SPF UK Climate Resilience Programme

Webinar Series 2022

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UK CLIMATE RESILIENCE PROGRAMME

Website: https://www.ukclimateresilience.org/

Timings

12.00	**UK Climate Resilience Programme news**	**Kate Lonsdale** *UK Climate Resilience Programme Champion, University of Leeds*
12.10	**1. Overview of the third UK Climate Change Risk Assessment (CCRA3)** **2. Third National Adaptation Programme (NAP3) development and engagement** **3. CCRA4 and indicator development**	**Liz Bergère , Defra** **Natalie Roberts, Defra** **Megan Bickle, Defra**
12.40	**Q&A**	**Panel**
13.00	**End**	

How to engage

- **Presentations first** then Q&A and discussion
- Post questions in the **Q&A box** at any time
- **Up-vote** your favourites
- Attendees will **remain muted** unless enabled to speak by the host
- Webinar (audio and slides) will be **shared after the event**
- Technical problems **– chat**
- The webinar is **being recorded**

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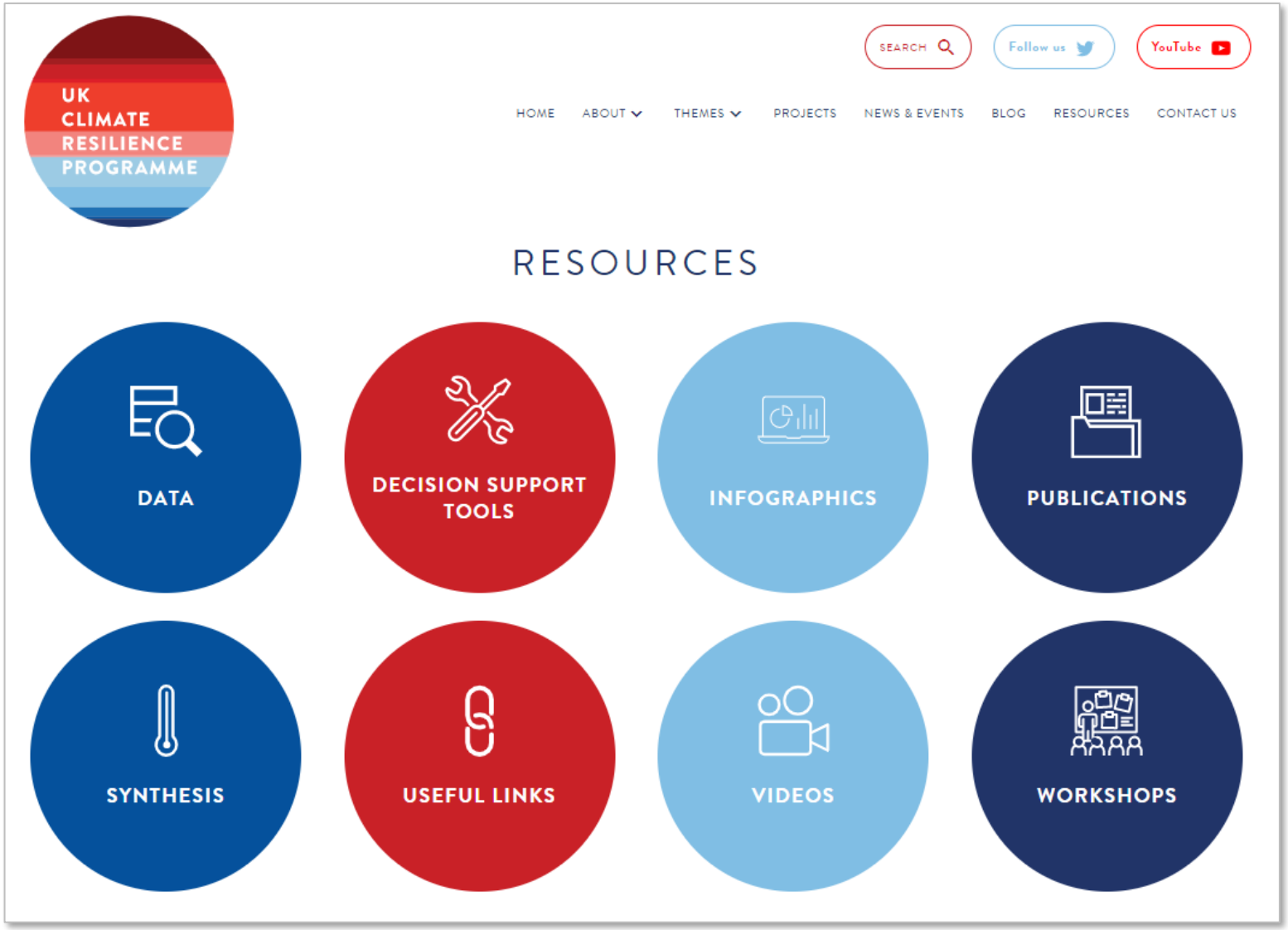
New resources



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New paper

Climate Risk Management 36 (2022) 100430

Contents lists available at ScienceDirect

Climate Risk Management

journal homepage: www.elsevier.com/locate/crm

Identifying adaptation 'on the ground': Development of a UK adaptation Inventory

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Keywords:
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Climate Change
Systematic Review
Implementation
Stocktake

ABSTRACT

Adaptation plays a crucial role in managing the unavoidable risks from climate change. The UK is considered to be at the forefront of national adaptation planning. However, the extent to which plans and programmes translate into tangible risk reducing action on the ground, as opposed to adaptive capacity building, remains less clear. Given that there is no formal database of adaptation action for the UK, despite the various needs of government to identify, assess and report on adaptation progress, including the UK national stocktake on adaptation under the UNFCCC Paris Agreement, this study outlines the development of an up-to-date and forward-looking UK Adaptation Inventory. The Inventory documents adaptation on the ground, based on national reporting to government by public and private sector organisations and a systematic review of peer-reviewed literature. The framework is centred on identifying and documenting current and planned adaptation; how it is being implemented in terms of the types of adaptation actions; and the sectors where adaptation is occurring and where gaps may remain. For the sub-set of sectors captured there is clear evidence of a wide range of cross-sectoral and sector-specific adaptation being implemented. In total, 360 examples were identified, over 80% of which have already been implemented. This comprises 134 different types of adaptation action, largely aimed at reducing vulnerability using engineered, built environment or technological mechanisms. Compared to the situation a decade earlier, this suggests that significant progress has occurred in the UK in terms of reporting and implementing adaptation, including adaptation by the private sector in climate sensitive sectors. At the broader level, the Inventory is a first step in providing a baseline assessment for the UK stocktake on adaptation; can help inform other organisations about adaptation options that are available; and provide case studies of actions in practice to help support decision-making.

UK Climate Change Risk Assessments and working towards NAP3

Megan Bickle (Defra adaptation evidence)
Elizabeth Bergère (Defra adaptation evidence)
Natalie Roberts (Defra adaptation policy)
11th May 2022

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Overview of CCRA3

Liz Bergère, Head of Climate Adaptation at Defra

Adaptation: a policy context

Adaptation is a legal duty set out in the Climate Change Act (2008)

Climate Change Risk Assessment

Provides an assessment of the risks of climate change on the UK based on the latest climate change projections from the Met Office

Published every 5 years:
- CCRA2 = 2012
- CCRA3 – 2022
- CCRA4 – due 2027

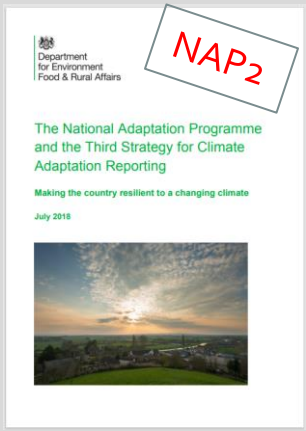
The risk assessment considers:
- Natural environment
- Infrastructure
- Business and industry
- International Dimensions
- Health, communities and the built environment

National Adaptation Programme

Sets the actions that government and others will take to adapt to the challenges of climate change in the UK

Published every 5 years:
- NAP1 – 2013
- NAP2 – 2018
- NAP3 – due 2023

Devolved administrations have their own programmes for adaptation.



