

# Ecosystem Service Indicators and Assessments

LESSONS FROM GLOBAL AND NATIONAL INITIATIVES  
(INCLUDING THE UK NEA)

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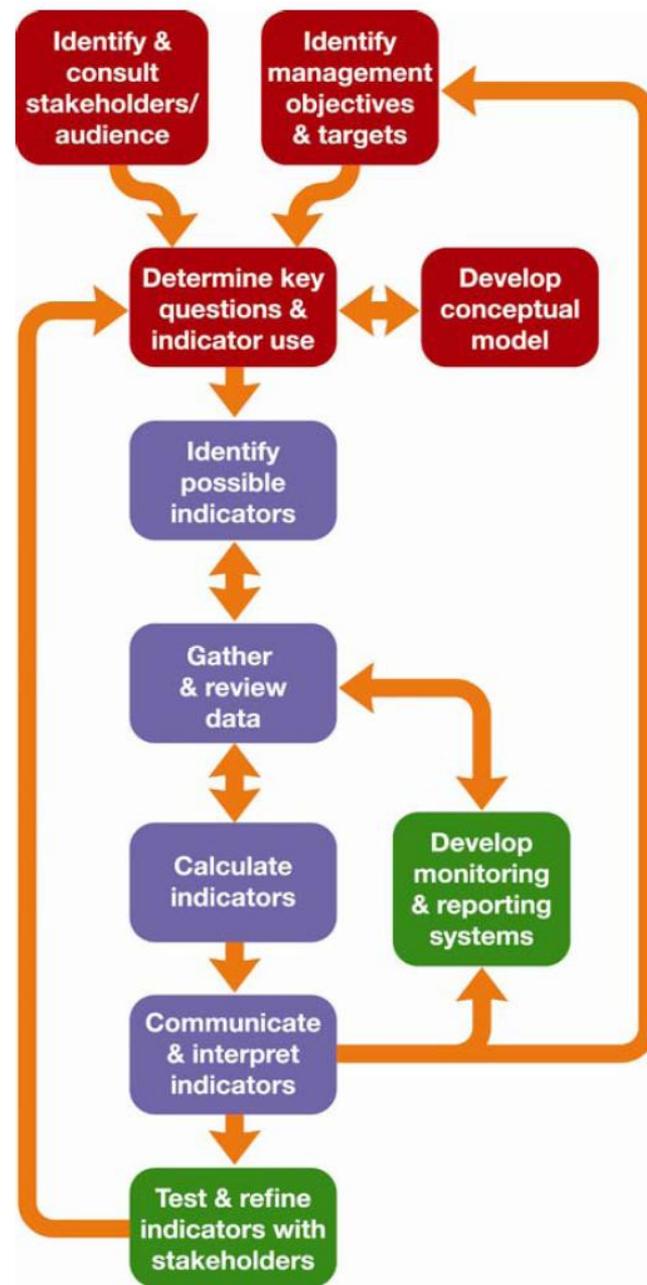
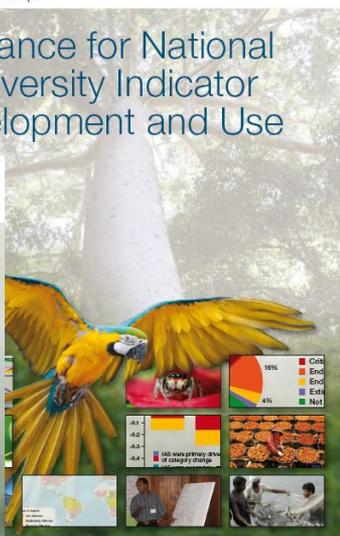
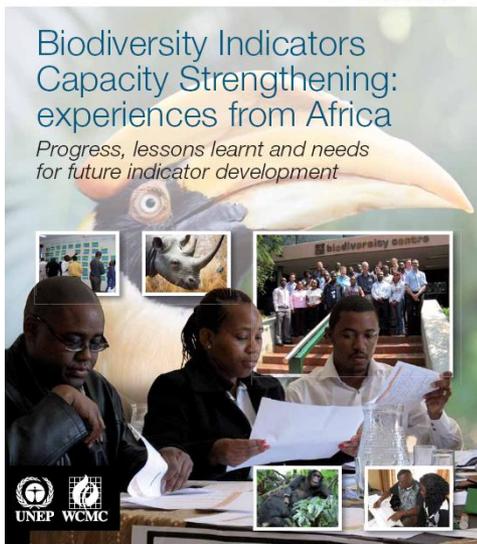
"I know nothing about the subject,  
but I'm happy to give you my expert opinion."

