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*The science and policy interface at
the time of global transformations*



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Scientific advice to address climate change's (unequal) impacts on health

Dr Rosa Castro

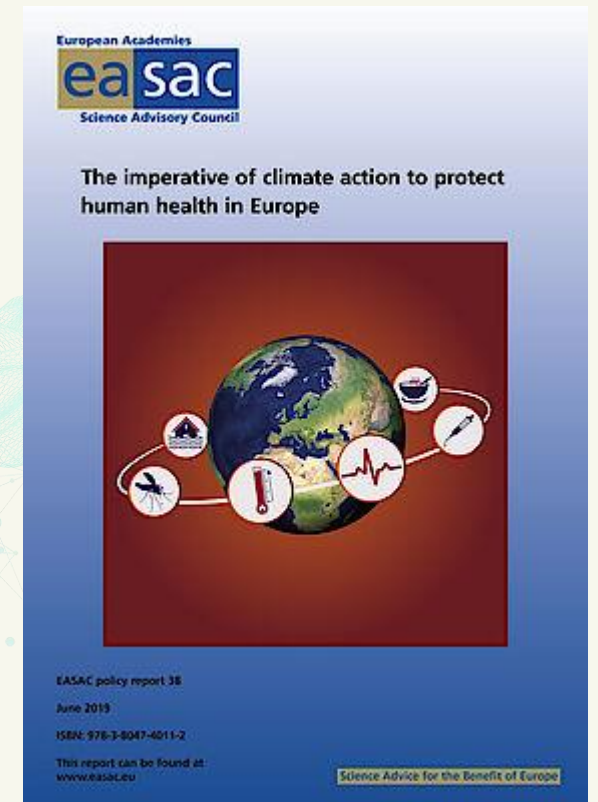
EASAC Biosciences and Public Health Programme Director