Evolution of CCRAs

CCRA1 (2012): Breaking new ground

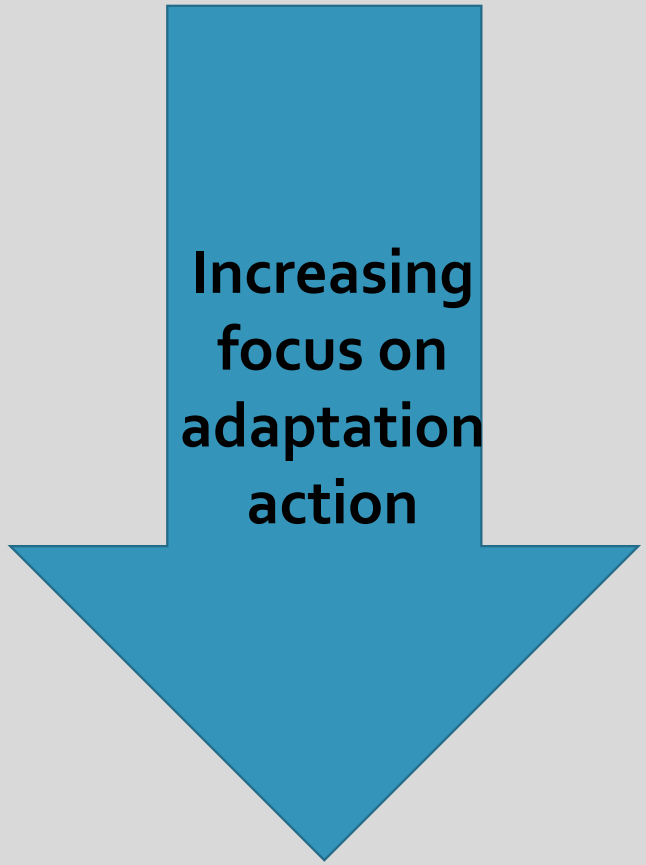
- Systematic review of 100+ risks
- Sets baseline in absence of current and planned actions
- Clearer distinction between Evidence Report and Gov Report

CCRA2 (2017): Shift in approach to urgency

- Greater focus on prioritisation to inform NAP
- Start to incorporate impact of policies, actions and socio-eco change on risk
- Reappraise only where science advanced significantly

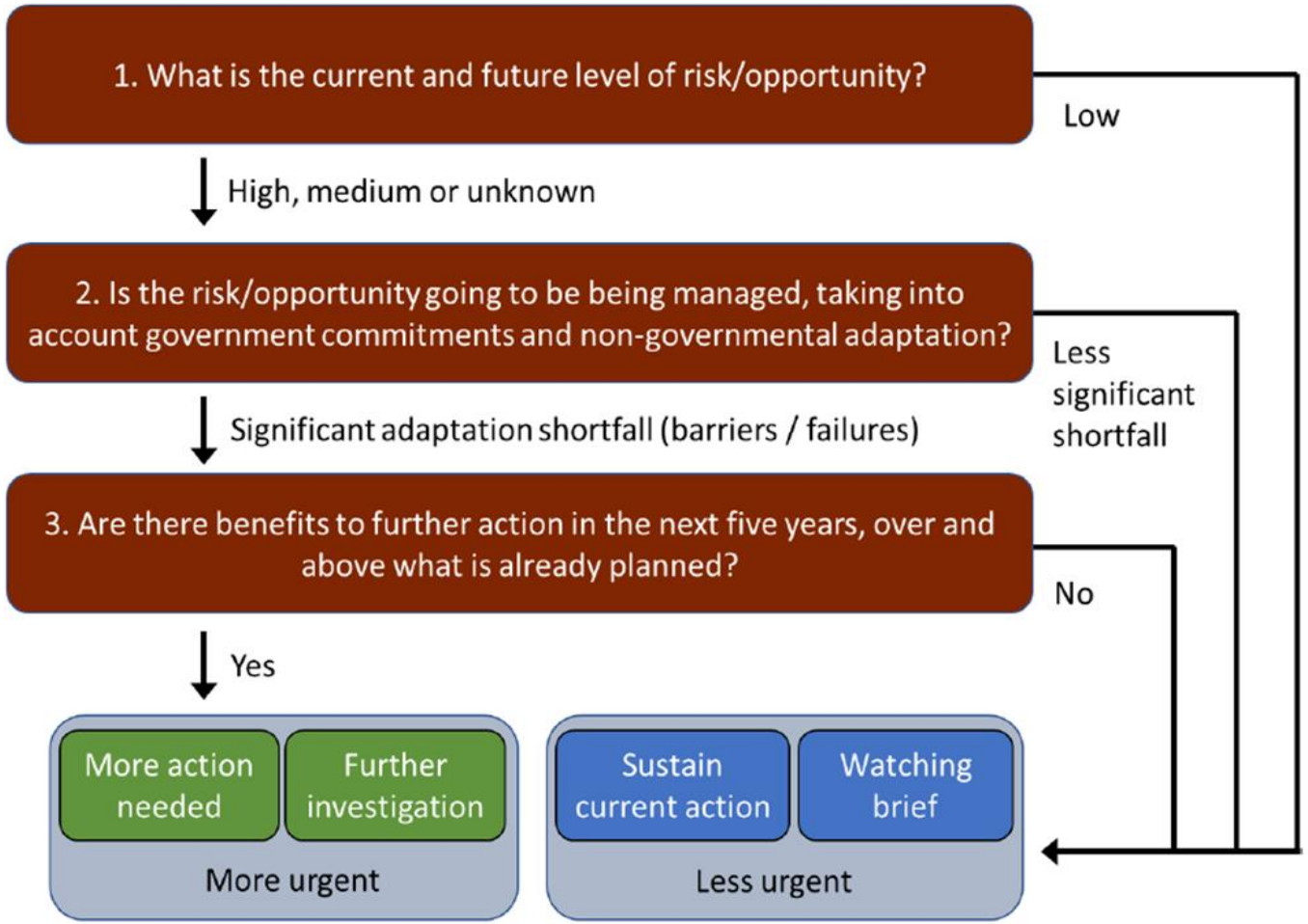
CCRA3 (2022): Similar to CCRA2 with a focus on:

- Greater accessibility of outputs for primary audience of government and devolved admins
- Advances in science – e.g. UKCP18
- Framework for integration of more assessment of adaptation action



What do we mean by urgency?