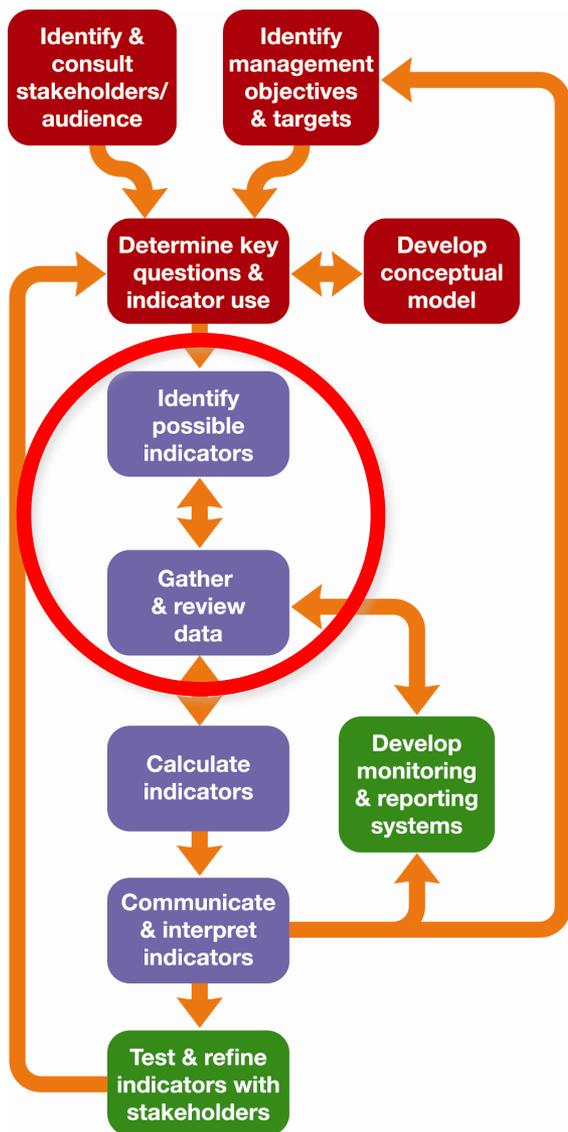
# National Indicator Development Framework

