Final Report
For the RSPB

A Natural Planning Framework: Putting the Natural Environment at the Heart of the National Planning Framework for England





Authors:

William Sheate
Ric Eales
Jonathan Baker
Jenny Stafford
Adam Barker
Nienke van Der Burgt
Maria Rosário Partidário

January 2011

Collingwood Environmental Planning Ltd
1E, The Chandlery
50 Westminster Bridge Road
London
SE1 7QY
UK
Tel: +44 (0)20 7407 8700
Fax: +44 (0)20 7928 6950
www.cep.co.uk

Acknowledgements

This report was prepared by William Sheate, Ric Eales, Jonathan Baker and Jenny Stafford (Collingwood Environmental Planning Limited), Adam Barker (University of Manchester), Nienke van Der Burgt (Milieu) and Maria Rosário Partidário (Instituto Superior Técnico, Technical University of Lisbon) as part of a study commissioned by the Royal Society for the Protection of Birds (RSPB).

The authors would like to thank Owen White of Collingwood Environmental Planning and the RSPB's Simon Marsh, Martin Harper, Aidan Lonergan, Annabel Lambert, Mike Webb, Alice Hardiman, Helen Byron and Daniel Pullan for their views, comments and inputs. We would also like to thank the experts who were interviewed as part of this report for providing us with their time and thoughts.

The RSPB project manager was Simon Marsh (Head of Planning & Regional Policy).

Contents

Executive Summary

The UK's coalition Government is undertaking a fundamental readjustment of the UK and England's spatial planning system, and specifically through the recently published Localism Bill 2010. Although not part of the Bill, the Government has also indicated an intention to produce England's first National Planning Framework (NPF). The RSPB commissioned Collingwood Environmental Planning[1] to provide a critique of the theory and implementation of national spatial planning from a natural environment perspective based on an investigation of the literature, relevant international case studies and a range of expert interviews.

The main objectives of the study were to:

- *identify and critique appropriate UK, European and international case studies, in relation to national planning frameworks;*
- *review relevant literature in regards to national planning frameworks, the UK policy context and landscape-scale conservation;*
- *interview a range of relevant experts; and*
- *to make recommendations to RSPB on the preparation of the NPF for England, with a particular focus on the natural environment.*

A short list of international case studies was reviewed, focusing on those where there were positive lessons of some form of national planning framework experience. The countries examined were:-

- *Wales*
- *Scotland*
- *Ireland*
- *Netherlands*
- *Australia (States of Victoria, and Northern Territories)*
- *Taiwan*

For Wales, Scotland and the Netherlands expert interviews were also undertaken along with a number of additional planning expert interviews to gather an understanding of both theoretical and empirical understandings of how national planning frameworks can work.

Drawing on the three main data sources – literature, case studies and expert interviews – a SWOT[2] analysis was undertaken on the concept of an NPF with the natural environment at its heart. The report concludes that an NPF should seek to play to its strengths and the opportunities such a framework presents. It should be **spatial** in nature though not site-specific since many of the other opportunities and strengths an NPF presents are predicated upon a spatial, strategic plan.

An essential part of the context and agenda setting for an NPF would be the spatial representation of what **sustainable development** in England might look like in practice and an indication and justification of the priorities and tradeoffs that should be taken at the more local level. To do this effectively a **long time horizon** is essential that allows a long term vision of where the nation is heading and creates a sense of direction and progress. A long-term vision also requires a degree of consensus that makes some provision beyond electoral and budgetary cycles to enable a greater degree of consistency and institutional stability to enable effective delivery. A specific driver for the formation of a long term NPF is

[1] Collingwood Environmental Planning Ltd (CEP), in association with The School of Environment and Development, University of Manchester, Milieu Ltd and the Instituto Superior Técnico (IST), Technical University of Lisbon

[2] Strengths, Weaknesses, Opportunities, Threats

the need to identify the inevitable consequences of climate change in time to develop appropriate responses. Spatial planning has a critical role in mainstreaming **climate change adaptation** into a wide range of sectors.

In relation to the **environment** an NPF offers the opportunity to highlight and optimise relationships between natural resources and socio-economic development informed by a spatial understanding of demographic change within the UK and internationally, as well as a recognition that the priorities differ within and across the different parts of England or regions. This requires the use of functional rather than administrative units, which are likely to differ for each category e.g. renewable energy, social inequality etc., but will help local authorities and stakeholders understand broader trends as well as producing a contextual vision for local areas.

There is a clear role in an NPF for **ecosystem services** when seeking to balance environmental, economic and social priorities. Ecosystem services have the ability to cut across different sectors of the natural environment and highlight in an integrated way how the natural environment contributes to socio-economic well being. The NPF presents an opportunity to link spatial planning with and Defra's forthcoming **Natural Environment White Paper**. The case studies and interviews demonstrated that landscape is likely to be the most useful scale of analysis for a national plan.

The spatial recognition of environmental limits at the **landscape scale** would enable the NPF to provide an effective framework for the protection of the natural environment. In addition, it would be able to highlight the socio-economic importance of the ecosystem-services it provides and should take an approach based on the precautionary principle due to the irreversible nature of the loss of many ecosystem-services. More broadly the landscape scale approach may be an effective functional unit to consider other aspects including socio-economic such as equality and income.

The NPF offers an opportunity for early and effective **participation** of stakeholders and individuals to offer the opportunity for a national discussion as to the priorities and role of an NPF. **Strategic environmental assessment** (SEA) offers a mechanism for achieving this and for considering long-term **alternatives**, such as spatial scenarios of possible and preferred futures. The results of this process should inform the NPF, which would also have the potential to act as a unique vision of the future to inform other relevant Government strategy and policy.

As a strategic plan it should avoid specifying specific locations or projects: that is more properly the role for a separate lower level plan or programme such as a national infrastructure plan/programme, providing that too is subject to SEA to ensure proper alternatives are evaluated effectively. The monitoring and baseline evidence requirements of the SEA Directive could also be used to contribute to a readily accessible database for research and Government bodies to use to better understand spatial dynamics and policy interactions.

Another aspect of an effective NPF is being aligned to other relevant strategic and spatial plans, for instance the **National Infrastructure Plan**. The current status of the National Infrastructure Plan is rather unclear vis à vis spatial planning and SEA. The NPF should seek to clarify this relationship and set in place a synchronised infrastructure and national planning process.

How effectively this is done will be dependent to some extent upon the **legal basis** of an NPF. It is important that the NPF retains a statutory basis at least akin to current Planning Policy Statements (PPSs) (i.e. that of Local and Neighbourhood Plans having regard to the NPF) to enable some degree of flexibility at the local level, while ensuring that wider priorities are considered. The NPF should avoid being simply concise planning policy guidance as this would represent a significant missed opportunity and be likely to lead to a less effective spatial planning framework.

There are many opportunities presented by an NPF that could provide a more effective framework for local level spatial planning, which at the same time could help integrate and help deliver other

Government objectives for the natural environment. But there is also a risk that if the NPF ends up as simplified planning policy guidance, with no strategic vision and no spatial dimension, or worse that its only spatial dimension relates to proposed national infrastructure projects, and/or it does not have the natural environment at its heart, it could pose a significant risk to the status and direction of the natural environment in England and be a backward step for longer term imperatives such as delivering climate change adaptation through spatial planning.

Recommendations

The following recommendations are based on the lessons learned from this research. They are recommendations that RSPB may wish to consider and/or put forward in developing their advocacy for a spatially explicit NPF which has the natural environment at its heart. The SWOT analysis highlights that there are numerous opportunities and strengths presented by an NPF, but also some potential threats and weaknesses. An NPF will not inevitably be good for the environment or sustainable development – it will depend to a large extent on the way in which it is framed.

Recommendation 1: RSPB should highlight the potential negative implications of a non spatial NPF without the natural environment at its heart.

This report has focused on the positive potential of NPFs and sought to highlight the potential of a spatial NPF with the natural environment at its heart. However, due to the potential influence of a NPF and the loss of strategic oversight at the regional level the RSPB should be explicit that a non spatial NPF, without the environment at its heart, has very real potential to undermine efforts to improve the environment and associated wellbeing.

Recommendation 2: The Government should take advantage of the opportunity provided by the development of an NPF to seek to secure as wide a consensus as possible and a shared vision for sustainable spatial planning, through a participative process.

The NPF should provide a broad and long-term vision of what sustainable development means for spatial planning, how spatial planning can proactively help to deliver it, and how this relates to the country's wider sustainable development strategy.

Recommendation 3: The vision in the NPF should re-affirm a view of sustainable development that fully recognises the concept of environmental limits and the precautionary principle.

This should include recognising the important role of the environment and ecosystem services in enabling socio-economic development and the dependency of economic development on a well functioning natural environment.

Recommendation 4: The NPF should be spatial but not site-specific, and be a material consideration for lower level spatial plans.

The NPF needs to consider geographical trends and distributions, priorities and functional units at the strategic (and landscape) level and provide a framework for planning policy, for Local and Neighbourhood Plans, and for making decisions on planning applications and appeals.

Recommendation 5: The NPF should recognise England's spatial relationships (migration, development, environmental resources etc.) and dynamics with the devolved administrations and internationally.

The NPF should provide a means of looking spatially inwards to the local and regional levels and outwards to the other countries of the UK and the EU/internationally.

Recommendation 6: The NPF should consider the role of a national ecological network to guide a landscape scale approach to the management, enhancement and protection of the natural and built environment.

The integration of such an approach into the NPF would recognise and enable the need for improving and facilitating the natural environments' connectivity to counter the stress of climate change and the effect of continual expansion of society's footprint.

Recommendation 7: The NPF should set out a long term strategic horizon for spatial planning in England.

The long term vision should include setting a time horizon of 30 - 50+ years, particularly given the critical role for spatial planning in adapting to climate change and other global trends, and supported by short and medium term goals (or action plans) and short term review periods.

Recommendation 8: The NPF should provide a forum for debate and be informed by participation.

Considering the scope and potential influence on the NPF it is crucial that the process that underpins it should be legitimate, transparent and pluralistic. This could be achieved by undertaking early and effective participation to enable the views of experts and the public to provide input to the possible and preferred directions for the NPF.

Recommendation 9: The NPF should be fully informed by strategic environmental assessment.

The practical and proactive use of SEA would facilitate the consideration of different spatial options or scenarios and stakeholder participation in strategic dialogue. Any short or medium term actions plans should be separate from the NPF, but also subject to SEA to ensure appropriate level of assessment.

Recommendation 10: The NPF should be an iterative, reflective process.

The NPF should be able to provide a feedback mechanism from the local to national level and to contribute to national data sets through an effective monitoring system facilitated through the SEA; in addition these data sets could contribute to the environmental accounting tools required to satisfy recent Convention on Biological Diversity commitments.

1. Introduction

Purpose of the study

Collingwood Environmental Planning Ltd (CEP), in association with The School of Environment and Development, University of Manchester, Milieu Ltd and the Instituto Superior Técnico (IST), Technical University of Lisbon, was commissioned by the Royal Society for the Protection of Birds (RSPB) to provide a critique of the theory and implementation of national spatial planning from the perspective of the natural environment. This report is the outcome of the research and provides the RSPB with a series of recommendations in relation to a national spatial planning framework (NPF) for England which has the natural environment at its heart.

The objectives of the study were:

- To identify and analyse appropriate UK, European and international case studies, in relation to national planning frameworks, with a view to identifying lessons or success factors that are relevant to England's proposed NPF;
- To identify and review appropriate literature in regards to national planning frameworks, the UK policy context and landscape-scale conservation;
- To identify, approach and interview a range of relevant experts. These experts were to include academics, government representatives, RSPB/ Birdlife International representatives and practitioners. The findings from the interviews were to inform and support the case study and literature reviews;
- To make recommendations for the incorporation of the natural environment and the use of SEA in the preparation of the NPF for England; and
- To inform the RSPB and partners' advocacy of a spatial NPF for England.

As such the scope was quite narrowly defined and the resources available and timescale meant that it had to remain quite tightly focused. The research was undertaken during October/November 2010.

This report begins by setting out the context and current literature relevant to the consideration and development of a national planning framework. It then sets out the approach and methodology to the empirical research from case studies and expert interviews before drawing that together with the wider literature into a series of lessons learned. It concludes with a series of recommendations to RSPB to consider in taking forward their advocacy in this area.

2. A national planning framework – how and why?

Introduction

This section sets out the information and analysis obtained through the review of the literature. It is structured in three sections: the UK's planning framework; the theory behind a national planning framework; and landscape-scale conservation.

England's planning framework

Spatial planning has been defined by Government as *'going beyond traditional land use planning to bring together and integrate policies for the development and use of land with other policies and programs which influence the nature of places and how they function*[3]. With the creation of a new Government in May 2010 the UK, and more specifically England, is once again seeing a wholesale change in its planning framework. The Conservative's Open Source Planning Green Paper sets out a view of spatial planning in the UK and England which aims to be 'more local, more democratic and less bureaucratic'[4]. These themes were repeated in the relevant Liberal Democrats Green Paper[5]. The new Government, by confirming the abolition of Regional Spatial Strategies and the Infrastructure Planning Commission, sets out a system based on these principles[6]. This signalled the intention for a planning system based on two tiers; national and local.

The Local Growth White Paper[7] provides a recent indication of the Government's proposals and includes details of:

- The establishment of 24 Local Enterprise Partnerships which will be "free to develop strategic planning frameworks to address economic development and infrastructure issues which relate to economic geography". They may also take on other activities related to planning, including enabling the timely processing of applications for strategic development and infrastructure[8];
- A national presumption in favour of sustainable development, which will apply to all planning applications decisions. Sustainable development is as yet not defined within the proposals;
- The creation of neighbourhood plans to "respect the overall national presumption in favour of sustainable development, as well as other local strategic priorities such as the positioning of transport links and meeting housing need";
- New Right-to-Build powers through a "simplified neighbourhood planning process" to "enable communities to respond quickly to changing development needs";
- Use of local development plans to "establish the key strategic framework on infrastructure and deal with issues such as economic growth requirements"; and

---

[3] Office of the Deputy Prime Minister (ODPM), 2004, *Planning Policy Statement 12: Local Development Frameworks*, p.3.
[4] *Open Source Planning*, Conservative Green Paper: http://www.conservatives.com/~/media/Files/Green%20Papers/planning-green-paper.ashx
[5] Liberal Democrat manifesto response:http://www.planningresource.co.uk/news/ByDiscipline/Policy/997059/Lib-Dem-manifesto-responses/
[6] Coalition's Programme for Government http://www.cabinetoffice.gov.uk/media/409088/pfg_coalition.pdf
[7] *Local Growth White Paper*: http://www.bis.gov.uk/assets/biscore/corporate/docs/l/pu1068%20-%20local%20growth.pdf
[8] Local Enterprise Partnerships: http://www.publications.parliament.uk/pa/cm201011/cmselect/cmbis/memo/localent/localent34.htm

- Wholesale reform and streamlining of national planning policy and guidance to create a single national planning framework which will cover all forms of development.

