

How climate change could affect Grimsby and Humberside

Climate change represents a potentially significant issue for all UK business sectors. • Main climate challenges to businesses include flooding and coastal erosion, increased competition for water, and disruption of transport and communication links. • The degree to which individual organisations are affected depends upon their level of vulnerability and adaptive capacity. • There are potentially significant commercial and competitive advantages to be gained for those businesses taking on the challenge.

Current affect of climate change

Some areas at a high flood risk also suffer from a high level of deprivation.
• Exacerbation of existing health conditions, such as asthma and
respiratory illnesses and increased risk of mental health issues resulting
from multiple impacts of severe flooding. • Changing nature of health needs
– less winter mortality, but increased heat stress; and UV expose in
summer. • Challenges to healthcare delivery such as temperature control in
buildings and ability to deliver mobile home care services.

How does this impact Grimsby(HUMBERSIDE)

Climate change will significantly impact Grimsby and the surrounding area,
primarily through increased flood risk, with rising sea levels and more
frequent storm surges potentially leading to extensive coastal flooding. This
will affect not only coastal areas like Cleethorpes but also inland areas due
to increased river and surface water flooding. Additionally, changes in
rainfall patterns, with more intense downpours, could exacerbate surface
water flooding, while warmer winters could lead to longer growing seasons
and new crop possibilities.

Pollution

pollution, the addition of any substance (solid, liquid, or gas) or any
form of energy (such as heat, sound, or radioactivity) to the
environment at a rate faster than it can be dispersed, diluted,
decomposed, recycled, or stored in some harmless form.^{15 May 2025}

Future predictions

Future climate predictions indicate a continued warming trend with more frequent and intense heatwaves, changes in precipitation patterns, and rising sea levels. The UK, like other regions, can expect hotter, drier summers and warmer, wetter winters. Specifically, by 2070, winter temperatures could rise by up to 4.5°C, while summers could see increases of over 5°C.

The current climate in Nigeria

Nigeria's climate has been changing, evident in: increases in temperature; variable rainfall; rise in sea level and flooding; drought and desertification; land degradation; more frequent extreme weather events; affected fresh water resources and loss of biodiversity (see: Elisha et al., 2017; Ebele and Emodi, 2016; Olaniyi et al., 2013). The durations and intensities of rainfall have increased, producing large runoffs and flooding in many places in Nigeria (Enete IC, 2014). Rainfall variation is projected to continue to increase. Precipitation in southern areas is expected to rise and rising sea levels are expected to exacerbate flooding and submersion of coastal lands (Akande et al., 2017; Ebele and Emodi, 2016). Droughts have also become a constant in Nigeria, and are expected to continue in Northern Nigeria, arising from a decline in precipitation and rise in temperature (Amanchukwu et al., 2015; Olapido, 2010). Lake Chad and other lakes in the country are drying up and at risk of disappearing (Dioha and Emodi, 2018; Elisha et al., 2017). Temperature has risen significantly since the 1980s (Enete IC, 2014, 234; Federal Ministry of Environment, 2014). Climate projections for the coming decades reveal a significant increase in temperature over all the ecological zones (Akande et al., 2017). This rapid review synthesises evidence on the impact of climate change in Nigeria (geographic, sectoral, demographic and security impacts) and responses to address it (i.e. climate change mitigation and adaptation, adaptive capacity and capacity development). There are a few comprehensive reports and papers that provide useful evidence and discussion of the various impacts of climate change throughout Nigeria. The vast majority of the literature that provides evidence of climate change impacts and responses, however, focuses on the agricultural sector and on individual farming communities in particular regions of the country. Discussion of other mitigation and adaptation measures in the literature often takes the form of recommendations, rather than examples of what has already been achieved. This is likely due to the need for much greater implementation of mitigation and adaption measures in Nigeria. In addition, while there is some discussion about necessary capacity building at the individual, group and community level to engage in climate change responses, there is much less attention given to higher levels of capacity at the state and national level. Nigeria has faced its worst flooding in over a decade, with over 2 million people displaced from the unprecedented climate related impacts. The 2022 floods, caused by heavier rainfall attributed to climate change and the release of excess water from the Lagdo dam, affected the majority of areas, 34 states and is serving as a key driver of forced movement and human mobility.

Flood-prone areas across the country have been particularly affected, such as in Anambra, where 526,215 people were displaced because of the 2022 floods, in addition to other states. As the most highly affected example, Bayelsa had 700,000 people displaced across 300 communities and villages from the flooding.

These socioeconomic disparities have far-reaching human security impacts, with youth facing pressure to participate in violence and criminality. Most prominently in the northeast, where 1.9 million people are displaced in Borno, insurgencies like Boko Haram have targeted those facing lack of livelihoods to recruit fighters. Insecurity has also notably prevented girls from receiving consistent education, as non-state armed groups have a precedent of targeting girls who attend school. Flooding has further weakened security infrastructure, undermining defenses against the Islamic State in the West African Province (ISWAP). the militant group overran an informal resettlement camp in an insecure area on the outskirts of Mallam Fatori.

Climate change reflects the variations in the average daily weather conditions such as temperature, humidity, rainfall and sunshine of a location over an extended period. Climate change in Nigeria threatens economic growth in sectors dependent on climatic conditions.

Economic sectors such as agriculture, fishery and forestry are more predisposed to the adverse effects of climate change. The Nigerian climate has been irregular over the years, alternating between periods of extreme dry or rainy seasons.