www.bipnational.net



Guidance for National Biodiversity Indicator Development and Use

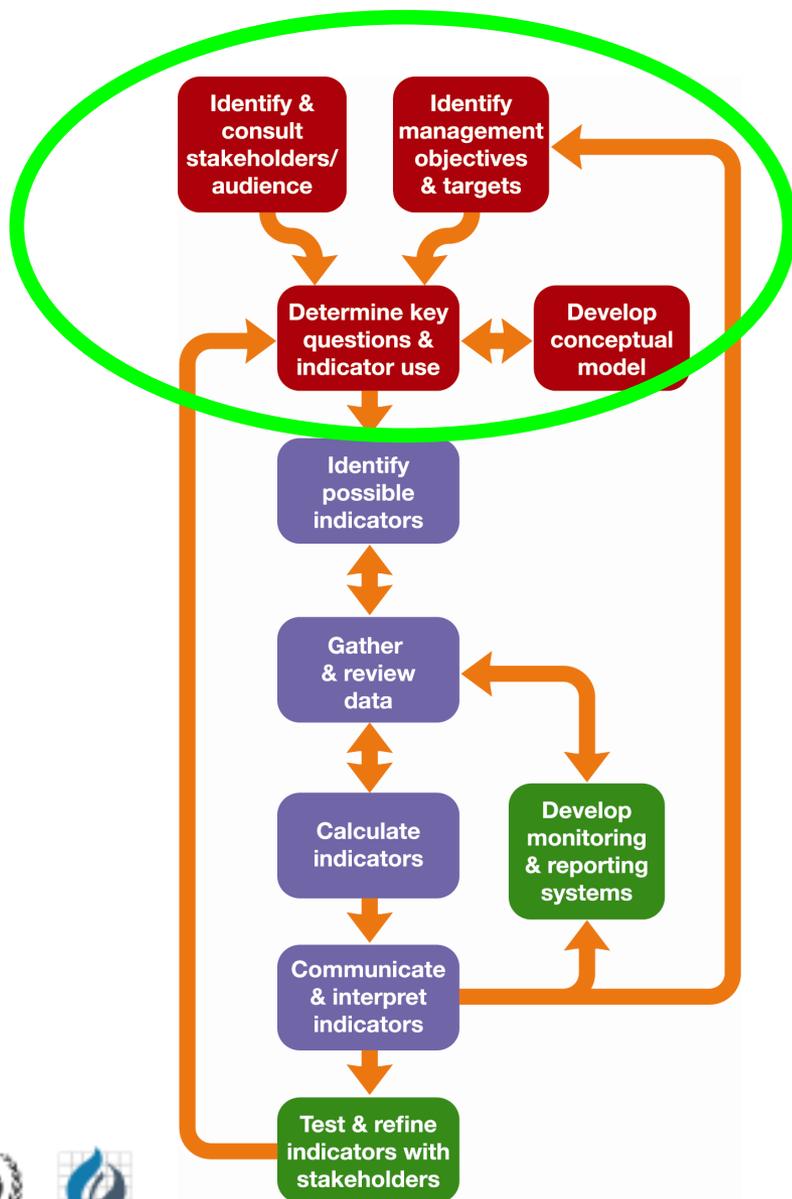


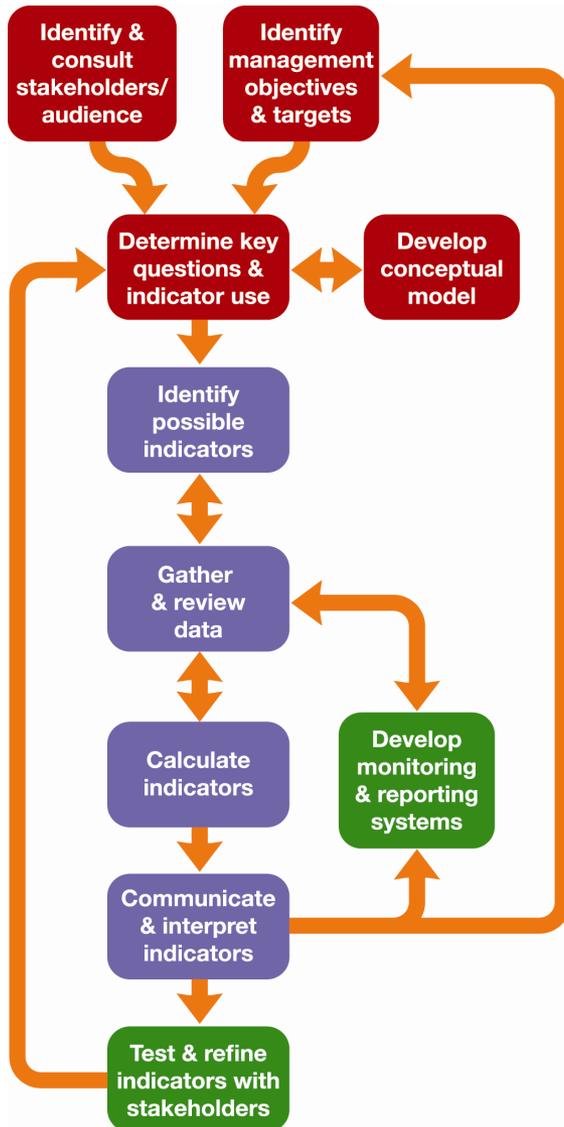