Alongside these developments in spatial planning the Coalition through Infrastructure UK[9] has recently published a National Infrastructure Plan[10] which sets out the challenges which are driving the need for such a plan and describes the Government's role in *'unlocking private sector investment'* for a range of infrastructure. This includes specific policy and regulatory changes. The plan does not specifically mention an NPF but it does indicate the Government's view of the recently published Localism Bill:

"....the Localism Bill forward ……. will be part of a radical reboot of the planning system, helping to facilitate sustainable development and the provision of infrastructure. Other reforms will include the consolidation of existing planning policies into a single document which will set the framework for local and neighbourhood plans"

Para 3.28 HM Treasury (2010), National Infrastructure Plan

As such, in line with the Local Growth White Paper, the Infrastructure Plan confirms the role of the NPF: that of consolidating and presenting planning policy for all forms of development. The Localism Bill 2010, however, is silent on an NPF. The assumption, therefore, is that its statutory status will be akin to a PPS (the legal basis of which is set out in the Planning and Compulsory Purchase Act 2004).

National planning framework

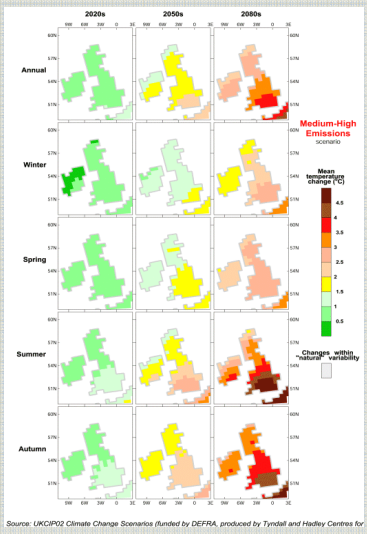
What is a national planning framework?

A National Planning Framework can be considered to be a strategy that sets in place the what, where and how of a nation's built, social and environmental infrastructure. As such it looks within a nation and determines what the need and capacities are whilst looking out and determining the drivers for development. In doing so it provides context and informs the decisions of sub-national and local planners.

The efficacy of National Planning Frameworks, or similar, in England is not a new debate. There has been a view, initially raised in 1940 in the Barlow Report,[11] that there is a need to coordinate planning at the national level. The reason being that *"no authority is charged with the duty of considering the local and regional planning schemes in the light of the national resources, requirements and interests as a whole".* A National Planning Framework is still considered to provide this function. The argument that local and regional planning needs to be considered within the capacity and requirements of the wider scale (national) has not changed significantly since its inception, though it has been nuanced and added to in response to contemporary challenges and concerns.

Climate Change:

Despite England being a relatively small country the effects of and therefore necessary responses to climate change are likely to vary significantly in different areas of the country. For example the figure below from UKCIP (2009) shows geographic variations in predicted temperature changes across the UK.



[9] Infrastructure UK advises Government on the long-term infrastructure needs of the UK and provides commercial expertise to support major projects and programmes.
[10] United Kingdom National Infrastructure Plan: http://www.hm-treasury.gov.uk/ppp_national_infrastructure_plan.htm
[11] HM Government (1940) *The Royal Commission on the Distribution of the Industrial Population Report* (the Barlow Report), HMSO, London.

Why do we need a national planning framework?

Challenges

Spatial planning faces a number of pressing challenges, for instance: growing levels of inequality across areas and within society, environmental degradation, providing adequate and affordable housing, maintaining economic prosperity across the UK and adapting to climate change[12]. These challenges are spatial in nature and as such their 'solutions' lie in strategic spatial planning[13].

With regard to climate change adaptation across the UK, there is a need to consider at the national level infrastructure development to ensure resilience against rising sea levels and changing weather patterns[14]. This national perspective is also likely to be beneficial when considering the impacts of climate change on reducing the risk to housing assets and enabling ecosystem connectivity. In fact the Adaptation Sub-committee of the Committee on Climate Change identified six areas where more actions are required. Five of these, namely land-use, planning, infrastructure, natural resources and buildings, directly relate to spatial planning[15], demonstrating the critical role of this in climate change adaptation.

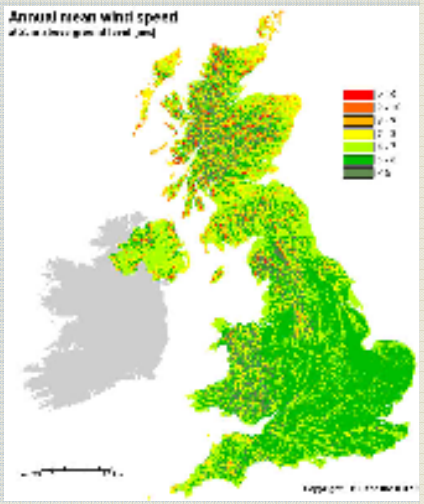
It is also true in relation to mitigating the impact of climate change and in developing the country's future energy infrastructure that a national level is the most appropriate. England's 'clean energy' resource is not equally distributed. There is therefore a recognised need for strategic planning in general and a national planning framework in particular to coordinate actions to allow England to meet its national and international carbon reduction commitments in the most effective and efficient manner and according to this geographical diversity[16,17].

There is also recognition that biodiversity loss is a significant challenge and that this is contributing to a loss in related ecosystem-services. The recently commissioned Lawton Review *Making Space for Nature* suggests a series of policy interventions many of which are most effective at the national level (these are discussed further below).

There is also a regional and local dependence on national infrastructure networks, be they road, rail, energy or IT. This infrastructure operates on a national level and for effective decision making requires consideration at that level. This was recognised with the previous Government's National Policy Statements[18]. A focus on infrastructure

Renewable energy

The renewable energy resources of the UK are not equally distributed; in fact there is poor correlation between areas of demand and physical supply. A national perspective on resources, supply and demand would facilitate delivery of appropriate infrastructure and demand management measures.



[12] TCPA (2005) *Connecting England*, http://www.tcpa.org.uk/pages/connecting-england-connecting-england-76.html
[13] TCPA (2010) *Future of Planning*, http://www.tcpa.org.uk/data/files/tcpa_futureplanning_report.pdf
[14] Box reference: http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=357&Itemid=396
[15] Committee on Climate Change Adaptation sub-committee: www.thecc.org.uk/reports
[16] Stead, D. and Nadin, V. (1999) Environmental resources and energy in the United Kingdom: The potential role of a spatial planning framework. *Town Planning Review*. 70 (3) p339-362.
[17] Reference to box: http://webarchive.nationalarchives.gov.uk/+/http://www.berr.gov.uk/files/file17789.pdf
http://re.jrc.ec.europa.eu/pvgis/
[18] National Planning Policy Statements: http://www.communities.gov.uk/documents/planningandbuilding/pdf/320282.pdf

alone is not effective as both the infrastructure and the serviced areas (i.e. the economic growth, population and housing demands of cities, towns etc.) need to be considered and integrated and planned at the same (national) scale.

England is also facing a housing crisis with current levels of house building at record lows[19]. It has been suggested that the hasty removal of the regional level of planning will have a significant impact on the provision of housing[20]. This is in part due to the loss of certainty over housing numbers and their distribution. There is a view that it is only at the strategic level can the provision of housing can be effectively considered, particularly housing locations in accordance with economic growth/employment and population needs and environmental constraints and opportunities. The NPF, therefore, could have a clear role in meeting this challenge.

England is a relatively small country, but within its borders there is a dynamic society and economy with heterogeneously distributed resources that has led to socio-economic inequality across the country; with the so called 'golden arc' of the south east and London leading economic development with other regions and cities not achieving their potential[21,22]. Reducing the gap in prosperity and wellbeing across England is an established priority for recent and current Governments and the importance of spatial planning in achieving this has been long recognised[23]. However a regional or local approach to planning is not able, by itself, to re-align the prosperity of regions, this can only be done at the national level as national planning is able to influence development among and between regions.

Cohesion

Within an increasingly connected Europe, it is at least arguable that England needs a national framework that can sit alongside and relate to other European states[24]. This is also true within the British Isles where England is the only country without a national planning framework. It has been suggested that the increased independence associated with the planning policy in the devolved administrations has allowed them a more formal interaction with Europe and led to a redefinition of planning as a strategic co-ordinating mechanism rather than strictly as a statutory land use activity[25]. The development has also been influenced by the fact that increasingly European cohesion is based on the Member State (national) rather than regional level, so there is a need to consider this scale of governance to aid cohesion with Member States and the devolved administrations[26]. Healey (2004), for example, suggests that the creation of the European Spatial Development Perspectives (ESDP)[27] provided EU members with the

[19] Morris, H. (2010) New record low for housing numbers, *Planning Resource* available from: http://www.planningresource.co.uk/news/ByDiscipline/Housing/1036429/New-record-low-housing-numbers/

[20] Ellis, H. (2010) Why we need strong strategic planning, *Town and Country Planning*, 79 (10) p.416-423.

[21] Lindert, P.H. (2000) Three centuries of inequality in Britain and America. In Atkinson, A.B. and François Bourguignon (eds.), *Handbook of Income Distribution*, Volume 1. Amsterdam: Elsevier Science, 167-216.

[22] Duranton, G., and Monastiriotis, V. (2002) Mind the gaps: The evolution of Regional Earnings Inequalities in the U.K., 1982-1997. *Journal of Regional Science*, 42 (2) p219-256.

[23] CLG, *Planning White Paper 2008*: http://www.communities.gov.uk/documents/planningandbuilding/pdf/planningsustainablefuture.pdf

[24] *European Spatial Development Perspective*: http://ec.europa.eu/regional_policy/sources/docoffic/official/reports/pdf/sum_en.pdf

[25] Tewdwr-Jones M, Bishop K,Wilkinson D, (2000), `Euroscepticism', political agendas and spatial planning: British national and regional policy in uncertain times' *European Planning Studies* 8 651 ^ 668

[26] Bannon, M.J. & Russell, P. (2002) Structure for policy making and the implementation of planning in the Republic of Ireland, in Altermna, R. *National-level planning in democratic countries: an international comparison*. Liverpool University Press: Liverpool.

[27] The findings and function of ESDP have now been incorporated into Territorial Cohesion. (COM(2008)616)

opportunity to examine broader spatial planning goals and to institutionalise them within their own country[28].

This is potentially a powerful tool as it enables a wider, international perspective on the role and function of a nation, effectively where it 'fits'. It also provides a vehicle to consider the likely effects on spatial planning of key international drivers, such as global mega-trends, an aspect of public policy making that is of growing importance in an interconnected, globalised world.

Consistency

Current spatial planning across England is considered to be fragmented, '*largely informal, sectoral and selective*'[29] consisting of a range of spatial plans for different local levels (parish, town, borough and city), with policy addressing specific aspects of infrastructure delivery and other forms of policy providing general guidance. An NPF has the potential to pull these various strands together beneath one policy title and in doing so potentially simplify the planning system.

Another element of consistency is ensuring that sustainable development *(*integrating *environmental, economic* and *social* priorities) is maintained or enhanced. The Government's new planning policy regime will effectively replace the Regional Development Agencies, which were responsible for all three of these elements of sustainable development, with Local Enterprise Partnerships (LEPs). As the name suggests, LEPs will have an economic focus with their environmental role currently limited to promoting low carbon innovation. Therefore it is probable that the loss of consideration of the natural environment at this level will need to be balanced by a stronger national indication of environmental priorities as well as the creation of a local level response. One possibility to complement strong national protection at the local level would be Local Nature Partnerships. The way in which environmental priorities and planning is addressed at the local level was a concern voiced by the Campaign to Protect Rural England (CPRE)[30] and supported by planning practitioners[31], who also recognised the importance of a strong national signal in this regard. This signal should seek to provide appropriate policy incentives to the Local and Neighbourhood level to ensure consistent application of the country's environmental priorities and any appropriate targets.

This highlights another potential benefit of an NPF which is that it has the potential to be a vehicle for debate regarding the country's spatial priorities, and an opportunity for potential conflict between conservation and infrastructure development to be avoided or reduced by being considered in an NPF in a consistent and transparent manner. In effect the NPF has the potential to support Local and Neighbourhood decision making if it is based on legitimate and considered optimisation of priorities, including environmental limits.

Local Nature Partnerships

In the RSPB's response to Defra's consultation for the Natural Environment White Paper *An invitation to shape the Nature of England*, a need for a sub-national strategic focus to wildlife conservation was identified. It was suggested that local nature partnerships could be based within ecological boundaries such as National Character Areas, and be a key delivery mechanism for the Ecological Restoration Zones recommended by the recent *Making Space for Nature review*.

The vision is that these partnerships would consist of private sector bodies and relevant public sector bodies whilst civil society organisations would take the lead in line with the Big Society concept.

It is also recommended that the Local Nature Partnerships are considered as statutory consultees to support and oversee the work of Local Enterprise Partnerships thereby providing an environmental response to the economic focus of Local Enterprise Partnerships.

[28] Healey, P. (2004) The treatment of space and place in the new strategic spatial planning in Europe. *International Journal of Urban and Regional Research*. 28 (1) p.42-67.
[29] Shaw J.M, (1999) A national spatial planning framework: an introduction,' *Town Planning Review* 70 p.271- 274
[30] CPRE (2010) *Making Localism work for the countryside a charter for planning reform.*
[31] Daubney, K. (2010) Advancing rural accord. *Planning Resource*. 1983 p.6.

One proposition regarding NPFs is that it is possible to achieve a national plan, with its *associated* benefits, by providing a series of non-national plans or policies which, when aggregated, are national in scope. This could be considered analogous to what the UK's planning system had prior to the Coalition's plans. What this aggregation of plans misses is co-ordination between sub-national plans and an explicit analysis of how the sub-national plans influence each other, and particularly in the case of England, how England relates spatially to the devolved administrations and beyond.

How would a national planning framework work?

The UK's Royal Town Planning Institute (RTPI) has long supported an England national planning framework and considered a possible approach based on the following concepts (see Figure 1)[32].

