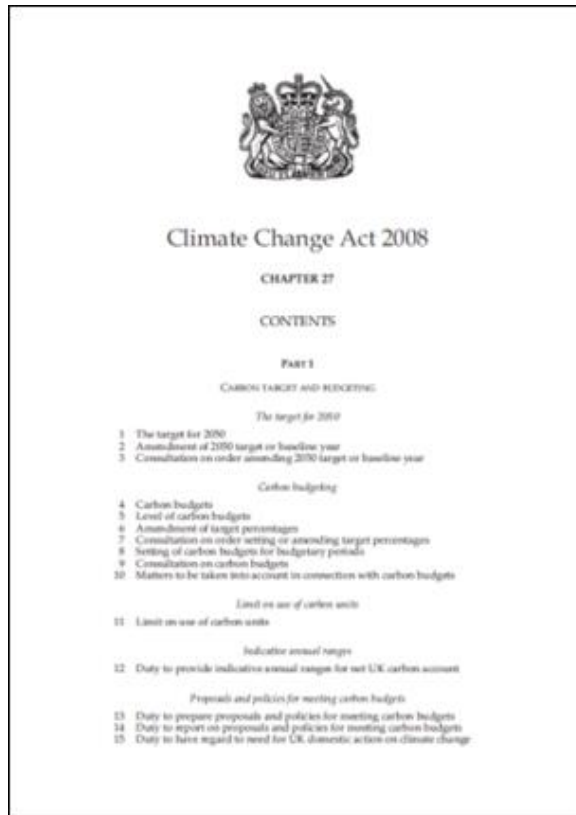


Ecosystem based adaptation: the UK's experience

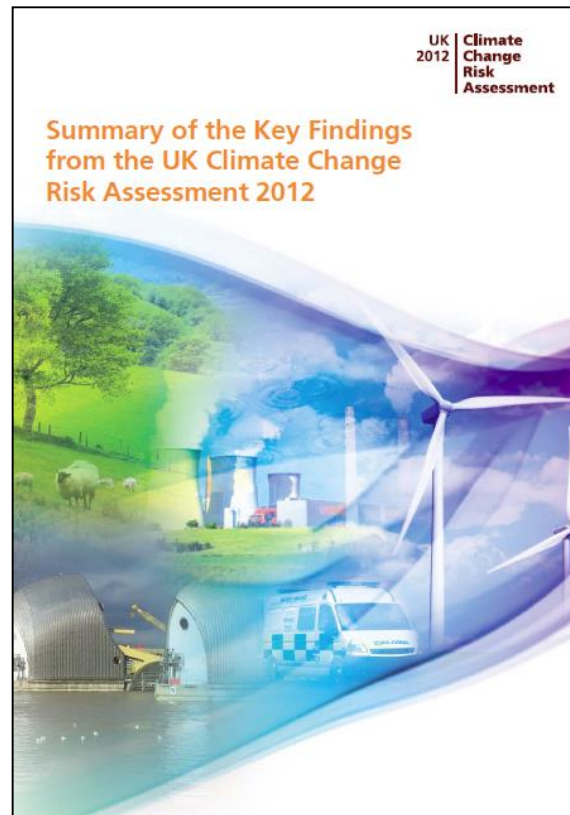
Mike Morecroft

Principal Specialist, Climate Change, Natural England

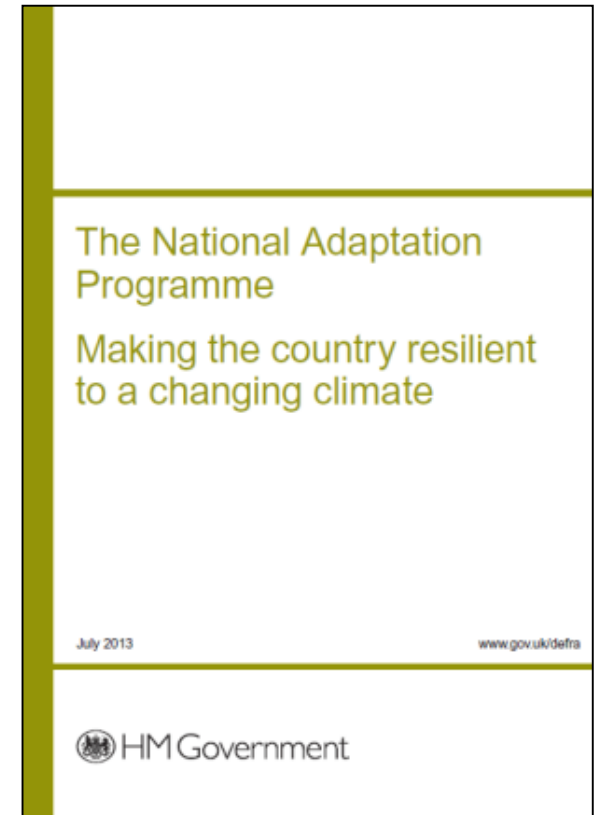
UK process for NAP development



2008



2012
2016



2013
2018

UK NAP Themes



- Built Environment
- Infrastructure
- Healthy and resilient communities
- Agriculture and forestry
- Natural environment
- Business
- Local government

NAP Natural environment theme



- Building ecological resilience
- Preparing for and accommodating inevitable change
- Valuing the wider adaptation benefits the natural environment can deliver
- Improving the evidence base

