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# LOCAL IMPACT OF CLIMATE CHANGE

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Date: 10th October 2025

# OBJECTIVES

- **LINK CLIMATE CHANGE TO ISSUES THE COMMUNITY IS ALREADY FACING**
- **IDENTIFY IMPACTS ON ENVIRONMENT, HEALTH AND ECONOMY**
- **RAISE AWARENESS OF WHY LOCAL ACTION MATTERS.**

# NIGERIA AND UNITED KINGDOM AS CASE STUDIES

Climate change is significantly impacting Nigeria's environment through rising temperatures, extreme weather events, and ecological disruption. These effects threaten food security, water resources, public health, and economic stability.

## ENVIRONMENTAL IMPACTS IN NIGERIA

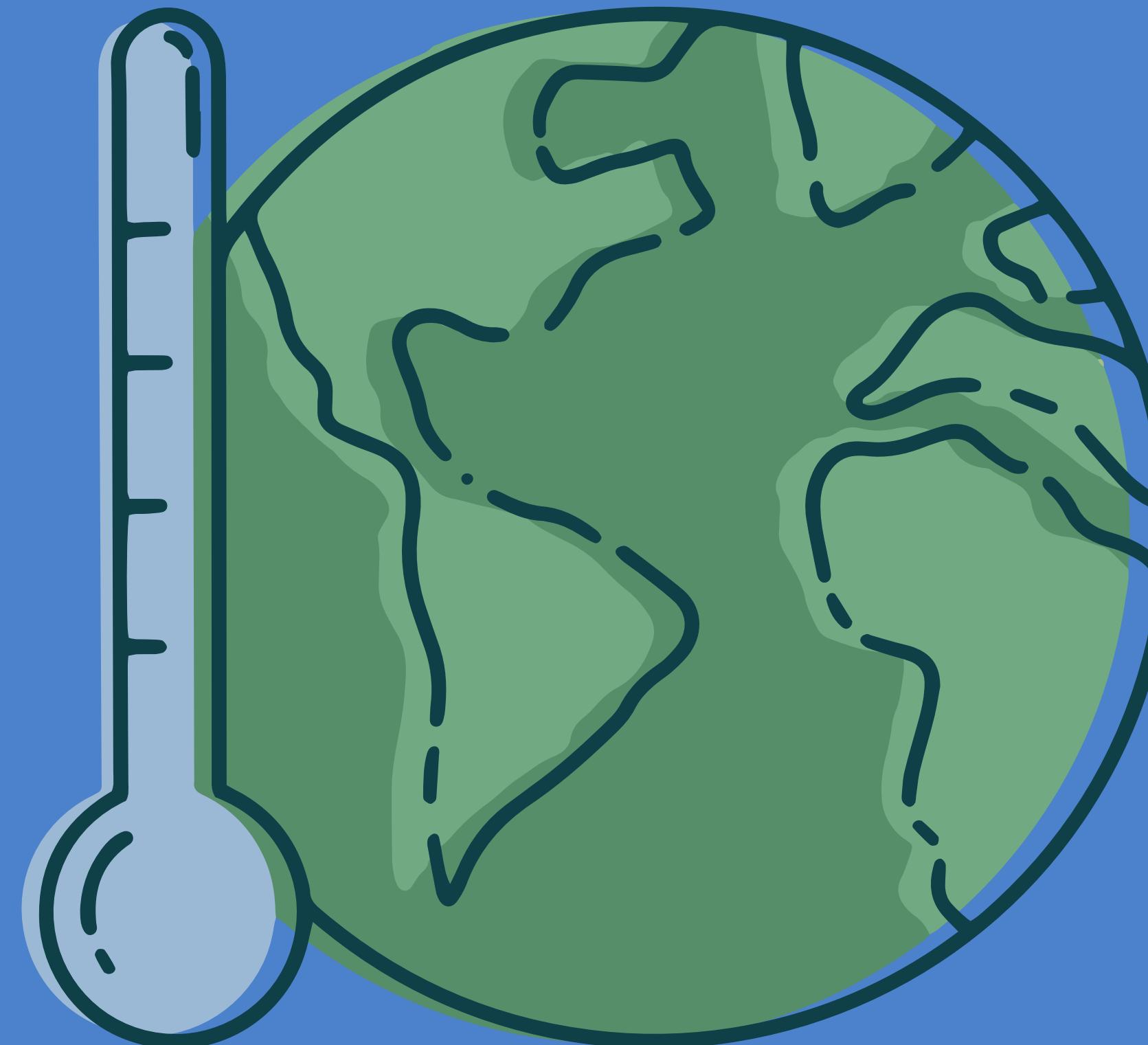
- Floods: In 2022, floods killed 612 people, displaced 1.4 million, and destroyed 140,000 hectares of farmland.
- Droughts: Northern Nigeria experiences prolonged dry seasons, with temperatures reaching 38°C, accelerating desertification.



