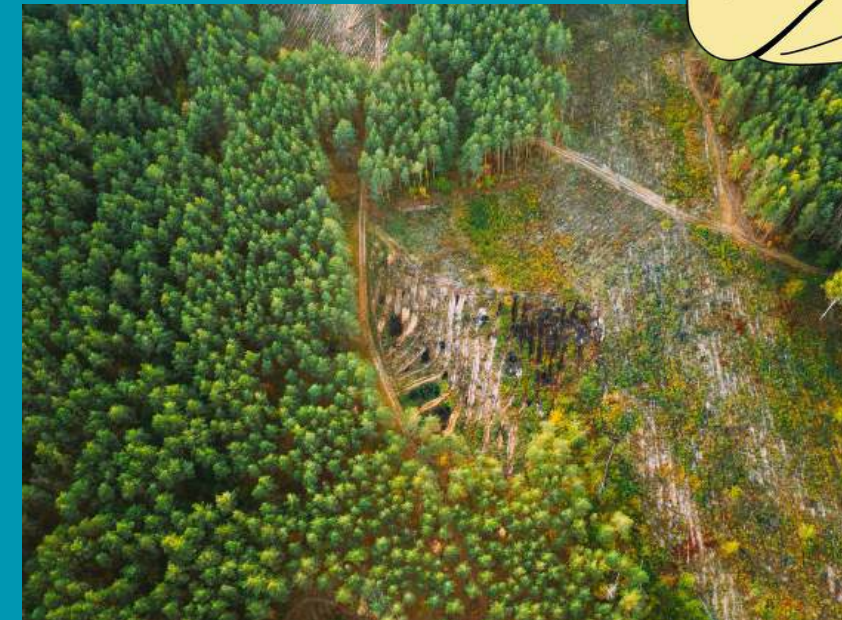
Shown is the share of children who died before reaching the end of puberty. The exact age cut-off differs slightly between studies, but is around the age of 15.

Our World in Data



Data sources: Volk and Atkinson (2013), Human Mortality Database, and UN IGME. Licensed under CC-BY by the author Max Roser. This is a visualization from OurWorldinData.org, the online publication for research and data to make progress against the world's largest problems

# MA A CHE PREZZO?



- 40% della superficie terrestre di terreni coltivati e pascoli
- circa la metà dell'acqua dolce accessibile sul pianeta
- un terzo delle attività di pesca monitorate oltre i limiti massimi sostenibili
- abbattuta circa la metà delle foreste temperate e tropicali del mondo
- arginato oltre il 60% dei fiumi del mondo

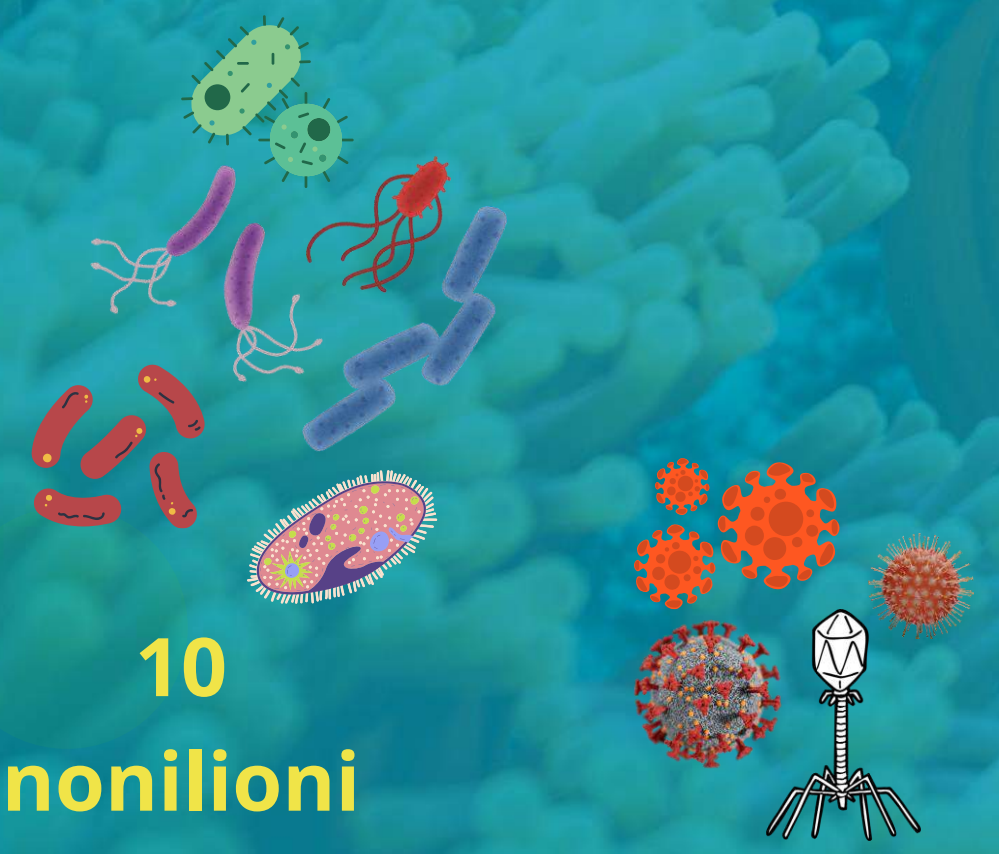




7.8 milioni



300-500 milioni



10 nonilioni

5 milioni di trilioni di trilioni

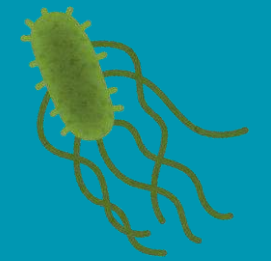
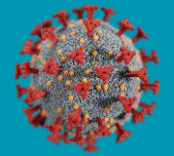