## Common start point



# ~~Common start point~~ Found to be a more successful start point

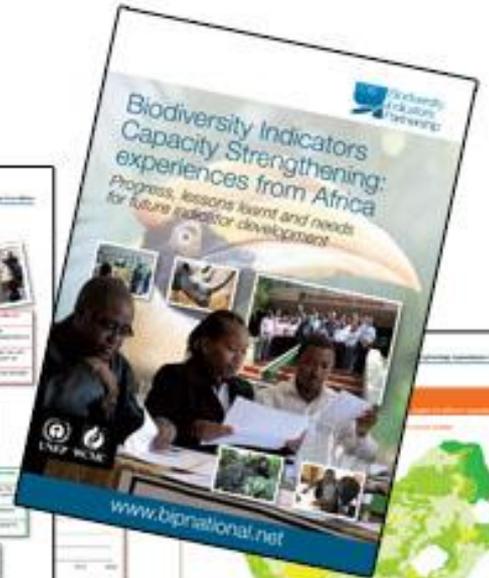
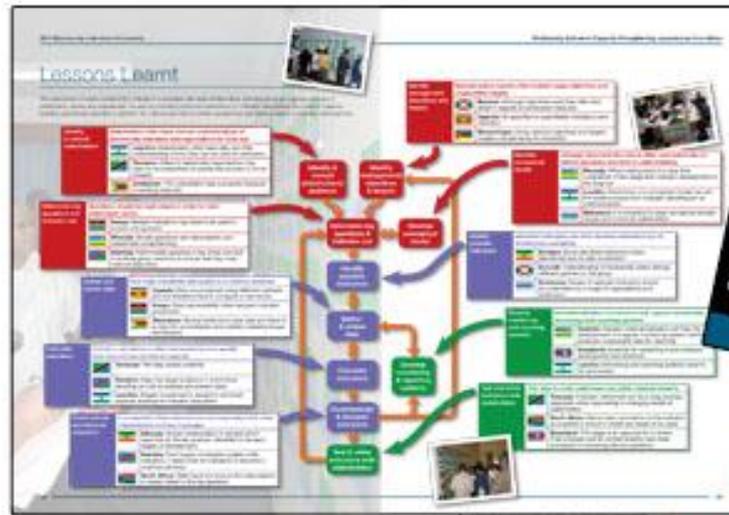
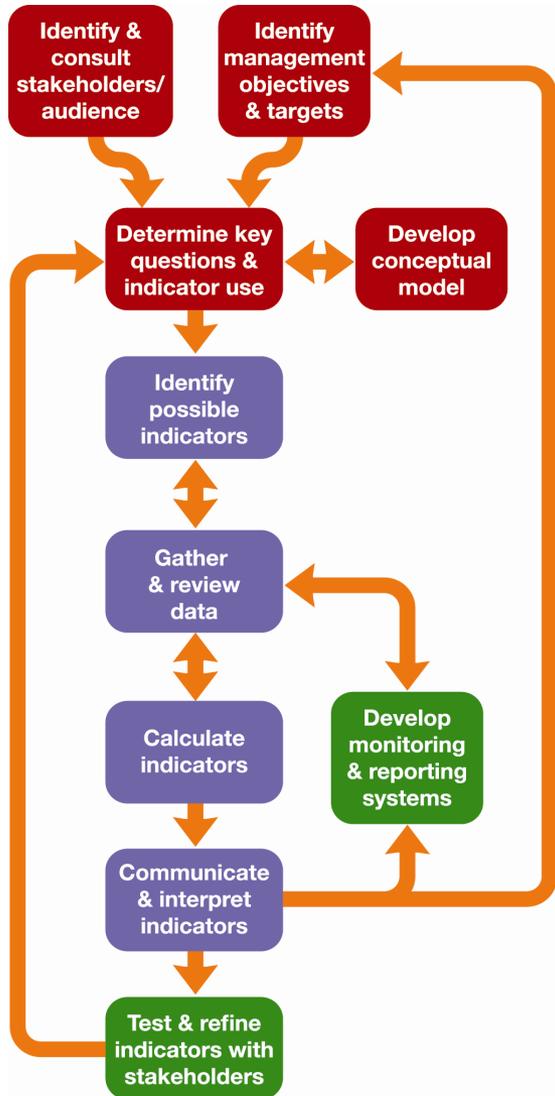