- Both Evidence Reports for CCRA2 and CCRA3 utilise an urgency framework
- Aim to identify priorities for action under NAP
- More than just a strict risk assessment
- How far the assessment can go limited by available evidence



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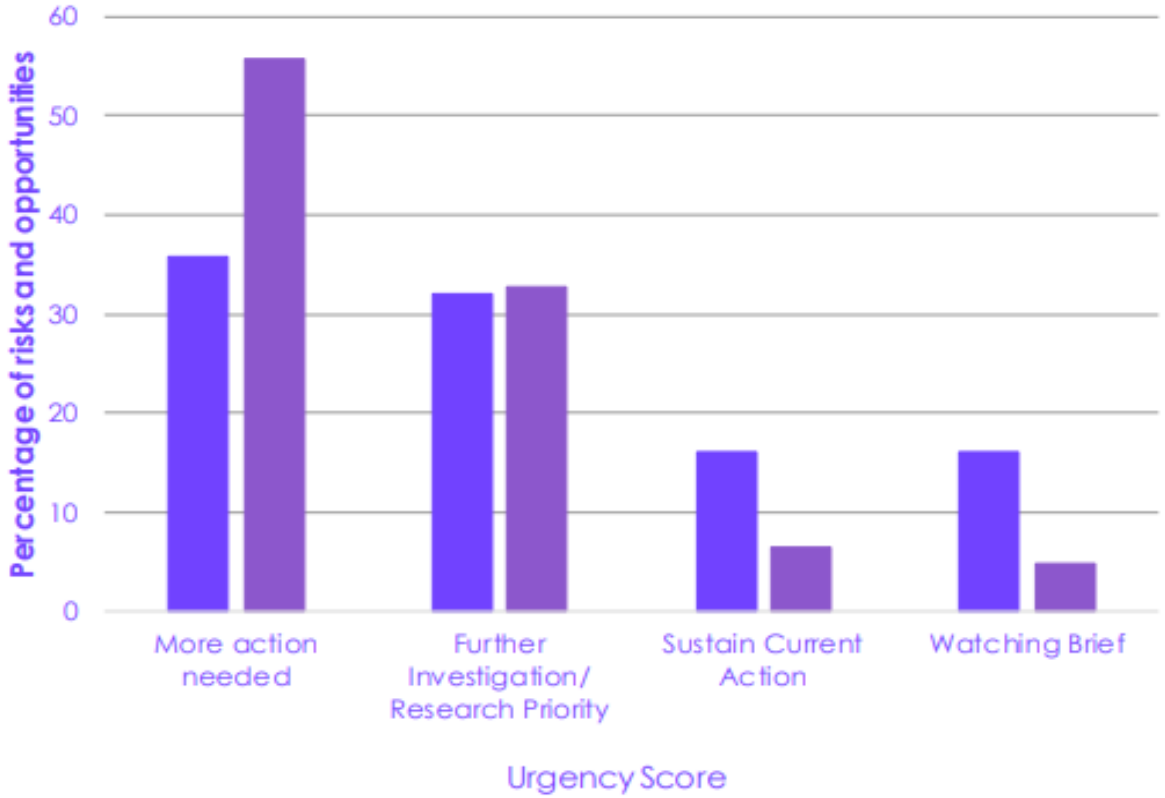
How has urgency changed?

Figure 2.6 Changes in urgency scores between CCRA2 and CCRA3



Source: The Third UK Climate Change Risk Assessment Technical Report [Betts, R.A., Haward, A.B. and Pearson, K.V. (eds.)]. Prepared for the Climate Change Committee, London; CCC (2016) UK climate change risk assessment 2017 – Synthesis Report: Priorities for action in the next five years

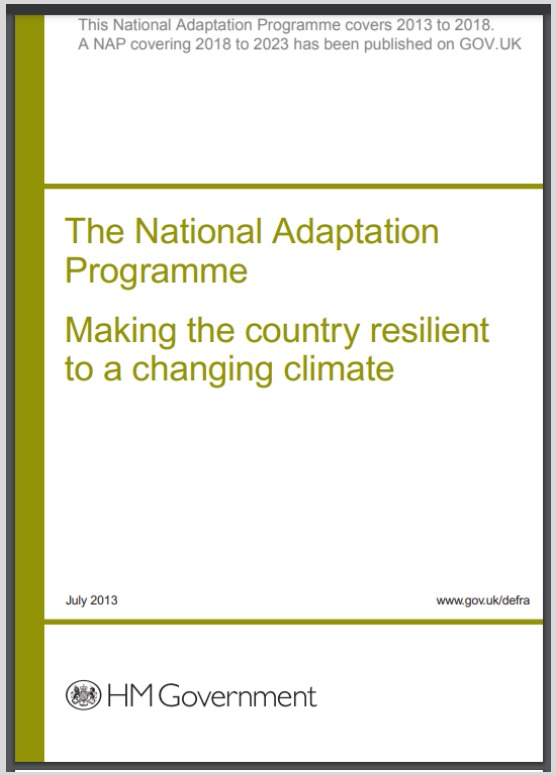
- CCRA3 assessed 61 risk/opportunities and CCRA2 assessed 56 risks
- More risks are in the highest urgency category, i.e. more action needed
- Reasons for this include:
  - More evidence gathered move from further investigation category
  - Assessed need for further action compared to CCRA2
  - New risks added
- Fewer risks in the lowest urgency categories, although 3 individual risks have decreased in urgency

NAP3 Development and Engagement

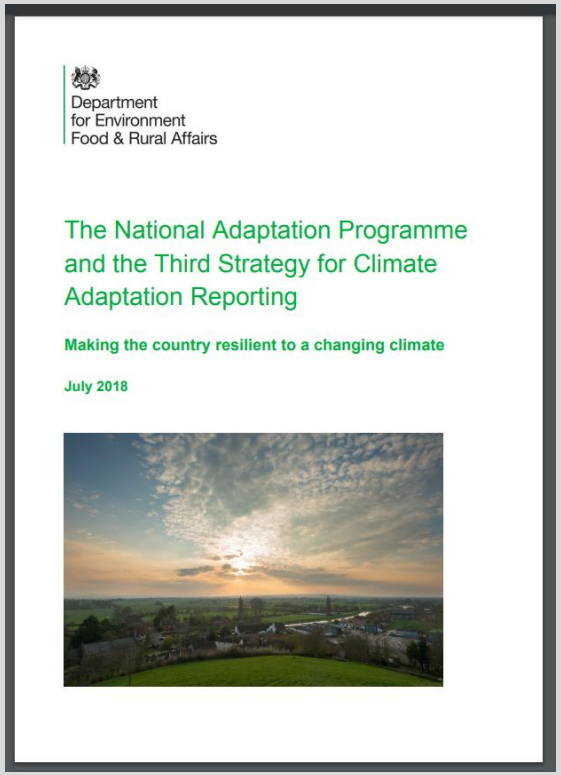
Natalie Roberts, Natural Environment Adaptation policy team lead at Defra

Working towards NAP3

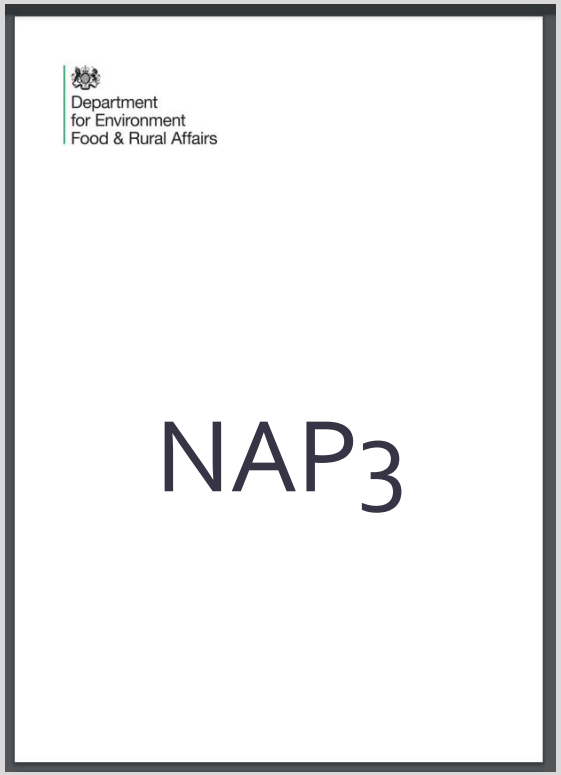
The 3rd National Adaptation Programme (NAP3) is due for publication next year