63.900



5 milioni

non solo una questione di  
**NUMERI**



# 1970-2020

**35.000**

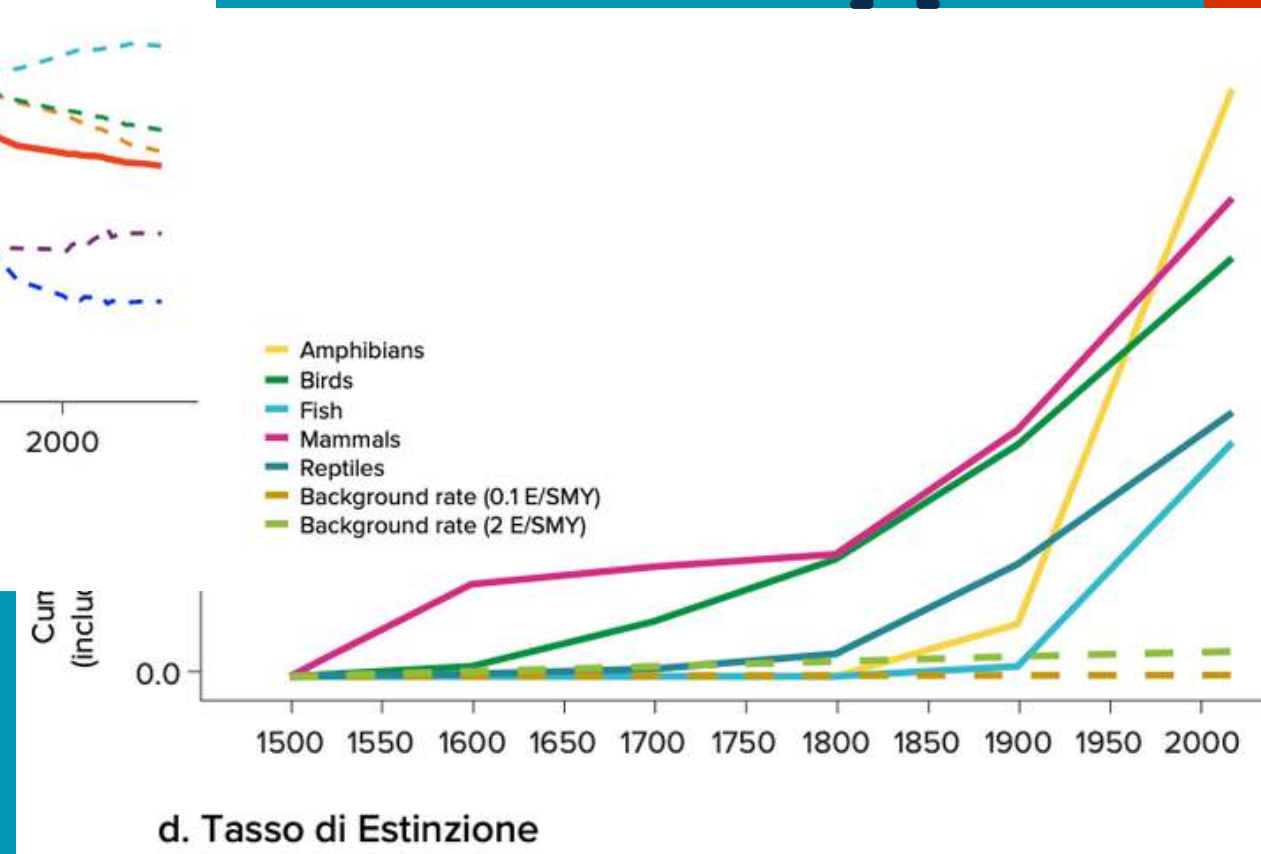
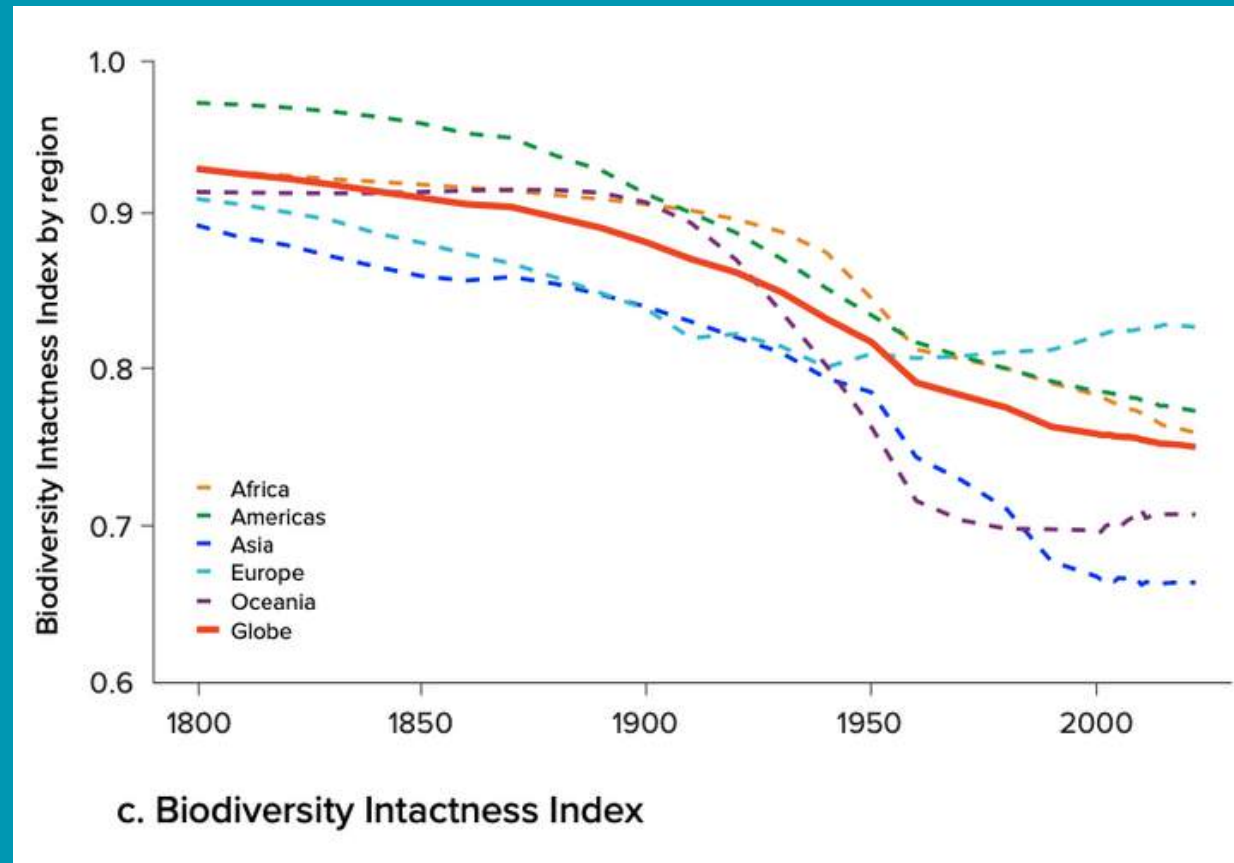
popolazioni

**5.495**

specie

**-73%**

dimensione  
media



# 2024 LIVING PLANET REPORT

Un sistema in pericolo



## How many Earths would we need if everyone lived like U.S.A. residents?



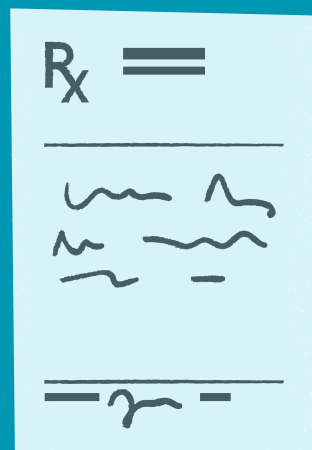
Source: National Footprint and Biocapacity Accounts 2022  
Additional countries available at [overshootday.org/how-many-earths](https://overshootday.org/how-many-earths)

## CE NE SERVIREBBERO QUASI 2

La portata dell'attività umana supera oggi la capacità del nostro pianeta di assorbire i rifiuti che produciamo o di rigenerare le risorse che utilizziamo



