Developing UK indicators for the Strategic Plan for Biodiversity 2011-2020. (Defra contract 1301).

Supporting information for the survey on Climate Change Adaptation indicators and data sets.

Climate change adaptation for biodiversity requires integrated action across spatial scales. Guidance for conservation practitioners published by Defra on behalf of the UK Biodiversity Partnership (Hopkins *et al.*, 2007) provided the basis for development of the England Biodiversity Strategy Climate Change Adaptation Principles (Smithers *et al.*, 2008). These principles are aimed at people responsible for planning and delivering actions across a wide range of sectors and include many elements that are neither new nor specific to climate change adaptation. As there is a desire to avoid proliferation of indicators, AEA has attempted to match UK Government indicators (including existing and proposed UK biodiversity indicators and UK indicators of sustainable development) to each of the principles. This process has led to the identification of a number of principles for which there are no suitable indicators or for which better indicators may exist or be developed.

Please bear in mind the criteria that will be used for quality testing indicator options (**Annex 1**) when listing any UK Government indicators that you think we may have overlooked, or any datasets that you think may be suitable for developing new indicators, in relation to each of the principles in **Table 1**.

Table 1. EBSCCA Principles for which no suitable indicators have been identified or for which better indicators may exist or be developed.

Principle	Related UK Government indicators	Suitable datasets for indicator development
Create buffer zones around high quality habitats		
Consider the role of species translocation and ex-situ conservation		
Integrate adaptation & mitigation measures		
Undertake vulnerability assessments of biodiversity and associated ecosystem goods and services without delay		
Pilot new approaches and monitor		
Research knowledge gaps with stakeholder participation		

References

Hopkins J.J., Allison H., Walmsley C., Gaywood M. and Thurgate G. (2007) Biodiversity conservation and climate change: guidance on building capacity to adapt. Defra, London. Available at: http://www.ukcip.org.uk/wordpress/wp-content/PDFs/CBCCGuidance.pdf

Smithers, R.J., Cowan C., Harley, M., Hopkins, J.J., Pontier, H. and Watts, O. (2008) England Biodiversity Strategy: Climate Change Adaptation Principles. Conserving biodiversity in a changing climate. Defra, London. Available at: http://www.defra.gov.uk/publications/files/pb13168-ebs-ccap-081203.pdf

Annex 1. Criteria for quality testing indicator options.

Criteria	Levels
Precision	1. Unknown precision or precision quantifiable but unable to statistically assess trends due to small sample size/unrepresentative/biased/high volatility
	2. Uncertainty quantifiable and signal-to-noise ratio allows for statistical assessment of trends
	3. Uncertainty quantifiable and signal-to-noise ratio allows for year on year statistical assessments
Time series availability	1. Insufficient data for assessment (<5 years)
	2. Sufficient data to make an assessment of progress (5-10 years)
	3. Both long and short -term trends can be assessed (10+ years data)
Data security	1. Future data sources known to be uncertain
	2. Future data unthreatened
	3. Future data secure
Data transparency and auditability	1. Data unavailable to public
	2. Limited summary data available
	3. Full raw/primary data set and detailed description available
Transparency and soundness of methodology	1. Methodology not available
	2. Methodology available but not peer reviewed
	3. Methodology externally published and peer reviewed
Data verification	1. Unverified data
	2. Some verification checks in place
	3. Detailed verification in place and documented
Frequency of updates	1. Periodic
	2. 3-5 years
	3. Annual or biennial
Geographic coverage	1. Not full UK
	2. UK coverage, some bias
	3. Full UK coverage
Capacity for disaggregation	1. Cannot be disaggregated
	2 Can be disaggregated but data quality issues arise
	3. Can be disaggregated to Country level and assessed