

Natural Resources Wales Board Meeting 9 July 2013

Paper Title	A State of the Environment Report for Wales
Paper Reference:	NRW B (O) 20.13
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Purpose of Paper:	Decision
Recommendation:	That a distinctive Natural Resources Wales approach to State of the Environment reporting is developed that reflects the full breadth of the organisation's remit.
Decision Required:	To approve the scope of, and proposed approach to, a new State of the Environment report for Wales.

Impact: To note – all headings might not be applicable to the topic	Impact on the Environment: The report will provide a means of Natural Resources Wales assessing its own and others' impact on the environment, and help to target actions to manage impacts. Impact on the Economy: The report should show how the quality of the Welsh environment impacts on the economy through the management of our natural resources. Impact on Community: The report will communicate information about the environment in an accessible way, and provide access to data for public use. It can also signpost relevant 'citizen science' activities through which members of the public can contribute to the evidence base for Wales. Impact on Knowledge: The report will initially work mainly with existing, routinely collected data, but will stimulate the development of new knowledge where, for example, novel indicators are needed. The report will inform and track progress with Natural Resources Wales Corporate Plan.
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Issue

1. Natural Resources Wales aims to provide compelling evidence on the natural resources of Wales that will influence better outcomes for the communities, the economy and the environment of Wales.
2. We have an opportunity to bring together the various reports on aspects of the environment routinely reported by Natural Resources Wales and integrate this with a wide range of evidence from other sources. We could also combine this with reporting on our enterprise activities and their contribution to the economy, on our contribution to the enhancement of the knowledge base and on the sustainable use of the natural resources of Wales.
3. We want to set the baseline for our first Corporate Plan so that the outcomes we achieve through our work can be demonstrated with each corporate planning cycle we undertake.

Summary

4. This paper proposes that a State of Environment report for Wales be produced that has a broad perspective on the environment (including social and economic dimensions) in line with Natural Resources Wales full remit.

Background

5. At the May board meeting the board requested that a state of the environment report be produced to set the baseline at the start of Natural Resources Wales and to provide the evidence base for our first Corporate Plan. To support the development of the Corporate Plan we have produced evidence summaries on the state of the environment allied to the Welsh Government long term outcomes.
6. In recent years, Welsh Government has published an online State of the Environment Report for Wales, based on a presentation of indicators linked to its Environment Strategy. Prior to this, Environment Agency Wales, Forestry Commission Wales and Countryside Council for Wales produced a number of hard-copy State of the Environment-type reports, most recently in 2003 and, before that, in 1999.
7. In addition to reports explicitly badged as 'state of the environment' reports, many other reports provide information about the state of one or more elements of the environment. While some of these are produced at GB or UK level, increasingly they attempt to present information by country e.g. Charting Progress 2 (a 2010 report on the state of the UK seas) includes a set of regional perspectives; the National Ecosystem Assessment (2011) includes a Wales chapter; and Countryside Survey produced a separate Wales report (2009).

8. On 22 May 2013, a group of conservation and research organisations published a UK State of Nature report and associated country-level summaries.
9. The UK report presents evidence about the state of over 3,000 species. In addition to the headline that 60% of assessed species are in decline, the report highlights the case that only an estimated 5% of all species occurring in the UK could be assessed at all, because of a paucity of suitable data.
10. The associated summary for Wales also draws attention to the limited number of species that it was possible to assess, and here the data shortfall is seen to be greater still: "...we simply don't have sufficient knowledge to make a robust, quantitative assessment of the state of nature in Wales".
11. Given the thinness of the Wales State of Nature summary, the question arises: is a fuller report possible? And linked to this is a question about whether reporting on the state of species should be a component of a wider regular report on the state of the environment in Wales.

