Refining the UK Biodiversity Indicators

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United Nations Decade on Biodiversity

UK NBSAPs

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- The strategic plan for biodiversity and its Aichi targets provides a useful framework for all of the action we need to take to halt biodiversity loss.
- The UK has separate action plans in England, Northern Ireland, Scotland and Wales and a very light UK framework for the few activities that still need to be undertaken for the whole of the UK.
- All are being reviewed post Aichi (England finished) and all will take a wider more integrated approach.

Changes to NBSAPs in the UK

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- Action organised at a larger ecosystem scale
- More emphasis on benefits to people (ecosystem services)
- More opportunity for mainstreaming and partnerships to deliver biodiversity
- Fewer targets. Threatened species and habitats are still conserved as part of wider actions but the thousands of individual targets do not form the main focus of the NBSAP anymore.
- Across the UK all strategies are being or have been reviewed and they contain a variety of principles, steps, challenges, key actions, outcomes, and committments.
- Some of these are quantitative so are in effect targets.

UK biodiversity indicators

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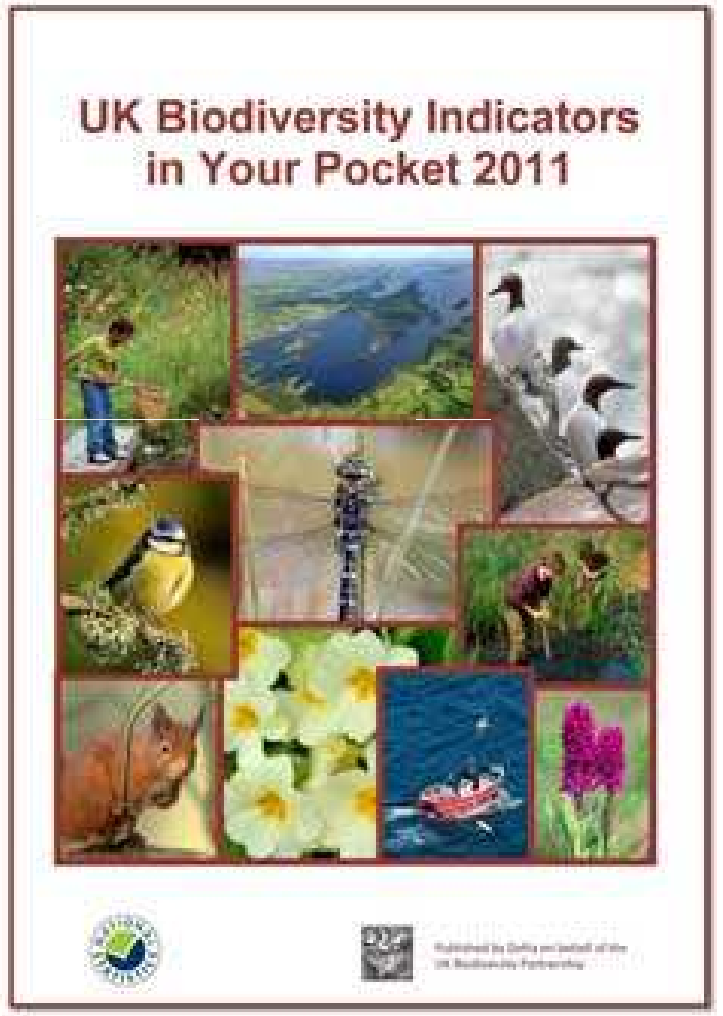
- Focus on biodiversity outcomes
- Mapped to CBD and EU frameworks
- Link with sub-national indicators – e.g. England, Scotland
- Use existing data sources (avoid new burdens)
- Published annually since 2007
- ‘Traffic Light’ assessment of trend
- Communication tool
- www.jncc.defra.gov.uk/biyp



Choosing Indicators

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Each indicator should have the following characteristics:

- Policy relevant and meaningful
- Biodiversity relevant
- Scientifically sound and methodologically well founded
- Show progress towards the 2020 targets
- Easy to understand
- Based on affordable monitoring, available and routinely collected data
- Amenable to modelling of cause-effect relationships
- Good spatial and temporal coverage of data
- Applicable at a national scale
- Aggregation possible at a range of scales
- Sensitive to change

The set as a whole should be:

- Representative
- Limited in number

Traffic light assessments

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Improving

Little or no overall change

Deteriorating

Insufficient or no comparable data

- Two assessment periods:
- Long-term – assessment of change since the earliest date for which data are available.
- If data do not precede 1996 a long term assessment is not made.
- Short-term - assessment of change since 2000