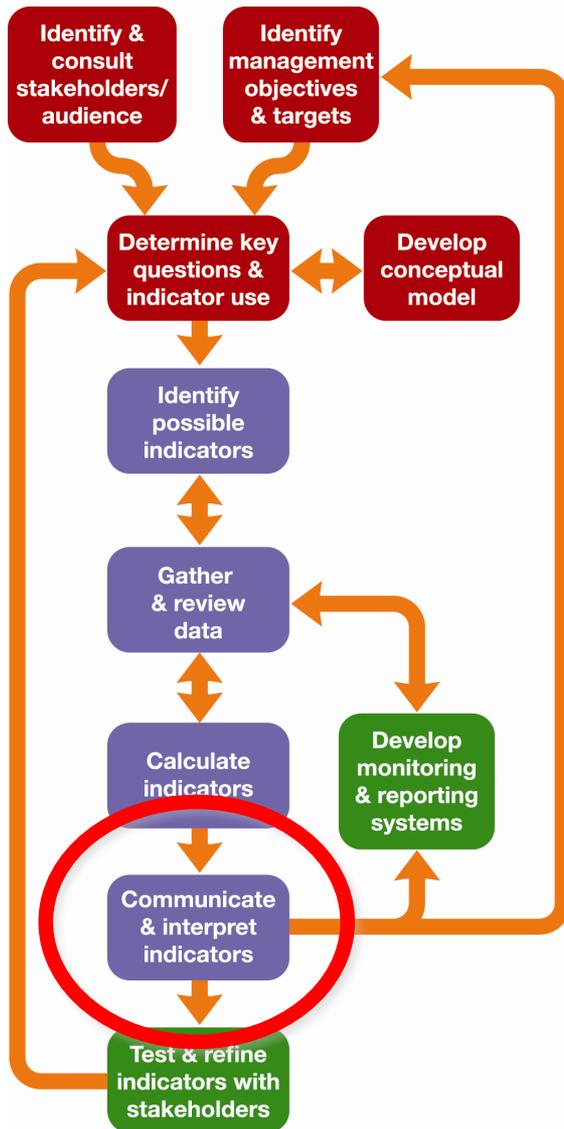
**Purpose**

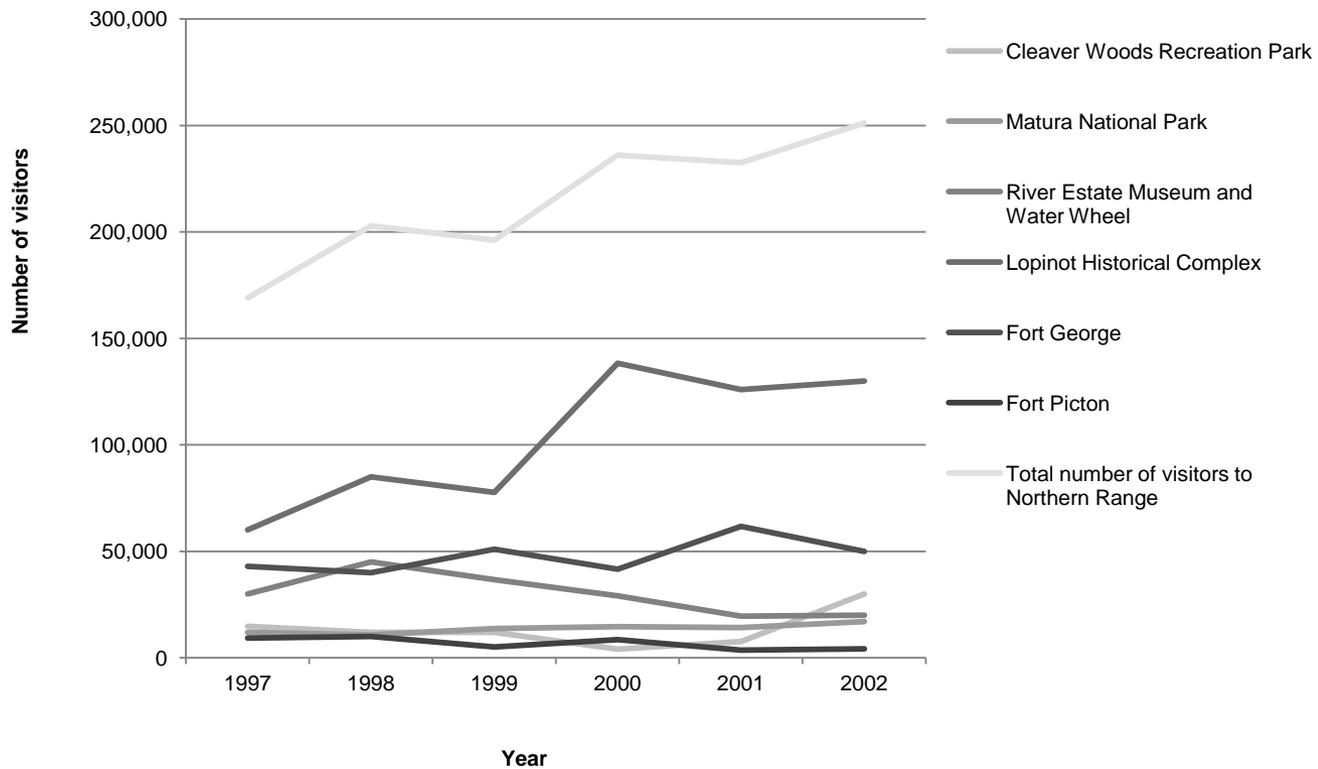
**Production**

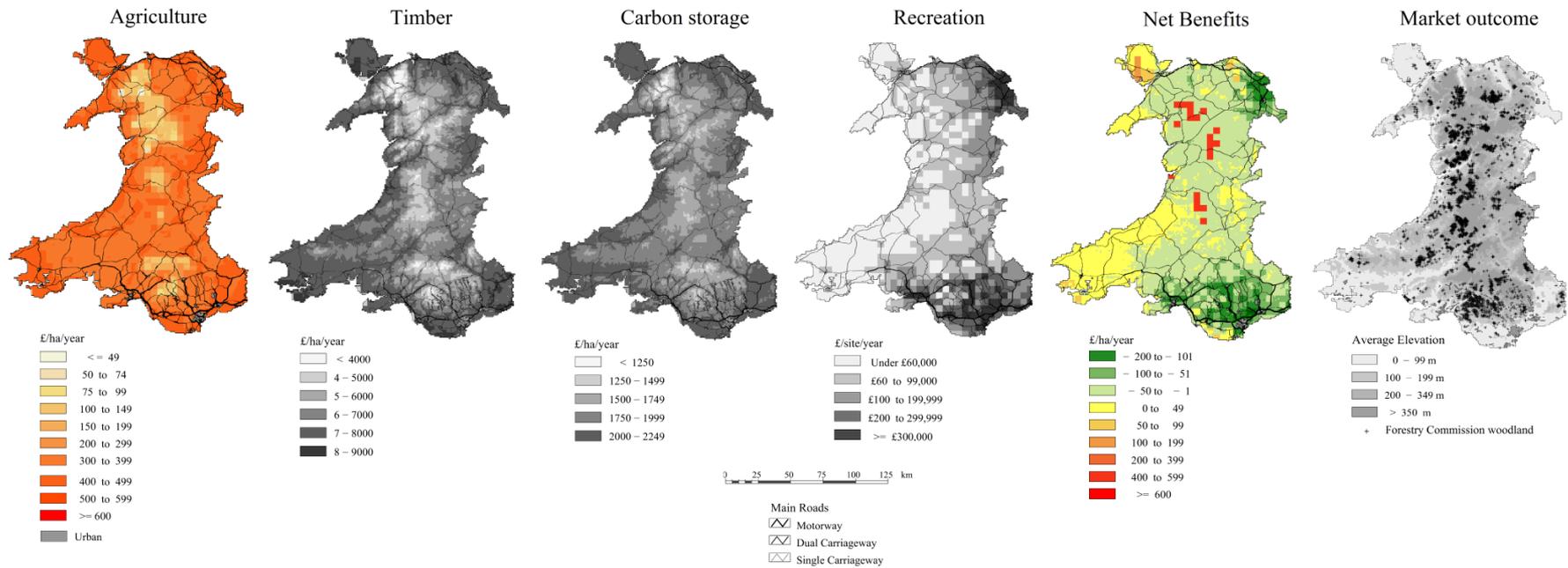
**Permanence**

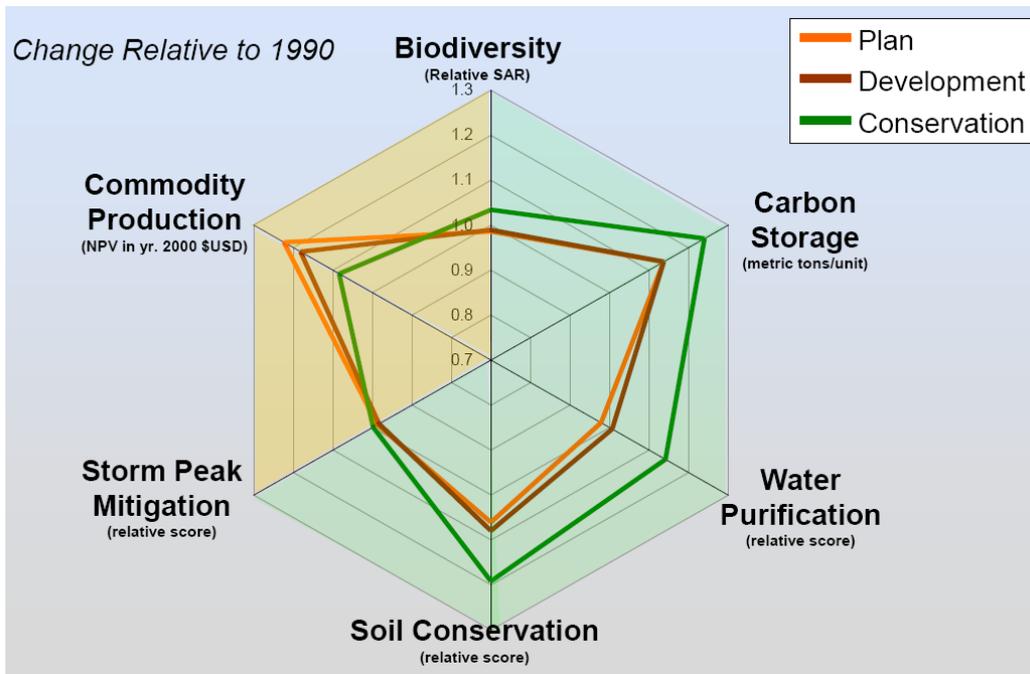


# Communicating indicators



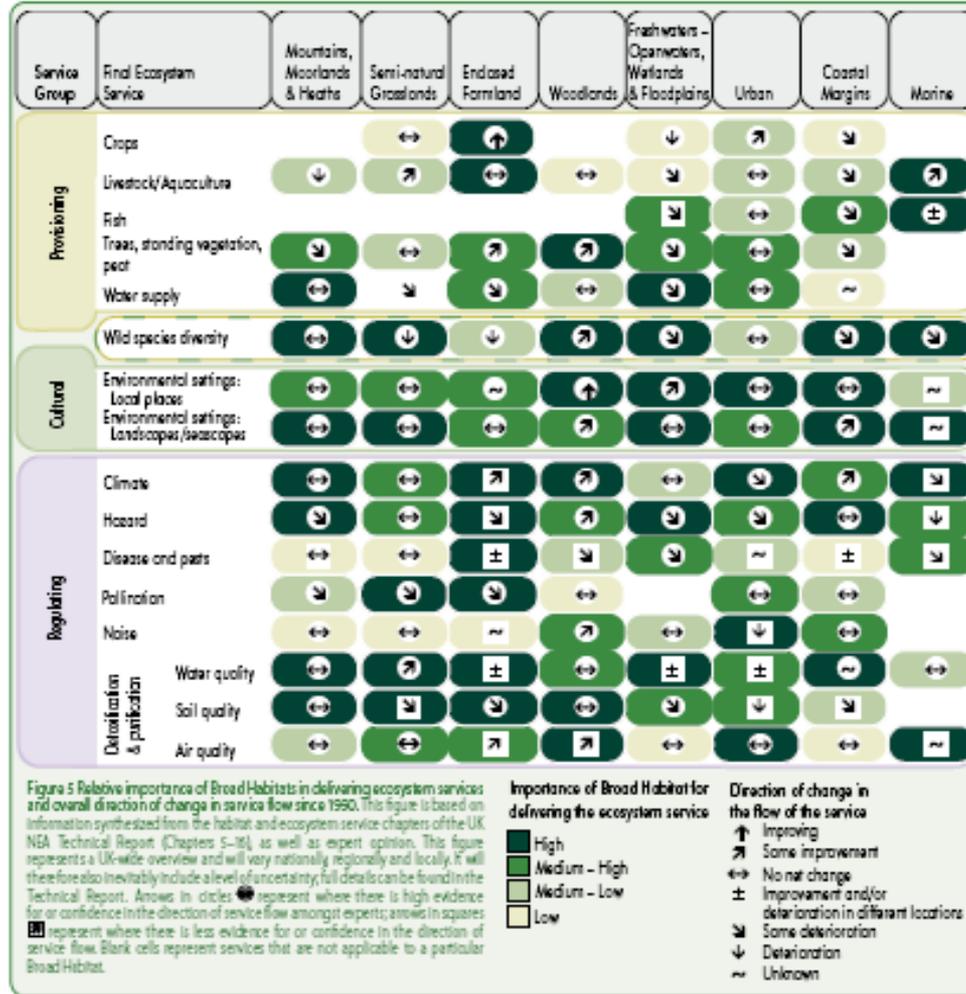






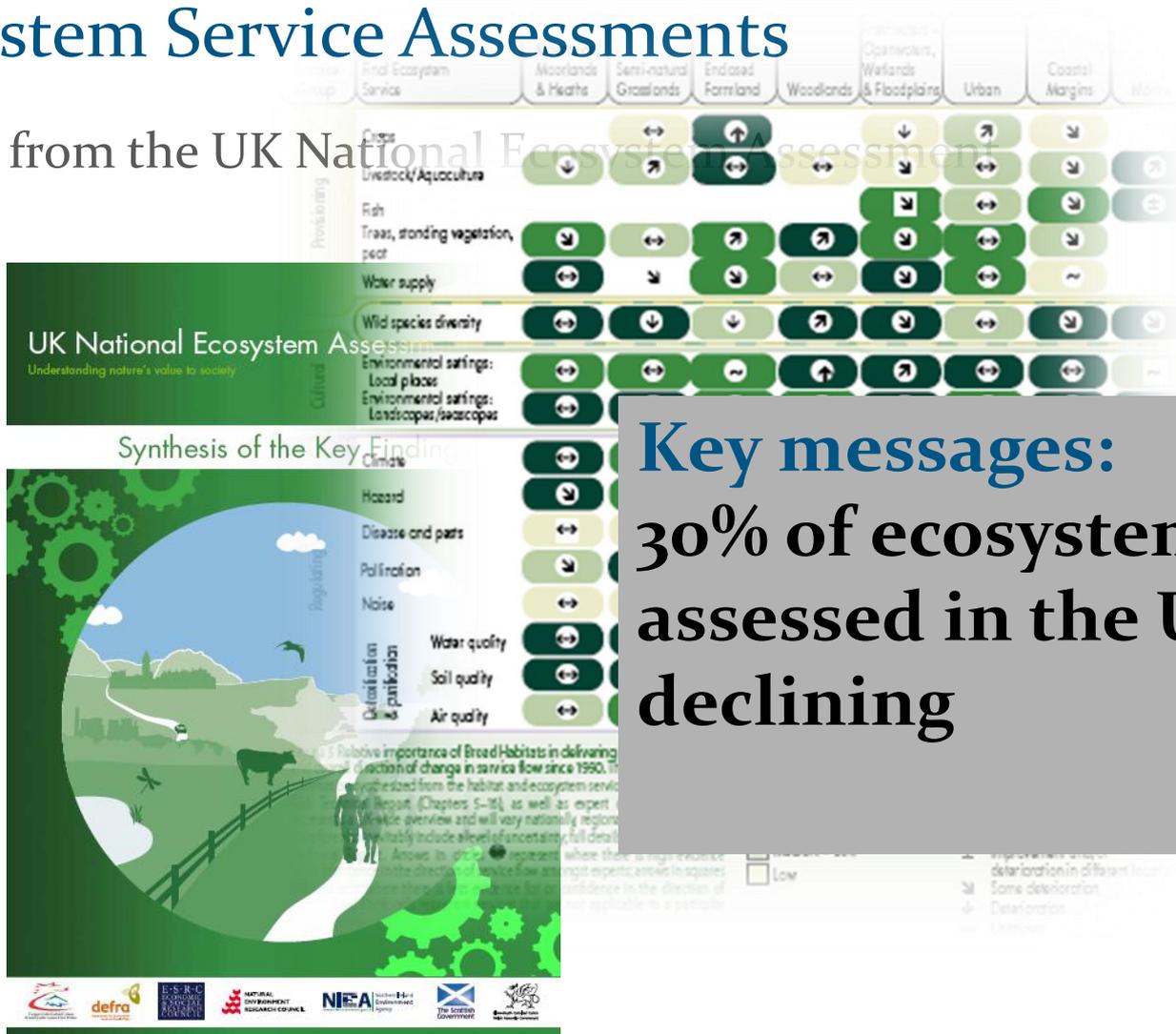
# Ecosystem Services

## Lessons from the UK



# Ecosystem Service Assessments

Lessons from the UK National Ecosystem Assessment



# Ecosystem Service Assessment

## Lessons from the UK National Ecosystem Assessment

**UK National Ecosystem Assessment**  
Understanding nature's value to society

**Synthesis of the Key Findings**

Key findings listed on the right side of the cover include: Climate, Hazard, Disease and pests, Pollution, Noise, Water quality, Soil quality, Air quality, and the importance of Broad Habitats in the context of change in service flow.



## The Key Messages of the UK National Ecosystem Assessment

The natural world, its biodiversity and its constituent ecosystems are critically important to our well-being and economic prosperity, but are consistently undervalued in conventional economic analyses and decision making. Ecosystems and the services they deliver