



# United Kingdom: The UK Adaptation Monitoring and Evaluation Framework

## 1. Context

### ► Policy context

The **UK Climate Change Act (2008)** is the legally binding framework for climate change mitigation and adaptation. One of the Act's requirements is for the Government to commission a UK-wide **Climate Change Risk Assessment (CCRA)** every five years. The CCRA provides a basis for monitoring preparedness for climate change in the UK. The first CCRA, published in 2012, gave a detailed analysis of 100 major risks from future climate change across 11 key sectors/themes on basis of their likelihood and the scale of their potential consequences. The second CCRA in 2017 identified six priority areas based on the magnitude of the risks and the urgency of further action to address them. Another requirement of the Act is for the Government to present to Parliament a **National Adaptation Programme (NAP)** setting out the Government's objectives, policies and proposals for adaptation that will address the risks identified by the CCRA. The first NAP report was published in 2013 for the period up to 2018 and contains a list of 31 objectives across seven policy themes, each with underlying objectives and associated actions. The NAP report states the **need for a monitoring and evaluation framework** that will 'identify whether the actions and policies contained in the Programme are making a difference to our vulnerability in the near-term'. The Act also provides the statutory basis for M&E of the NAP, through setting up the Adaptation Sub-Committee of the Committee on Climate Change (ASC).

### ► Purpose of the M&E system

To fulfil the M&E statutory duty, the ASC has developed a framework to monitor and evaluate the progress made in implementing the NAP. Specifically, the framework assesses:

- whether the NAP's objectives help to address the risks identified by the CCRA,
- the relative contribution/importance of each of the NAP actions for meeting the NAP's objectives and
- whether the implementation of the listed actions in the NAP, as well as of any other adaptation action, contribute in the near-term to reduce the country's vulnerability to climate change.

The potential target users of the system include decision-makers and planners on climate change issues at regional, national, and local levels; technical staff and researchers and other organisations that implement climate change adaptation activities in the LMB.

### ► Scale: level of application and aggregation

The M&E framework operates at the national level. Local level monitoring is not generally used, but where it is possible, national-level indicators and their underlying data are spatially disaggregated to local and/or regional scales in order to identify trends in vulnerability that are more relevant at sub-national level. The M&E framework is applied to each of the 31 objectives across the seven NAP policy themes.

## 2. Content

### ► Focus and approach

The preparedness of the country to climate change is monitored and evaluated through an iterative, cyclical process of assessment, planning and reporting with each cycle building on the previous one (see the adaptation policy cycle in figure 1).



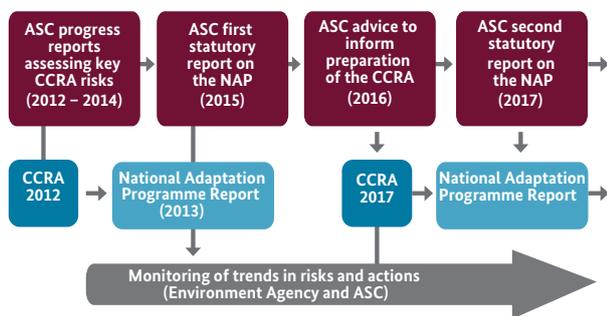
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## M&E Guidebook for national adaptation M&E systems

An M&E guidebook by GIZ & IISD (2015) in collaboration with the Adaptation Committee, the Least Developed Countries Expert Group outlines key considerations for the development of country-specific adaptation M&E systems. This factsheet is structured along its four building blocks:

- **Context:** what is the policy context and purpose of undertaking M&E?
- **Content:** what information is required to address the purpose?
- **Operationalization:** how will the information be gathered and what are the institutional arrangements?
- **Communication:** how is the generated information used and disseminated?

**Figure 1 Monitoring and evaluation cycle of the UK Climate Change Risk Assessment (CCRA) and the UK National Adaptation Programme (NAP)**



Source: ASC (2013): *Managing the land in a changing climate*.

The approach is based on **regular, detailed vulnerability assessments** that include:

1. Assessing current and future risk through the UK Climate Change Risk Assessment, updated every 5 years. This assessment is used to develop the NAP.
2. Appraising the progress against the implementation of the NAP. This is the ASC's statutory duty, and it is carried out by:
  - monitoring the policy landscape, the implementation of actions, and the trends in the country's risk, exposure and vulnerability to climate change (steps 1 and 2 in table 1),
  - evaluating the impact that policies and actions have in reducing the vulnerability (steps 3-5 in table 1), and
  - identifying any further action that might be needed before the end of the NAP cycle or in the following NAP to address increasing vulnerability, in the form of relevant policy recommendations.

The ASC applies this M&E framework to the factors that are most important in managing climate risks, for example community-scale flood alleviation, and appropriate new development in flood risk areas. For each of these so-called 'adaptation priorities', the ASC considers three questions:

- **Is there a plan?** Here the ASC assesses whether there is an explicit policy or plan in place that aims to address the climate risk(s). For example, the National Planning Policy Statement explicitly considers cli-

mate change and provides a framework for sensible planning decisions that takes account of the risks.