Proposals

12. A Natural Resource Wales-produced state of the environment report should be positioned carefully within the range of material that is published already. One argument for producing a state of the environment report is to bring together, in one regularly updated location, key findings from such dispersed material. The report should be an important source of information in developing and tracking progress of Natural Resources Wales Corporate Plan.
13. A distinctive Natural Resources Wales slant to the report is needed to differentiate it from other reports. It is proposed that this should be achieved by reflecting the full breadth and inter-relatedness of Natural Resources Wales work, and by including evaluations of the effectiveness of Natural Resources Wales own actions (see Annex 1 for an illustration of how this might be achieved). This broad scope will mean drawing on a wide range of data types, not restricted to traditional environmental data but bringing in, for example, socio-economic evidence as well as information more typically used in corporate reporting and annual accounting.
14. Various options exist from the traditional hard-copy volume produced every few years to a more pared-back annual presentation of indicators. An indicator-based report lends itself to more frequent updating, is likely to be less resource-intensive, but might appear rather dry. An intermediate form with a core of indicators, supplemented by interpretative text and an annual round-up of new evidence not covered

by the indicators is proposed as an appropriate compromise. Updates and syntheses will be scheduled to meet the requirements of the corporate planning timetable.

15. A web-based report should be explored. This offers a range of potential benefits including:
 - a means of presenting information in a range of formats and styles to match particular audiences;
 - ease of regular updating – the report could be seen as a live system (with potential for automation of some elements, subject to appropriate data management and systems);
 - links to, or downloads of, data, and other relevant material.
16. A phased approach should be adopted in producing the report, starting with information that is readily available and for which established measures exist, and supplementing this over time as new measures are developed. The various perspectives on the environment that Natural Resources Wales has will present new challenges, and in some areas, new measures will need to be developed.
17. The report should draw on a wide range of data sets (including those used in the State of Nature report), and not be limited to Natural Resources Wales own data holdings. There is an opportunity to make use of existing partnership arrangements, and develop new partnerships, to facilitate the supply of suitable data, and to develop bespoke measures.
18. The Board is asked to discuss and agree the proposed approach for developing our report.

Next Steps

19. Establish a project plan, team and governance structure. Identify resources and timetable.
20. Agree a framework that reflects the breadth of Natural Resources Wales interests.
21. Discuss the report with Welsh Government to ensure that it is not seen as a rival to, or duplicate of, their State of the Environment report.

Risks

22. Producing the report takes a disproportionate amount of resources. Mitigate by matching scope and form to likely resource availability.
23. A report too heavily based on indicators is seen as dry and fails to engage an external audience. Mitigate by having a report that has indicators as a component, but also accessible syntheses of other

evidence. Involve Natural Resources Wales Communications staff from the outset.

24. Too little data is available to produce reliable trends for some important elements. Mitigate by developing the report over time, starting with datasets that are known to be robust, and continuing to work with partners to improve those datasets where this is not yet the case.
25. Funding constraints mean that repeat monitoring is not carried out, and so the report cannot be updated. Mitigate by considering at the outset those data sets and programmes that are seen as likely to continue. Continue to work with external initiatives that aim to maintain key long-term monitoring programmes.

Financial Implications

26. Will depend on the direction taken. Likely to require mainly staff time initially, though some elements might require funding.

Communications

27. The report should be seen as an integral part of our communications activity, with relevance both internally and externally. Communications team should be involved early on to guide the report and to help develop an associated communications plan.

Equality impact assessment (EqIA)