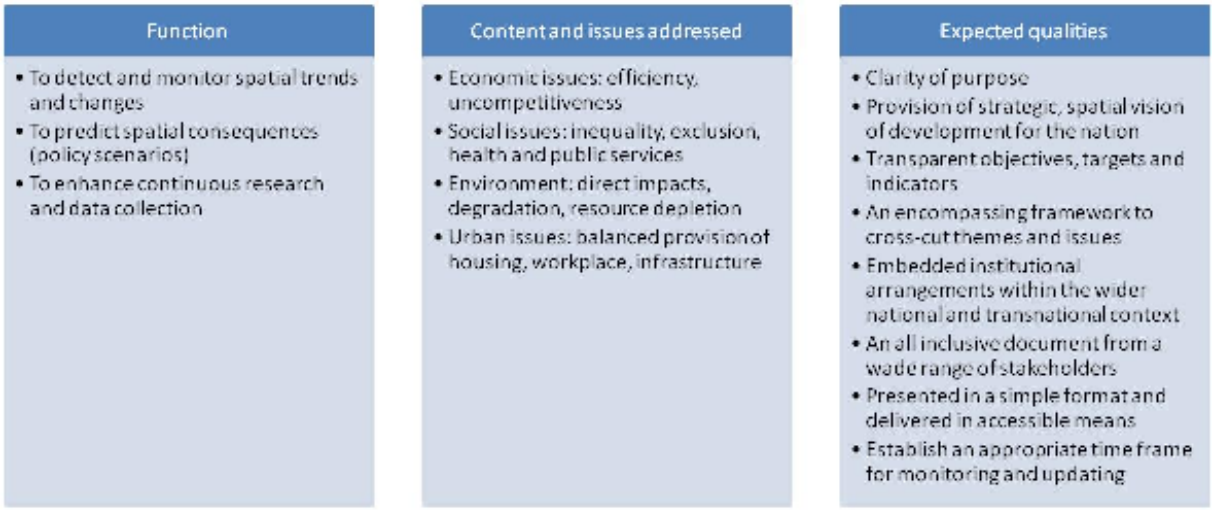


Figure 1: RTPI view on a National Planning Framework (2000) - A UK Spatial Planning Framework: a discussion[33]

The wide scope of the RTPI's suggested framework highlights the importance of a planning framework which is proactive in managing development. What this means is that the NPF should be able to manage the wider development of UK housing and workplaces whilst enabling the delivery of infrastructure to service these areas. This is in contrast to a potentially more reactive infrastructure-led approach which solely aims to provide infrastructure to areas that are developing organically, but not necessarily in the most effective or co-ordinated manner. The RTPI's view is that any NPF should be spatial and specifically should seek to detect and monitor spatial trends as well as providing a spatial vision for the nation. In terms of achieving these aims the RTPI suggests that this spatial element would allow the NPF to predict and consider the consequences of policy through the use of spatial policy scenarios.

The RTPI's approach also highlights other benefits to an NPF, specifically the role the data collection system that would support the NPF would have in acting as a monitoring system for England as a whole. This would provide an evidence base to inform and support a wide range of policy decisions beyond the NPF for instance at the Neighbourhood and Local.

[32] Wong, C., Ravetz, J. and Turnery, J. (2000) The United Kingdom spatial planning framework a discussion. Available from: http://www.rtpi.org.uk/download/747/The-United-Kingdom-Spatial-Planning-Framework-A-Discussion.pdf
[33] Pages 25, 81 and 107.

Another potential benefit of an NPF that was transparent and developed through a process of effective stakeholder participation would be to generate a stronger debate and consensus on the UK's spatial planning priorities. This would provide an important element of accountability and legitimacy to decisions informed by the NPF, in contrast to the recently published National Infrastructure Plan.

The Town and Country Planning Association (TCPA) has welcomed the Government's proposed NPF but made it clear that the "...new framework would require a strong spatial expression and clear guidance to inform decision making and guide investment. It would need to integrate generic high-level planning guidance in the PPSs (Planning Policy Statements) and NPSs (National Policy Statements) with an explicitly spatial approach"[34]. This echoes the RTPI's view that the NPF must be spatial in nature if it is to effectively meet the challenges England faces.

How a spatial approach might be developed in practice is likely to be subject to varying viewpoints: for instance the level of spatial detail might vary in terms of effectiveness depending on the actual level of detail available and the issue under consideration. A holistic view of the environment is therefore important in the context of spatial planning to avoid compartmentalisation and a lack of consideration of relationships between issues.

Landscape scale conservation

What is landscape scale conservation?

Landscape-scale conservation is not an entirely new concept. The need for wider scale conservation is well established[35] - however landscape-scale conservation is solidifying as a specific concept around contemporary concerns regarding development and other land use change which fragments the natural environment and therein hinders its ability to respond to the likely impacts of climate change.

Landscape-scale conservation is not a concept that is well defined. However, initially it can be considered to be conservation that goes beyond protecting isolated designated sites and considers the role of species and habitats within whole dynamic landscapes.[36] The RSPB and Natural England[37] go further and consider it to be "land management initiatives that include all of the following elements:

- It covers a large geographical area;

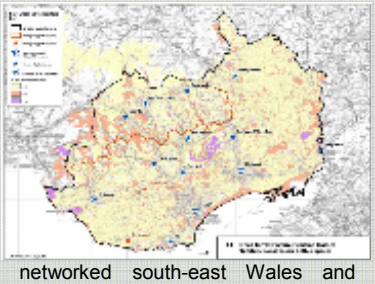
Welsh Networked Environmental Region

The vision for the green infrastructure in South East Wales is derived from the *Wales Spatial Plan's* vision for the region:

"A living city region that provides a high quality natural and built environment complemented by high quality green space, promoting healthy, strong communities and a strong civic culture. Achieving a networked environment region will be a key part of this"

An analysis was undertaken to establish the relevance of green infrastructure to the *Wales Spatial Plan*. This was found to be very high and enabled the project to continue.

A toolkit was developed to produce a map showing the range of functions that green infrastructure was delivering, see below.



networked south-east Wales and demonstrate the value of this concept as well as developing toolkits that Local Authorities and others interested in planning and nature conservation can use.

This work is now being developed into the *Natural Environment Framework*.

[34] Town and Country Planning Association. (2010) *The Future of Planning*
[35] MacArthur, R. H. And Wilson, E. O. (1967) *The Theory of Island Biogeography*, Princeton, N.J.: Princeton University Press
[36] RSPB (2009) *Realising agricultural landscape-scale conservation*, a report by Vicki Swales.
[37] RSPB (2010), *Delivering landscape-scale habitat restoration and creation through spatial planning*, a report by Rachel Lee RSPB Planning and Regional Policy Team: http://www.rspb.org.uk/Images/Delivering%20landscape%20scale%20conservation%20RSPB%20survey_tcm9-260034.pdf

- It delivers significant actions to maintain, restore and/or create a number of different habitats;

- It recognises the importance of dynamic ecosystem processes and, as one of its main ecological objectives, works to maintain, restore or enhance physical landscape processes, ecological succession and or ecological connectivity;

- It takes place on land that includes multiple uses – not just nature conservation uses - and which contains multiple landowners and/or land managers and engages with a range of stakeholders; and

- It is co-ordinated by a strong partnership taking a strategic approach with an identified lead and joint responsibility for delivery".

The landscape-scale approach to conservation must therefore occur over a large area of land with mixed use, consider the dynamic nature of ecosystems and be part of a considered, pluralistic and strategic approach based on accountability and responsibility.

The concept of landscape-scale habitat management is also aligned to the concepts of green infrastructure and ecosystem-services in that it represents a more multifunctional and utilitarian view of the environment. It is also a view of the environment that entails balancing the requirements of landscape aesthetics, cultural and historic values, amenity, economic development, as to be an effective landscape, that landscape must maintain multifunctionality[38]. The recently published Networked Environmental Region in south-east Wales provides a relevant example, see box[39].

What this indicates is that landscape scale conservation does not simply mean expanding protected areas nor is it just about conservation. Rather, that it requires a strategic approach to managing mixed land-use in a way that allows biodiversity and the ecosystem-services it underpins to flourish. This form of system is often referred to as an ecological network and there are a number of examples of the effective application of these concepts through spatial planning in Europe and around the world[40,41,42].

Why is there a need for conservation at the wider scale?

There has been a growing awareness within the last few decades that for environmental conservation to be effective it needs to encapsulate the traditional species and protected area focus with the conservation of

US Landscape Conservation Cooperatives

The *Secretary of the Interior's Climate-Change Response Strategy* recognised that America's natural systems and landscape are impacted by an increasing number of land-use changes and that the pace and scale of these are unprecedented. It called for the use of scientifically based conservation decisions through *Landscape Conservation Cooperatives* (LCC). These are a network of management-science partnerships used to inform resource management actions addressing stressors in general and climate change specifically. The LCCs are to be supported by *Climate Science Centres*.

Each LCC has scientific and technical staff with a focus on applied resource-management and landscape-scale conservation. The LCC's operate under the direction of a steering committee, including representatives from governmental entities (federal, state, tribal and local), as well as non-governmental organizations.

Each LCC functions within a specific landscape, see map, but is also part of a national, and ultimately, international network. LCCs are formed and directed by land, water, wildlife and cultural resource managers and interested public and private organizations.

[38] Crossman, N. and Bryan, B. (2009) Identifying cost-effective hotspots for restoring natural capital and enhancing landscape multifunctionality. *Ecological Economics*. 68 (3) p.654-668.
[39] Welsh Natural Environment Framework: http://wales.gov.uk/docs/dpsp/report/walesspatialplan/100910sewnermainrepen.pdf
[40] Ecological Networks, Council of Europe: http://www.coe.int/t/dg4/cultureheritage/nature/econetworks/default_en.asp
[41] Pan-European Ecological Network in Baltic Countries: http://data.iucn.org/dbtw-wpd/edocs/EEP-032.pdf
[42] TransEcoNet: http://www.interact-eu.net/danube_region_projects/transeconet/327/5037

wider ecosystems[43]; that in essence you cannot separate what you're trying to protect (the species) from the context (the ecosystem). This is also true at the landscape level[44]: it is not enough to provide and protect islands of designated nature reserves if the wider environmental context is not being managed effectively[45]. An example of this recognition is the US's Landscape Conservation Cooperatives[46] (see box).

Recent reports suggest that despite an increase in protected areas the EU has failed to achieve its target of halting biodiversity loss[47,48]. In fact despite Europe having a significant amount of protected areas (the Natura 2000 network covers over 18% of the EU's terrestrial territory) a recent assessment shows that 40-85% of habitats and 40-70% of species of European interest still have an unfavourable conservation status[49]. This suggests that protected areas alone are not able to halt the significant loss of biodiversity, though it should be recognised that these areas do contribute to slowing the rate of loss, protect certain high profile species and provide a range of other benefits. The reason that protected areas alone are not enough is that that when species are in fragmented habitats, and thereby separated from other suitable habitats (usually due to human actions such as agricultural intensification or urbanisation), species populations - and gradually overall biodiversity - decrease[50].

This matters as there is a growing realisation of the huge range of benefits and value that society and individuals receive from the natural environment in the form of ecosystem-services. These services include clean water, pollination, fresh air and amenity[51]. Biodiversity plays a key role in maintaining the integrity and functioning of these services. In fact biodiversity has been described as the 'rivets' which hold together the system of ecosystem-services upon which society is reliant[52]. Reducing or damaging biodiversity therefore reduces the resilience of ecosystem-services, as well as being a loss in its own right.

There is also a view that the natural environment has limits which operate at various scales; once these limits are breached there is a permanent loss, and this irreplaceability is increasingly being recognised in spatial and economic planning[53],[54] and has a long history in environmental conservation[55]. Environmental limits are also one of the key tenets of the UK's Sustainable Development Strategy[56]. Understanding environmental limits is not an exact science, as the threshold, i.e. the point at which an

---

[43] Fiedler, P. L., White, P. S. and Leidy, R. A. (1997) The paradigm shift in ecology and its implications for conservation. In: Pickett, S. T. A., Ostfield, R. S., Shachak, M. and Likens, G. E. (eds.) *The ecological basis for conservation; Heterogeneity, ecosystems and biodiversity.* New York, Chapman and Hall, pp. 83-92.

[44] Poiani, K. A. (2000) Biodiversity conservation at multiple scales: functional sites, landscapes, and networks. *Bioscience,* 50 (2),133.

[45] Devictor, V. and Jiguet, F. (2006) Community richness and stability in agricultural landscapes: The importance of surrounding habitats. *Agriculture, Ecosystems and Environment*. 120 (2-4) p.179-184.

[46]Landscape Conservation Cooperatives: http://www.fws.gov/science/shc/lcc.html

[47] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0216:FIN:EN:PDF

[48]http://www.eea.europa.eu/highlights/biodiversity-in-europe-policy-scope?&utm_campaign=biodiversity-in-europe-policy-scope&utm_medium=email&utm_source=EEASubscriptions

[49] http://www.eea.europa.eu/highlights/assessing-biodiversity

[50] Due to a combination of ecological factors such as edge effect and lower connectivity between meta populations leading to the stagnation in population growth rate and interbreeding.

[51] *Millennium Ecosystem Services Assessment* (2005), http://www.maweb.org/en/index.aspx

[52] Naeem, S., Loreau, M. & Inchausti, P. (2004). Biodiversity and ecosystem functioning: the emergence of a synthetic ecological framework. In: M. Loreau, S. Naeem and P. Inchausti (Editors), *Biodiversity and Ecosystem Functioning.* Oxford University Press, Oxford, pp. 3-11.

[53]South West RDA Working for the region within environmental limits: http://www.southwestrda.org.uk/working_for_the_region/regional_economic_strategy/south_west_debates/environmental_limits.aspx

[54] P. Smith & Pearson, J. (2009) Environmental Limits in Spatial Planning *Town and Country Planning,* available from: http://www.landuse.co.uk/files/EnvironmentalLimitsSpatialPlanning_6.pdf

[55] Costanaza, R., d'Arge, R., de Groot, R., Farber, S., Grasso, M., Hannon, B., Limburg, K., Naaem, S., N'Neil, R., Paruel, J., Raskin, R., Sutton, P & van den Belt, M. (1987) The value of the world's ecosystem-services and natural capital. *Nature*. 387, (15)n p.254-260

[56] *Securing the Future, UK Sustainable Development Strategy*: http://www.defra.gov.uk/sustainable/government/publications/uk-strategy/

environmental limit is crossed and irreversible decline begins, are difficult to predict and exhibit difference collapse profiles. For instance some aspects of the environment will have an immediate threshold where the exceedance of an environmental limit leads to immediate and catastrophic collapses; others may exhibit a more progressive but no less destructive decline. Limits are also dependent on the nature of stress or shock the environment is placed under[57]. It is because of this uncertainty and irreplaceability that the precautionary principle is used to ensure decision makers err on the side of caution[58,59]. Recent work has highlighted the importance of considering environmental limits and the irreplaceable nature of biodiversity and ecosystem-services at the strategic and landscape scale[60]. It is considered that only by looking at these broader scales can interactions between areas be understood and thus environmental limits be identified and allowed for in decision making[61].

The resilience of ecosystem-services and ecosystems in general is of heightened importance given the increasing levels of stress that climate change will cause to natural habitats as recognised in Defra's Biodiversity Strategy for England[62]. Even if carbon reduction measures enable the UK and the world to achieve the carbon mitigation targets that have been set thus far, a possibility rather than a probability, there is still a certain degree of climate change that is inevitable[63,64,65]. This will impact on the ecosystems and habitats of the UK. The harm and significance of this impact increase if, because of fragmented ecosystems, species are not able to move in response to changing climate patterns and loss of climate space[66,67,68].