*Il nostro lavoro?*  
**MIGLIORARE LA SALUTE**



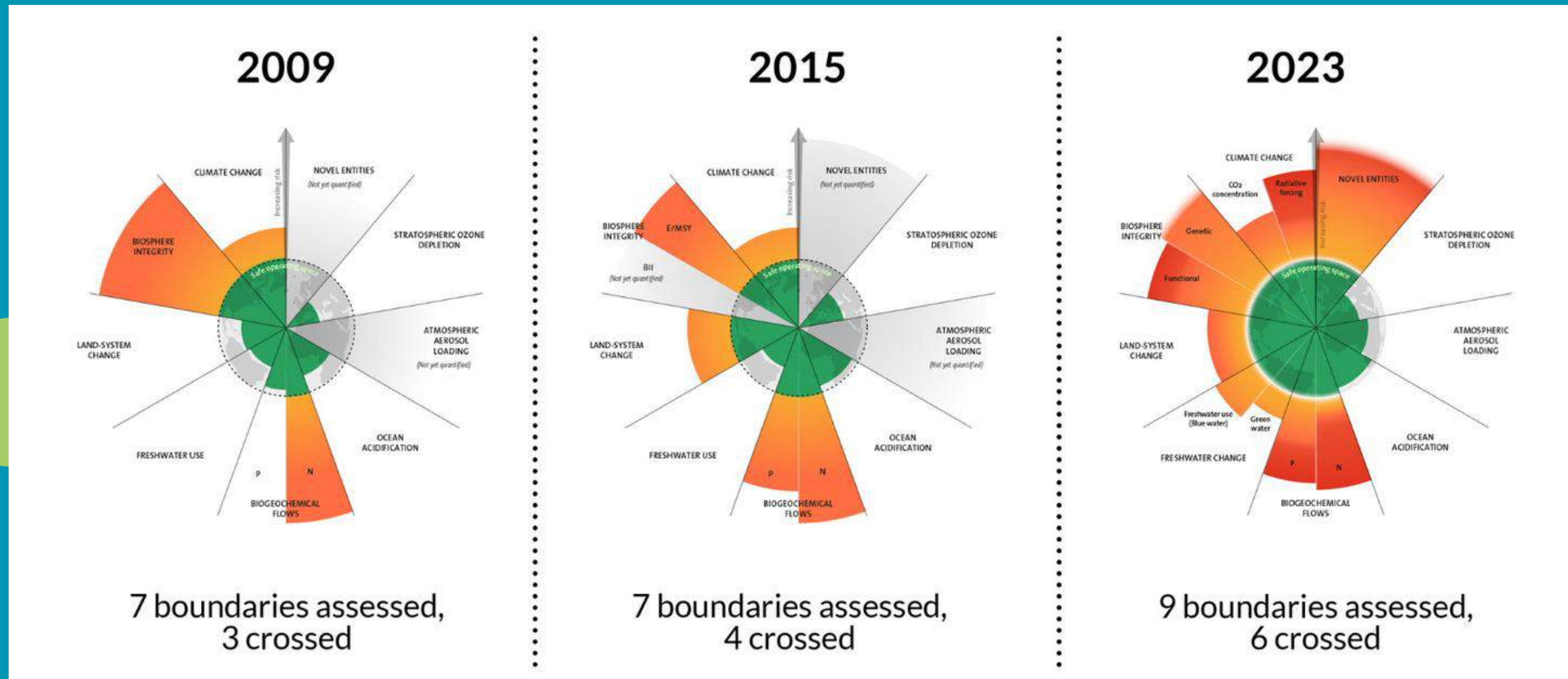
*Il nostro lavoro?*

**MIGLIORARE LA  
SALUTE, DI TUTTO, E  
PREVENIRE**

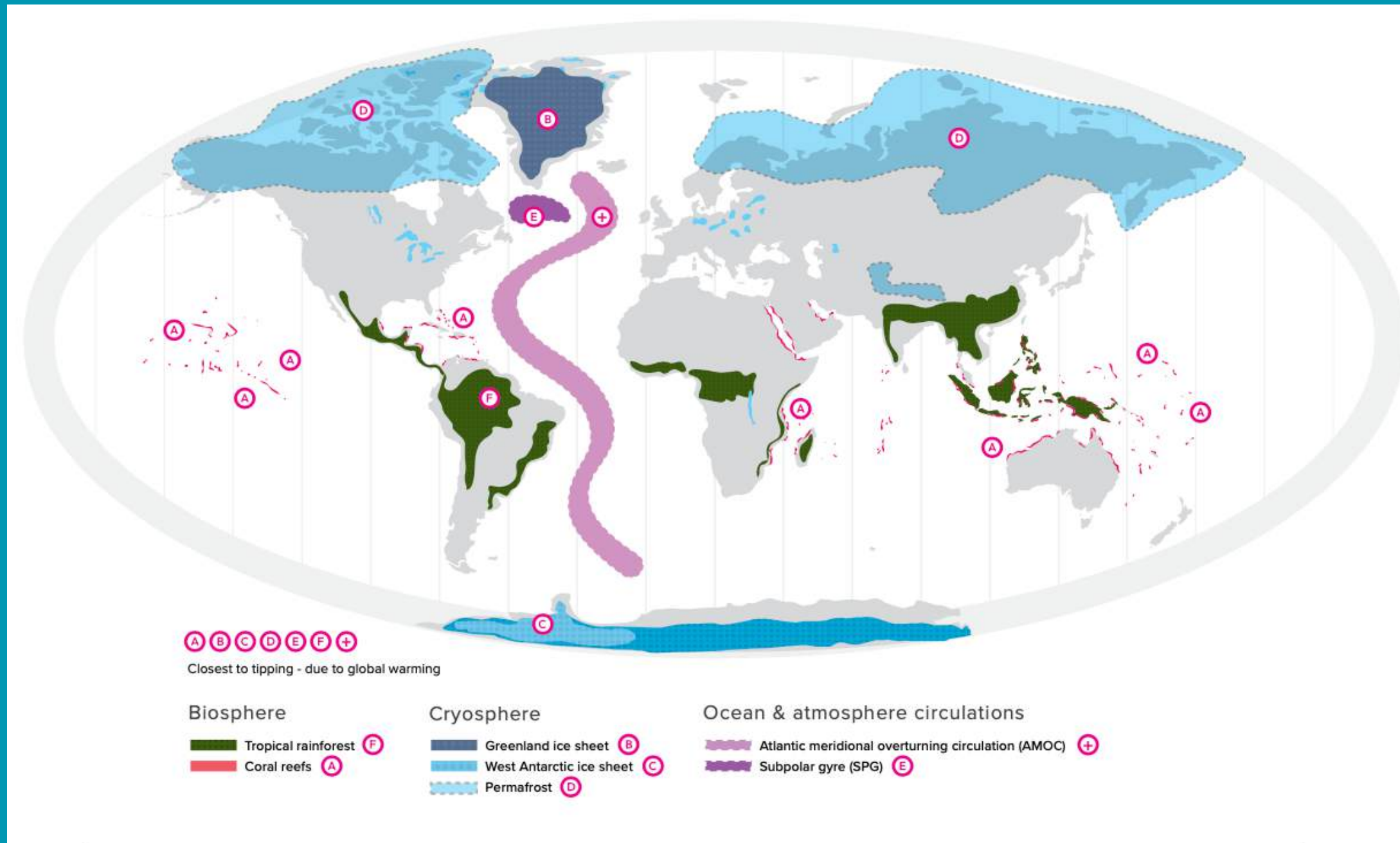


# Earth beyond six of nine planetary boundaries

This planetary boundaries framework update finds that six of the nine boundaries are transgressed, suggesting that Earth is now well outside of the safe operating space for humanity. Ocean acidification is close to being breached, while aerosol loading regionally exceeds the boundary. Stratospheric ozone levels have slightly recovered. The transgression level has increased for all boundaries earlier identified as overstepped. As primary production drives Earth system biosphere functions, human appropriation of net primary production is proposed as a control variable for functional biosphere integrity. This boundary is also transgressed. Earth system modeling of different levels of the transgression of the climate and land system change boundaries illustrates that these anthropogenic impacts on Earth system must be considered in a systemic context.