28. Not applicable.

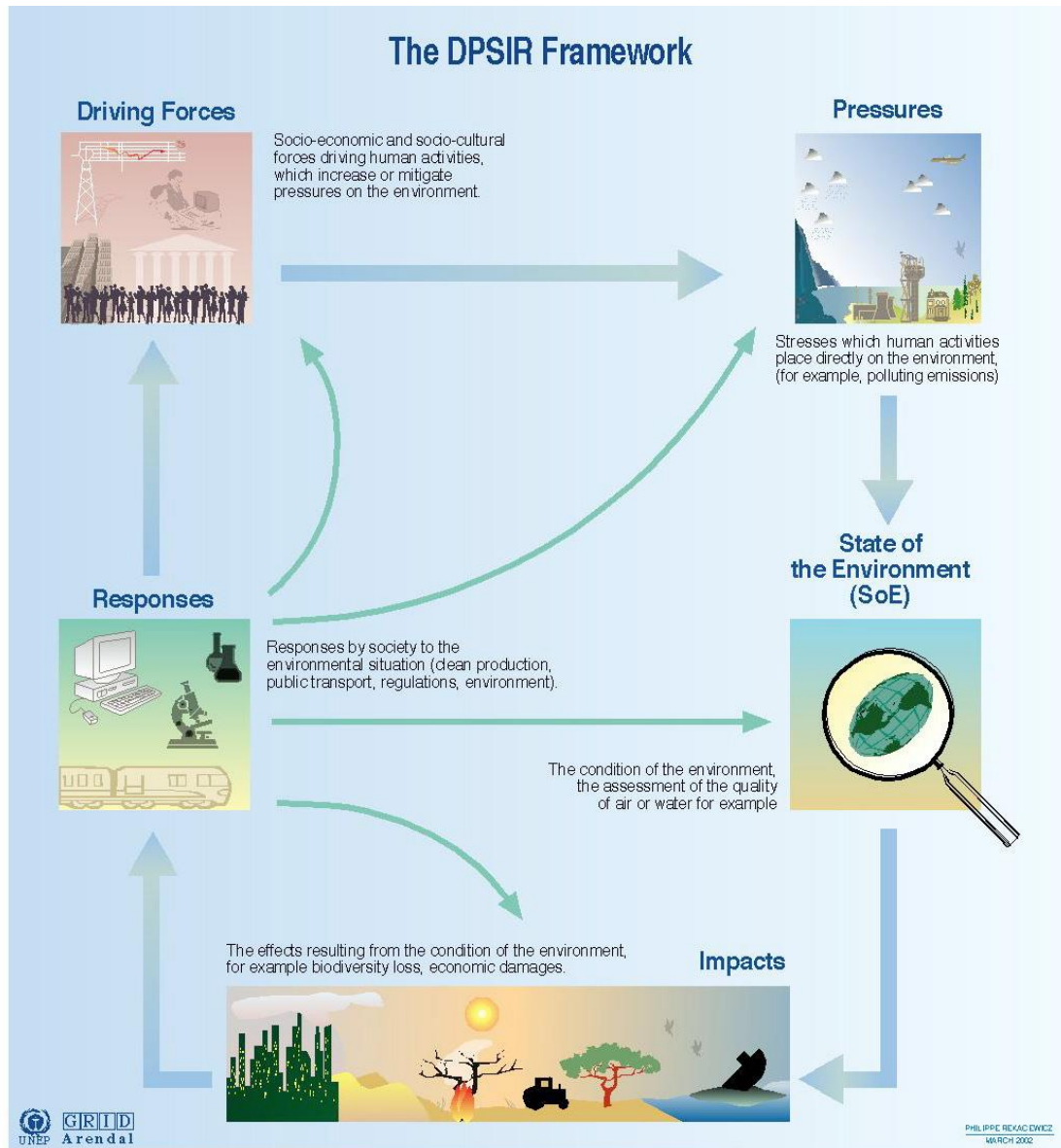
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Annex 1. A framework for environmental reporting

21.06.2013 FINAL

Annex1: A framework for environmental reporting

Two frameworks are commonly used in environmental reporting – the PSR (Pressure-State-Response) model and an expanded version of this, the DPSIR (Driving Forces-Pressure-State-Impacts-Response) model. The DPSIR model lends itself to encapsulating the full breadth of NRW's remit (see graphic below).



In this scheme, social, demographic and economic forces generate pressures on the environment. The environment is affected by these pressures and this is manifested in its state at any point in time. This in turn impacts on those aspects of the environment valued by human society because of how they underpin well being (eg by contributing to human health and employment opportunities). To manage those impacts, society can respond by taking action that relates to any of the preceding components, for example attempting to influence attitudes about the environment (a driving force),

controlling pollution (a pressure), reintroducing a species (and, so, changing state) or incorporating landscape considerations into planning decisions (managing an impact on landscape quality).

A narrow state of the environment report might present information relating only to the state component of this framework, providing a snapshot of the environment at a fixed point in time. A fuller approach to reporting should attempt to address each of the components in an integrated way, and this is the approach recommended here.