2013 - 2018



2018 - 2023



2023 - 2028

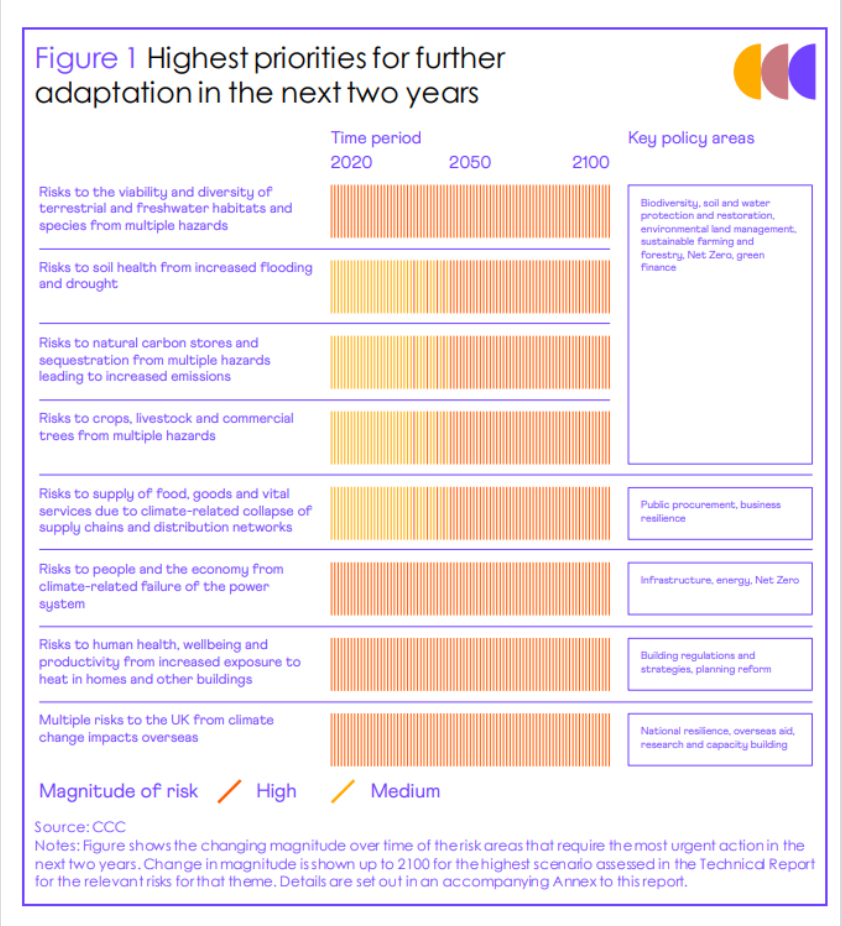
Working towards NAP3

The adaptation gap is widening

Table 2.2
CCRA3 Risks and Opportunities by Urgency Score (UK-wide scores)

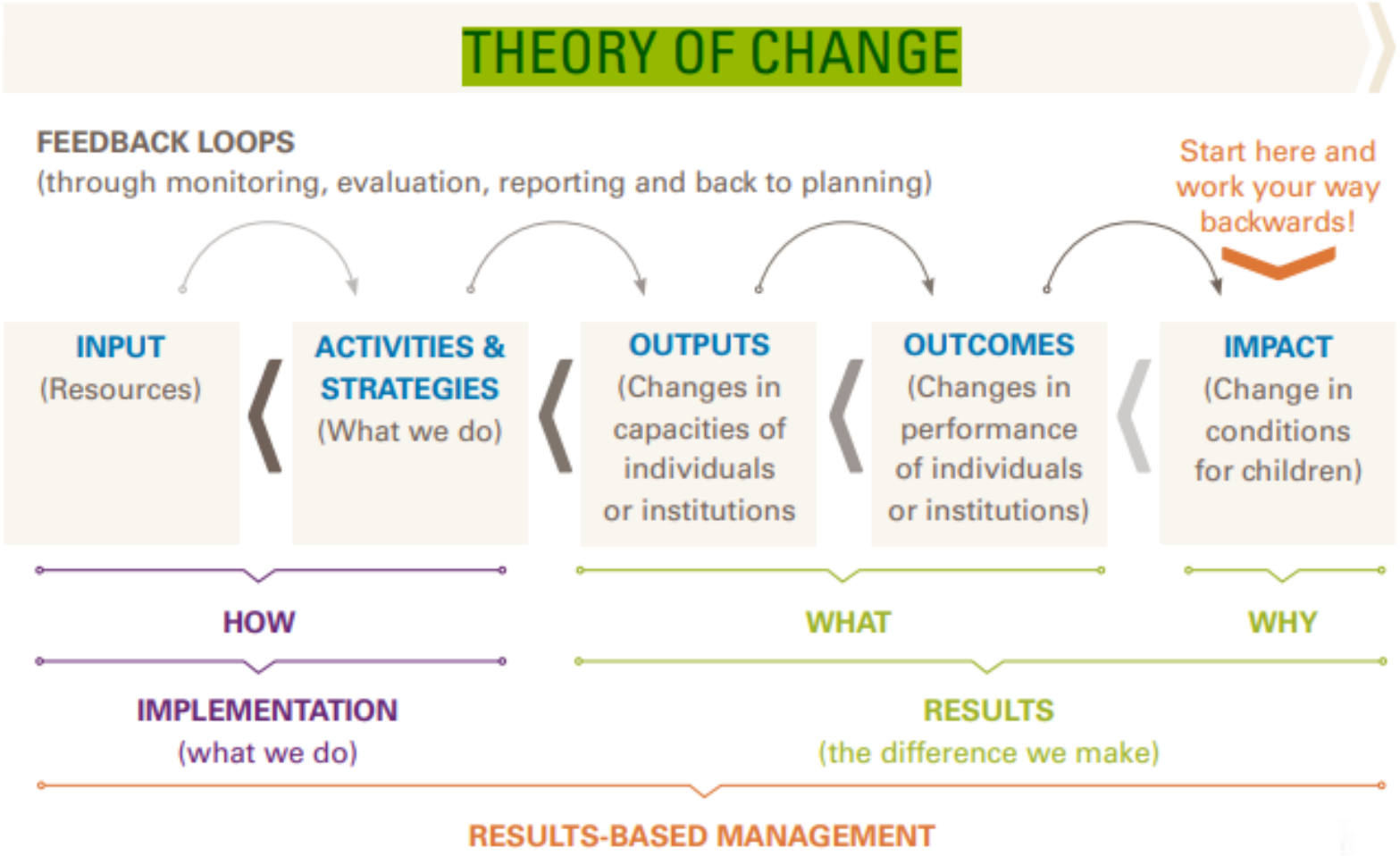
N1 Risks to terrestrial species and habitats	N2 Risks to terrestrial species and habitats from pests, pathogens and INNS	N4 Risk to soils from changing conditions, including seasonal aridity and wetness	N5 Risks to natural carbon stores and sequestration from changing conditions	N6 Risks to and opportunities for agricultural and forestry productivity
N7 Risks to agriculture from pests, pathogens and INNS	N8 Risks to forestry from pests, pathogens and INNS	N11 Risks to freshwater species and habitats	N12 Risks to freshwater species and habitats from pests, pathogens and INNS	N14 Risks to marine species, habitats and fisheries
N16 Risks to marine species and habitats from pests, pathogens and INNS	N17 Risks and opportunities to coastal species and habitats	I1 Risks to infrastructure networks from cascading failures	I2 Risks to infrastructure services from river and surface water flooding	I5 Risks to transport networks from slope and embankment failure
I8 Risks to public water supplies from reduced water availability	I12 Risks to transport from high and low temperatures, high winds, lightning	H1 Risks to health and wellbeing from high temperatures	H3 Risks to people, communities and buildings from flooding	H4 Risks to people, communities and buildings from sea level rise
H6 Risks and opportunities from summer and winter household energy demand	H8 Risks to health from vector-borne diseases	H11 Risks to cultural heritage	H12 Risks to health and social care delivery	H13 Risks to education and prison services
B1 Risks to business sites from flooding	B2 Risks to business locations and infrastructure from coastal change	B6 Risks to business from disruption to supply chains and distribution networks	ID1 Risks to UK food availability, safety, and quality from climate change overseas	ID5 Risks to international law and governance from climate change overseas that will impact the UK
ID4 Risks to the UK from international violent conflict resulting from climate change	ID9 Risk to UK public health from climate change overseas	ID7 Risks from climate change on international trade routes	ID10 Risk multiplication from the interactions and cascades of named risks across systems and geographies	N3 Opportunities from new species colonisations in terrestrial habitats
N9 Opportunities for agricultural and forestry productivity from new species	N10 Risks to aquifers and agricultural land from sea level rise, saltwater intrusion	N15 Opportunities for marine species, habitats and fisheries	N18 Risks and opportunities from climate change to landscape character	I3 - Risks to infrastructure services from coastal flooding and erosion
I4 Risks to bridges and pipelines from flooding and erosion	I6 Risks to hydroelectric generation from low or high river flows	I7 Risks to subterranean and surface infrastructure from subsidence	I9 Risks to energy generation from reduced water availability	I10 Risks to energy from high and low temperatures, high winds, lightning
I13 Risks to digital from high and low temperatures, high winds, lightning	H2 Opportunities for health and wellbeing from higher temperatures	H5 Risks to building fabric	H7 Risks to health and wellbeing from changes in air quality	H9 Risks to food safety and food security
H10 Risks to health from poor water quality and household water supply interruptions	B3 Risks to businesses from water scarcity	B5 Risks to business from reduced employee productivity – infrastructure disruption and higher temperatures	B7 Opportunities for business - changing demand for goods and services	N13 Opportunities to marine species, habitats and fisheries
I11 Risks to offshore infrastructure from storms and high waves	B4 Risks to finance, investment, insurance, access to capital	ID6 Risk to the UK finance sector from climate change overseas	ID2 Opportunities for UK food availability and exports	ID3 Risks to the UK from climate-related international human mobility
ID8 Opportunities (including Arctic ice melt) on international trade routes				