Defra's recent "*Invitation to shape the nature of England*"[69] and the Lawton Report[70] make it clear that maintaining a coherent and resilient ecological network to increase resilience and ecosystem functioning should be the priority of natural environment policy. Landscape scale conservation represents an approach that can achieve these aims by increasing the buffering functions of the landscape, creating space for nature, and restoring connectivity and habitat heterogeneity.

---

[57] Haines-Young, R., Potschin, M. and Cheshire, D.: *Defining and Identifying Environmental Limits for Sustainable Development*. Scoping Study. Final Full Technical Report. Centre for Environmental Management, University of Nottingham, for Defra (NR0102), 2006. www.defra.gov.uk/science/Project_Data/DocumentLibrary/NR0102/NR0102_4078_FRP.pdf

[58] The precautionary principle is defined as "taking action now to avoid possible environmental damage when the scientific evidence for acting is inconclusive but the potential damage could be great.

[59] European Commission Communication on the Precautionary Principle: http://ec.europa.eu/dgs/health_consumer/library/pub/pub07_en.pdf

[60] Land Use Consultants (2008) Environment capacity in the East of England; Applying an environmental limits approach to the Haven Gateway: http://www.landuse.co.uk/portfolio/project.php?id=215

[61] Protocol on Strategic Environmental Assessment: http://www.unece.org/env/eia/sea_manual/chapterA1.html

[62] Defra (2008) *England Biodiversity Strategy: Climate change adaptation principles*: http://www.defra.gov.uk/environment/biodiversity/documents/ebs-ccap.pdf

[63] Parry, M., Arnell, N., Huklme, M., Nicholls, R. and Livermore, M. (1998) Adapting to the inevitable, *Nature* 395 p741

[64] Burton, I., Huq, S., Lim, B., Pilifosova, O and Schipperm, E. From impacts assessment to adaptation priorities: the shaping of adaptation policy. (2002) *Climate Policy*, 2 (2) p135-159.

[65] UK Climate Impact Programme: http://www.ukcip.org.uk/

[66] Thuiller, W., Lavorel, S., Araujo, M., Sykes, M. and Prentice, C. (2004) Climate change threats to plant diversity in Europe *Proceedings of the National Academy of Sciences*, 102 (23) p.8245-8250.

[67] Honnay, O., Verheyen, K., Butaye, J., Jacquemyn, H., Hermy, M. (2002) Possible effects of habitat fragmentation and climate change on the range of forest plan species. *Ecology Letters*, 5 (4) p525-530.

[68] Vos, C., Berry, P.M., Opdam, P., Baveco, H., Nijhof, B., O'Hanley, J. and Thomson, C. (2008) Adapting landscapes to climate change: identifying priority regions and spatial strategies for biodiversity conservation. *Journal of Applied Ecology*, 45: 1722-1731.

[69] *Invitation to Shape England's Nature*: http://www.defra.gov.uk/environment/natural/documents/newp-discussion-260710.pdf

[70] *Making Space for Nature* (Lawton) Review http://www.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf

How is it relevant to spatial planning?

The unit of the 'landscape' is well established in UK spatial planning with Landscape Character Assessments[71],[72] included in environmental impact assessments and supported by *Planning Policy State*ment *1*[73]. Landscape is fully embedded in the UK statutory basis for National Parks and Areas of Outstanding Natural Beauty. At the European level the Landscape Convention entered into force in 2004 and considers the management of European landscapes through the Council of Europe[74]. As such the importance of 'landscapes' has long been recognised, although this has primarily focussed on the visual, amenity and cultural aspects of landscape and not the fact that these aspects are dependent on the functioning of ecosystems and habitats.

Biodiversity is of course also managed through the planning system, for example *Planning Policy Statement 9* requires the identification of sites and areas for the purpose of restoration and creation of priority habitats and species[75]. Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) also consider the impacts of spatial planning on biodiversity and landscape separately.

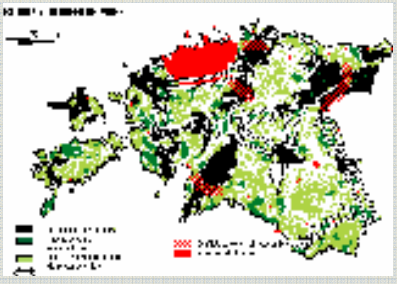
Green infrastructure as a concept has taken hold within spatial planning and signals the implicit recognition that there is a need to consider broader biodiversity and ecosystem functionality[76] within spatial planning as well as the multifunctionality that green space can offer. Green infrastructure is defined as "*...a strategically planned and delivered network comprising the broadest range of high quality green spaces and other environmental features...*"[77]

Green Infrastructure has however tended to focus on regeneration and new build in and around human settlements, the focus being on delivering high value ecosystem-services to urban areas rather than management of the wider environment[78].

The justification for considering landscape within spatial planning has been that spatial planning involves the management of land across different sectors and over different scales; it is therefore in a unique position to consider landscapes[79] and landscape-scale activities. Tools exists which can aid the prioritisation of habitats and areas for landscape-scale habitat management, for example the use of GIS, Total

Estonia National Green Infrastructure Strategy

Estonia was one of the first countries to develop the ecological network concept and the concept of *Ecologically Compensating Areas* is now enshrined in legislation. In the late 1990s Estonia developed a national green network strategy that would be implemented in more detail at the county and municipality level. At the national level, the strategy was included in the long-term National Spatial Strategy "*Estonia – Vision 2010*". At county level all 15 counties have now also defined and approved green networks, serving as a legally binding basis for spatial planning interventions and implementation of agri-environmental programmes. As currently delineated, the Estonian Green Network covers about 50 percent of the country's territory. The areas of connectivity are configured on the basis of data indicating the needs of species for dispersal and migration and the existence of natural linkages, including stepping stones in the landscape. The process through which this is achieved involves local public hearings and seeks to balance economic, social and environmental considerations to produce areas of multifunctional use.



This experience is demonstrating the importance of maintaining simplicity in data systems, providing forums for debate to resolve conflicts between land uses and ensuring effective implementation measures.

[71] http://www.landscapecharacter.org.uk/
[72] http://www.naturalengland.org.uk/ourwork/landscape/englands/character/assessment/default.aspx
[73] PPS1: http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement1
[74] Council of Europe, Landscape Convention http://www.coe.int/t/dg4/cultureheritage/heritage/landscape/default_en.asp
[75] PPS 9: http://www.communities.gov.uk/publications/planningandbuilding/pps9
[76] Benedict, M. And McMahon, E. (2002) Green infrastructure: Smart conservation for the 21st century. *Renewable Resources Journal*, 12-19.
[77] http://naturalengland.etraderstores.com/NaturalEnglandShop/NE176
[78] RSPB (2010), *Delivering landscape-scale habitat restoration and creation through spatial planning*, a report by Rachel Lee, RSPB Planning and Regional Policy Team.
[79] Coollinge, S. (1996) Ecological consequences of habitat fragmentation: implications for landscape architecture and planning. *Landscape and Urban Planning*, 36 (59) p59-77.

Economic Value and habitat potential mapping[80,81,82]. Results suggest that spatial planning can contribute to connectivity and nature conservation by looking across the landscape and informing the prioritisation of areas in relation to their conservation significance and or multifunctionality[83]. An example of where this has been done effectively is in Estonia (see box) where spatial planning has been used to produce a multifunctional connected ecological network across the whole country.

There is some concern that the loss of the regional level of planning will have weakened or removed the strategic oversight that is required for landscape-scale conservation to be implemented[84]. There is therefore a clear need for the Government and the NPF to account for this in some way. Strong consideration of landscape-scale could go some way to balancing the strong driver of economic development. Whether it is called landscape-scale conservation or landscape-scale planning in a way is neither here nor there. The important point is to address spatial issues at a landscape scale, a scale at which the natural environment would assume an appropriate level of relevance and importance. By clarifying the role of the natural environment at a landscape scale the NPF could ensure the Government's discussion and consideration of the environment is clearly set out and able to be integrated with other strategic planning and development policies. It would also provide an opportunity for some joined-up government across departments (e.g. CLG and Defra).

The need for Government intervention

It should be recognised that the ability to maintain and create landscape-scale habitats is spatially limited[85], due to competition for land-use in the UK. Therefore the UK Government could have an important role in identifying and enabling the opportunities for landscape-scale planning and conservation. As there are only limited areas where such landscape scale conservation is possible, it is not adequate or appropriate to rely on local or market decisions to identify and take actions to create these essential habitats of national significance.

North West of England Green Infrastructure Strategy

The North West Regional Development Agency has a series of strategically coordinated activities relevant to green infrastructure, these are designed to inform and enable city and local authorities. This is managed as part of their climate change action plan, supported by the European Regional Development Fund, which takes a strong lead on promoting green infrastructure to facilitate adaptation. The evidence report provides spatial representation of key areas for specific and multiple ecosystem-services, the aim being to provide an evidence base to inform local authority and civil society decision making. In addition an action plan is under consultation which describes the possible actions that can be implemented by individuals and organisations from the local to regional scale. Specific case studies are presented to inform the actions and provide exemplars.

The consultation document aims to incorporate the public's views as to the priority order of the services provided by green infrastructure and the actions laid out in the action plan. A number of the actions require the identification of a suitable champion to implement and promote the concept, this is part of an awareness raising exercise to better integrate green infrastructure into decision making. Spatial planning was identified as the most relevant forum to promote green infrastructure and efforts were made to incorporate green infrastructure and the findings from the evidence based into the regional spatial plan.

In addition Green Infrastructure North-West was set up to implement specific projects at both the urban and landscape scale to provide proof of concept and support the integration of green infrastructure into decision making.

[80] Dymand, J.R., Aussiel, A.E. and Overton, J.M. (2008) A landscape approach for estimating the conservation value of sites and site-based projects, with examples from New Zealand. *Ecological Economics*. 66 (2-3) p275-281.
[81] Nikolakaki, P. (2004) A GIS site-selection process for habitat creation: estimating connectivity of habitat patches. *Landscape and Urban Planning*, 68 (1) p.77-94.
[82] Saura, S. and Torne, J. (2009) Conefor Sensinode 2.2: software package for quantifying the importance of habitat patches for landscape connectivity. *Environmental Modelling and Software*. 24 (1) p.135-139.
[83] Johnson, C.W. (1995) Planning and designing for the multiple use role of habitats in urban/suburban landscapes in *Great Britain, Landscape and Urban Planning,* 32 (3) p.389-401. Forman, R.T., and Collinge, S.K. (1997) Nature conserved in changing landscapes with and without spatial planning. *Landscape and Urban Planning*, 37 (1-2) p.129-135.
[84] Wildlife Trusts submission to Abolition of RSSs, to select sub-committee: http://www.publications.parliament.uk/pa/cm201011/cmselect/cmcomloc/writev/abolition/arss102.htm
[85] Government Office for Science (2010) *Land Use Futures* http://www.bis.gov.uk/foresight/our-work/projects/current-projects/land-use-futures/reports-and-publications

There is a clear need for strategic oversight in delivering landscape-scale conservation, (in contrast to, for example, responsive planning). Recent analysis in *Town and Country Planning* has suggested that landscape-scale conservation is only really possible within 'strategic' spatial planning[86]. This suggests a role for central Government in the NPF facilitating its delivery. This concept sits comfortably with the Government's aims for the' big society' as it is civil society actors, such as the RSPB, that are currently implementing this on the ground, for instance through the Futurescapes programme[87]. It is apparent that part of what is needed from Government is a strategic framework in which civil society organisations can inform and shape landscape-scale conservation in a coordinated fashion, across England. Such a framework would entail the setting of priorities that resolve potential conflicts between conservation and other forms of development and therein give direction to stakeholder decisions.

The UK Government is signed up to a series of high level biodiversity obligations (through the Convention on Biological Diversity, and the EU) and work through Defra and Natural England is starting to recognise the crucial importance of biodiversity on the UK's economy and society. Therefore the Government needs to consider and respond to the importance of landscape scale conservation and the role that an NPF could have in delivering it.

What needs to be done?

The recently published, independently conducted *Making Space for Nature* Review led by Professor Sir John Lawton was set up at the request of Defra to look at the UK's wildlife sites and whether they are capable of responding and adapting to the growing challenges of climate change and other demands. The final report suggested that the current degree of fragmentation and lack of buffers was likely to lead to significant loss of biodiversity in future and that a broader vision was required. The fragmentation and buffering are part of the wider matrix of the countryside that spatial planning has influence over.

More specifically, the report suggested five elements were required to establish a stronger and more connected natural environment, Figure 2.

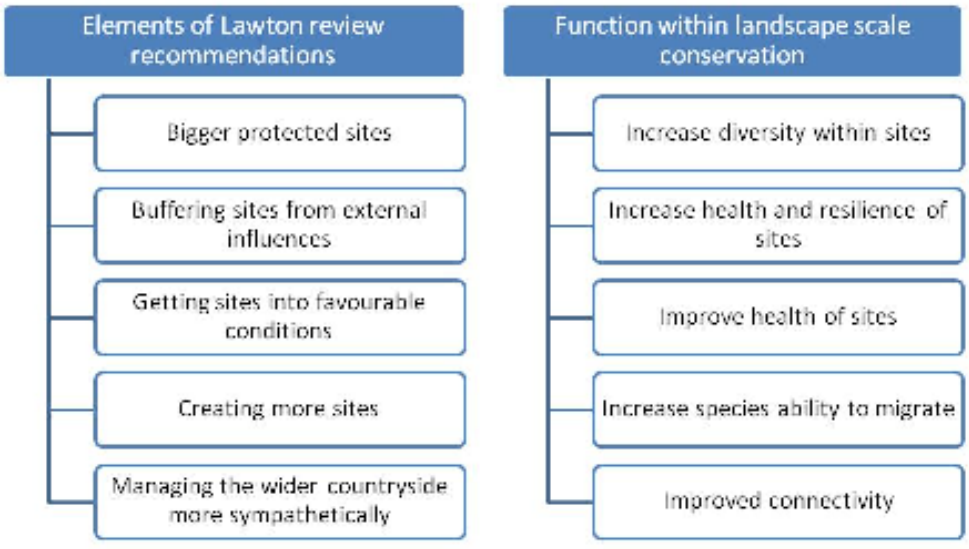


Figure 2: Achieving a more coherent and resilient ecological network in England
(Source: modified after Lawton review, 2010)

[86] Alexander, D. (2010) The natural environment comes full circle. *Town and Country Planning*. 79 (10) p424-428.
[87] *Futurescapes*: http://www.rspb.org.uk/futurescapes/

From the perspective of the establishment of an NPF, Lawton's recommendations on the protection of the networks of sites at the landscape scale (see Figure 2 above) is particularly relevant as it fits with the wider objectives of spatial planning. Managing the wider countryside more sympathetically is also consistent with an NPF if management is seen as something more than just land management (e.g. how farmers farm), but as how land use is planned and managed across the matrix of urban and rural areas, since these wider issues are the stuff of spatial planning.