It is not suggested that these DPSIR components form the basis of any report structure, but rather that for any aspect of the environment that the report covers (such as water quality or biodiversity), the framework is used to ensure we provide not only a picture of current state but also of the factors influencing it, an assessment of what it means (addressing the 'so what' question), and an indication of what we or others are doing about it.

The impact component of the framework gives explicit emphasis to the consequences of environmental change for human society, including human health, for example – and provides a logical basis for presenting such information alongside information about environmental quality.

The table below shows some examples of the types of measure that relate to different components of the framework (a selection of graphical illustrations of some of these are provided at the end of the paper).

	Existing measures	Potential measures
DRIVING FORCES	Index of multiple deprivation Recreation preferences	Environmental attitudes Patterns of consumption
PRESSURES	No. pollution incidents affecting water and land Sulphur emissions Water abstraction	Land use change Diseases
STATE	Water quality Breeding bird populations Salmon populations	More species (from SoN) Plant health
IMPACTS	Landscape quality Timber production Changes to flood risk	Human health Jobs
RESPONSE	Area of land designated as SSSI Area of forestry certified as sustainable Area of land in agri-environment schemes Waste management	Education/engagement Investment in environment

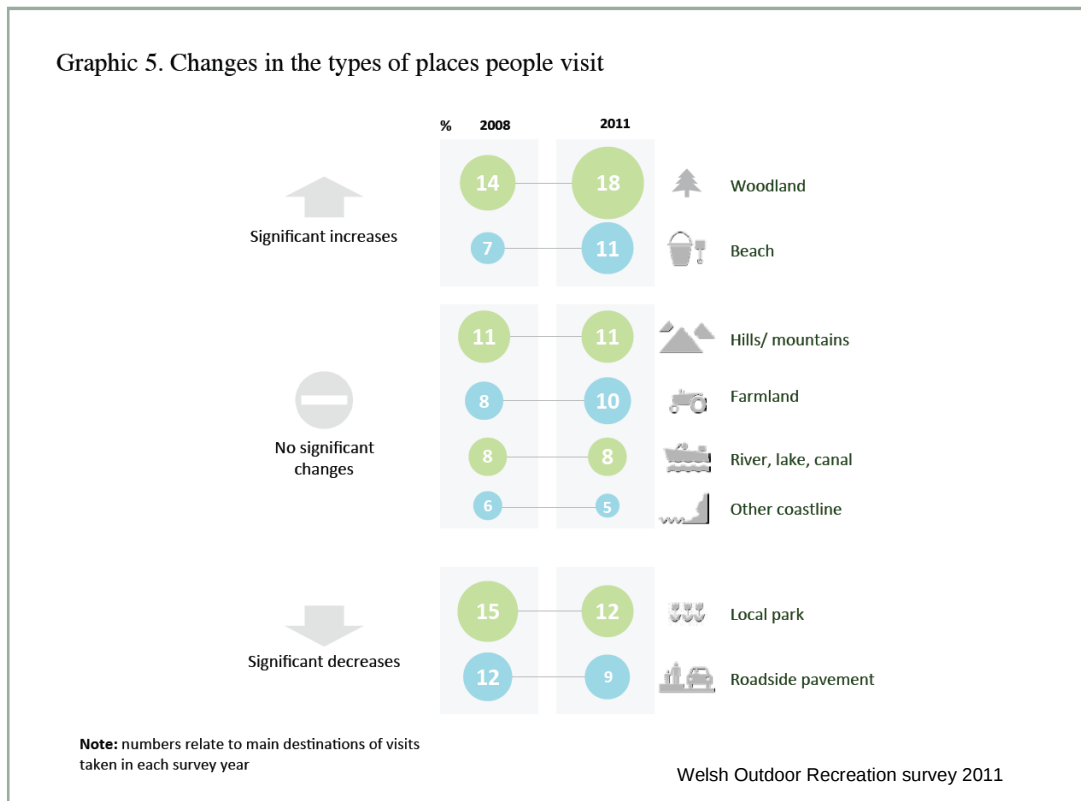
These are just a few examples, and agreeing an appropriately balanced set of such measures will be important in developing the report. There are likely to be some significant challenges in doing this. Some types of information are more easily obtained than others (for example, it is easy to count the numbers

of SSSI designated, less easy to establish the condition of features on those sites). For some subject areas, there may be less data available than is sometimes thought (as the State of Nature report suggests is the case for species). In some instances, there will be opportunities to use information from new developments in our monitoring programmes – for example, from adding new questions to the Wales Outdoor Recreation Survey that relate to environmental awareness.