More Action Needed · Further Investigation · Sustain Current Action, Watching Brief



Working towards NAP3

NAP3 will systematically address the 61 risks and opportunities

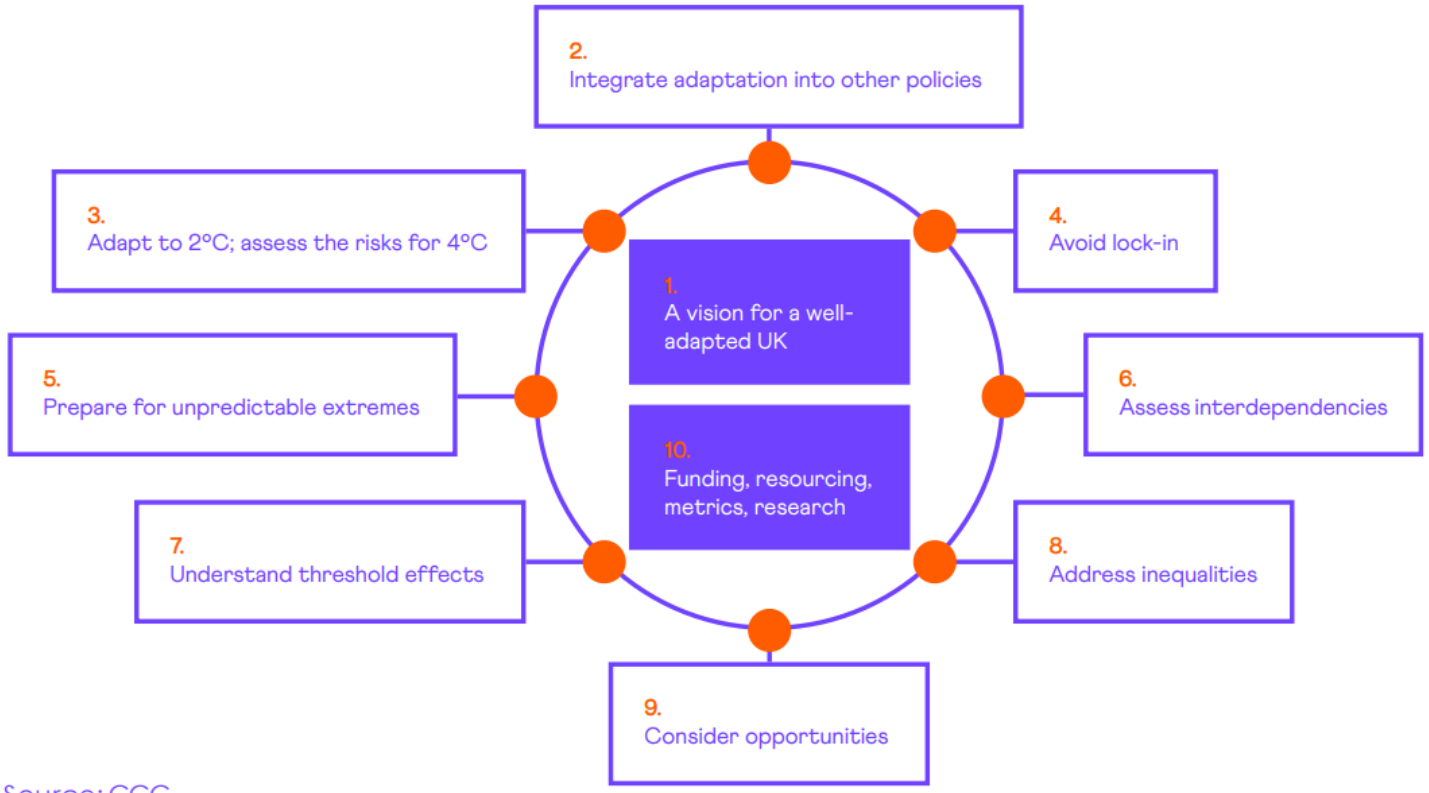


UNICEF, 2017. *Results Based Management Handbook,*

Working towards NAP3

NAP3 will be more ambitious and robust compared with the previous two

Figure 2 Ten principles for good adaptation

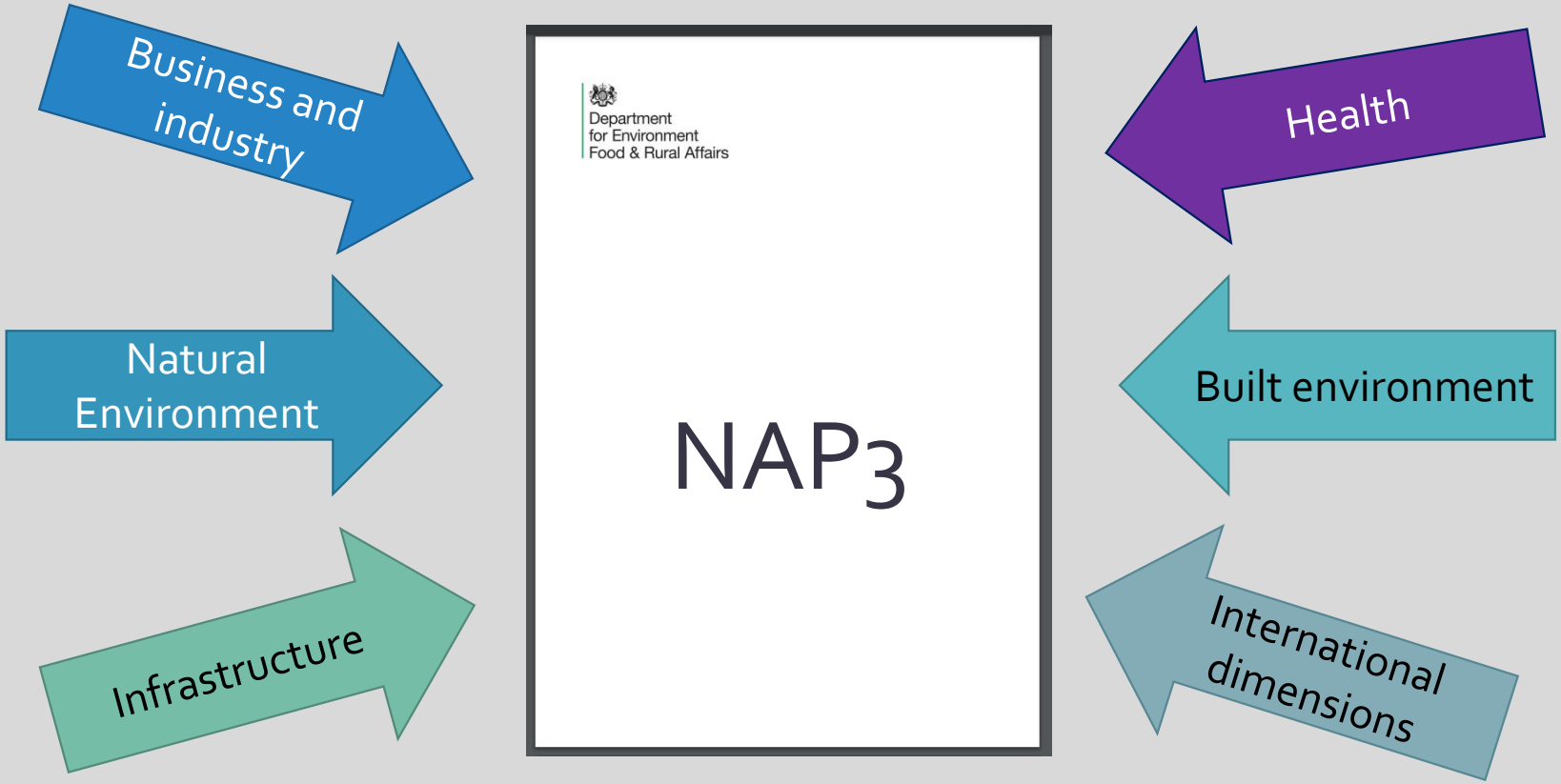


Source: CCC

Public engagement is part of the beneficial actions recommended by the CCC and will help shape NAP3

Working towards NAP3

There will be opportunities to engage with Defra over the summer