In the past Regional Spatial Strategies, and PPS9 have offered opportunities to realise these elements to a certain extent and central Government will continue to have a key role in the delivery of these aspects. The creation of an effective NPF has the potential to produce a more coordinated, deliberate and effective approach to enabling these objectives to be realised.

3. Research methodology and approach

Introduction

In line with the objectives of the study this report draws on an analysis and synthesis of three main sources of information:

- Literature review (previous chapter);
- Case studies; and
- Expert interviews.

The data collection processes operated concurrently, enabling the findings from one type of information to be checked against and informed by the others, as appropriate. For instance relevant literature and case studies were identified and informed by the interviews. This process is shown in Figure 3.

Figure 3: Data collection and analysis process

Data Collection

Literature review

The literature review (Chapter 2) focused on three main areas: UK planning context, national planning frameworks, and landscape-scale conservation drawing on a varied list of academic and non-academic literature.

Case studies

A number of possible case studies were highlighted as part of the literature review and initial interviews; these were incorporated into a long list, see Appendix 1. This list included a wide range of countries that have NPF type plans regardless of the quality of the plan or the economic, spatial

and political context. These plans were reviewed to gain an understanding of what they could offer the study and a short list of case studies was determined based on three criteria (Table 1).

Table 1: Criteria for selection of case studies

Criteria	Themes
Relevance	Was there political, economic and geographic relevance to England's current planning framework and the current proposals for an English NPF as well as England's wider context?
Positive transferable elements	Did the case study have something positive to contribute to the formation of an English NPF, such as an effective approach to the natural environment, consultation or use of Strategic Environmental Assessment?
Accessibility	Was it possible to access and review material within the time frames?

The aim (based on the scale and scope of the project) was not to have a sample based on a comprehensive list of available case studies; rather, it was to identify countries with NPF type plans that might have useful and relevant lessons to contribute to the development of an English plan.

As such it should be considered that the case studies within this study represent a focused view of the potential of national planning frameworks. The long list in Appendix 1 includes a number of economically focused development or infrastructure plans which make no allowance for the natural environment and represent plans with a very poor or weak view of sustainable development. In line with the scope of the study these were not explored further in order to focus on the opportunities for positive actions in relation to the UK Government's proposed NPF.

It was not the purpose (nor within the scope of the study) to evaluate the effectiveness of particular case studies, for example to evaluate again a set of criteria. The purpose was instead to highlight various strengths from the case studies and relevant interviews. Consequently no judgment is made as to whether the plans themselves are 'good' or 'bad' plans overall.

To provide a balance of breadth and depth of analysis three countries from the short list were considered in detail (meaning specific interviews with Government and RSPB / Birdlife International representatives regarding the plan and its formation as well as detailed desk based review of the Plan) whilst four countries were subject to a detailed desk-based review only, see Table 2.

Table 2: Short list case studies for analysis

Country	Role in study
Wales	Detailed analysis supported by interviews
Scotland	Detailed analysis supported by interviews
Ireland	Detailed desk based analysis
Netherlands	Detailed analysis supported by interviews
State of Victoria	Detailed desk based analysis
State of Northern Territories	Detailed desk based analysis
Taiwan	Detailed desk based analysis

To aid consistency in the examination of the case studies a proforma was created to structure the analysis of the Plans and ensure specific aspects, those most pertinent to the study, were considered in suitable detail.

Expert interviews

Expert interviews provided a way to explore specific questions or assumptions and provide detailed information. As such they represented a crucial part of the approach to this study. There were three types of interviews in this study each of which would provide a different contribution, see Table 3.

Table 3: Interview types and contribution to the study

Type	Contribution to the study
Government representatives	To obtain the perspective of government representatives regarding the case study plan. The aim was to supplement and provide additional justification (e.g. through the triangulation of data sources) where appropriate the information based on the desk review of the plan. The focus was on the process that went into producing a plan and the role of SEA (or other assessments).
Academics and other experts	To obtain the perspective of a range of academics / experts on the proposals for a National Planning Framework (NPF) for England (or national planning in general) and how it should incorporate the natural environment, including landscape-scale conservation. The priority was to engage with the latest discourse regarding spatial planning in general and national level plans in particular.

Type	Contribution to the study
RSPB / Birdlife International Representatives	To obtain the perspective of the RSPB / Birdlife International regarding the case study plan. The aim was to supplement and provide additional justification (e.g. through the triangulation of data sources) where appropriate the information based on the desk review of the plan. There was a particular focus on the way in which the plan considered the natural environment, including the extent to which it incorporated landscape-scale conservation.

Within this report these interviews are used in different ways; the RSPB and Government representative interviews inform the analysis of the case studies whereas the academic and other expert interviews are used to highlight specific elements of NPFs and the natural environment component of these.

The case study interviews focused on the Scotland, Wales and Netherlands case studies and specific contacts were identified through the RSPB, together with the literature and case study analyses. An interview protocol containing a series of interview questions was produced with each interviewer using the agreed questions and populating the protocol proforma with the interviewee's response. The aim of the proforma was to ensure consistency within the interviews and ensure coverage of key questions. Different proforma were produced for each of the three types of interviews, reflecting the different nature and priorities of the interviews; see Appendix 2. Table 4 provides a list of interviewees, their organisation and the type of interview.

The expert interview section of the report deals with the academic and other planning experts; these were chosen for their expertise in spatial planning, particularly in England, and familiarity with the concepts of national spatial planning. As such they do not represent a comprehensive random sample, but were chosen for their high level of understanding of a specific issue. In the expert interview section the aim is not to directly reference experts or ascribe specific quotes, rather the section sought to present their arguments and to identify areas of consensus or disagreement in different aspects of national spatial planning, NPFs in general and NPF formation.

Table 4: Details, types and use of interviews

Contact	Organisation	Type of interview	Section of report
Matt Thompson	RTPI	Planning expert	5 (Expert Interviews)
Vincent Goodstadt	RTPI and Manchester University	Planning expert	5 (Expert Interviews)
Hugh Ellis	TCPA	Planning expert	5 (Expert Interviews)
Cecilia Wong	Manchester University	Planning expert	5 (Expert Interviews)
Graham Haughton	Manchester University	Planning expert	5 (Expert Interviews)
Aedán Smith	RSPB (Scotland)	RSPB/ Birdlife International	4 (Case studies)

Contact	Organisation	Type of interview	Section of report
Mike Webb	RSPB (Wales)	RSPB/ Birdlife International	4 (Case studies)
Veronica Burbridge	RTPI (Scotland)	Planning expert	4 (Case studies)
Natalie Grohmann	Welsh Assembly Government	Government representative	4 (Case studies)
Patrick Nuvelstijn,	Natuurmomumenten (Netherlands)	RSPB/ Birdlife International	4 (Case studies)
A.J Van dur Burg	Netherlands Government	Government representative	4 (Case studies)
B.J. Van Beek	Netherlands Government	Government representative	4 (Case studies)
P.M.M Driessen	Netherlands Government	Government representative	4 (Case studies)

Analysis and Lessons

Issues Mapping

The three methods of data collection yielded a great number and wide range of issues related to NPFs, which needed to be sifted and analysed so it could be presented in a structured way. This was done by arranging all the identified issues in visualisation software (Microsoft Visio) and arranging the issues into emerging categories of issues. This led to an initial grouping of issues and is presented in Figure 4 (in Chapter 6). From this initial process the issues were interrogated again to understand what were the strengths, weaknesses, opportunities and threats of a spatial NPF with the natural environment at its heart. The aim was to inform the final synthesis of lessons and the recommendations as to what such an NPF could look like and to understand the core issues in its formation. These SWOT elements were arranged in a SWOT-tail diagram (Figure 5, Chapter 6) to understand how the different aspects relate to and influence a spatial NPF with the natural environment at its heart. The SWOT-blot diagram in Figure 6 (Chapter 6) seeks to group these various SWOT elements into categories to provide structure for the lessons section of the report and to present various strengths and weaknesses alongside each other where appropriate to understand better these interactions.

Lessons and recommendations

The lessons section represents the combined analysis from each of the three data collection methodologies supporting by key analysis from the issues mapping process, the aim being to provide context and a broader synthesis for the development of the recommendations to RSPB.

4. Country case studies

Introduction

This section describes the summaries and major elements of the UK, EU and international cases studies identified and analysed as part of this research. Table 5 provides a summary of the main findings. The case studies incorporated a combination of desk-based and interview research.

The discussion section pulls together the most pertinent aspects or lessons learnt from the case studies.

Case study 1: Wales

The UK devolved administration of Wales published a plan in 2008 titled '*People, Places, Futures: The Wales Spatial Plan 2008 Update'*. This plan aims to fulfil the statutory requirements of the *Planning and Compulsory Purchase Act 2004* and *Government of Wales Act 2006.* It therefore considers and prioritises Wales' development over a 20 year time horizon. Local planning authorities *must have regard* for the Plan, though the Plan sits outside the statutory development plan framework, meaning local authorities do not have to *conform* to the plan.

The plan provides a spatial emphasis as shown in the six regional *Wales Spatial Plan Areas.* Strategies for these *Areas* include detail on five themes, one of which is '*valuing the environment'.* This identifies key elements in a strategic approach to the natural environment and includes some proposals for enhancing biodiversity as well as climate change mitigation and sustainable resource use. Alongside this spatial element there are also higher level strategic considerations.

In general there is a good recognition of the value and opportunities presented by the natural environment, as well as its protection and enhancement. Much of the detail in relation to this is presented in the *Environment Strategy for Wales* to which the plan makes mention.

The Plan also looks beyond the Welsh border to consider relationships with the English counties alongside the border as well as referring to the Trans-European Transport Network and the role of EU Structural Funds.

An SEA was undertaken and involved consultation with major environmental stakeholders. Some recommendations from this process were integrated into the plan.

Welsh Natural Environment Framework

The Welsh Assembly is currently seeking consultation on a Natural Environment Framework. The purpose of this is "to define the policy framework and key aspects of infrastructure within which Wales' natural capital is maintained and enhanced". The framework was significantly influenced by the *Networked Environmental Region* work.

The consultation document cites the failure to halt biodiversity decline by 2010 as a spur to action and a realisation that traditional conservation is not sufficiently effective. The risk of climate change was also raised as a driver to the need for a new perspective.

The consultation document has a strong focus on ecosystem-services and green infrastructure. It considers adopting an ecosystem-services approach to all elements of biodiversity and conservation management.

As such it recognises the limited influence of protected sites in delivering sustainability and recognises the need for a broader view of nature conservation.

Specific reference is made to the *Wales Spatial Plan* with the Framework intended to link the range of relevant plans and strategies to better promote sustainable development in general and green infrastructure specifically. This suggests a good degree of integration is proposed between spatial plans in other relevant sectors such as agriculture and research.

Case study 2: Scotland

The *National Planning Framework* for Scotland 2 (NPF2) replaced the non statutory *National Planning Framework* (produced from the *National Planning Act 2006)* in 2009 and represents a statutory vision for the development of Scotland up to 2030. The statutory basis of the Scotland NPF2 is to be a "*material consideration in framing planning policy and making decisions on planning applications and appeals".* The plan has a mixture of spatial and policy guidelines with the spatial element running throughout the plan. The *Spatial Perspectives* section of the Plan for example is 33 pages in length and covers the sub-regional priorities with a focus on economics, development and infrastructure. One map within the plan

includes an area highlighted for *economic diversification and environmental stewardship*, with no separation of these apparently divergent concepts.

Specific reference is made to the *European Spatial Development Perspective* and the importance of territorial cohesion including the relationship between Scotland, the rest of Europe (particularly Celtic, Nordic and Baltic countries) and with the rest of the UK.

The plan also recognises one of Scotland's chief assets – *a source of natural capital that can drive broad-based sustainable growth*. This is supported by reference to the *Scottish Forestry Strategy* and other environmental assets, including designated areas. The identification of the *Central Scotland Green Network* represents the promotion of landscape-scale conservation and is supported by some proposals for implementation.

The concept of *sustainable growth* is not defined and its use would not necessarily be compatible with accepted definitions of sustainable development.

An SEA was undertaken. However, this is currently the subject of judicial review in relation to the National Development projects contained within the *NPF2,* and whether there was *early and effective* participation in the *NPF2* SEA, particularly in relation to a proposed coal fired power station and transhipment centre at Hunterston. While the Scottish Government has been more proactive in promoting SEA than the rest of the UK through its *Environmental Assessment (Scotland) Act 2005*, the *NPF2* SEA has been subject to some criticism[88]. This was partly due to the nature of the scenarios used as to whether they were *reasonable alternatives,* but primarily due to its combination of high level policy objectives and the selection process for the site specific *national development projects*. This is a potential issue to be careful of in any NPF for England.

Case study 3: Netherlands

The *Nota Ruimte* or *National Spatial Strategy* of the Netherlands came into force in 2006 and covers the period to 2020. The objective of the Strategy is to provide strategic guidance at regional and local levels on spatial development with matters of strictly national importance detailed in the national *Spatial Framework (Nationale Ruimtelijke Hoofdstructuur).* The strategy is produced by four different ministries and takes a more decentralised, local approach than previous plans.

The Strategy considers cross-border implications by describing the strong economic connection with neighbouring and EU countries, as well as environmental interactions such as natural and water systems with the chapter on rivers containing an international context section.

Scottish Land Use Strategy

The Scottish Government has recently opened a consultation on a *Land Use Strategy: Getting the best from our land.* The Strategy is intended to sit alongside and provide strategic direction for relevant land-use plans; including the statutory *National Planning Framework 2.* Together the NPF2 and Strategy will set out the Government's approach to the land-use aspects of suitable development and inform future planning policy.

In general the consultation document suggests that the Strategy will determine the long term priorities and principles behind land-use management in Scotland and ensure these are integrated into other relevant plans and programmes.

The plan originated from the recognised importance of land-use in climate change mitigation and adaptation in Scotland and focuses on climate change as a priority of the strategy.

The Strategy considers the efficacy of incorporating an ecosystem-services approach into land-use management as well as modifying incentives to better facilitate sustainable use of land.

The plan was subject to an SEA, this took a scenario approach to considering alternatives and draws out the key lessons from each scenario to inform the Strategy. Workshops were run to produce a *desired strategy* based on the results of the public engagement; again this was fed into the Strategy.

The findings from these initial stages were used to produce an assessment framework against which to assess the plan and produce recommendations.

One of these was that that Strategy should promote land management at the landscape scale; this was accepted and included in the plan as was the importance of multifunctional green space in urban areas.

[88] See for example CEP Interim Report to RSPB/WWF (2009). Available from: http://www.rspb.org.uk/Images/SEA%20critique%20Interim%20Report%20Final%2008_12_09fin_tcm9-241228.pdf

There is a strong focus on six designated city regions and ensuring coordination between these regions. These classifications are supported by thirteen core economic zones, two main ports (the Port of Rotterdam and Schipol Airport), green ports (agricultural production and trading centres) and a brain port (for research and development). The provision of infrastructure between these areas is considered with the aim of improving interconnectivity.