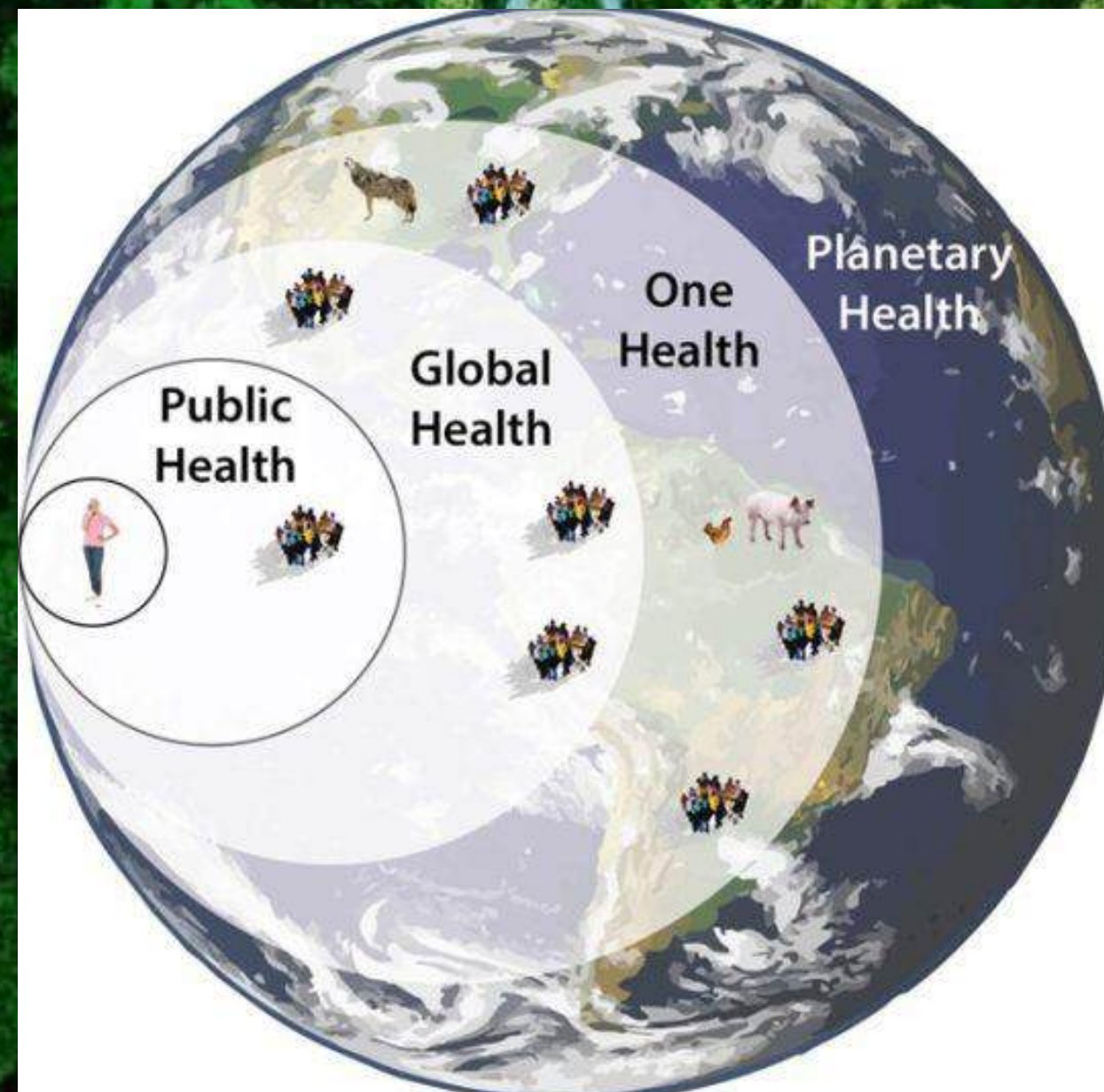
# Tipping Points



**Figura 2.2** Sono stati identificati più di 25 tipping point (punti critici) del sistema Terra utilizzando evidenze di cambiamenti passati, registrazioni empiriche e modelli computerizzati in quattro tipi di sistemi terrestri: biosfera, criosfera (ghiaccio), circolazione oceanica e circolazione atmosferica. I sei sistemi più vicini ai punti critici sono identificati da A a F, in ordine cronologico, in base alla loro probabilità di verificarsi. La stabilità della circolazione meridionale atlantica (AMOC) (+) è collegata alla stabilità del giro subpolare dell'Atlantico settentrionale (E). Figura adattata da Lenton et al. 2023<sup>57</sup>.