Climate@defra.gov.uk

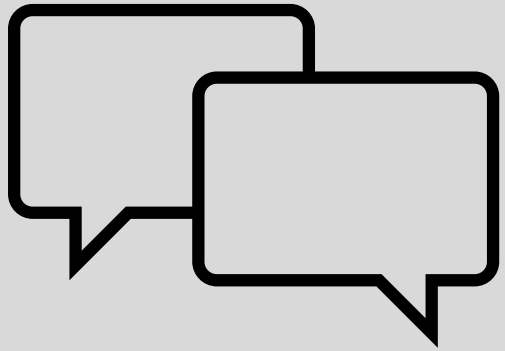
CCRA4 and Monitoring and Evaluation Requirements

Megan Bickle, Adaptation Research Manager at Defra

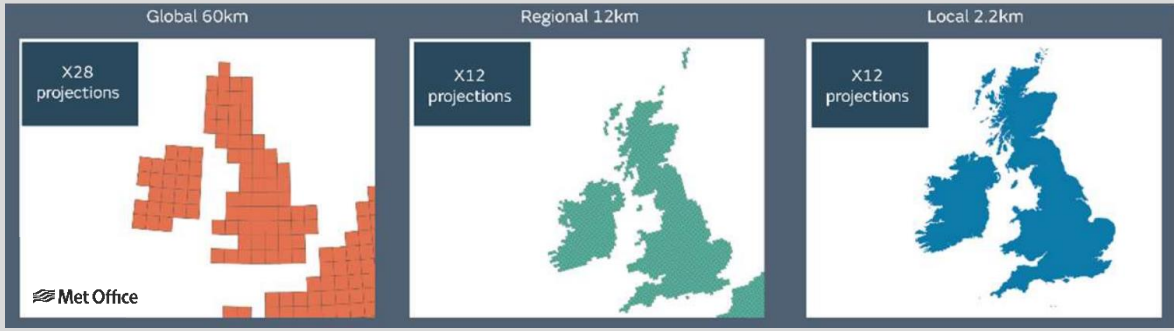
Considering CCRA4 – due in 2027

We are currently considering CCRA3 and will learn lessons from NAP3.

- What does it do well?
- What does it do poorly?
- How can we support better adaptation action?
- What new research might be required?



Considering CCRA4

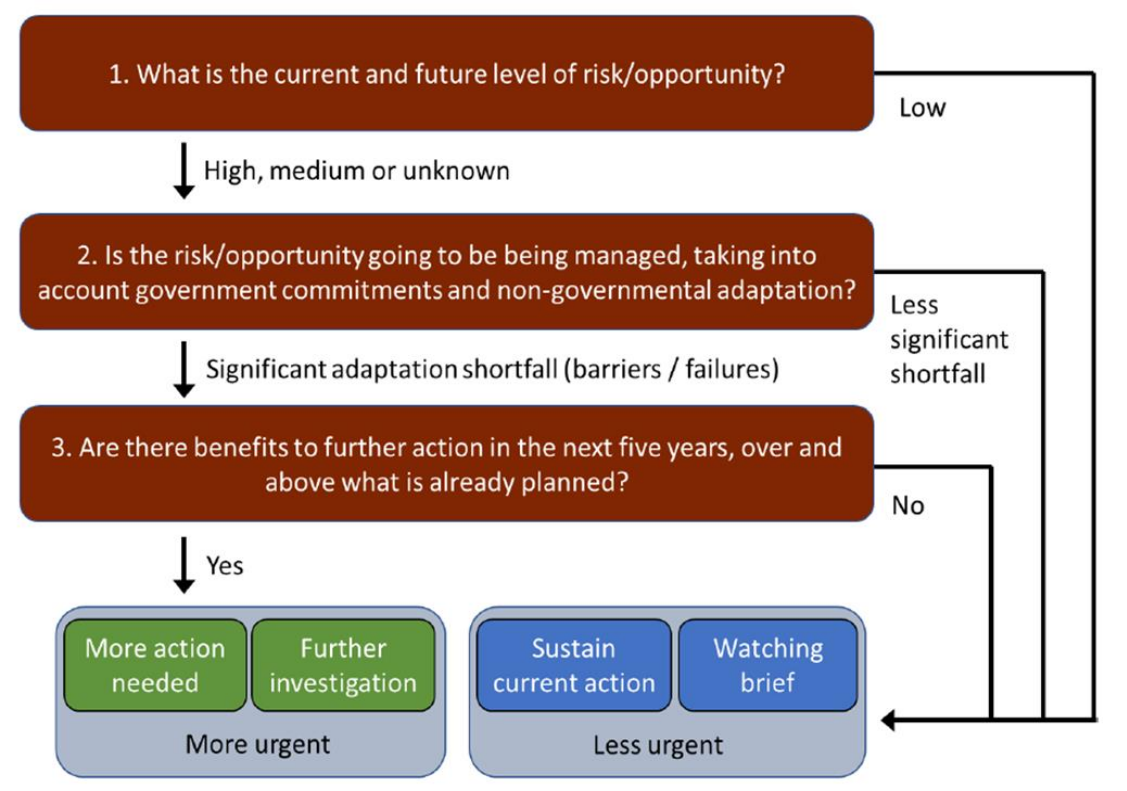


How can we better include:

- Spatial considerations
  - How does risk vary regionally/locally?
  - How should a national assessment incorporate local risk?