As published May 2011

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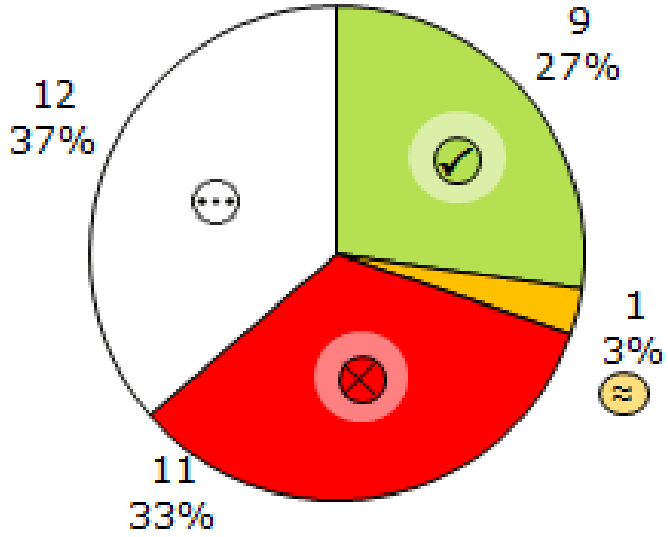
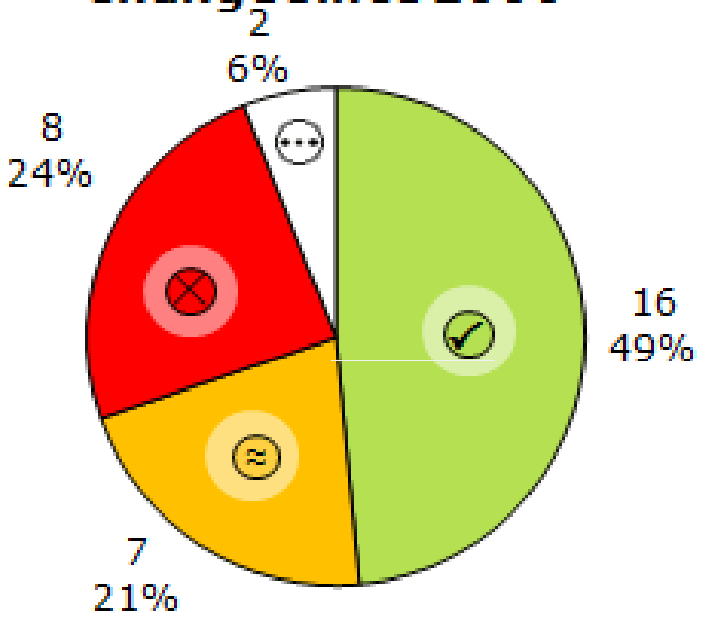
Long-term change*



Change since 2000*



Showing improvement

Showing little or no overall change

Showing deterioration

Insufficient data

* Based on 33 measures, which make up 17 indicators (1 indicator is not asssessed)