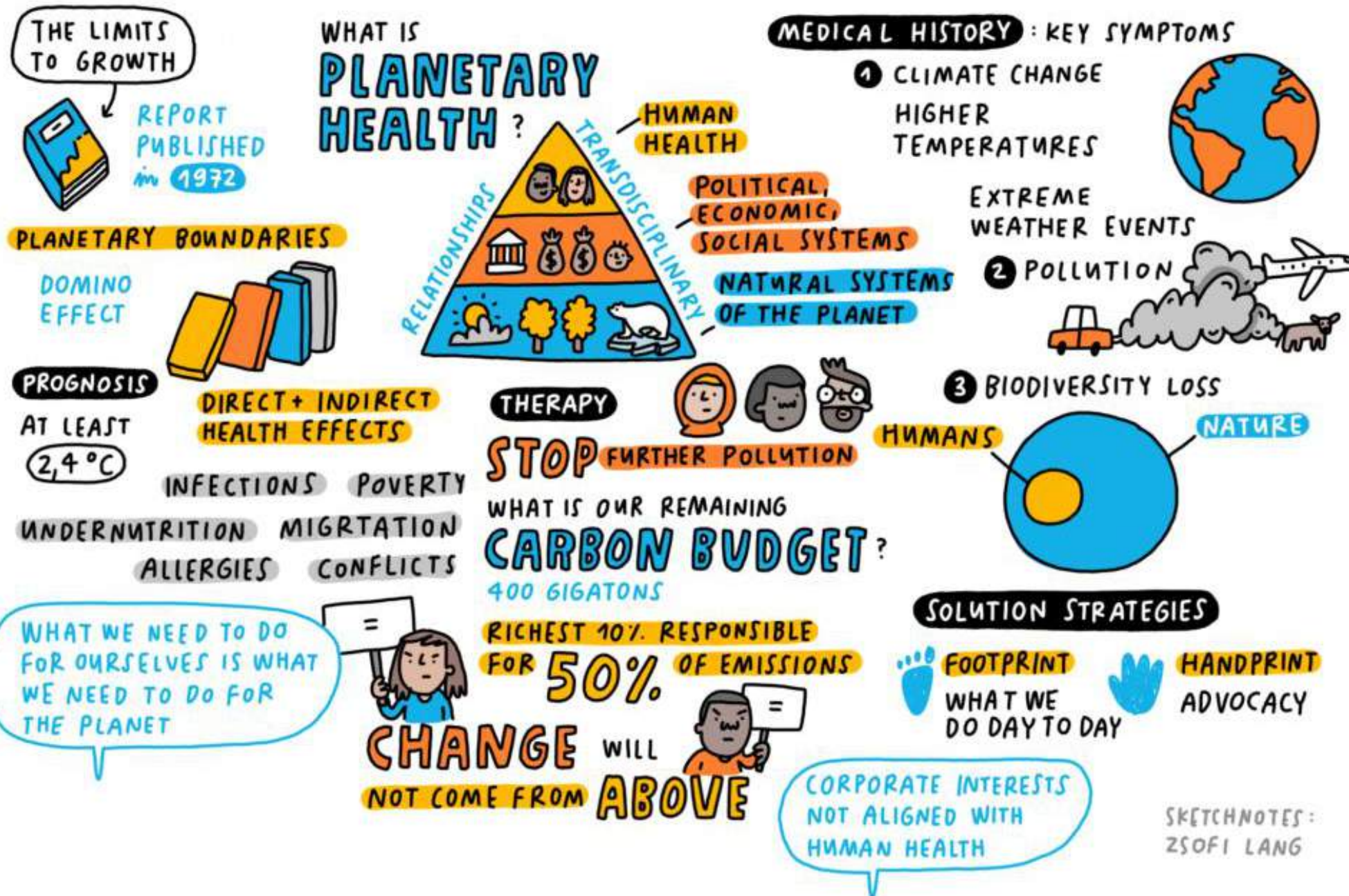


# UN NUOVO PUNTO DI VISTA SULLA SALUTE



# CHE RICONOSCE LE INTERCONNESSIONI

## CLIMATE JUSTICE AND HEALTH EQUITY

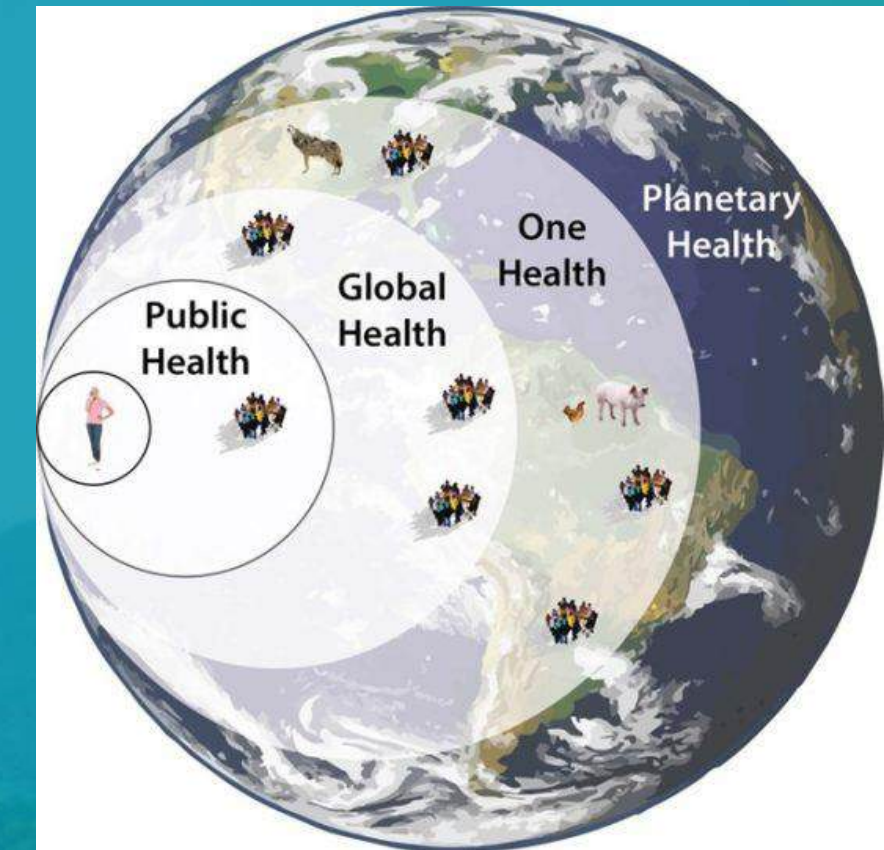
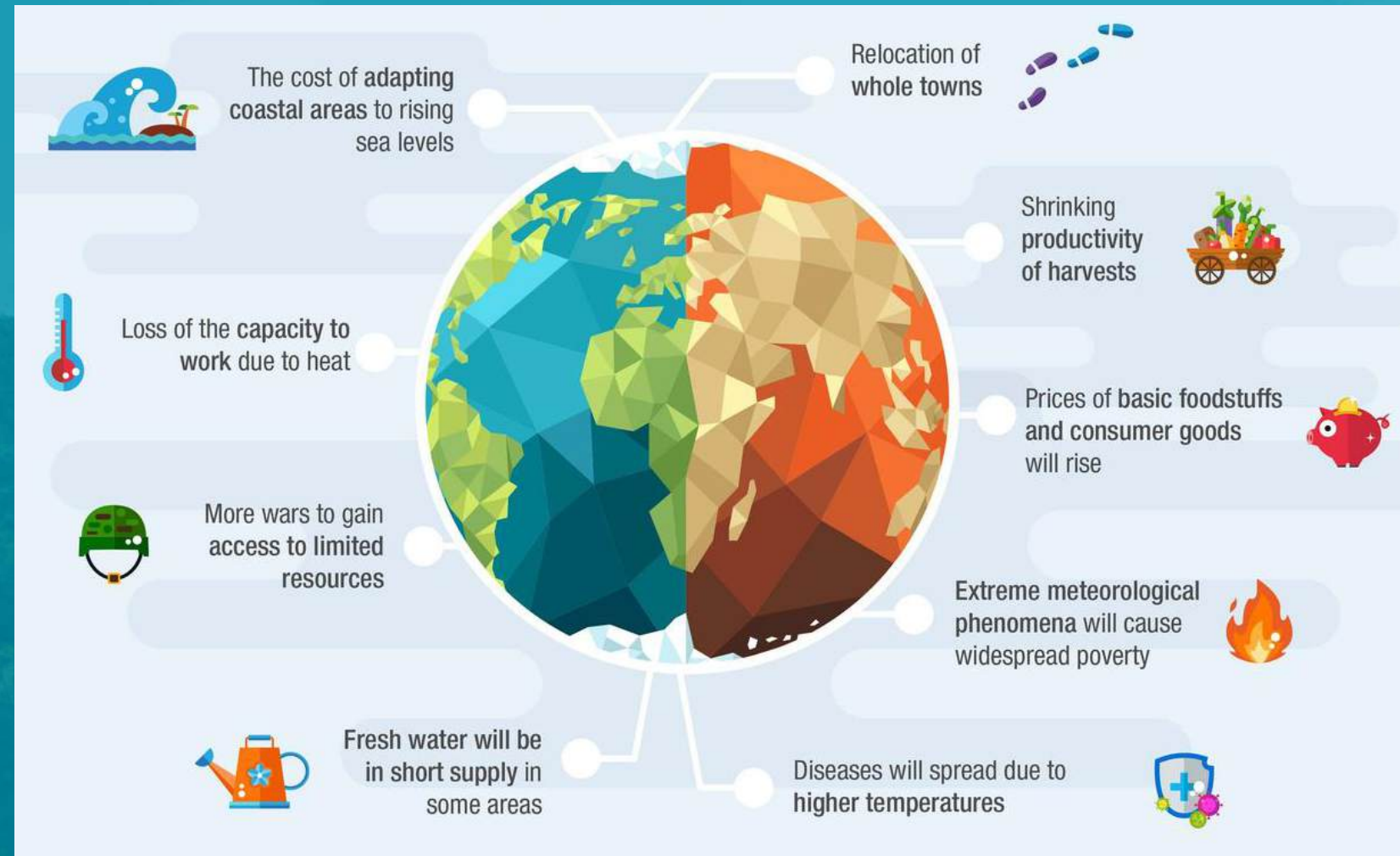