- Economic analysis –
  - Can we compare cost-benefit analysis across risks and sectors?
  - How do we measure the cost effectiveness of interventions?
  - How do we value mid to longer term benefits of adaptation?

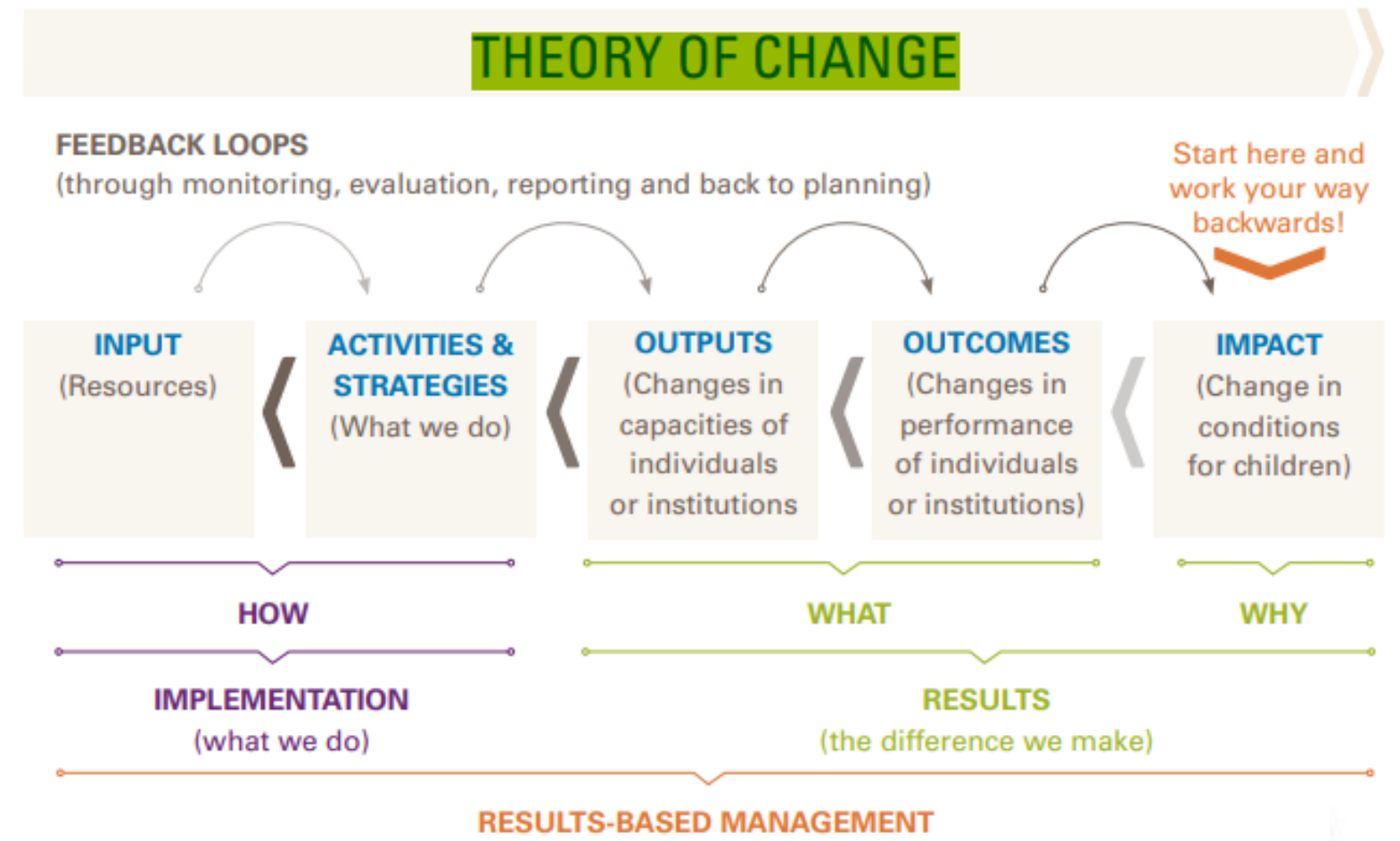
Monitoring and Evaluation for CCRA4



A lack of evidence on how effective adaptation actions are makes step 2/step 3 difficult.

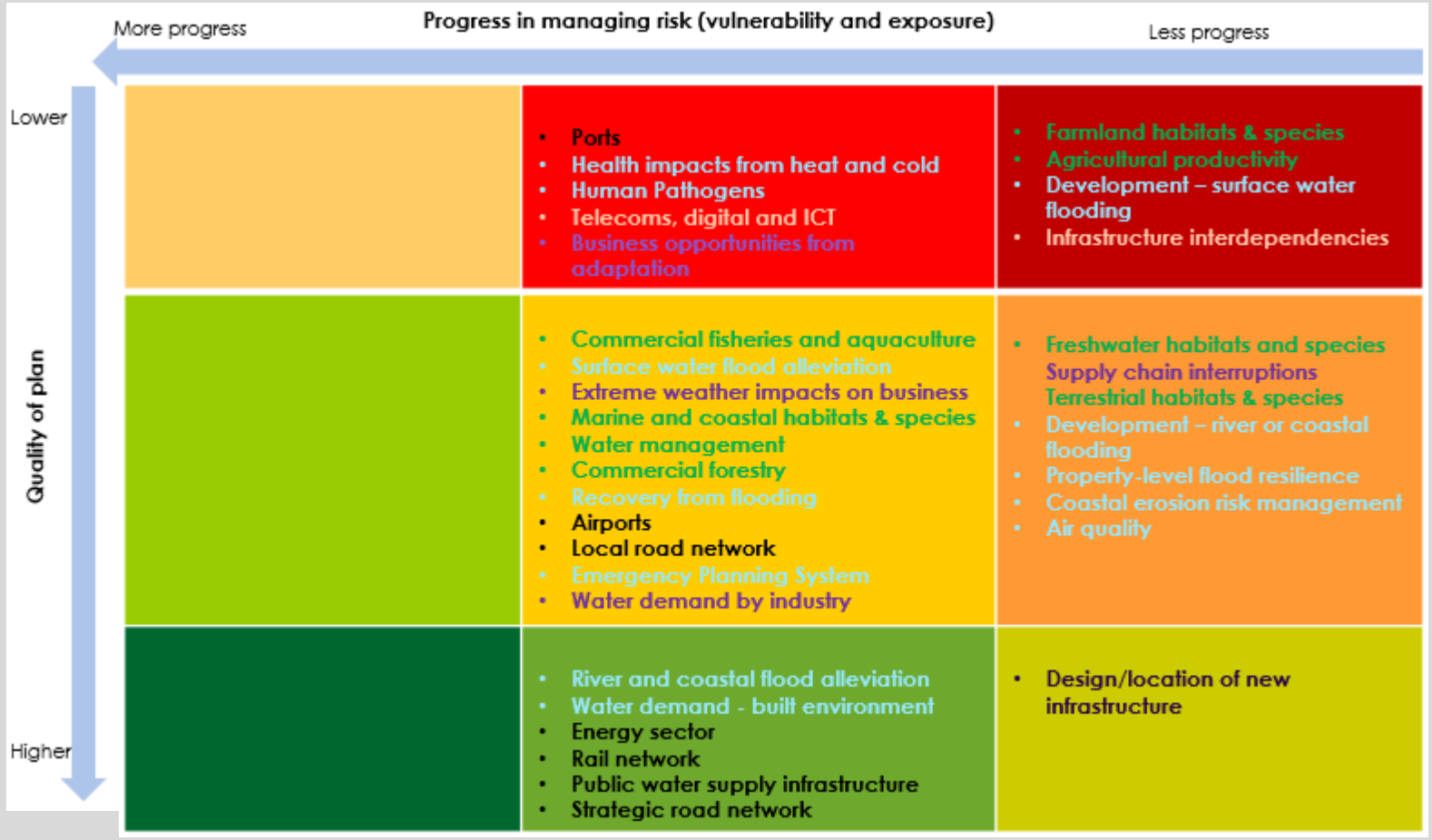
For CCRA4 we need a new framework of indicators to monitor adaptation action.