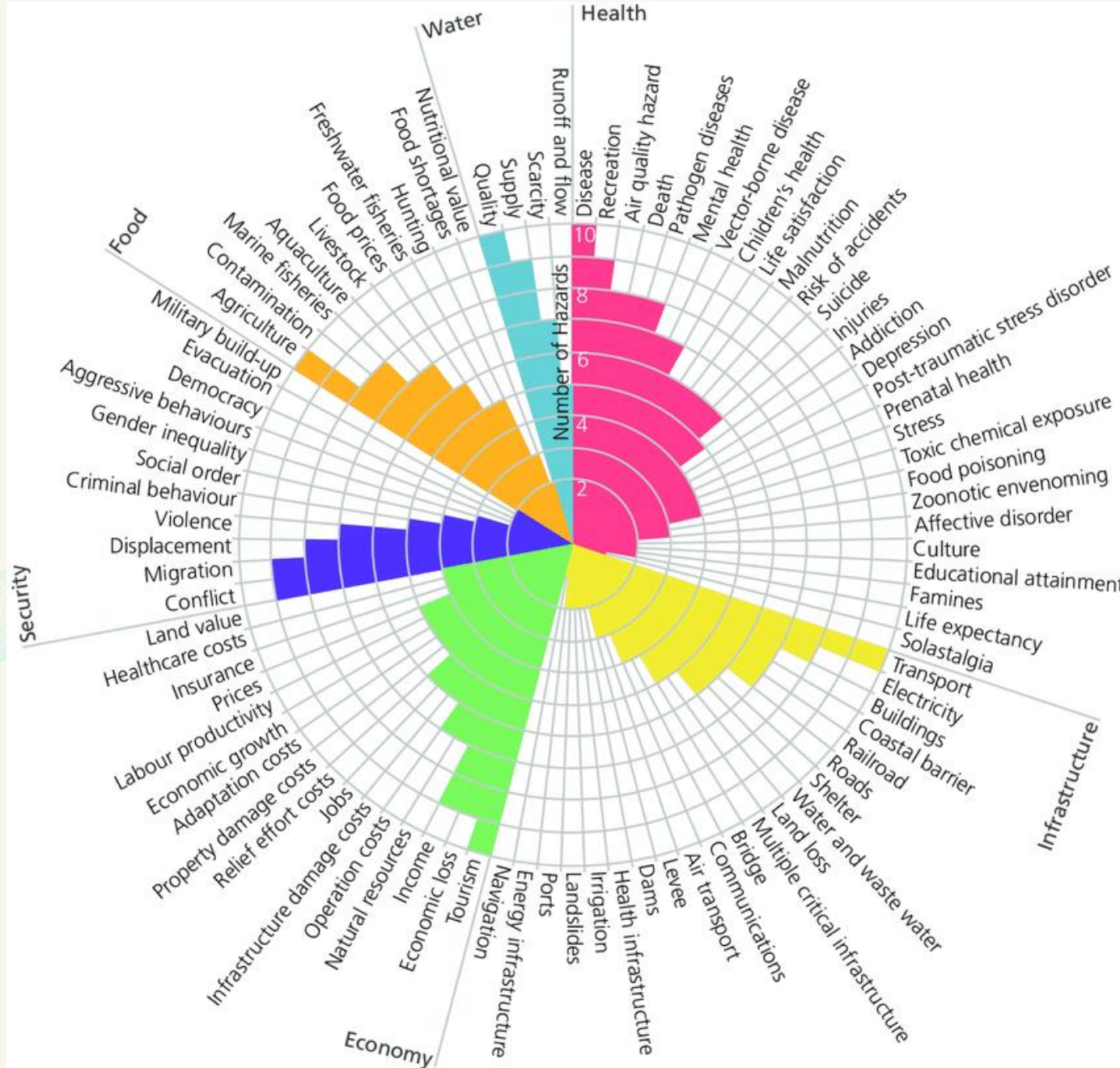


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Climate change as a major health threat

- The EASAC 2019 report: climate change a human health threat
- Direct and indirect outcomes: increased mortality from heatwaves, spread of infectious diseases, respiratory issues due to air pollution, malnutrition and compromised food systems
- 2003 heatwave caused around 70,000 excess deaths across the continent; Southern and Eastern Europe vulnerable due to their warmer climates and varying levels of health infrastructure (see recent EASAC work on wildfires)





