York and North Yorkshire Climate Risk and Vulnerability Assessment and development of an Adaptation Action Plan

15.10.26 Climate Adaptation Workshop

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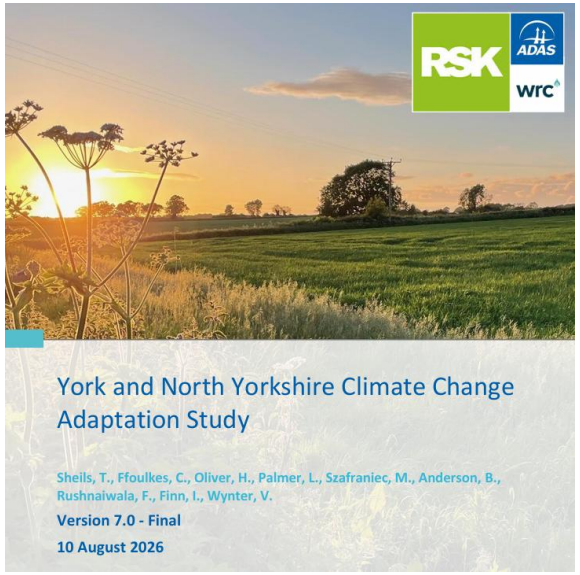


[Climate change strategy 2023 to 2030 | North Yorkshire Council]

- Mitigation: Reducing our impact on the climate by decreasing greenhouse gas emissions.
- Adaptation: Preparing for the climate to change. [ch 8, p37]
- Supporting Nature: Helping the natural world, on which we depend, to thrive.
- NYC: Becoming a climate responsible council

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What does the report tell us?



1. A climate change risk and opportunity assessment (CCRA) for the City of York and North Yorkshire, including sections on protected landscape authorities. (Commissioned by YNYCA)
2. An assessment of climate change-related vulnerabilities within the region.
3. Development of Rapid Adaptation Pathways
4. A cost-benefit analysis to understand the costs of action relative to inaction.

"Climate change presents a set of interconnected and escalating risks for York and North Yorkshire... By acting now to adapt, there is an opportunity not only to avoid the most severe damages but also to build a more robust and sustainable regional economy over the long term"

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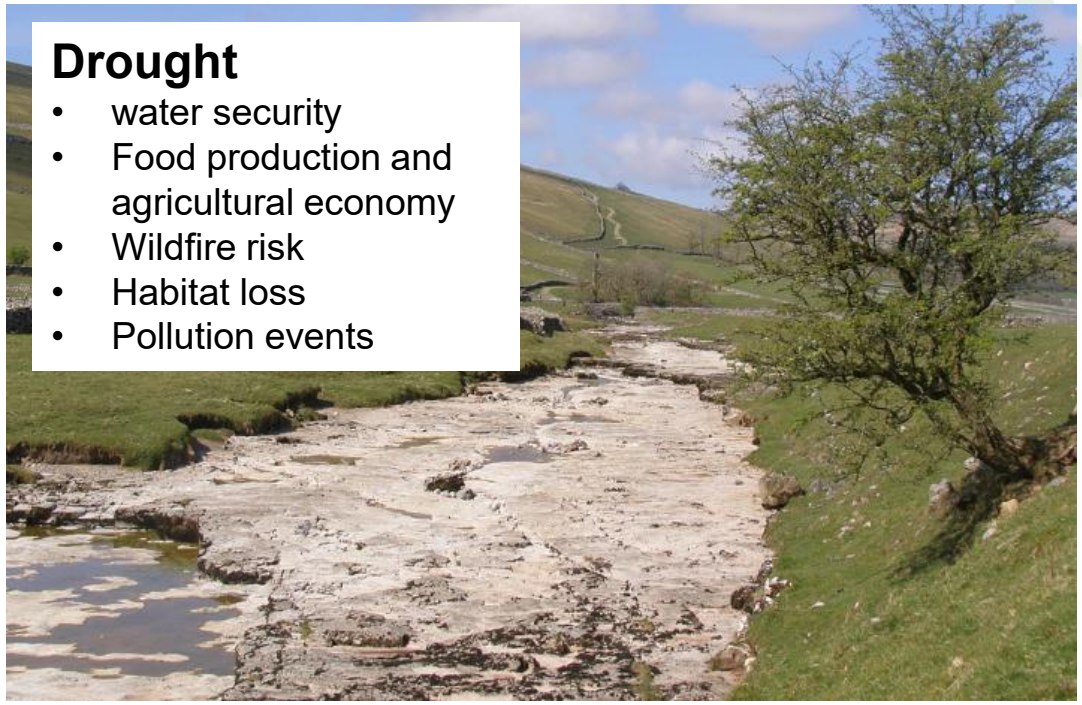
113 Risks across 20 different hazards