underpin our very existence. We depend on them to produce our food, regulate water supplies and climate, and breakdown waste products. We also value them in less obvious ways: contact with nature gives pleasure, provides recreation and is known to have a positive impact on long-term health and happiness.

Ecosystems and ecosystem services, and the ways people benefit from them, have changed markedly in the past 60 years, driven by changes in society. During the second half of the 20th Century, the UK's population grew by roughly a quarter to nearly 62 million, living standards greatly increased and technological developments and globalisation had major effects on behaviour and consumption patterns. The production of food from agriculture increased dramatically, but many other ecosystem services, particularly those related to air, water and soil quality, declined.

The UK's ecosystems are currently delivering some services well, but others are still in long-term decline. Of the range of services delivered in the UK by eight broad aquatic and terrestrial habitat types and their constituent biodiversity, about 30% have been assessed as currently declining. Many others are in a reduced or degraded state, including marine fisheries, wild species diversity and some of the services provided by soils. Reductions in ecosystem services are associated with declines in habitat extent or condition and changes in biodiversity, although the exact relationship between biodiversity and the ecosystem services it underpins is still incompletely understood.

The UK population will continue to grow, and its demands and expectations continue to evolve. This is likely to increase pressures on ecosystem services in a future where climate change will have an accelerating impact both here and in the world at large. The UK's population is predicted to grow by nearly 10 million in the next 20 years. Climate change is expected to lead to more frequent severe weather events and alter rainfall patterns, with implications for agriculture, flood control and many other services. One major challenge is sustainable intensification of agriculture: increasing food production while decreasing the environmental footprint.

Actions taken and decisions made now will have consequences far into the future for ecosystems, ecosystem services and human well-being. It is important that these are understood, so that we can make the best possible choices, not just for society now but also for future generations. Contemporary economic and participatory techniques allow us to estimate values for a wide range of ecosystem services. Applying these to scenarios of plausible futures shows that allowing decisions to be guided by market prices alone forgoes opportunities for major enhancements in ecosystem services, with negative consequences for social well-being. Recognising the value of ecosystem services more fully would allow the UK to move towards a more sustainable future, in which the benefits of ecosystem services are better realised and more equitably distributed.

A move to sustainable development will require an appropriate mixture of regulations, technology, financial investment and education, as well as changes in individual and societal behaviour and adoption of a more integrated, rather than conventional sectoral, approach to ecosystem management. This will need the involvement of a range of different actors – government, the private sector, voluntary organisations and civil society at large – in processes that are open and transparent enough to facilitate dialogue and collaboration and allow necessary trade-offs to be understood and agreed on when making decisions.