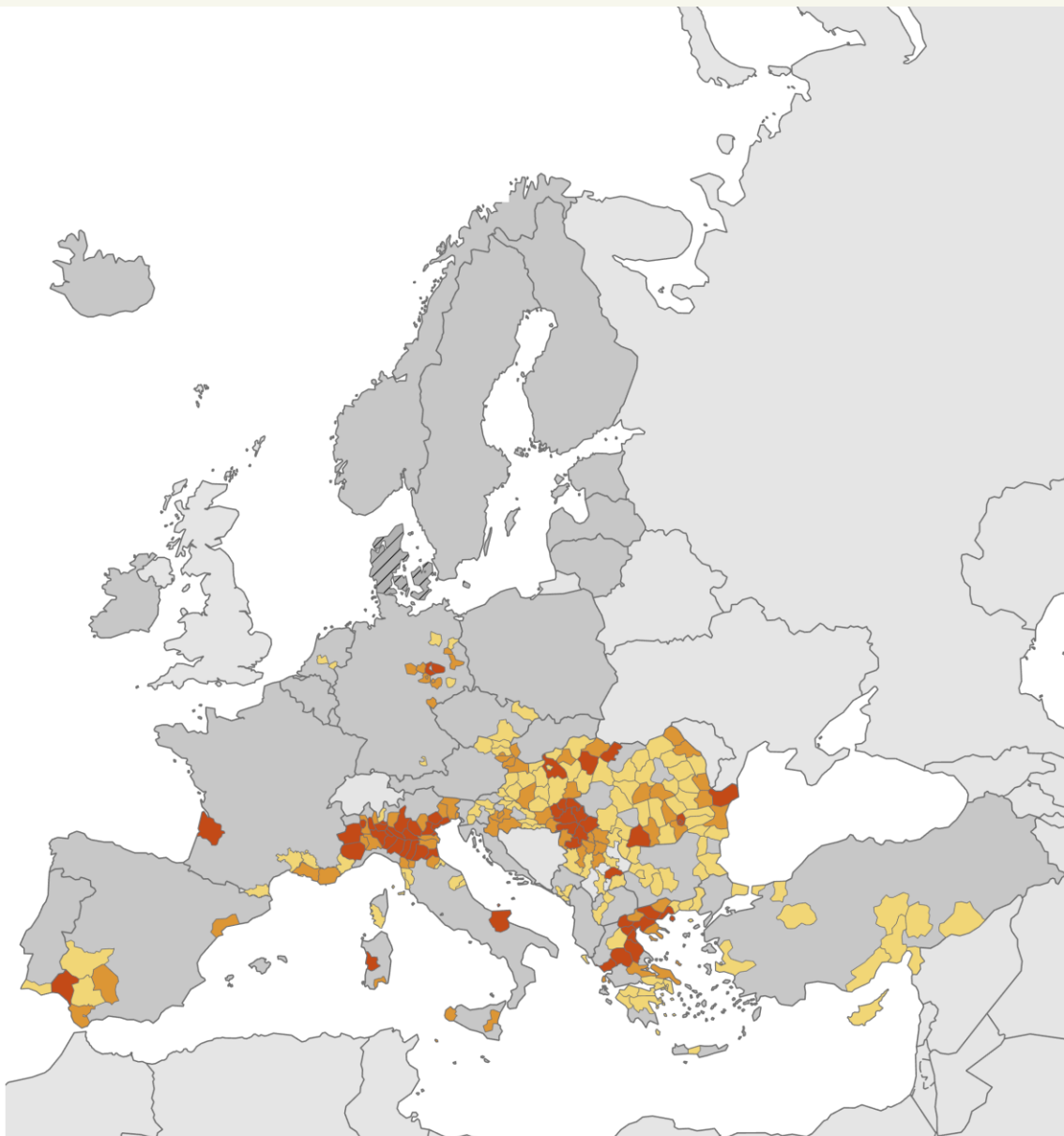
Source: Nature Climate Change, Broad threat to humanity from cumulative climate hazards intensified by greenhouse gas emissions, Mora et al., 2018.

Distribution of human West Nile virus infections in NUTS 3 or GAUL 1 regions of the EU/EEA and neighbouring countries during 2013–2022, as of 16 of August 2023

- Human infections reported, current season (2023)
- Human infections reported, 2022
- Human infections reported, 2013–2020
- No data reported
- No infections reported
- Not included

Countries not visible in the main map extent

- Malta
- Liechtenstein



Source: ECDC,
<https://www.ecdc.europa.eu/en/publications-data/west-nile-virus-human-cases-compared-previous-seasons-16-august-2023>

Administrative boundaries: © EuroGeographics ©
The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. Map produced by ECDC on 17 August 2023

Inequities and vulnerable groups

- Vulnerable populations (e.g., elderly, children, and low-income communities) at higher risk
- Mediterranean regions's increased risk of vector-borne diseases (e.g., dengue and West Nile virus) due to rising temperatures and changes in precipitation patterns (easier spread of disease-carrying mosquitoes)
- Extreme heatwaves and flooding: disrupted services and increased hospital admissions and pressure to health systems

Data gaps and the need for evidence-based policy

- EASAC report: insufficient data on how climate change impacts different European regions differently (e.g., areas with limited resources, higher risks, etc.)
- More targeted research to better inform EU strategies
- Ensuring that policies adequately account for regional health disparities

Role of Academies and scientific bodies

- Scientific Guidance for Policymakers: EASAC provides independent, evidence-based advice
- Key role in aligning research with policy to inform the EU and member states
- Collaboration across sectors
- Integrating other knowledge systems and engaging with stakeholders

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