- **Is action taking place?** Whether the specific actions listed in the NAP have been delivered or are on track. Any significant action which is taking place outside of the NAP also forms part of the assessment (step 1 in table 1).
- **Is there progress in managing vulnerability?** This forms the ASC's overall evaluation of progress. The assessment accounts for the scale of the current and future risks, and the impact that relevant policies and actions are achieving. The ASC evaluation considers the indicators of progress and vulnerability available to the ASC, recognising that some activity may take time to deliver benefits. This assessment of vulnerability is based on research and analysis undertaken by the ASC over the years (steps 2-5 in table 1).

**Table 1 Key components of the M&E framework for each of the seven NAP policy themes**

	Key components	Purpose	Approach and tools
Monitoring	1. Monitor the uptake of adaptation actions that may contribute to addressing climate risks	To assess the level of implementation of actions set out in the NAP and the uptake of any other adaptation actions not included within the NAP	<ul style="list-style-type: none"> <li>• Updates from the responsible institutions on the implementation of the NAP actions.</li> <li>• Identification of other adaptation actions not listed in the NAP</li> </ul>
	2. Monitor past and current trends in risk factors and the observed climate impacts (on-going since 2012)	To assess the likely implications of any trends in exposure and vulnerability to climate change risks and to identify the factors that may contribute to any observed trends in risks	<ul style="list-style-type: none"> <li>• <b>Vulnerability assessments</b> combining indicators and expert knowledge to interpret the trends identified by the indicators</li> </ul>
Evaluation	3. Evaluate the implications of future climate scenarios for preparedness	To project different trend scenarios of the assessed indicators to evaluate implications for preparedness	<ul style="list-style-type: none"> <li>• <b>Trend and scenario analysis</b></li> <li>• <b>Expert judgement</b> and interpretation of the different scenarios' implications for preparedness</li> </ul>
	4. Evaluate progress against adaptation pathways	To identify the technical and realistic potential for additional uptake of low regret adaptation measures and to evaluate progress against those pathways	<ul style="list-style-type: none"> <li>• <b>Economic/cost-benefit analysis</b> of the different adaptation actions to identify opportunities</li> </ul>
	5. Evaluate the effectiveness of policies in enabling the uptake of adaptation actions and long-term decision-making	Identify potential policy barriers to adaptation and ways to strengthen policy support for climate adaptation	<ul style="list-style-type: none"> <li>• <b>Policy review and analysis</b> based on results from the above components (points 1 to 4) supported by policy experts</li> </ul>

## ► Indicators

To carry out steps 1-4 of table 1, the ASC has developed a set of indicators for each of the 'adaptation priorities', falling in three categories:

1. **Risk, exposure and vulnerability indicators**, to monitor trends in risk.
2. **Climate impact indicators**, to monitor impacts whenever possible (i.e. it requires a long time series to distinguish any trend or attribution to climate change).

### 3. Adaptation action indicators, to monitor the uptake of actions that contribute to reduce vulnerability.

For each indicator its data source and related time series of measurement, as well as its trend direction and trend implications are identified (see examples in figure 2).

**Figure 2 Example of ASC indicators used to assess trends in risk and action for forestry ecosystem services**

Indicator type	Indicator name Source (time series)	Direction of trend	Implication of trend
<b>Forestry (Chapter 2)</b>			
Risk (Exposure and Vulnerability)	Percentage of timber trees (oak/beech/pine/spruce) planted in areas likely to be climatically suitable in 2050  National Forest Inventory (1970 – 2010)	↑	Oak, pine, and spruce trees have been planted in progressively more suitable areas since 1970. Beech suitability declined between 2000 and 2010, but this only affected 0.1 km <sup>2</sup> of forest (Section 2.5).
Action	Diversity of species delivered for planting by the Forestry Commission  Forestry Commission (2005/06 and 2012/13)	↑	Number of different coniferous species delivered to the Forestry Commission increased from 11 in 2005/6 to 17 in 2012/13 (Section 2.5).

Source: ASC (2013): *Managing the land in a changing climate*.

## 3. Operationalization

### ► Data collection and analysis

The system mostly draws on existing data sources that are already collected and reported by the Government or its executive agencies. For example, data on flood risk and water resources are provided by the Environment Agency (EA). The data being used is reported primarily at the national level, although where possible indicators are measured using locally available data and time series (i.e. the information is aggregated across local authorities to show trends at local, regional, and national levels). In some cases, the ASC has combined existing datasets to develop indicators, for example, expenditure on flood risk, for which annual datasets were combined; and area of impermeable paving, which required calculations to be carried out to extract a proxy of paved-over surfaces.

### ► Institutional arrangements

The **Department for the Environment, Food and Rural Affairs (Defra)** coordinates UK Government policy on adaptation.