General changing climatic conditions

• finance, investment and insurance relocating to other less risky areas
• Soil health & ecosystem services
• integrity of heritage & historic assets

Climate-induced pest and diseases

- human health
- terrestrial species
- invasive species



Drought

- water security
- Food production and agricultural economy
- Wildfire risk
- Habitat loss
- Pollution events

Flooding

(river/surface/ tidal inundation from extreme rainfall and sea level rise
• business sites
• people, communities and buildings
•wastewater/sewer infrastructure



Cascading risks from infrastructure interdependencies such as power or transport disruption



Extreme heat and wildfires

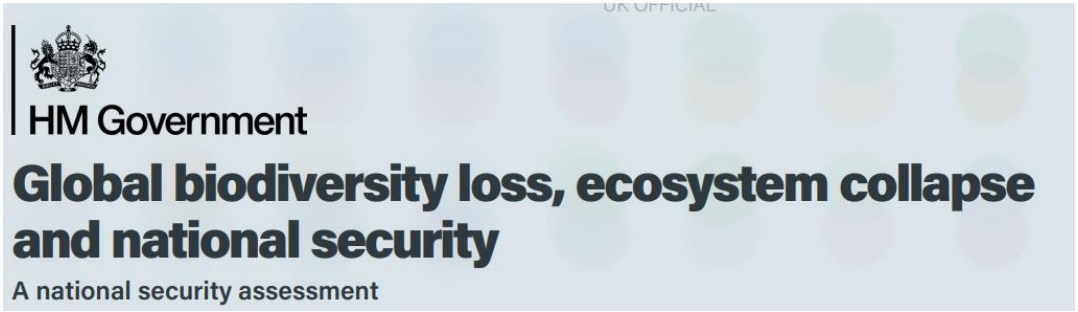
- health and wellbeing
- wildfires impact on health, emergency resources and long term destruction of property, landscapes, habitats
- Migration increasing house prices

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What does the report doesn't tell us

International risks: global crop failure (food supply chains), overseas climate disaster, energy disruption, supply chain disruption from transport routes, international migration pressures, civil disruption and conflict.

Therefore NYC working with YHCC to collaborate on assessing international risks.



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HM Government

Global biodiversity loss, ecosystem collapse and national security

A national security assessment

Key judgements

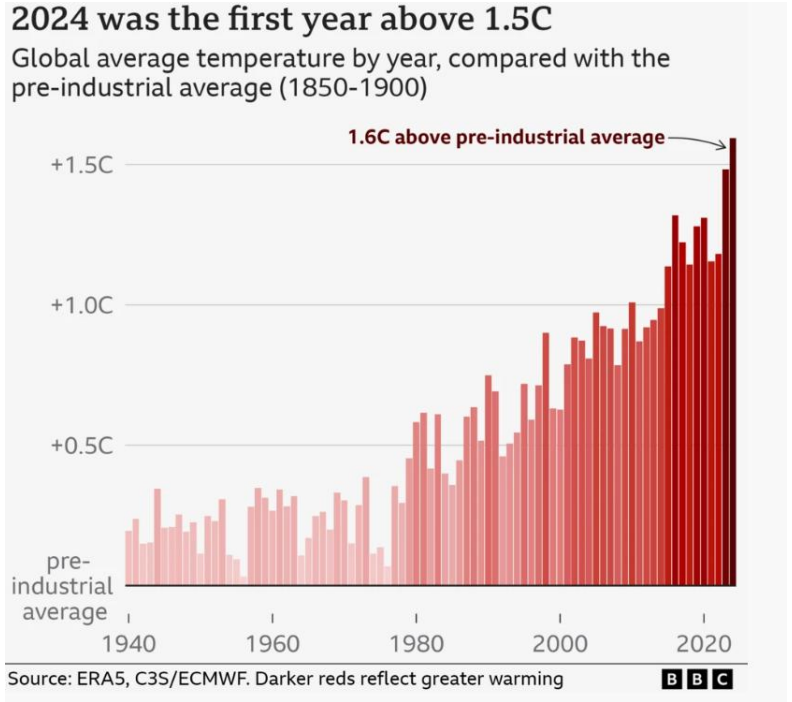
Analytical Confidence Rating (AnCR)

1. **Global ecosystem degradation and collapse threaten UK national security and prosperity.** The world is already experiencing impacts including crop failures, intensified natural disasters and infectious disease outbreaks. Threats will increase with degradation and intensify with collapse. Without major intervention to reverse the current trend, this is highly likely to continue to 2050 and beyond. **High**

Risks increasing with global warming level

Table 12 Number of climate risks identified during the YNY climate change risk assessment and proportion in each risk rating category, split by climate change scenarios.