The Strategy describes a *National Ecological Network* (*Ecologische Hoofdstructuur)* that is to be supported by designated sites and the Birds and Habitats Directives under *the Nature Protection Act.* These areas act to limit development and protect the natural environment through a strict 'no, unless' regime where development is only allowed in the overriding public interest and any loss of habitat has to be compensated for, though there is no requirement for the creation of buffer zones.

The Strategy maps the key nature, water and landscape elements of the country, including the twelve ecological corridors created by the ecological network. Similar maps are provided for economic, infrastructure and urban development.

The plan has a strong focus on water issues with overflow areas allowed for alongside the main rivers to enable flow to reduce the increased likelihood and magnitude of flooding associated with climate change. There are also proposals to potentially create three large scale overflow areas for flood water to avoid damage to high value assets. All elements of the Strategy are subject to water assessments (*watertoets).* These are managed at regional and local levels and aim to ensure that development is in line with the guidelines set out in the Strategy.

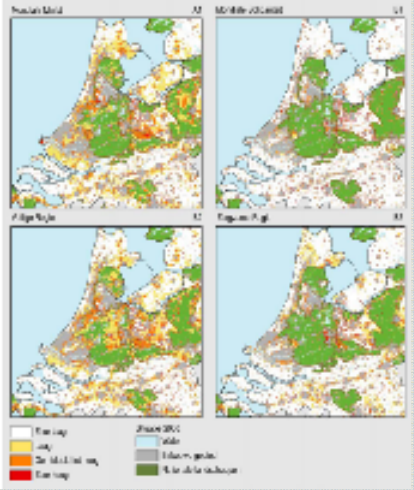
Netherlands Spatial Scenarios

Alongside the creation of the Netherlands *National Spatial Strategy* the Government commissioned a series of land-use scenarios to understand what the future drivers of land-use were likely to be and how the Government could respond to these.

Four scenarios were identified based on an iterative process of consultation within internal and external experts. The final four scenarios were: *Global market; Safe region; Global solidarity*; and *Caring region*.

It was found that significant changes to the rural and urban environment could be expected in the future and that this could lead to environmental degradation, especially in the centre of the Netherlands. Similar concerns were raised about the intensification of agriculture. Issues related to water management and the impact on development was also raised.

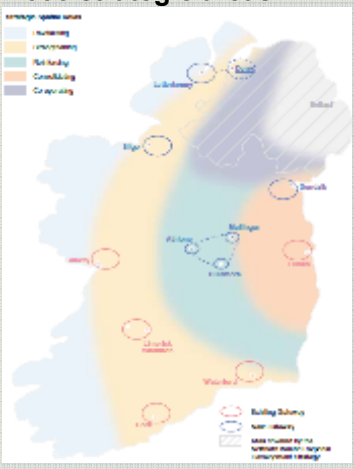
The analyses were presented in a range of maps with the aim of supporting relevant Government planning and policy formation, in particular the *National Spatial Strategy.*



Case study 4: Ireland

The Irish *National Development Plan 2000-2006* called for the creation of a Republic of Ireland *National Spatial Strategy* published in 2002 the Strategy sets out Ireland's spatial priorities to 2020. The Strategy is part of a hierarchical spatial planning framework with regional and local plans sitting below and having regard for the *National Spatial Strategy*. The Strategy's priorities are expressed with an explanation of the drivers and need for the Strategy, including specific challenges it aims to address. This includes a section considering the international drivers and Ireland's relationships with the UK, EU and America and demographic change at the national and regional level.

Irish National Development Plan 2000-2006 strategic areas



This information informs the development of infrastructure which is based around *hubs* and *gateways* to increase connectivity with international partners. This information is expressed in text and map form and refers back to the overarching challenges the plan addresses. For example regional inequality is recognised as a key driver for a national plan. The Plan therefore determines types of regions (non-administrative) and provides policy guidelines which are tailored to each of these types of areas with the aim of delivering more consistent development. For example it describes the strategic (national) roles of specific areas, see box.

Much of the focus is on economic and social development with the environmental elements of the plan being notably less prominent. For example section *5.5 Environmental Quality* provides relevant policy guidance, but is primarily focused on reducing the environmental impact of development rather than promoting positive environmental development or landscape-scale conservation. There is some recognition of the role of the environment, but this is predominantly limited to tourism.

Case study 5: Australian State of Victoria

The 2010 *State Planning Policy Framework* is produced as a requirement of the *Planning and Environment Act 1987* and is strongly based on the planning concept of zoning. It is therefore strongly spatial presenting the types of development that an area allows in different land-uses and setting the permit requirements to enable this.

The zoning is supported by higher level plans which are also spatial in that they refer to specific areas and provide strategic guidance. For instance, guidance is provided in relation to climate change and the importance of the precautionary principle in regards to development.

The plan also considers *ecological sensitivity* and sustainable development with these concepts being well defined and integrated across the policy guidelines. However there is a lack of positive intent in these guidelines with the focus on stopping fragmentation rather than promoting or developing connectivity.

Case study 6: Australian State of the Northern Territory

The *Northern Territory Planning Scheme* was finalised in September 2010 and is provided for in the *2009 Planning Act*. The Plan is based on a zoned scheme which is strongly spatial in nature. There is an extensive series of maps which describe how the different zones interrelate, (see box for a close up within the town of Darwin). This is supported by guidance on what development is allowed within each

land-use type and the permit regulations to implement this. This information is tiered across the State, regional and local level.

The *Conservation* zoning (CN on the Figure) is quite extensively used and can be considered to represent a form of low intensity multiple use land management; this is broadly in line with the landscape-scale conservation or green infrastructure concept. However, there is no explicit reference as to the functionality of these areas so it is not necessarily true to the concept of green infrastructure.

Zoning within Darwin, Northern Territory

Case study 7: Taiwan

Taiwan's *Strategic Plan for National Spatial Development* was published in June 2010 and feeds into and informs the country's *Long-term Outlook for National Development* which is an iterative long term process for reviewing the country's economic and developmental direction.

The plan is spatial in nature but is supported by detailed high level aspirations and a series of *goals, issues, strategies and projects* which provide concise detail on specific policy areas. The spatial nature of the plan extends beyond administrative regions and identifies different categories of areas, for instance *industrial corridor* and *axes* of the country such as *sea belt.* There are numerous examples of such function units at the national and regional level. These clearly relate to each other and the provision of planned and proposed infrastructure development.

There is a strong international perspective that describes the international situation and likely development as well as Taiwan's possible international role as a node between economic powerhouses. This process informs the directing of development at the national and regional level, specifically in reference to infrastructure needs.

The plan also identifies *a Central Mountain Range Conservation Axis*. This area will see a focus on increasing natural environment protected areas as well as promoting more sensitive agricultural and land-management processes.

Case study discussion

The long list of possible case studies (Appendix 1) contains a number of economically driven development or infrastructure plans that make no allowance or consideration for the natural environment and represent the potential negative effect that an NPF could have on the natural environment if it fails to take an integrated approach. In line with the scope of this report these have not been explored in depth, but they do provide some useful pointers to the potential for an NPF (if poorly framed) to have predominantly negative environment effects by discounting the natural environment and prioritising exclusively economic development.

The case studies analysed in this chapter (hereafter referred to as plans) were chosen based on their ability to contribute positive elements to England's NPF. As such they are not intended to be a representative sample, merely to provide good practice illustrations of particular elements of possible approaches to a national planning framework.

Spatial nature

Within the selected case studies there are some interesting trends which are summarised in Table 5. For instance all of the plans examined contain a combination of spatial and policy guidance. What this combination delivers is an explanation of the higher level strategic view of the challenges and drivers the plan addresses ('why') supported by guidelines for the location of infrastructure, development and

environmental protection ('how') and a variety of maps ('where'). The balance between these three elements is different in each plan, but all seven do this to varying extents.

International context

All the plans, other than the Australian States, make clear linkages to the international situation. This tends to be done when describing drivers and challenges relevant to the plan, providing the wider policy context within which the plan will operate. When done effectively this has the benefit of providing some justification for the measures or actions taken. Examples of this are when there is a clear relationship between this outward looking approach and the more detailed description of sub-national and local decisions, for instance describing how the location of key international partners relates to developing gateways and transport nodes, as for example in the Irish and Taiwan plans.

Time span

One of the identified benefits of NPF type plans is the ability to look forward in time and provide stakeholders with a degree of certainty over a period of time, whilst recognising and retaining flexibility. In the case studies this is achieved by setting long term time horizons and ensuring a regular basis for the plan to be reviewed and updated in response to changing circumstances.

The long time horizon is a precursor to the effective consideration of the major challenges that an NPF would attempt to address, as these tend to operate over the medium to long-term, for instance demographic change, infrastructure obsolescence and climate change. It is not clear that the 20 year time horizon of the Irish, Scottish and Welsh plans would, for instance, be able to properly address the risks of climate change considering such risks operate over very long and uncertain time spans. There is therefore a balance to be struck between producing meaningful and implementable policy and the effective consideration of long term challenges and drivers.

Climate change

The plans examined addressed climate change in a variety of ways, some directly integrated it into all elements of the plan (Netherlands), others presented it as a separate element of the plan, for example in separate policy guidance (State of Victoria, Australia), and some considered it to be outside the remit of the Plan and did not refer to it directly (Ireland). The most effective consideration of climate change was when it was integrated and referred to throughout the plan. This mainstreaming of climate change is a key focus of current international adaptation policy and represents best practice. The use of the precautionary principle as a guiding concept in relation to climate change is also an effective way of managing the associated risk of climate change given its long term and uncertain nature.

The natural environment and landscape scale

The wider and protected environment is in theory given reasonable consideration throughout the plans. However, it is not always clear what the relationship is between environmental and economic development, i.e. the inherent potential for conflict between these two components is not clearly resolved, often resulting in a plan promoting the creation of a bigger economy and better environment without recognising that this may represent some degree of inconsistency. In some cases this conflict is overlooked and bundled together, for example the sizeable area in the Scottish Plan for both economic diversification and environmental stewardship.

A number of the plans incorporate broader consideration of the environment including some or all of the aspects of landscape-scale conservation. For example, the Taiwan and Scottish Plans both promote the creation of large areas for conservation and ecological connectivity; the Dutch plan has a similar approach with its ecological corridors, while the Australian States use different permitted zones to indicate what development is allowed in certain areas and create areas of multifunctional low intensity land-use. The essence of these approaches is to identify areas that limit development to protect the

environment; demonstrating possible ways of addressing ecological connectivity and promoting landscape-scale connectivity.

The spatial scenarios that informed the Netherland's Strategy are a good example of developing baselines to understand possible future drivers and key issues. Creating scenarios effectively recognises that there are a range of different possible futures as well as a range of preferable futures. This has the potential to engender debate with expert stakeholders as to what futures and responses are possible and with the public at large about what a preferable future might look like. By recognising that the natural environment faces an increase in pressure and loss of connectivity the Strategy was able to consider a response to this, in this instance an ecological corridor network.

Assessment and consultation

The use of assessment is patchy in the examples studied, with only the Scotland and Wales plans being subject to formal SEA. However, there is evidence of consultation within other plans, the importance of which cannot be overestimated as any plan or strategy with the scale and scope of an NPF needs to be seen to be legitimate and well founded. The nature of consultation is often unclear from the plans although the Ireland, Scotland, Wales and Taiwan plans have all undertaken some form of consultation, including the use of expert workshops and broader consultation papers eliciting responses to specific questions.

The Scotland Land-use Strategy and NPF2 Environmental Report contain the interesting use of scenario development as a way of considering reasonable alternatives. This is an approach that is suited to the forward looking strategic nature of national planning frameworks and may facilitate more discussion than traditional methods. However, the approach used in the Scotland NPF2 appears somewhat arbitrary and non-spatial, given the nature of the plan. In addition, the scenarios used did not appear to be very relevant to the national development projects that are also included within the plan and effectively constitute a national programme of priority projects.

Table 5: Summary table of approaches within national spatial plans

Approach / Characteristic	Country (or region)						
	Wales	Scotland	Ireland	Netherlands	Victoria	Northern Territories	Taiwan
A. Spatial dimension of the plan							
Is the plan limited to a collation of relatively strategic national policies OR does it also include a more spatial expression of policy?	Both	Both	Both	Both	Both	Both	Both
Does the plan include a sub-national / regional dimension OR does it just focus on the national level?	Both	Both	Both	Both	Both	Both	Both
Does the plan include details of nationally significant projects?	Not specifically	Yes	Yes / No	Yes	Yes	Yes	Yes
Does the plan reflect the European dimension?	Brief Reference	In principle	Yes	In principle	n/a	n/a	n/a
Does the plan reflect a cross-border dimension?	In principle	In principle	Yes	In principle	No	No	Yes
B. Consideration of natural environment / landscape scale conservation in the plan							
Does the plan state that it seeks to promote sustainable development and does it define sustainable development?	Yes Yes (definition)	Yes Yes (definition)	Yes Yes (definition)	Yes No (definition)	Yes No (definition)	Yes No (definition)	Yes No (definition)
Does the plan include policies and maps of environmentally protected areas of nationally significance?	Yes (policies) Partial (maps)	Yes (polices and / or maps)	No	Yes (polices and maps)	Yes policies	Yes policies	Yes (polices and maps)
Is there evidence in the plan that a landscape-scale approach to conservation has been adopted?	Partially (not specifically)	Partially	No	Partially	Partially	Yes	Yes
Does the plan include any details of how any natural environment / landscape conservation policies will be implemented, by whom and how they will be monitored?	Partially	Yes	Yes	Partially	No	No	Yes
C. Role of Assessment in the plan preparation process							
Was an SEA undertaken during the preparation of the plan?	Yes	Yes	No	Yes	Yes	Yes	Not known
Did the SEA have a significant influence over the plan and how the natural environment was considered?	Some influence	Some influence	n/a	Not known	Not known	Not known	Not known
Did environmental bodies / authorities have a significant input to the plan (including through consultation on the SEA process)?	Some input	Some input	Partially	Not known	Not known	Not known	Not known

5. Expert interviews

Introduction

This section describes the main findings from the series of expert interviews. This section does not seek to ascribe quotes or propose that the findings are representative of planning experts generally, but rather it seeks to explore pertinent aspects of a National Planning Framework in terms of desired outcomes and potential requirements for an effective national plan, and to draw on the opinions of planning experts (practitioner and academic) as to how a spatially explicit NPF might work and how the natural environment might best be incorporated. The section is structured around a series of issues that emerged as common themes from the interviews, often with a high degree of consensus among the experts interviewed, but sometimes with differing views or perspectives, and where this is the case it is presented as such.

Interview analysis

Spatial nature

The interviewees all made the point that for an NPF to be effective it had to be spatial in nature. There was complete consistency across the group in relation to this view and many of the other benefits of an NPF discussed in this section are dependent upon the NPF being spatial plan. The main reason for a spatial plan was that it allowed the relationships and dynamics of policies to be shown and therefore better understood.