# INTERDISCIPLINARIETÀ



# MULTIDISCIPLINARIETÀ



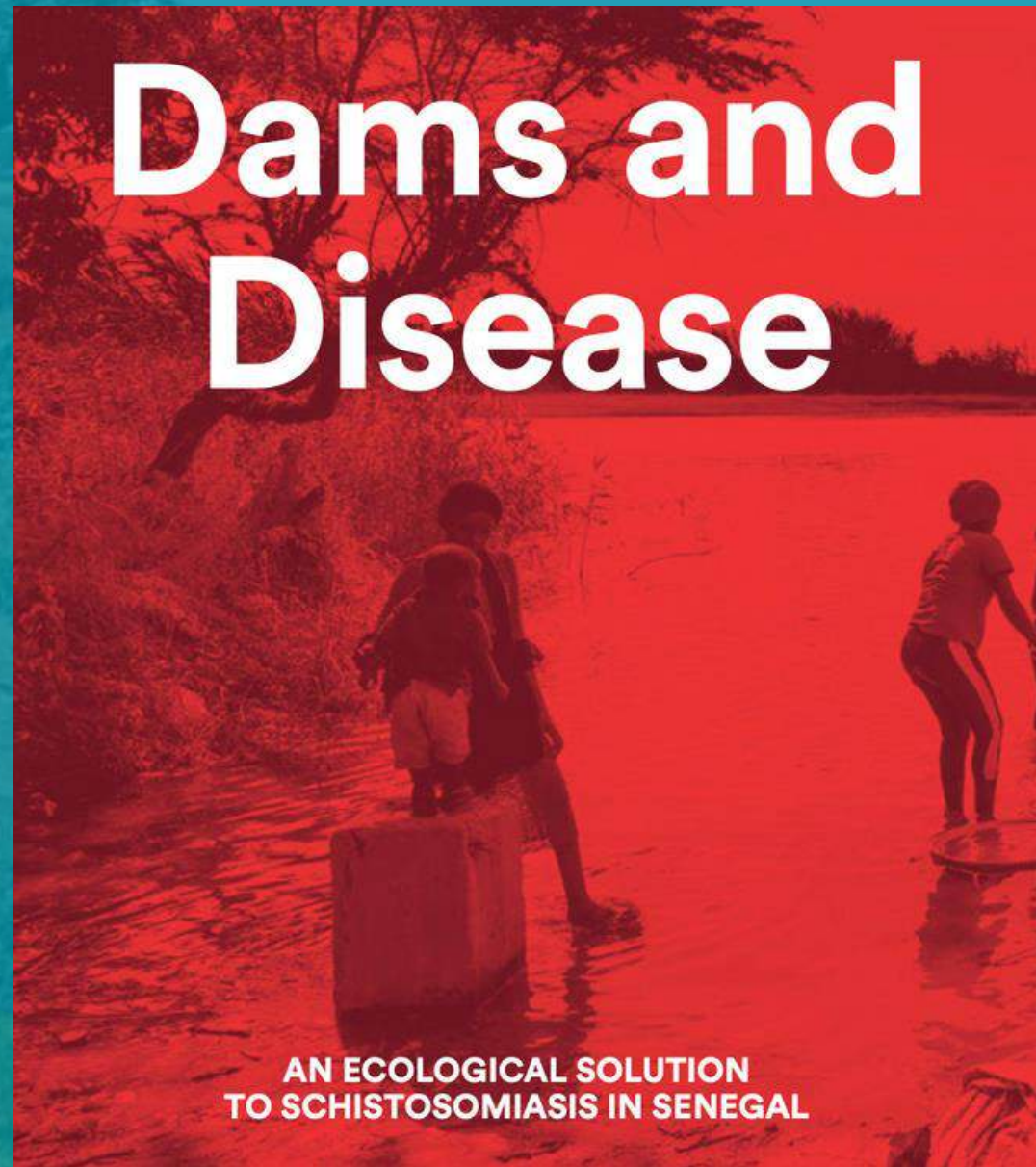


**DIVERSI  
PROBLEMI**

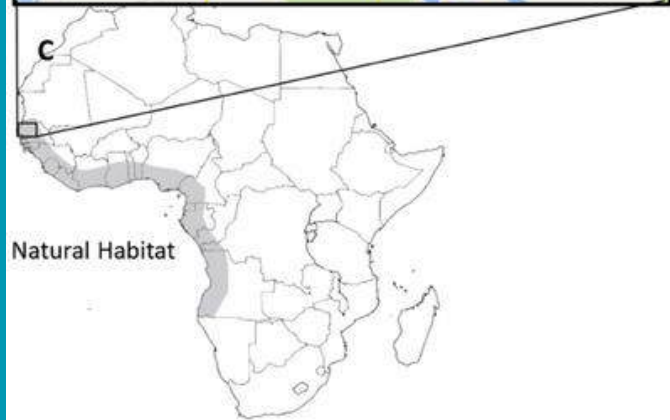
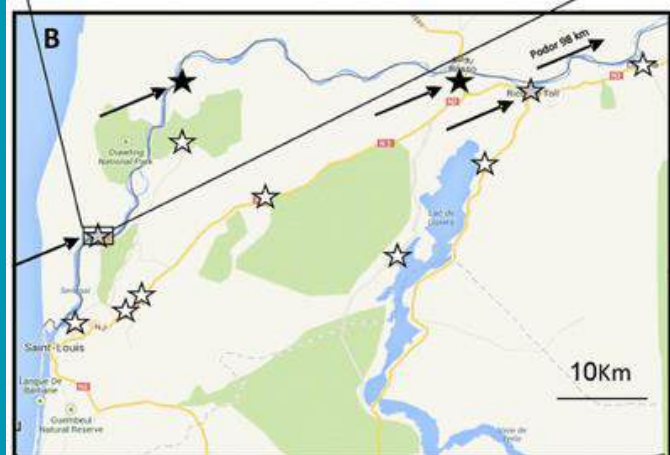
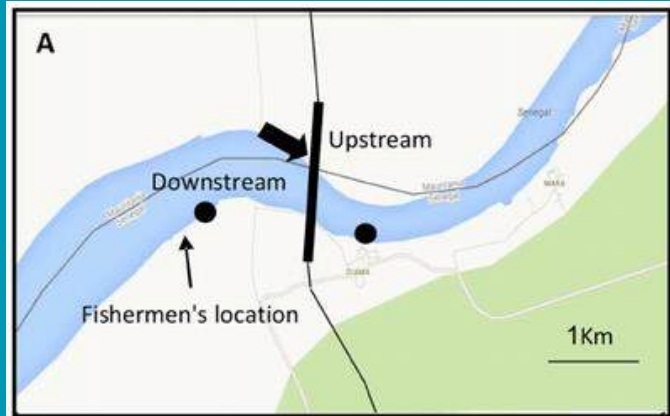


**DIVERSE  
SOLUZIONI**

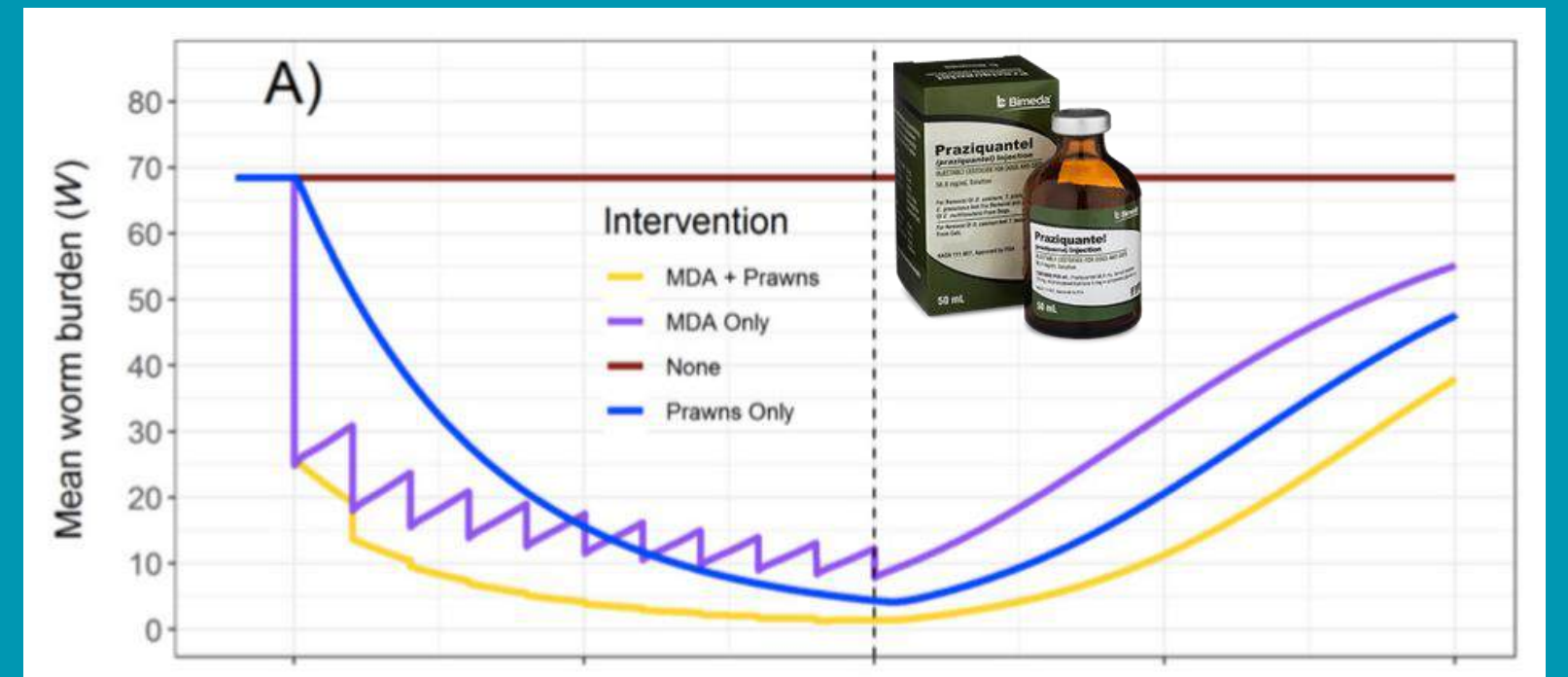
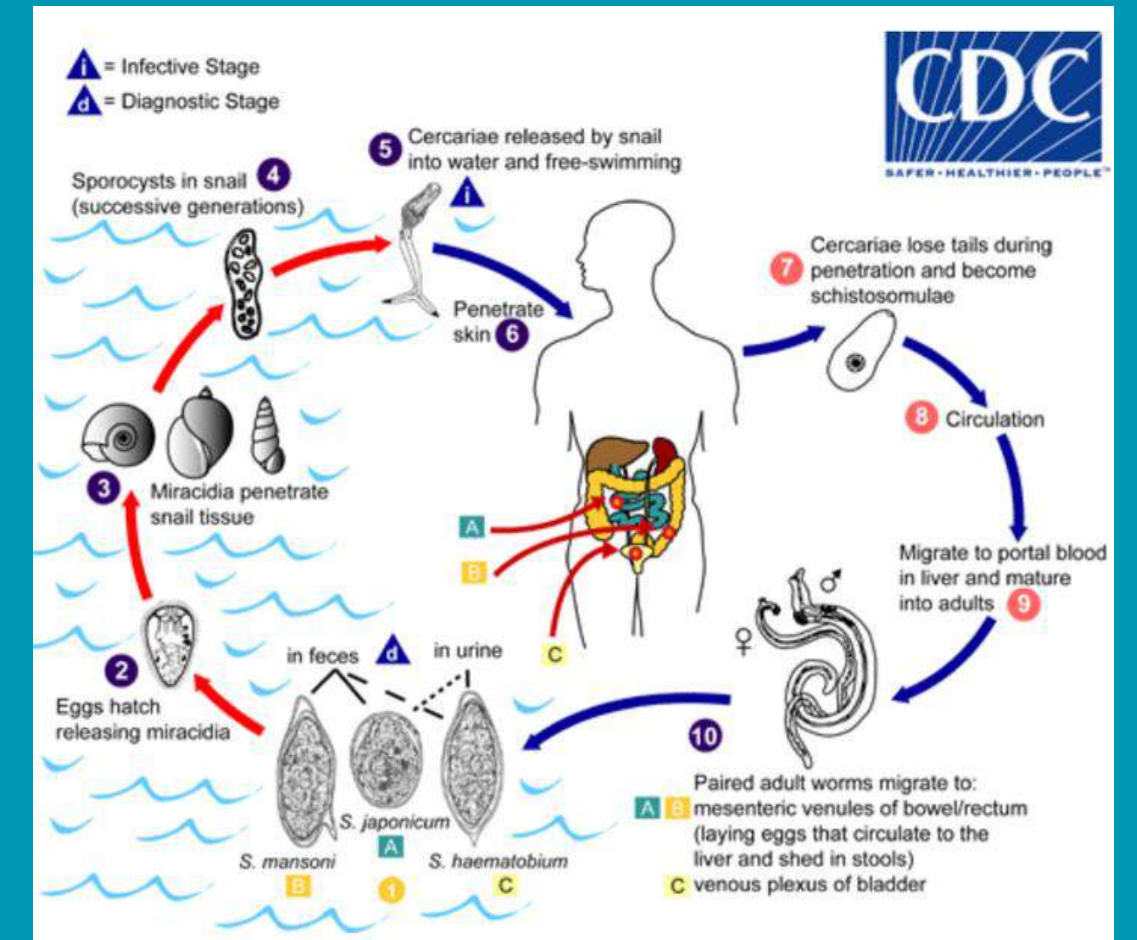
# Qualche **CASE STUDY**