Main risks from climate change to the UK



- Flooding and coastal change
- Heatwave impacts on people
- Water shortage during drought events
- Degradation of ecosystems and their services
- Domestic and international food production and trade.
- Pests, diseases and invasive non-native species

Opportunities for Ecosystem Based Adaptation



- Natural flood management
- Natural cooling
- *Retaining water during drought*
- *Wind breaks*

Floods, storms and coastal change



Natural Flood Management



- Managed realignment – creating inter-tidal habitats
- Re-naturalising water courses
- Restoring / creating wetlands
- Creating flood storage areas
- Sustainable drainage
- Tree planting

Managed realignment: Alkborough, Humber Estuary



- Flood embankment breached 2007
- 440 ha low-lying agricultural land converted to intertidal habitats
- Helps to protect 300,000 people from flooding



Wallasea Island Managed Realignment (2015)



Holnicote Catchment Management



The National Trust's Holnicote Estate near Minehead, Somerset. Photograph: Adrian Sherratt

Restoring drained blanket bog



Natural cooling



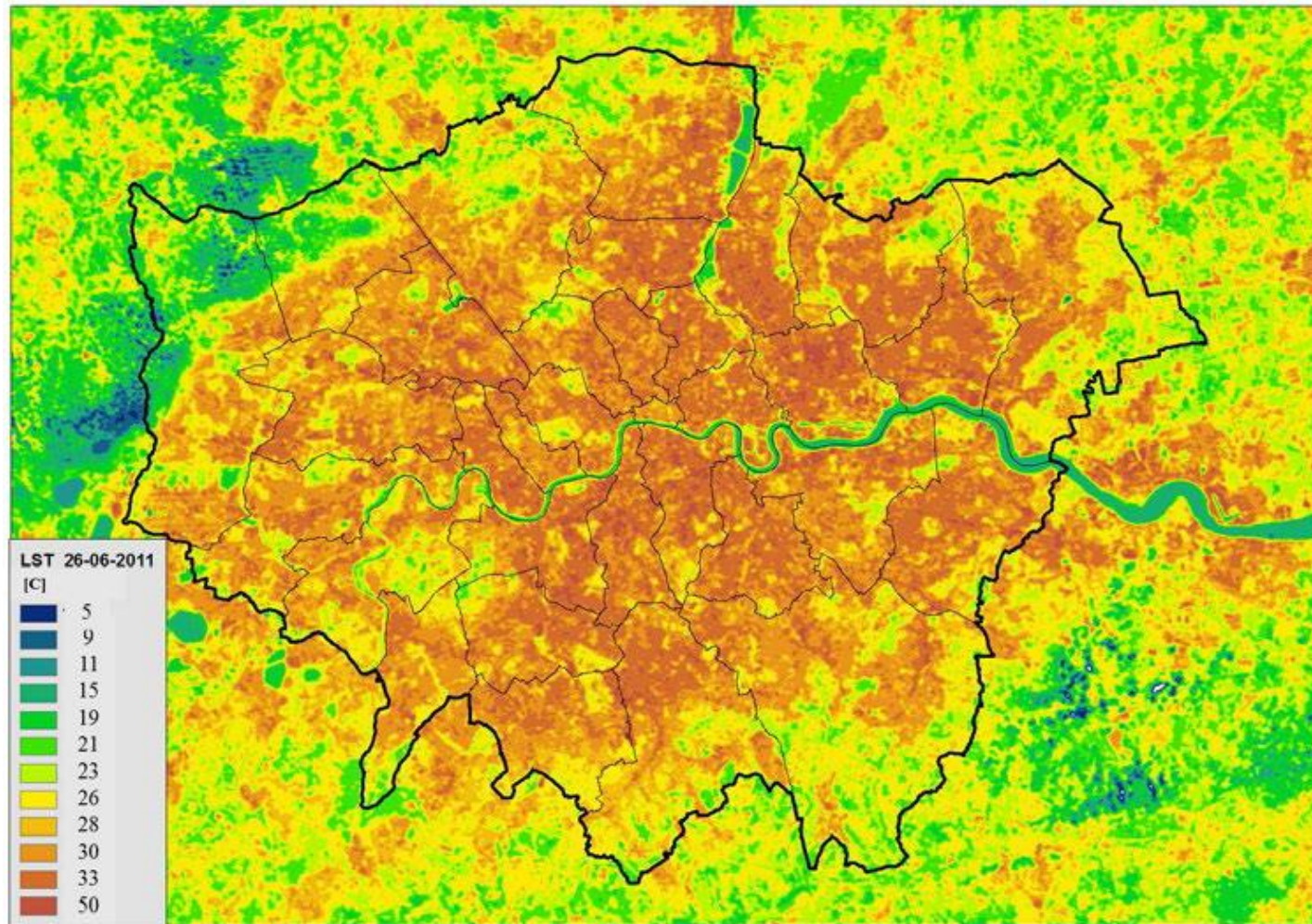
- Keeping rivers cool (tree planting beside rivers)
- Parks and trees in towns

Keeping rivers cool by planting shade trees



River Ribble Trust

Urban cooling: heat map of London



London, June 2011, Land Surface Temperature; ARUP (2014)

The challenge: mainstreaming



Natural environment

- Built Environment
- Infrastructure
- Healthy and resilient communities
- Agriculture and forestry
- Business
- Local government

Conclusions



- Ecosystem based adaptation can work
- Still at an early stage
- Need evidence of success
- Mainstreaming into other sectors is essential