The example of the former Government's Sustainable Communities Plan[89] was highlighted a number of times as a plan that would have benefited from a more explicit spatial analysis. This programme identified the Northern Way and Thames Gateway as major areas for development. The point was made that the spatial dynamics between the two areas were not well understood and that the programme contained an inherent conflict as the growth areas of the Thames Gateway were predicated upon migration from the North, thus undermining the aims of the Northern Way initiative. It was felt that a better understanding of the north-south spatial dynamics would have highlighted this conflict.

It was also considered that a spatial NPF would highlight potential tensions between environmental resources (and capacity limits) and infrastructure development. All the interviewees recognised that this tension existed and felt than an NPF had the potential to highlight and prioritise this relationship. This ability to identify and prioritise areas of conflicts was felt to be a unique ability of NPFs and one that was integral to its success. One expert suggested that an effective NPF was less about development plans and more about determining and discussing the national agenda in relation to spatial planning.

Sustainable development and the natural environment

In relation to determining a national agenda it was considered that an NPF had the potential to deliver any agenda that it sought to, including sustainable development, and that the NPF had the ability to present spatially the Government's view of sustainable development. This would have the role of fully integrating sustainable development into the planning process (something that it was felt the 2005 *UK Sustainable Development Strategy* and *Planning Policy Statement 1* had not yet achieved). This therefore raised the importance of effectively determining what constitute national priorities. How this could be done was touched upon by a couple of those interviewed who made the point that environmental resources are not homogenously spread across the UK with some areas 'better' served by those

[89] *Sustainable Communities Programme* (2003): http://www.communities.gov.uk/publications/communities/sustainablecommunitiesbuilding

resources than others. This could present an opportunity for prioritising the protection of the environmental functions of these areas over other uses. One expert described the role of an NPF in this process of prioritisation or compromise as explaining why some tradeoffs between land uses in different locations maybe appropriate and where they should be implemented.

How one determines what constitutes 'better' was felt to require the recognition of the socio-economic role of the environment, specifically its contribution to the economic and social well being of the nation. This was felt to be required as it was suggested that nature conservation tends to compartmentalise the environment for its own sake and not necessarily recognise its socio-economic importance, and that this therefore is something that an NPF should seek to resolve. More generally there was a consistent view throughout the interviews that planning's role, and therefore that of an NPF, was in reconciling different objectives for instance between the environment and development, in a way that promoted an agreed view of sustainable development[90].

The National Infrastructure Plan was identified by one expert as an example of an exclusively economically driven development plan which demonstrated a complete misunderstanding or deliberate omission of sustainable development, the inference being that this Plan avoided considering any degree of optimisation or balancing of priorities and was therefore not an example of modern spatial planning and as such represents to some extent the perils of national level planning when done poorly.

Reference was also made as to the importance of the NPF to reflect the work that Defra and Natural England are undertaking in relation to the environment. A broader point related to this was echoed by other experts who highlighted the importance of inter-departmental working to produce a balanced NPF. It was suggested that the Scotland *NPF2* showed that the biggest potential impediment to success is potentially the degree of internal conflict which might exist within Government.

This point was elaborated on by an expert who suggested that the ownership of the NPF was essential in terms of its functionality. The Ireland plan was highlighted and described as a product of Treasury plans which then required other departments to describe the spatial representation of any proposed spending. The inference was that different departmental ownership would deliver different types of plan (for example the National Infrastructure Plan has emerged from HM Treasury), but that integrating departmental priorities was essential for an effective and representative NPF.

Landscape Scale

There was recognition that the NPF should drive awareness of the environmental systems and relationships outside of designated sites and that the sectoral nature of wildlife conservation in England was limiting this. In recognition that the planning system is a key vehicle through which multiple broad environmental management and protection objectives are delivered, a spatial and landscape-scale perspective for the NPF would seem to be essential if the NPF was to deliver something that was not already being delivered through existing means. In other words, one of the purposes of the NPF – if it is to be anything other than simply a streamlining and reduction of effective planning guidance – necessitates a broad spatial, landscape view.

Interviewees generally felt that landscape was a relevant functional unit (i.e. units based on natural or socio-economic physical boundaries rather than political or administrative boundaries) and that they would also be effective units for the NPF. The value of functional units within an NPF was raised repeatedly and was considered to be relevant to environmental and socio-economic categories, for example city regions, south-east golden arc and water catchment areas. Administrative or political

[90] For more on this subject see Batty, S., Davoudi, S. And Layard, A. (2001) *Planning and Sustainable Development*. Taylor and Francis: London.

boundaries were generally considered artificial though it was considered that they could not be ignored as they are well understood and that an NPF could allow for a combination of functional and administrative units as appropriate.

Time span

There was agreement between all the experts on the need for long term time horizons due to the nature of the challenges the NPF should seek to address. However, it was noted that specific decisions have specific time horizons and that setting a fixed time span for a plan was to some extent artificial. A long time horizon's role would be to allow decision-makers to consider a strategic vision for the country and also had the potential to show individuals and authorities that their area has a future, something that was believed to be a powerful tool.

The suggested time horizons were between 20-100 years with most advocating the lower end of that range, albeit recognising long term priorities including those presented by climate change. The need for a regular review and monitoring process was repeated by all, who felt that the plan itself should be flexible in the face of change but that there was a need to review and update the plan on a regular shorter term basis.

Consistency

It was suggested that an England NPF would aid coherence between countries within the British Isles and that currently England's lack of an NPF limited cohesiveness. It was highlighted that this issue was relevant beyond the British Isles as the majority of countries worldwide have or are working towards some form of NPF type plan.

In relation to the international context the NPF could provide an outward looking function, in that an NPF has the unique potential to position a nation within an uncertain and threatening international context. At the same time an NPF would also provide an inward looking function, through informing local plans and that the need for this was felt to have increased with the intended abolition of the Regional Development Agencies and regional spatial strategies in the recently published Localism Bill. Reference was made to the Local Enterprise Partnerships and the potential importance of an NPF in promoting national priorities, such as sustainable development, into LEPs particularly given that LEPs have not yet been provided with a formal role in promoting sustainable development.

A number of experts raised the need for consistency between infrastructure and broader socio-economic development and that the NPF presented an opportunity to do this effectively; the Republic of Ireland plan was highlighted as an example. This was also felt to be true when competition within and between regions as well as trans-boundary trends, such as migration from north to south.

In terms of achieving the aims of an NPF was felt that targets were not necessarily an effective way of prompting or ensuring consistency; one expert suggested that directional outcomes within defined time horizons could be an effective way delivering some aspects of the NPF.

Consultation and assessment

An additional benefit of a spatial plan was felt to be that providing spatial representations of the measures would lead to a more informative tool which stakeholders could intuitively understand. Interviewees raised the fact that an England NPF was a new entity that the majority of stakeholders would not be familiar with; as such it was important to make a case for why an NPF was required as well as making it relevant, useful and informative.

It was suggested by a number of the experts that a spatial plan also offered the possibility of producing a more strategic plan; as a spatial plan lends itself to the creation of conceptual scenarios that are spatial in the broad sense, such as indicating functional units rather than prescriptive locations. Such scenarios

were felt to enable local authorities to think beyond their own administrative boundaries and recognise broader trends and spatial patterns and inform the response to these. The Netherlands was cited as having done this effectively and therein managed to avoid some of the loss of strategic oversight inherent within localism. These spatial scenarios were considered to be useful in enabling effective consultation and assessment. Similar scenario approaches had been used in regional spatial strategies and provided a means to identify agreed priorities. The absence of RSSs did not mean that the need to consider such issues had evaporated. There was still likely to be a need to consider such priorities explicitly and publicly, particularly to ensure that local level plans do not become mired in potential conflict. A national level planning framework was therefore felt to be the obvious place where such debates should take place.

The majority of experts felt that consultation was likely to be difficult in an NPF, especially engaging individuals due to the high level nature of the plan. There was a view that instead of undertaking a 'tell us your views' style consultation it would be more effective if clear choices, for example scenarios, were identified and presented to a wide range of stakeholders for comment and prioritisation.

In relation to SEA, there was a wide range of views with no consistent message. Two of the experts felt positively about SEA as they believed it offered the possibility of contributing to the production of the plan through the identification and therefore avoidance of impacts in advance. It should also provide an evidence base and was the only legal test available and therefore represented some form of a failsafe. The importance of an effective evidence base was reiterated by all experts.

The remaining experts took a wider view and felt that the nature of SEA as it has been applied in the UK to date had the potential to be an obstructive, procedural, process. In addition there was a perception that it tended to prioritise the environment, which considering the need for balancing issues within spatial planning was not necessarily beneficial. This group raised the importance of undertaking an analysis of the environmental and socio-economic impacts and evaluating any scenarios which had been created, but felt this could be done by other means, as such they were not against appraisal but against the promotion of a single sectoral issue. However, one of this group felt that SEA should not present a problem and could also act as an auditing tool as the NPF should articulate the analysis and approach being undertaken even if there was no requirement for an SEA, and if it did not present that analysis then the NPF itself would be flawed. It was considered that if SEA is seen and applied proactively in facilitating strategic planning then there is no reason why it should be obstructive.

Ambition

Finally, the majority of experts who raised this issue recognised that the most important aspect of an NPF is actually having an NPF as it has a number of intrinsic strengths and would set a foundation. This foundation was considered to be important as producing a 'good' NPF was an iterative process that would be likely to take a number of revisions. Its very existence, however, would provide a focus for challenge if it was insufficiently (or conversely too) ambitious or if opportunities were not provided for sufficient engagement and participation in its development.

The Netherlands was raised as a good example of an effective NPF, but that it should be recognised that that the current plan is the fifth version. The development of the Scotland and Wales plans demonstrate that it takes time to develop a national planning process and that generally, although the level of ambition in these plans was reasonably good, they had not been without their difficulties or challenges.

6. Issues mapping

A number of recurring issues arose from the literature review, the case studies and the expert interviews. These were grouped under a number of themes and rearranged until some common patterns emerged. In order to provide a systematic method of grouping the issues and in a way that could be presented clearly and simply, a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis was undertaken on the concept of a spatial NPF with the natural environment at its heart. This provided the framework within which the issues were clustered.

Issues, most of which have already been identified and discussed in the preceding sections, were initially clustered into the following broad groups (Figure 4 below):

Figure 4: Broad groups of issues emerging from the research

Within these broad groups there were inevitably multiple related issues, and there are overlaps and interactions among many of the issues groups as well, some aspects being dependent upon others. For example, the extent to which SEA can be proactive in helping shape the NPF depends on the Government's overall intention behind the NPF and its willingness to engage in a wider strategic dialogue with stakeholders. Presentationally, the SWOT analysis is arranged in the form of a 'SWOT-tail' diagram[91] which can be seen in Figure 5 below. The findings from the process are discussed in the next chapter.

In addition, Figure 6 pulls these elements together and looks at the associations within the SWOT-tail (effectively along the vertical 'bones' of the diagram). As such, this so-called 'SWOT-blot'[92] shows the relationship between the strengths and weaknesses and suggests that an NPF in itself is not an inherently 'good' thing, rather it is the process and intention of such a framework that matter.

[91] A 'SWOT-tail' diagram is an analytical tool created by CEP that combines the systematic approach of the SWOT analysis with the presentational benefits of an influence diagram (and particularly the fish-bone or Ishikawa diagram).

[92] A SWOT-blot diagram is a tool created by CEP that informs the synthesis and analysis of SWOT and SWOT-tails.