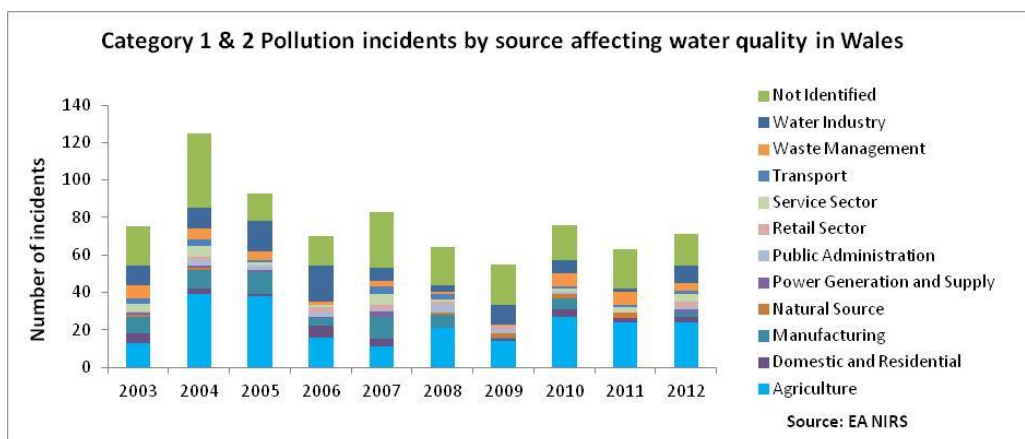
Among societal responses generally are the actions that NRW itself takes. Some of these might be Wales-wide and lend themselves to inclusion in indicator sets such as those listed above, but in addition there will be a large number of local projects and interventions that are less suited to inclusion. Linking through to information on the effectiveness of specific NRW interventions would be a valuable addition to more general reporting.

Example indicator graphics

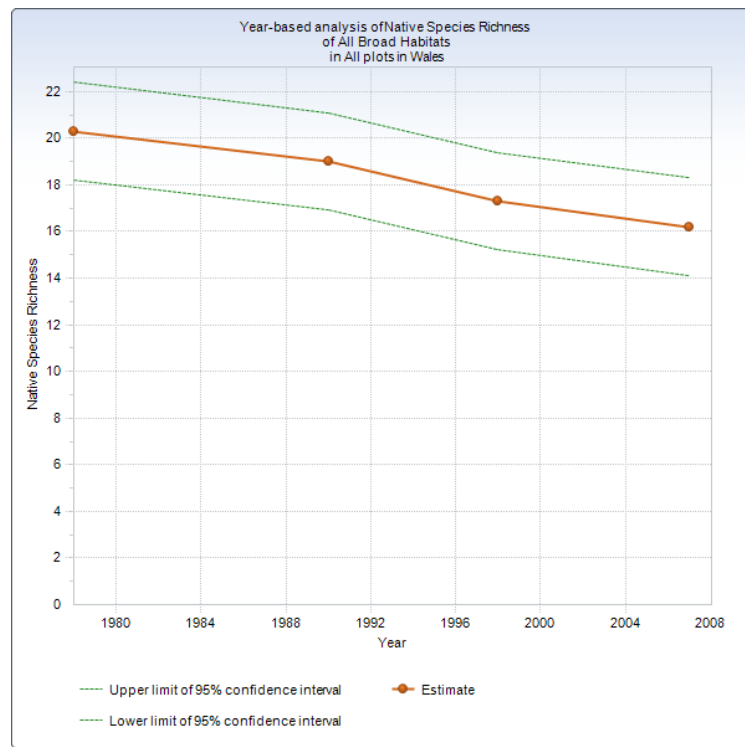
A driving force indicator: outdoor visit preferences



