



Natural England's Framework for Science, Research and Evidence

Dr Kevin Charman, Principal Specialist, Science Planning

Natural England aspires, as an organisation, to:-



- Be independent and trusted
- Build consensus and lead opinion
- Be a catalyst for others and take action ourselves

- Be an evidence based organisation

“Integrated Science to support Integrated Solutions”



- Why?
 - Land and sea managers decisions are not made in isolation
 - We need integrated evidence to support our work
 - Integrating evidence from natural and social sciences is an issue

Providing a coherent and integrated science service is vital



- Making an informed decision on the basis of evidence should give the desired outcome
- The consequences of not having or not using appropriate evidence

Principles of Integration

- Deliver a service to all parts of the business
- Science part of work of whole organisation
- Assess existing information before proposing new work
- Always consider need for interdisciplinary science
- Integrate our work with that of key partners
- Engage with wider science community

Our vision for science and evidence

- Our evidence will be trusted by our stakeholders and customers
- Our science will be respected by our peers
- All our work, from strategy through to delivery, will be underpinned by sound evidence
- Our science programme will be high quality and fit for purpose
- Our evidence will be collected efficiently and shared with others
- We will actively seek partnerships to extend our science work

In order to do its job Natural England needs to understand:



- The state and the value of the natural environment and how it is changing
- The causes of change and the impact (both positive and negative) of human activity on the environment
- The underlying processes that drive and maintain whole systems and the effects of intervention

Preliminary analysis of need

- What information do we need?
- What information do we have?
- What information do others have?
- The gap between what is known in total and what we need to know.
- What priority actions we need to take to address the information gap

Initial direction (1)

- The balance of the inherited programme needs adjusting
 - From environmental sciences to social and economic work
 - From the first Strategic outcome to the remaining three
 - From operational to strategic
- Innovative techniques, if properly deployed could deliver significant efficiency savings and feed this shift in balance
- Need to be better at communicating the findings of work to customers

Initial direction (2)

- We need to work better with others
 - Linking to research undertaken by others
 - Communicating what science we need to others
 - Working in partnership with others
- Contribute to the development of integrated information systems
- Long term data sets and the understanding of processes are undervalued
- Inadequate data on the value of ecosystems and the services they provide

Taking areas forward through Action Plans (1)



- Not just about what we do but also how we do it
 - Service
 - Skilled people
 - Communications and dissemination
 - Reputation and the need for quality assurance

Taking areas forward through Action Plans (2)



- Monitoring and evaluation
- Research and development
- Partnerships and influencing
- Information systems

Research and development

- Review information needs by strategic outcome
 - A healthy natural environment
 - Enjoyment of the natural environment
 - Sustainable use of the natural environment
 - A secure environmental future

Climate change

- The evolution of the landscape as a result of the interactions between socio-economic and climate change
- Uptake of renewable energy and potential impacts on the environment
- The impact of future climate change on the carbon stocks in soils
- Identification of vulnerable areas to climate change
- Landscape scale climate change adaptation
- Identification of climate change adaptation indicators