**WATER, DAMS, AND PRAWNS: NOVEL ECOLOGICAL SOLUTIONS FOR THE CONTROL AND ELIMINATION OF SCHISTOSOMIASIS**  
 SOKOLOW, SUSANNE H ET AL.; THE LANCET, VOLUME 389, S20



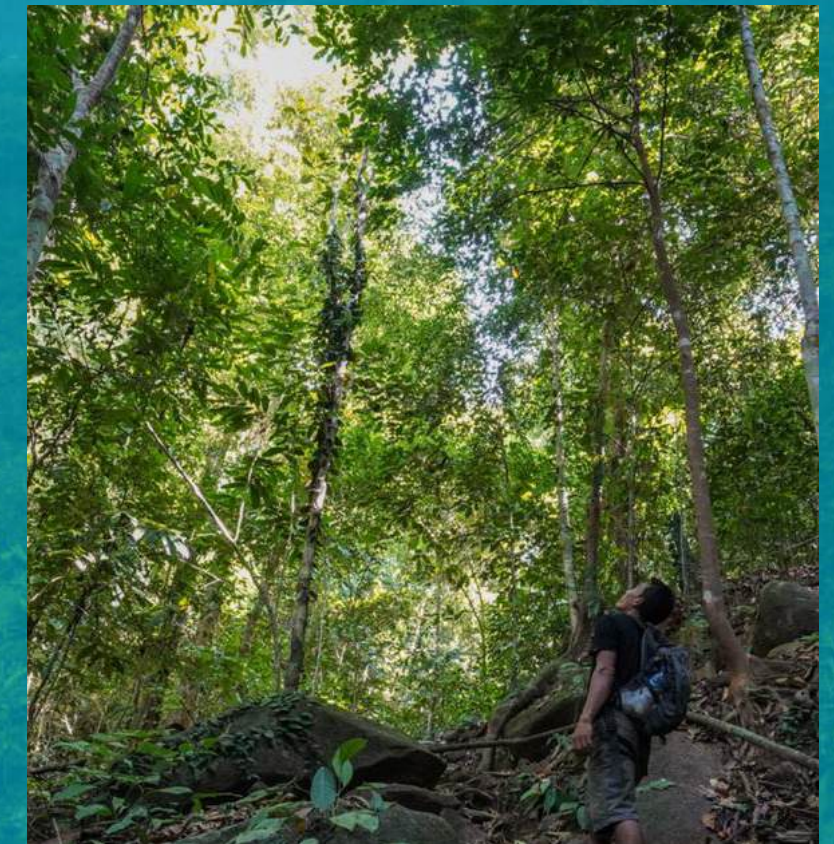
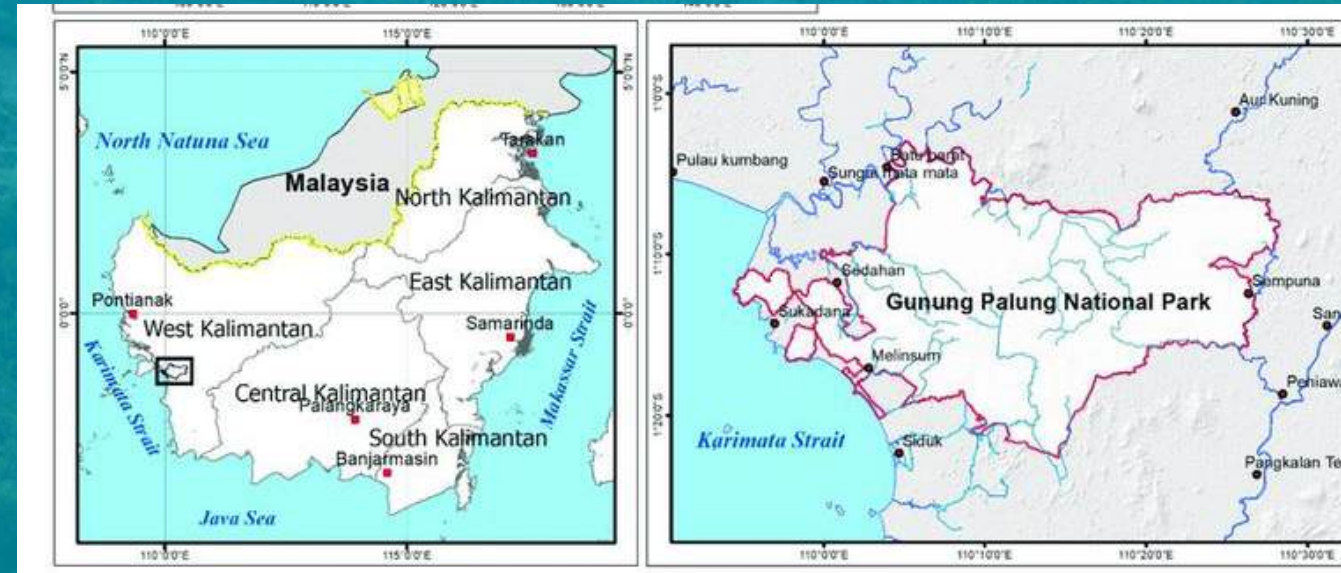
**MACROBRACHIUM VOLLEIHOVENI**