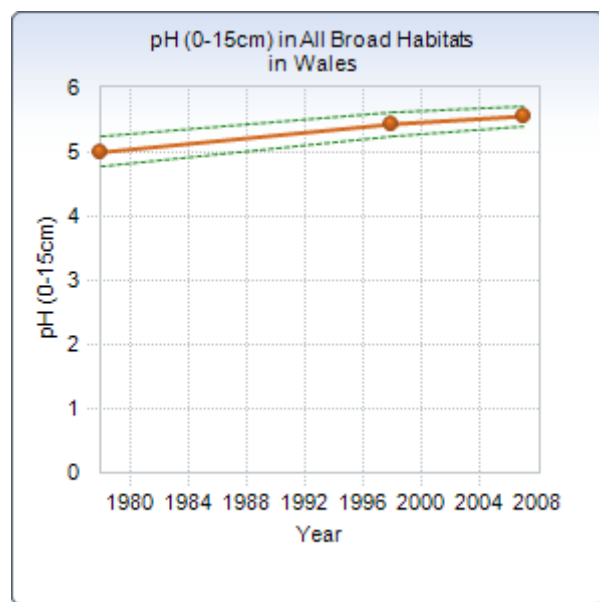
A pressure indicator: the number and type of pollution incidents affecting water quality, 2003-2012



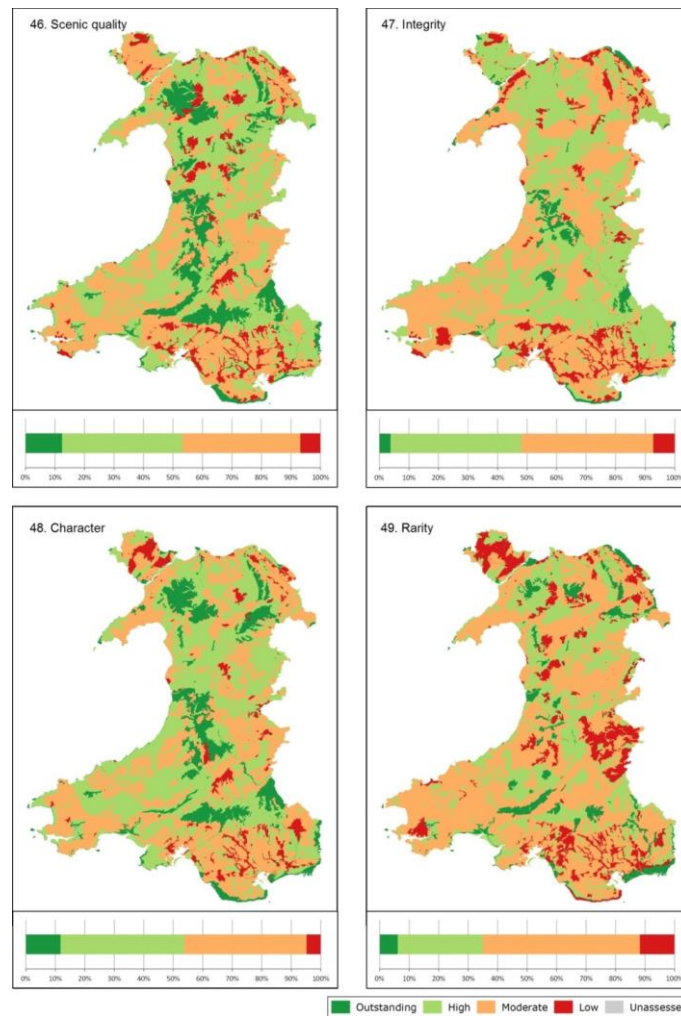
A state indicator: Plant species richness, 1978-2007



A state indicator (abiotic): Soil pH, 1978-2007



An impact indicator: Visual and sensory aspects of landscape, 2013



A response indicator: area of land under agri-environment management

