

# The IGNITION Project: Climate Change and the Need for Nature- Based Solutions



**GREATER MANCHESTER**  
DOING THINGS DIFFERENTLY



**European Union**  
European Regional  
Development Fund

## Climate change in Greater Manchester

As urban flooding, rising rivers and upland fires become more common across Greater Manchester and summer temperatures soar, it can be hard to know what extreme weather to expect next. It's safe to say that the effects of climate change are taking their toll on our city region. In 2019, Greater Manchester declared a **climate emergency**. Studies show that since the 1940s, flooding in Greater Manchester has increased sixfold, with climate change projections showing that winter rain and snowfall could increase by **30%** across the region by 2050.

**So, how can our city region address key climate vulnerabilities and stay safe while meeting its carbon neutral ambitions?**

The IGNITION project looks at innovative funding mechanisms to deliver increased investment in nature-based solutions, which will help build resilience to the effects of climate change, such as flooding and drought.



## Why nature-based solutions?

Nature-based solutions (NBS) are an essential component of combatting climate change and reaching the goals set out in the **Paris Agreement**. These solutions, such as sustainable drainage systems (SuDS) and green roofs, help to build resilience to the impacts of climate change, improve air quality, increase levels of biodiversity, decarbonise the urban environment, and improve the health and wellbeing of citizens.

NBS are effective, long-term, cost-efficient and globally scalable solutions; they represent a holistic, people-centred response to climate change; valuing harmony between people and nature.

Research referenced by the United Nations Global Compact indicates that, globally, nature-based solutions can provide over one-third of the climate mitigation needed by 2030 to stabilise warming to below 2°C.

**Diagram showing nature-based solutions and their benefits from the evidence base**



## Climate adaptation

There is growing action to address the global need to decarbonise, and reduce consumption in order to minimise the potential extreme impacts of climate change, and to meet our commitment to limiting global warming to **2°C above** pre-industrial times. However, the climate has already changed, and even a **1.5°C increase** in temperature will bring with it extremes of weather that will particularly impact built-up urban areas; flash flooding, increased summer temperatures leading to drought, extinction of an increasing number of species and impacts on food security. NBS are a key tool in ensuring we can build resilience to these changes. The positive impact on health and wellbeing also means that NBS can improve individual resilience to the changes we face.



## What is a climate emergency?

More than 250 local and regional authorities across the UK have now declared a climate emergency. There is no single definition on what this means, but for most local areas a climate emergency is a commitment to urgent action to become carbon-neutral within a certain timeframe. For Greater Manchester the ambition is to achieve carbon neutrality across the city region by **2038**.

The point of a climate emergency declaration is to give local governments the power to direct our economy and society in ways needed to avoid a climate catastrophe and to re-establish a safe climate. A climate emergency recognises the need for rapid change to both mitigate and adapt to climate change.

## Greater Manchester's commitment to climate resilience

There is strong local political commitment to building climate resilience: Greater Manchester has signed up to **Mayors Adapt, the Global Covenant of Mayors for Climate and Energy** and **UNISDR Resilient Cities** programmes. Progress in these areas, alongside well-established links to expert academic and research advice, the development of conurbation-wide spatial planning frameworks, and an increasingly devolved level of control over budgets, presents a very positive platform for the future of the region.