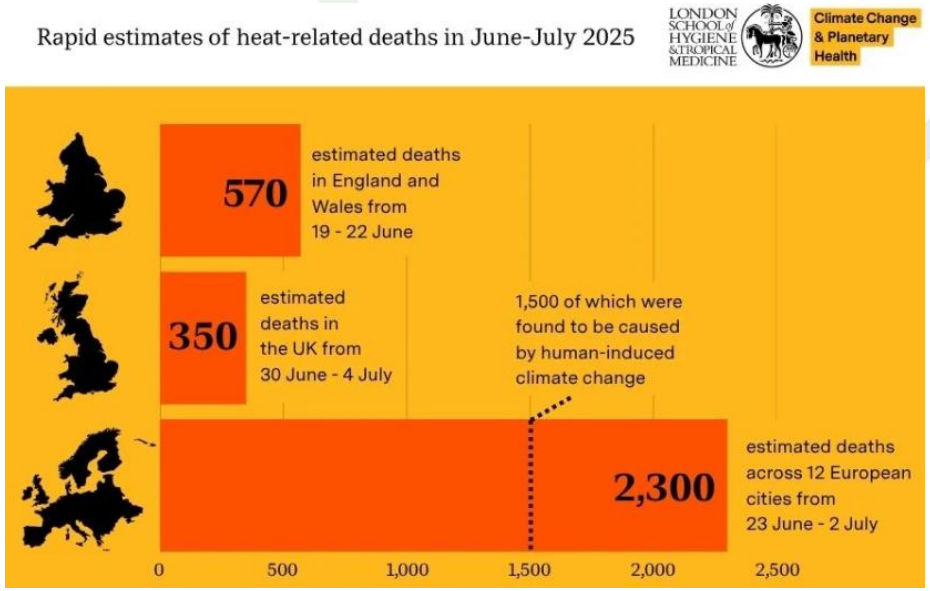
	2030s 1.5°C GWL		2050s 2.0°C GWL		2100s 4.0°C GWL	
Risk score	No. risks per category	%	No. risks per category	%	No. risks per category	%
[1] Negligible	15	13%	5	4%	1	1%
[2] Minor	39	35%	28	25%	13	12%
[3] Moderate	50	44%	45	40%	37	33%
[4] Major	9	8%	35	31%	43	38%
[5] Severe	0	0%	0	0%	19	17%



Who is most at risk?.. Vulnerability and Resilience

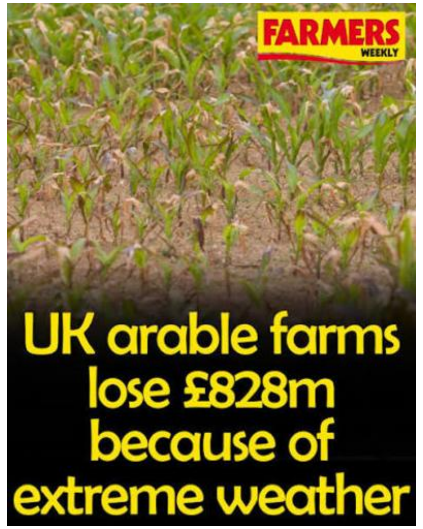
Vulnerability to climate change is shaped by the interaction of exposure, susceptibility and adaptive capacity.

- Older adults, children and disabled people – health and educational disruption, less able to respond
- Low income households – less adaptive capacity
- Rural communities - agricultural economy, tourism and access to services



More than 80 UK schools closed due to heatwave as Met Office issues red weather warning – full list

The Met Office has issued a red weather warning for exceptional heat



Where is most at risk?

- Risk geographic 'hotspots' include overlapping vulnerabilities of hazards, people and place, linked to infrastructure such as healthcare, transport and energy supply. GIS identify priority areas for adaptation
- Datasets include

Population characteristics (Index Multiple Deprivation / age)

Flood risk

Sea level inundation (coastal and Humber)

Rainfall and water ‘stress’



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Workshop Activity

Look at our Yorkshireville Map

- What are the risks to the people and places in Yorkshireville from the changing climate
- What can we do, as a community, to reduce those risks?
- Work through the Community Resilience Plan to help prepare Yorkshireville.

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Support available for climate change awareness

- The changing climate will effect our entire world systems.
- There will be societal shifts.
- Pam's story is a helpful workshop resource to explain climate adaptation in a community setting: Yorkshire and Humber Climate Commission - How Pam's Story is helping to prepare us for the impacts of climate change
- Raising awareness of the risks may have impact on mental health.
  - Active Hope, carbon literacy (Joanna Macey)
  - Climate Psychology Alliance

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