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Review

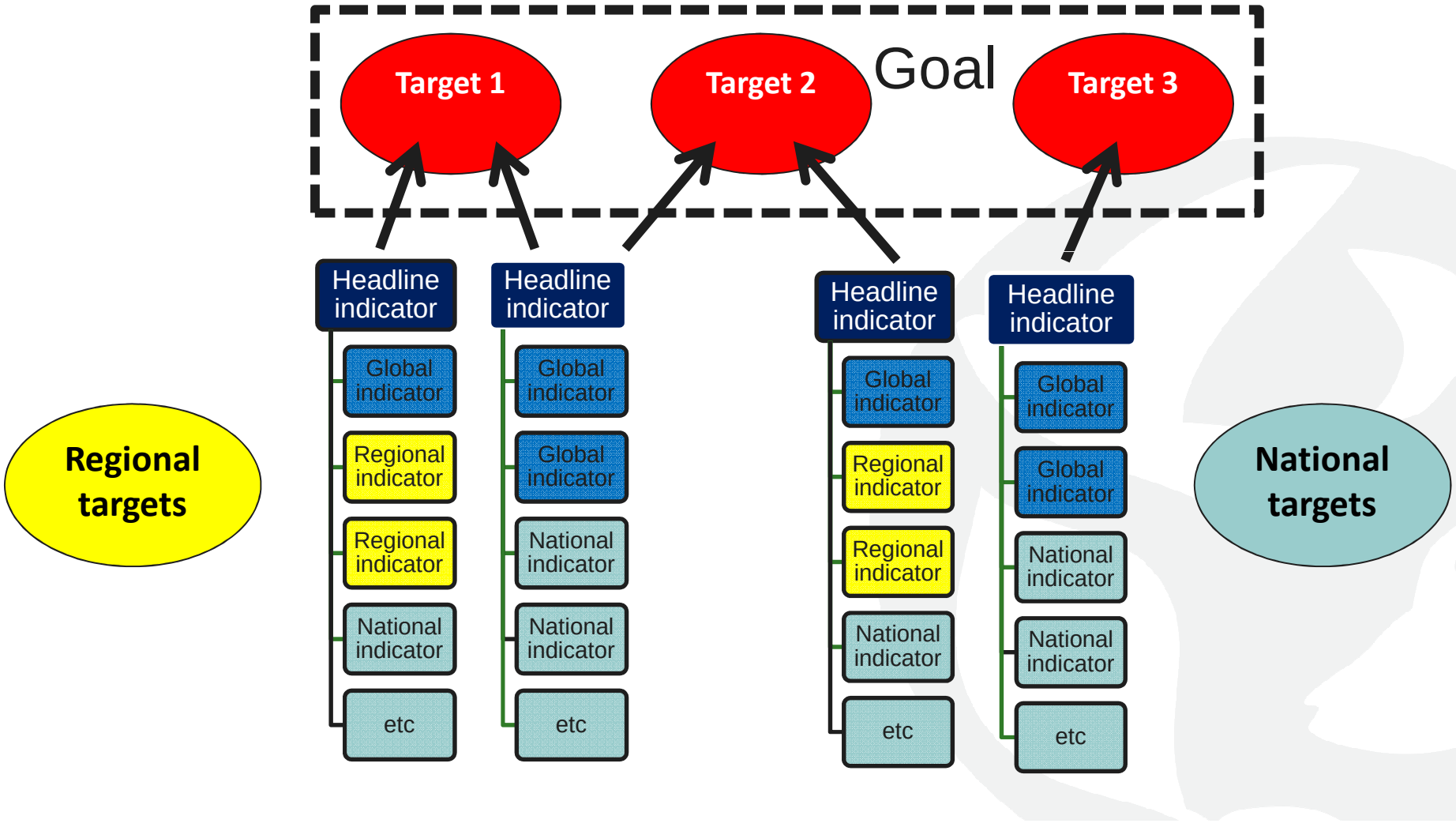
Revise & refresh to take account of

- Aichi Targets
- EU Biodiversity Strategy

Preliminary analysis to identify issues

A. Data quality assessment – is the data source robust, reliable? Can we be certain of the trends?
B. Gap analysis – how well do existing indicators cover new reporting commitments?

Individual indicators can contribute to assessment of multiple targets / goals



Data quality assessment - results

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Most indicators based on high quality data sets

Six indicators where there are significant issues with data quality that need to be addressed

- **UK Priority species**
- **UK Priority habitats**
- **Genetic diversity**
- **Invasive species**
- **Habitat connectivity**
- **Conservation volunteering**

Reasons for low scores:

- ***Data security*: genetic diversity, priority species/habitats and those indicators based on Countryside Survey.**
- ***Data quality:* modelled data; category data; estimates**

Gap Analysis

- Mapped each of the existing indicators to the new 2020 ‘Aichi’ targets agreed at CBD CoP in October 2010
- Added information on emerging EU Biodiversity Targets and the SEBI indicators
- Added information on country biodiversity indicators
- Identified strength of match – tentative
- Moderated through UK Biodiversity Indicators Forum
- Mapped indicators against Framework Questions & Headline Indicators from AHTEG & SBSTTA-15

Gap Analysis - results

- All of the existing biodiversity indicators can be mapped to one or more of the Aichi targets
- Gaps (of various sizes) have been identified in the following areas:
  - links with national accounting systems (target 2)
  - ecological footprint (target 4)
  - climate change (target 10, target 15)
  - ecosystem services (target 14)
  - access and benefits sharing (target 16)
  - traditional knowledge linked to sustainable use (target 18)

Development Areas / refinements

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- Awareness, understanding and support for biodiversity conservation (Aichi Target 1);
- Status of ecosystem services and/or habitats and species supporting ecosystem services (Aichi Targets 14 &15);
- Habitat connectivity – options for updating existing indicators and/or alternative options (Aichi Target 5);
- Plant genetic resources (Aichi Target 13),
- Climate Change Adaptation and impacts (Aichi Targets 8 & 9)

- Widespread species and habitats
- Habitat connectivity
- Water quality
- Invasive species
- Genetic diversity

Next Steps

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- Continue to publish existing indicators annually
- Modify existing indicators as needed - some work to be done by JNCC and country conservation agencies
- Develop new indicators – 3 year programme of work under contract
  - Develop option papers
  - Agree preferred option through UK Steering Group
  - Develop protocols
- Forward look for presentation of information against new framework for next CBD report