Monitoring and Evaluation for NAP3



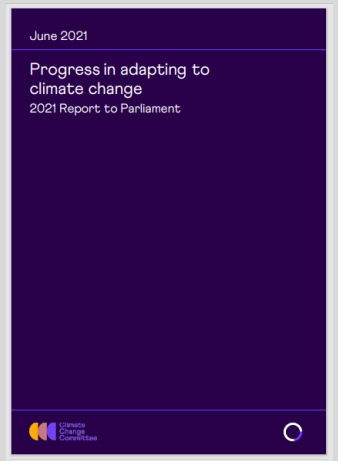
UNICEF, 2017. *Results Based Management Handbook,*

CCC 2021 Adaptation Progress Report



- SECTORS:
- Natural Environment
- People and the Built Environment
- Infrastructure
- Business

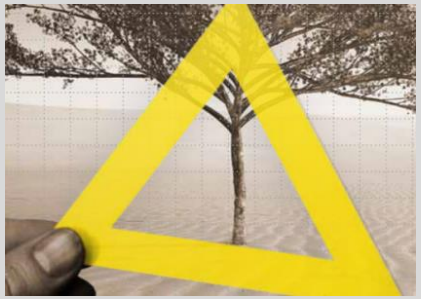
CCC 2021 Adaptation Progress Report



- CCC's Theory of Change Assessment categorises indicators into:
  - Inputs (e.g., £ for building retrofit training)
  - Outputs (e.g., # of buildings retrofitted per year)
  - Outcomes (e.g., % of houses where internal temperatures remain safe)

Conclusions

- Most existing indicators measure action
- Outcome indicators are currently inadequate
- A new 'wish list' of indicators for development



Why do we need monitoring and evaluation (M&E)?

CCC are encouraging greater M&E.

It is also a priority internationally (IPCC/OECD) as M&E can:

- Support the assessment of domestic adaptation progress
- Inform what is working and avoid maladaptation
- Enhance accountability
- Show when and where additional action is needed
- Assist with justification for the mobilisation of funds for adaptation

Data challenges to over come

- Attribution
- Commercial sensitivity and/or access to data
- Time lags between interventions and outcomes - adaptation actions can often take a long time to take effect.
- Lack of baseline data and/or shifting baselines
- Misattribution – using the data we have to measure change when it is not appropriate. **New data might be needed.**
- Can't measure everything

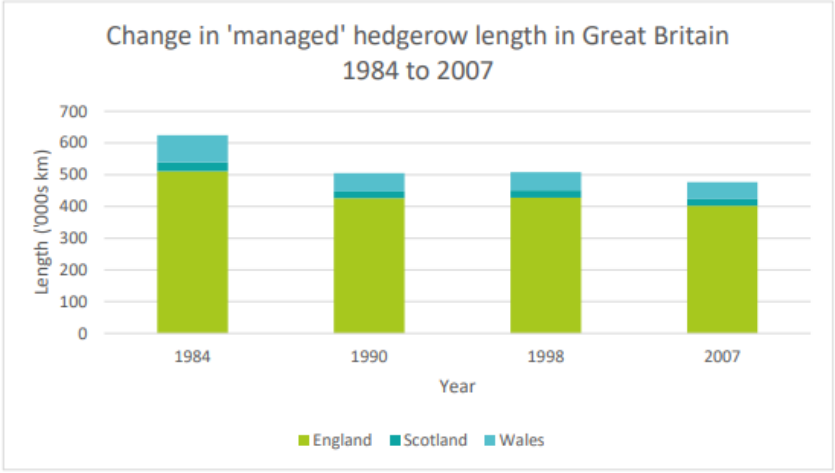


Figure 11. Change in 'managed' hedgerow length in Great Britain (England, Scotland and Wales) between 1984 and 2007, using Countryside Survey data (Countryside Survey, 2007). Source: ADAS for the CCC.

Indicator Workshops – March 2022

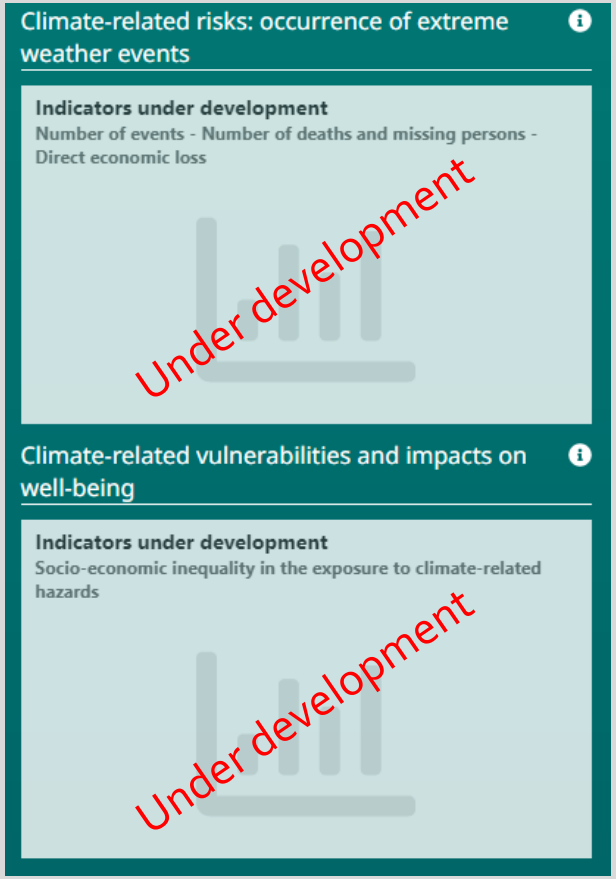
- Defra held a series of workshops on indicators to share perspectives on the current status of M&E in different sectors.
  - Data Mapping
  - Challenges/Priorities/Best Practice
  - How to produce specific indicators from CCC's wish list

- Priorities from workshops:
  - Review and agree on the science and policy questions M&E is to answer.
  - Expand on, use and streamline existing data capture structures
  - FAIR (findable, accessible, interoperable, reusable) data

  - Critical to account for climate change i.e. important to redefine what good is.

OECD Adaptation Monitoring Project

- Measurement is a priority for the OECD Task Force on Climate Change Adaptation
- Less than 40% of countries are tracking implementation of their NAP (Leiter, 2021)
- £70k voluntary contribution from Defra.
- Project phases and goals:
  - Stocktake of data and indicators (questionnaire + 4 case studies)
  - Policy guidance on using data and indicators
  - Build monitoring systems and datasets. Indicators for International Programme for Action on Climate (IPAC) dashboard



OECD BETTER POLICIES FOR BETTER LIVES

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Next webinars:

- **Wednesday 25th May 12.00-13.00**
  Speakers: Meghan Alexander (UEA, Tyndall Centre) & Tim Rayner (UEA, Tyndall Centre).
  Explaining the adaptation gap in the UK: The hidden story of policy lock-ins
- **Wednesday 8 June 12.00-13.00**
  Speakers: Paul Watkiss (Paul Watkiss Associates) and Nigel Miller (Defra)
  The Economic Case for Climate Change Adaptation

***Register on our website*:**
https://www.ukclimateresilience.org/news-events/climate-resilience-webinar-series-2020-2021/

Contact details

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