The **Committee on Climate Change (CCC)** is an independent, statutory body that reports to Parliament on progress made in preparing for climate change. The **Adaptation Sub-Committee (ASC)** of the CCC provides independent expert advice to the Government on its

preparation of the CCRA and fulfils the CCC's statutory responsibility to report to the UK Parliament on its assessment of the Government's progress in implementing the NAP. As such, the ASC is responsible for developing and implementing the M&E framework for the NAP. The ASC also commissions research, funded by Defra, to fill some data gaps.

The EA is an Executive non-departmental Public Body responsible for advice and guidance on adaptation through its Climate Ready service. EA's role in M&E is to provide data and advice to inform the ASC's statutory assessments of progress. As explained above, the data provided by the EA are largely based on existing datasets.

### ► Resources needed

The ASC has had a team of five staff members (who form the ASC's secretariat) to support the six Committee members from 2010 onwards. The latter are mostly academics appointed by Ministers on a part-time basis (two-days a month). The Secretariat comprises a mixture of econo-mists and analysts. The costs of running the ASC are approximately £650 000 a year. Additionally, the ASC will have spent around £500 000 between 2011 and 2014 for research to develop indicators and undertake the analysis for the annual progress reports.

## 4. Reporting and outlook

### ► Outputs and reporting

#### Key outputs include

- **ASC statutory reports on the NAP (every two years)** assess to what extent the country is becoming more or less vulnerable to climate change. The first statutory report on the Government's progress in implementing the NAP was laid before Parliament in June 2015. The Government has formally responded to this report in October 2015. Since then, the ASC has published an update of this evaluation in June 2017, including recommendations for the development of the NAP due in 2018.
- **The UK Climate Change Risk Assessment and the underpinning Evidence Report (every five years).** The ASC has collated and synthesized evidence to inform the UK Climate Change Risk Assessment 2017, identifying six priority areas to be addressed in the next NAP. The Government has endorsed this report and incorporated it into UK Climate Change Risk Assessment, laid before Parliament in January 2017. According to the Climate Change Act (2008), the NAP should address the risks identified in this report.

The **main recipient** of the M&E products is the UK Government, including the Secretary of State, Ministers and Policy Teams in Government Departments. In practice, the audience of these products covers the wide range of owners of the actions listed in the NAP. These include Government Agencies (e.g. the EA or Natural

England), sector-specific organizations (e.g. water companies), research institutes as well as NGOs.

## ▶ Lessons to date

The approach of the UK to M&E of climate adaptation is based on the climate risk management framework (i.e. focus on monitoring exposure, vulnerability and impacts). The linkages between mitigation and adaptation are also explored whenever possible (e.g. implications of climate change for energy supply and demand or land use issues).

A major component of the framework focuses on regular, detailed vulnerability assessments on priority themes to understand trends in the country's vulnerability to climate change. This is a sophisticated, rigorous and scientific approach going beyond the use of indicators to assess vulnerability. The framework comprises a mix of qualitative and quantitative tools including expert evaluation on the interpretation of the indicators and economic and policy analysis. The system further promotes learning by considering why vulnerability may be changing and the integration of new knowledge into the policy planning cycle.

This approach is resource-intensive and requires strong political support, especially in ensuring that relevant data are collated and updated over time.

The development and implementation of the framework is conducted by an independent body which allows for a clear separation between research and policy. Policy and decision-makers are involved at different stages of the monitoring and evaluation process through consultations, workshops and meetings.

## ▶ What's next?

The next steps will be for the Government to update the NAP in 2018. The M&E process allowed identifying specific areas for improving the programme. The first NAP was found lacking clear priorities and an overall sense of purpose, with objectives describing processes, rather than outcomes against which progress can meaningfully be assessed. The evaluation concluded that the second NAP should:

- set clear priorities for adaptation;
- ensure objectives are outcome-focused, measurable, time-bound and have clear ownership;
- prioritise the core set of policies and actions that will have the biggest impact;
- build on the breadth of community and business engagement in the first NAP; and
- include effective monitoring and evaluation.

## For further information

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## References

- Committee on Climate Change [website](#)
- [CCC's 2015 report to Parliament](#)
- [Government response to the 2015 report to Parliament](#)
- [CCC's 2017 report to Parliament](#)
- [UK Climate Change Risk Assessment 2017](#)

This factsheet is part of a **series of factsheets about national adaptation M&E systems**. The series was initially published as part of the 2014 study ['Monitoring and Evaluating Adaptation at Aggregated Levels: A comparative analysis of ten systems'](#) by GIZ & IISD. All country factsheets are available on [www.AdaptationCommunity.net](http://www.AdaptationCommunity.net) under 'Monitoring & Evaluation'.

Published by:  
Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH

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Design/layout:  
Ira Olaleye, Eschborn

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On behalf of  
German Federal Ministry for Economic Cooperation and Development (BMZ)  
Climate Policy and Climate Financing  
Christoph Stechow  
Bonn

Eschborn, July 2017

On behalf of



Federal Ministry  
for Economic Cooperation  
and Development