# SOCIAL IMPACT (NIGERIA CASES)

## Health Impacts

- Malaria and meningitis cases rise due to stagnant floodwater and extreme heat.
- Air pollution from bush burning and industrial emissions causes respiratory illnesses .



## Energy Infrastructure Strain

- Hydroelectric power generation (e.g., Kainji Dam) is disrupted by inconsistent rainfall, worsening Nigeria's energy crisis.
- Rising temperatures increase demand for cooling, straining an already fragile grid.

Nigeria's rainfed agricultural systems (supporting 70% of the population) face reduced crop yields due to:

- Unpredictable rainfall patterns disrupting planting cycles.
- Droughts in the north reducing farmland and livestock productivity, exacerbating desertification.

## ECONOMIC IMPACT



# UNITED KINGDOM AS CASE STUDY

## 1. Extreme Weather Events

- **Flooding:** Increased winter rainfall and intense storms have made flooding 5 times more likely by 2100. Coastal erosion and sea-level rise (up to 1.15m by 2100) threaten 1.2 million people in coastal areas.

- **Heatwaves:** Summer temperatures could rise by 5.4°C by 2070, with 50-day heatwaves potentially becoming the norm by 2100.

## 2. Ecosystem Disruption

- **Biodiversity Loss:** Warmer temperatures and shifting rainfall patterns threaten 40% of UK species, including migratory birds and marine life.

- **Wildfires:** Drier summers have increased wildfire frequency, damaging farmland and habitats.

## 3. Agricultural Strain

- Droughts could reduce crop yields by 20% by 2050, while water demand for irrigation may surge by 35.5%

## ENVIRONMENTAL IMPACTS IN UNITED KINGDOM



Climate change is significantly impacting the UK across environmental, social, and economic spheres, with interconnected risks that demand urgent mitigation and adaptation.

# SOCIAL IMPACT (UNITED KINGDOM)

## Health Risks

- Heat-Related Illness: Heatwaves could cause 7.1 additional deaths per 100,000 people by 2100, disproportionately affecting the elderly and those with chronic illnesses
- Mental Health
- Climate anxiety and trauma from extreme weather events (e.g., losing homes to floods) are rising, particularly among youth



# ECONOMIC IMPACT

- Infrastructure Damage: Flooding alone could cost £12 billion annually by 2080, with rail buckling and road damage adding £2 billion in transport disruptions

## Macroeconomic Risks

- Climate impacts could reduce UK GDP by 7.4% by 2100 under current policies. Transitioning to net-zero could save 5% of GDP and boost green industries .



# WHY LOCAL ACTIONS MATTER?



## 1. Immediate Impact

- Directly addresses community-specific challenges (e.g., pollution, inequality, infrastructure)
- Faster implementation than national/international policies

## 2. Tailored Solutions

- Local stakeholders understand cultural, economic, and environmental nuances
- Avoids "one-size-fits-all" approaches that often fail

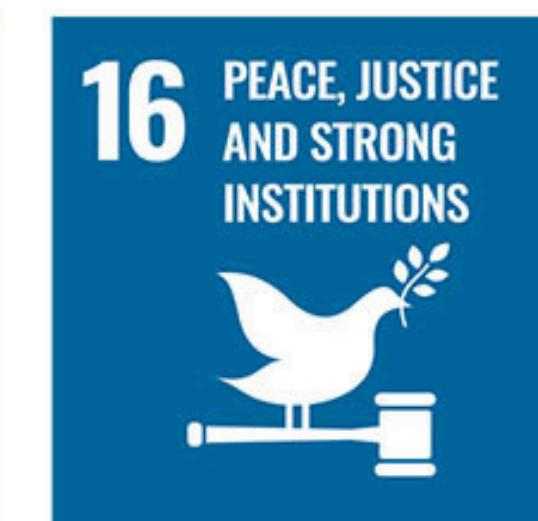
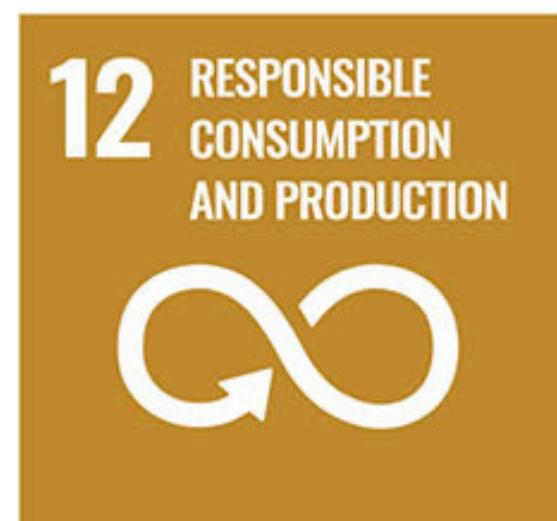
## 3. Empowers Communities

- Builds leadership and civic engagement (e.g., neighbourhood cleanups, school programs)
- Strengthens accountability between residents and local institutions.

## 4. Foundation for Global Change

## 5. Economic Resilience

# United Nation Sustainability Development Goals



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