# Medical Clinics for Planetary Health

THE SURPRISING LINK BETWEEN LOGGING AND HEALTHCARE IN INDONESIA

TRA IL 1985 E IL 2001, QUESTA REGIONE HA PERSO IL 60% DELLE SUE FORESTE A CAUSA DEL DISBOSCAMENTO ILLEGALE





## Improving rural health care reduces illegal logging and conserves carbon in a tropical forest

Isabel J. Jones  , Andrew J. MacDonald , Skylar R. Hopkins ,  +15, and Susanne H. Sokolow   [Authors Info & Affiliations](#)

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October 26, 2020 | 117 (45) 28515-28524 | <https://doi.org/10.1073/pnas.2009240117>

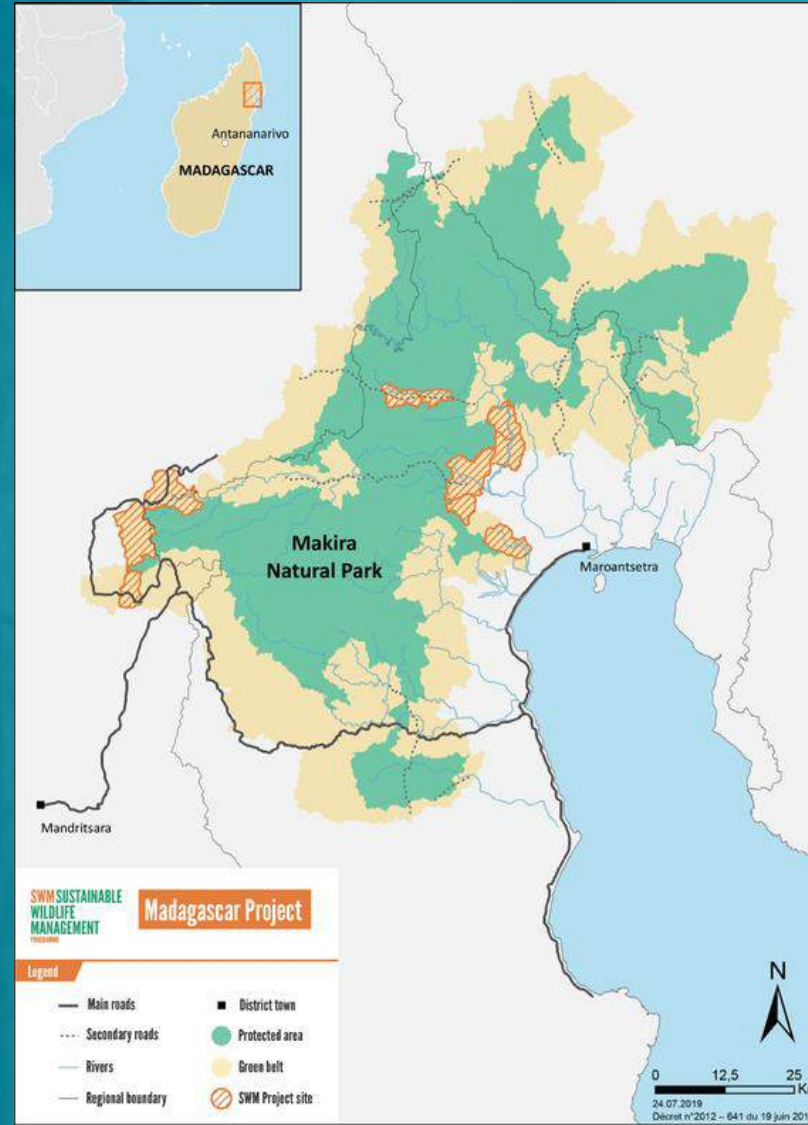


- I casi di **TBC e BPCO** sono aumentati nella regione ma sono **diminuiti significativamente** nelle comunità servite dalla clinica
- Sono stati **conservati 6.770 acri di foresta pluviale**
- La clinica **ha curato più di 28.000 persone** e la comunità ha registrato un **calo significativo dei casi di una serie di malattie infettive e non trasmissibili**
- Il **disboscamento illegale è diminuito del 70%** rispetto ai siti di controllo



# Putting Food Needs First

HOW ALTERNATIVE PROTEINS COULD SAVE MADAGASCAR'S ENDANGERED BIODIVERSITY



“My daughters and I, we don’t always get to eat enough,” says Nirina, a resident of the Malagasy village of Marovovonana. “There’s no supermarket here, so we mostly eat what we grow ourselves or find in the forest.”



People living in Antananarivo village talk outside their homes after a morning health survey. While some families live in houses with corrugated metal roofing and multiple rooms, most people live in these raised, one-room homes constructed of reeds and raffia.

## SWM PROJECT

The Makira Natural Park is teeming with an extremely rich diversity of flora and fauna, including 17 species of lemurs. This park is one of the largest intact forest blocks in the country and many local people depend on it for natural resources. Given the remoteness and lack of available domestic meat, subsistence-level hunting is practised, amongst other activities, by local communities. However, hunting threatens the future of wildlife in the region, particularly for species that are threatened or endangered.

The SWM Project in Madagascar is promoting sustainable use of non-protected wildlife species and an increase in the supply of alternative proteins to replace wild meat consumption. The project therefore aims to ensure food security for local communities, while at the same time conserving endemic species. The project is being implemented by the Wildlife Conservation Society, in collaboration with the Government of Madagascar.

## SWM SUSTAINABLE WILDLIFE MANAGEMENT PROGRAMME



*Josiane administers the vaccine against Newcastle disease. While administration of this eyedropper fluid is easier than the previous injectable vaccine (which could only be administered by trained veterinarians), Josiane still faces other challenges in convincing community members to vaccinate their flock.*

Il Parco Naturale di Makira ospita più di 60 specie di mammiferi, tra cui **17 specie di lemuri a rischio di estinzione.**

- La percentuale di famiglie che consumano carne di lemure nei siti del Programma SWM è **diminuita del 60%** dall'inizio dell'iniziativa.
- Gli interventi del Programma SWM e i servizi veterinari pubblici hanno **ridotto la mortalità dei polli del 40% e la loro morbilità del 90%.**
- Stiamo sostenendo 90 produttori di pollame e 60 allevatori di pesce e abbiamo formato più di 900 membri della comunità all'uso di **tecniche agricole migliorate**
- Sono stati identificati e analizzati più di **430 test legali sulla gestione della fauna selvatica e sulla riproduzione di animali domestici**

# Coastal Conservation Takes Root

EDUCATION AND ECONOMIC AGENCY AS A WAY TO PROTECT SRI LANKA'S MANGROVES



- Immagazzinano 20 miliardi di tonnellate di carbonio in tutto il mondo
- Negli ultimi 50 anni persa la metà delle foreste di mangrovie a causa della conversione in allevamenti di gamberi, coltivazioni e deforestazione per la produzione di legna
- Se gli attuali tassi di deforestazione persistono, quasi tutte le mangrovie potrebbero scomparire entro i prossimi 100 anni.





- Sono stati delimitati oltre **14.500 ettari di foresta di mangrovie** e sono stati installati cartelli didattici in quasi 50 lagune e sistemi di estuario;
- Nel 2017, il progetto ha **propagato 703.800 piantine di mangrovia**;
- Più di **7.900 donne e giovani** sono stati formati alla **conservazione delle mangrovie** e **2.893** hanno ricevuto **microprestiti** per creare o espandere imprese sostenibili e favorire la stabilità finanziaria.



## THE SRI LANKA MANGROVE CONSERVATION PROJECT

By becoming the first country to protect ALL its mangroves, Sri Lanka is taking unprecedented action to fight climate change.





# **GRAZIE DELL'ATTENZIONE!**

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