Figure 5: SWOT-tail diagram for a spatial NPF with the environment at its heart

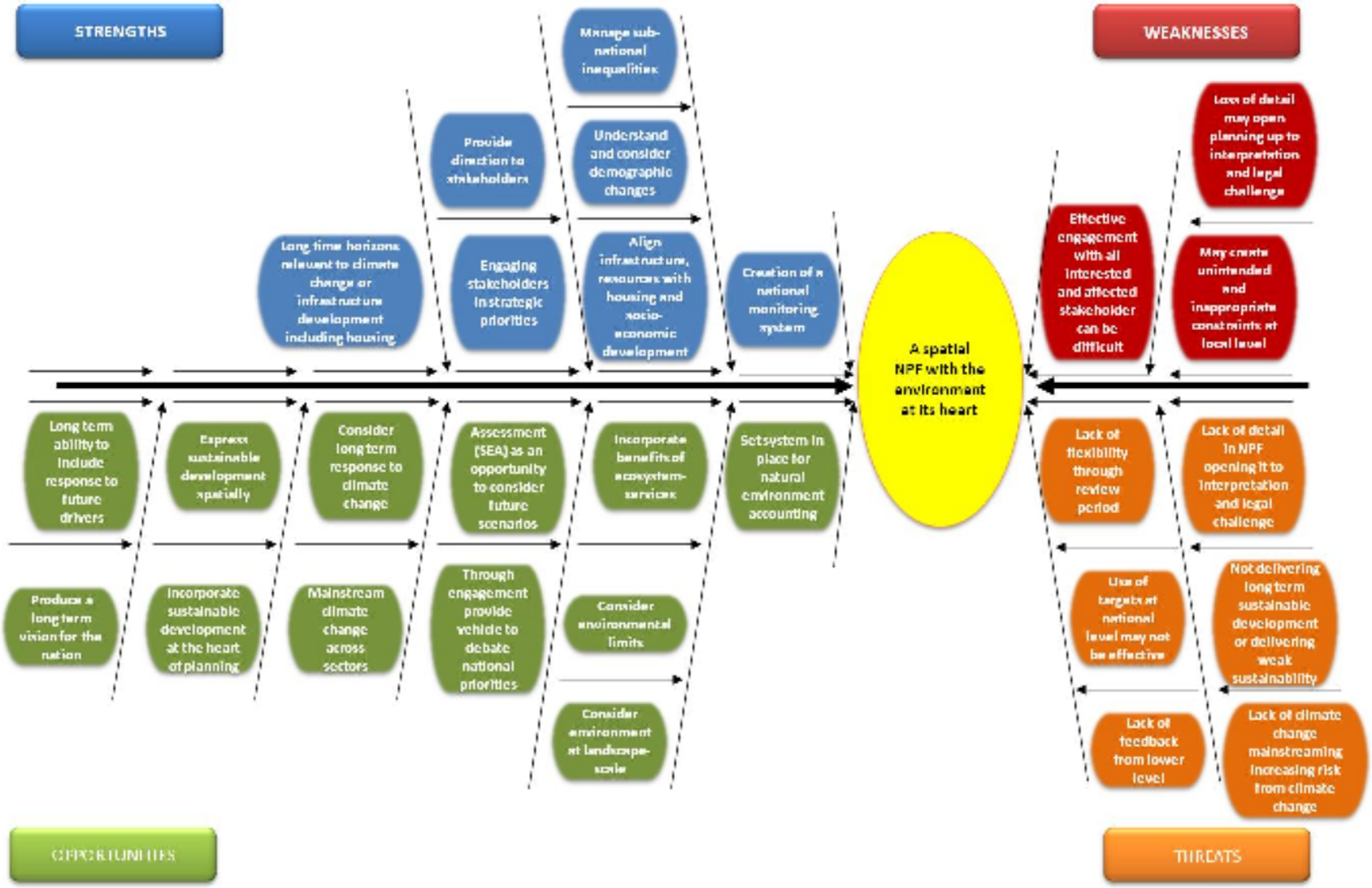
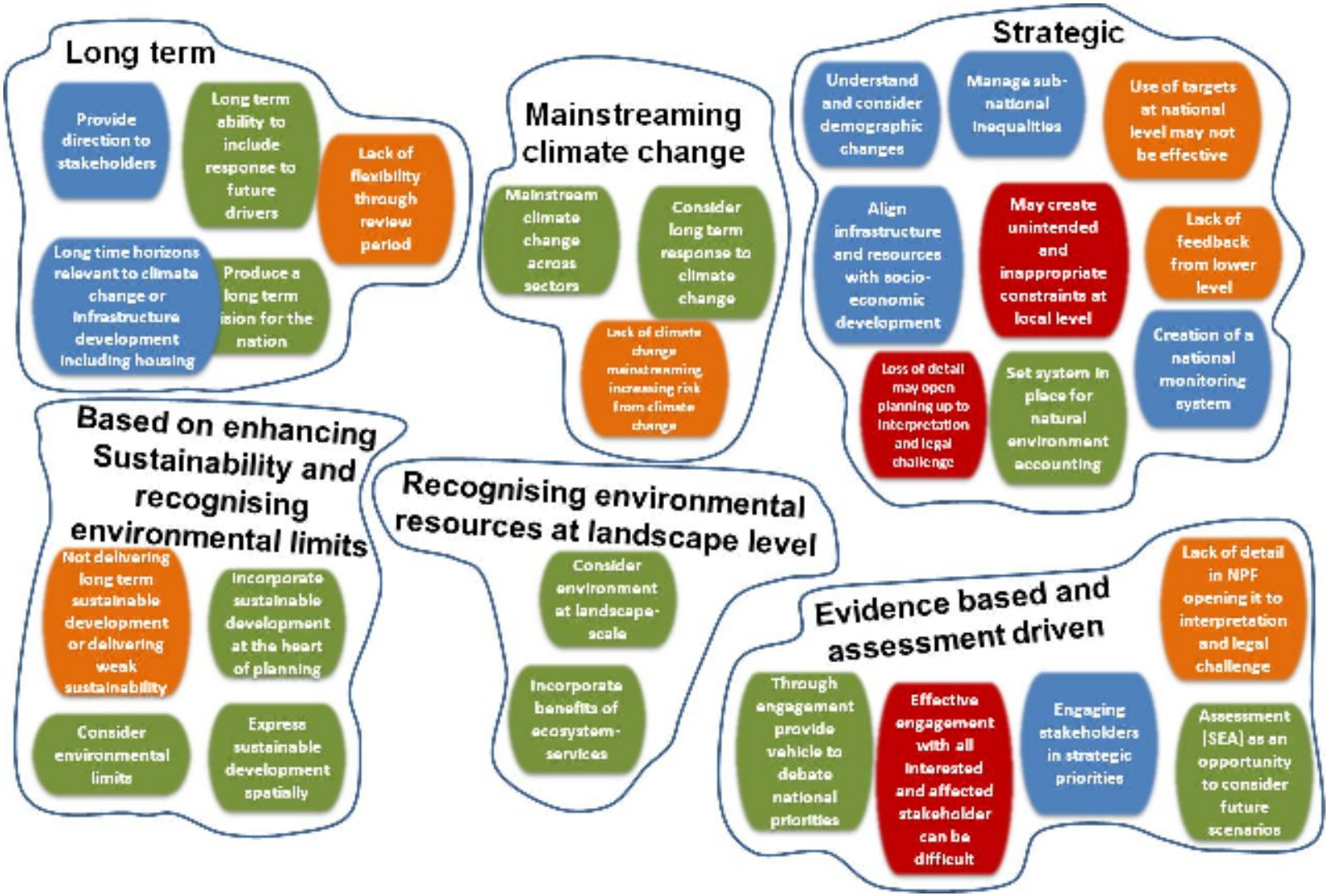


Figure 6: A 'SWOT-blot' diagram: clustered SWOT elements under key themes emerging from the SWOT-tail analysis



7. Lessons for a national planning framework

Introduction

Figure 5 above (the 'SWOT-tail') presents the main strengths, weaknesses, opportunities and threats for an NPF which is spatial in nature and considers the natural environment at its heart. The immediate impression is that such an NPF offers a wide range of potential opportunities, depending upon how it is structured and implemented and the nature of its focus. The strengths – based on existing examples reviewed and the views of experts with experience of such examples – lie primarily in the ability of an NPF to provide a broad strategic view of priorities and certainty to stakeholders while aligning natural environmental resources with socio-economic development and infrastructure. Figure 6 (The 'SWOT-blot') provides the broad structure for the lessons below.

Lessons

Strategic

The consensus view from this analysis is that an NPF should be spatial in nature though not site-specific and that many of the other opportunities and strengths an NPF presents are predicated upon a spatial, strategic plan.

In relation to the environment this study suggests that an NPF offers the opportunity to highlight and optimise relationships between natural resources and socio-economic development. For instance balancing the exploitation of natural resources such as energy and material extraction with ecosystem-service provision and improving habitat connectivity whilst also allowing for human and economic development, and planning for climate change adaptation. This optimisation should be informed by a spatial understanding of demographic change within the UK and internationally as well as a recognition that the priorities differ within and across the different parts of England or regions. This requires the use of functional rather than administrative units, which will differ for each category i.e. renewable energy, social inequality etc. but will present local authorities and other stakeholders with the ability to understand broader trends as well as producing a contextual vision for local areas, thus providing certainty and a sense of direction.

As discussed there are potential threats and weaknesses associated with this process, for instance if done ineffectively, inflexibly or without adherence to legal processes there is the risk of creating unintended or inappropriate constraints at the local level. This could be reinforced by the inclusion of development sites or infrastructure imposed on lower plans which should therefore be avoided as potentially damaging in itself, but also inconsistent with the Coalition's philosophy of spatial planning namely 'Localism'. In addition, within a national-local system there is a threat that the local level may not be able to effectively provide feedback to the national plan. In terms of the Local and Neighbourhood Plans the NPF should seek to ensure a consistency of approach and provide some degree of strategic oversight to these levels. As discussed, this is likely to be especially crucial for the natural environment and environmental limits as these tend to operate over wider scales, e.g. landscape scales. This function of providing consistency was felt to be of increasing importance considering the loss of the regional level of spatial planning, which acted as a form of checking mechanism between wider policy and the local level.

How effectively this is done will be dependent to some extent upon the legal basis of an NPF. Currently it appears that the NPF will act as a consolidated *Planning Policy Statement* (PPS). The legal basis of national planning policy, including PPSs, is in section 19(2) of the Planning and Compulsory Purchase Act of 2004, which requires local planning authorities to have regard to it in preparing local development documents. Section 38(6) of the 2004 Act requires that, in making planning consent decisions, the

decision must be made in accordance with the development plan unless material considerations indicate otherwise; the link with national policy is thereby indirect. It is important that the NPF retains at least this type of statutory basis (that of Local and Neighbourhood Plans having regard to the NPF) as it enables some degree of flexibility at the local level, but ensures that wider priorities are considered.

There is a concern that the delivery mechanism of the NPF (as a form of PPS) may lead to an NPF with the sole purpose of producing concise planning policy guidance. There is a hint of this in the Government's call for evidence on a National Planning Policy Framework on 20 December 2010[93] (and indeed in the name itself). This would represent a significant missed opportunity and would curtail the vast majority of the strengths and opportunities highlighted by this report and, due to the loss of the regional level of planning, would in all likelihood lead to a less effective spatial planning framework. To be effective the NPF must be spatial and must be more than a compendium of planning policy. Not only that, but PPSs tend not to be reviewed very often, whereas an NPF should be reviewed on a regular basis.

Another aspect of an effective NPF is being aligned to other relevant strategic and spatial plans, for instance the National Infrastructure Plan. It should be noted that the production of a National Infrastructure Plan prior (and with no overlap or SEA) to a National Planning Framework on the face of it would appear to rather put the cart before the horse and that in future the NPF should set the broader framework in which a National Infrastructure Plan should operate, recognising that infrastructure is but one aspect of spatial planning. The current status of the National Infrastructure Plan is also rather unclear vis à vis spatial planning and SEA, i.e. is it a material consideration in spatial planning or simply a statement of potential funding allocation subject to any spatial planning priorities? Given the different departmental responsibilities to date[94] there would appear to be a need for more inter-departmental collaboration in this area as the importance of co-ordinating infrastructure development with wider spatial planning has been a recurring theme in this study. The NPF should seek to make this relationship clear and set in place a synchronised infrastructure and national planning process.

There is also a risk that an NPF that contains a low level of detail and therefore potentially significant ambiguity could result in widely differing interpretation by planning authorities and inspectors, and through inconsistency and the lack of a level playing field potentially leave the planning system subject to paralysing legal challenge. The NPF will therefore need to establish clearly defined guiding principles to provide sufficient strategic direction without over-prescription.

Evidence based and assessment driven

This point reflects the more general difficulty in enabling consultation with a national plan, a problem encountered in a number of the case studies. Considering recent legal difficulties related to other plans where early and effective consultation with appropriate and affected communities and individuals has been questioned, in terms of the requirements of the *Aarhus Convention* and *SEA Directive,* it is essential that the NPF should ensure effective engagement. The reasons for this are twofold – to avoid the legal challenge and associated continuation of uncertainty, but more importantly in offering the opportunity for a national discussion as to the priorities and role of an NPF.

SEA offers a mechanism for achieving both of these. Based on the international experience and expert interviews there is a view that the use of spatial scenarios as a way of considering reasonable alternatives in SEA is also likely to be the most effective route for consultation. By presenting a series of appropriate

[93] http://www.communities.gov.uk/planningandbuilding/planningsystem/planningpolicy/planningpolicyframework/

[94] HM Treasury ,or specifically Infrastructure UK within the Treasury, manages the National Infrastructure Plan, though decisions on infrastructure projects will be taken by the new Major Infrastructure Planning Unit which will be established within the Planning Inspectorate; the Department of Communities and Local Government (CLG) would be responsible for the National Planning Framework.

different spatial scenarios it is possible for stakeholders to more intuitively grasp the impact and significance of an NPF and respond with their view on the impact of the various scenarios, whilst providing strategic consideration of *reasonable alternatives*, as required by the SEA Directive. In addition, the creation of scenarios effectively recognises that there is a range of different possible futures as well as a range of preferred futures, with the potential to engage stakeholders and the public at large as to what a preferred future looks like. The results of this process should inform the NPF which would also have the potential to act as a unique vision of the future to inform other relevant Government strategy and policy.

As a strategic plan it should avoid specifying specific locations or projects: that is more properly the role for a separate lower level plan or programme such as a national infrastructure plan/programme, providing that too is subject to SEA to ensure proper alternatives are evaluated effectively. Taking this point further the NPF should not seek to assess strategic and implementable projects in the same plan as in the Scottish *NPF2*, as this potentially leads to an accountability and legitimacy gap within the assessment and creates unnecessary complications, as well as the risk of legal challenge. The NPF could also usefully reinforce the value and application of SEA in support of local level plan making processes.

The monitoring and baseline evidence requirements of the SEA Directive could also be used to contribute to a readily accessible database for research and Government bodies to use to better understand spatial dynamics and policy interactions. In particular, following on from the recent Convention of Biological Diversity COP 10[95] there is the opportunity for the NPF to contribute to a national environmental accounting system in line with the agreements made in Nagoya. There would seem little point in setting up multiple monitoring systems when a single compatible system can be achieved as part of the statutory requirements of the SEA Directive.

Recognising environmental resources at the landscape level

There is a clear role in an NPF for ecosystem-services when seeking to balance environmental, economic and social priorities. Ecosystem-services have the ability to cut across different sectors of the natural environment and highlight in an integrated way how the natural environment contributes to socio-economic well being. The example of the Wales Networked Environmental Region (and Natural Environment Framework) shows the value of using an ecosystem approach to improve connectivity through spatial planning.

Other examples such as the Estonian and Dutch plans show that national plans are an effective vehicle for delineating areas of ecological or natural corridors through a process of limiting development, in effect zoning areas for specific low impact land-uses. The Dutch plan in particular recognised the importance of environmental connectivity by looking to the future and identifying increasing pressures through land-use change and identifying the need for actions to limit the impact arising from these pressures. The case studies and interviews also demonstrated that landscape is likely to be the most useful scale of analysis for a national plan.

Enhancing sustainable development and recognising environmental limits

The efficacy of an NPF is very much dependent upon the way in which it is developed, and indeed the underlying purpose of its development. An approach that essentially takes a very weak view of sustainable development and sees the NPF primarily as providing a framework for the delivery of development and infrastructure will miss the potential benefits and opportunities offered by a proactive and participative approach to providing a more consensual framework upon which to base spatial

[95]CBD COP 10 Outcomes, available from: http://www.cbd.int/nagoya/outcomes/

planning decisions. Challenges such as climate change and protecting and enhancing nature are best addressed by providing direction and guidance from the national strategic level so that the local level can implement strategies that together can be synergistic, i.e. greater than the sum of the parts. An absence of a strategic view of such challenges within the NPF will mean that local action will be fragmented and unable to act in a united and coherent way to meet common goals.

The spatial recognition of environmental limits at a landscape level would enable the NPF to provide an effective framework for the protection of the natural environment. In addition, it would be able to highlight the socio-economic importance of the ecosystem-services it provides and should take an approach based on the precautionary principle due to the irreversible nature of the loss of many ecosystem-services. More broadly the landscape scale approach may be an effective functional unit to consider other aspects including socio-economic such as equality and income.

Long term

An essential part of this context and agenda setting would be the spatial representation of what sustainable development in England might look like in practice and an indication and justification of the priorities and tradeoffs that should be taken at the more local level. To do this effectively a long time horizon is essential that allows a long term vision of where the nation is heading and creates a sense of direction and development. A long-term vision also requires a degree of consensus that makes some provision beyond electoral and budgetary cycles to enable a greater degree of consistency and institutional stability to enable effective delivery.

Mainstreaming climate change

A specific driver for the formation of a long term NPF is the need to identify the inevitable consequences of climate change in time to develop appropriate responses. Spatial planning has a critical role that has been reiterated throughout this study in mainstreaming climate change adaptation into a wide range of sectors.

A note of caution

It should be remembered that the basis for this study has been on identifying and analysing opportunities for positive action in relation to NPFs. As such there is the potential for a perception that an NPF is inherently a good thing for the natural environment. This would be to very much misunderstand the potential of NPFs. Based on the initial assessment of relevant case studies it was clear that there are a large number of exclusively economic or infrastructure development plans that might at first glance look like national spatial planning frameworks. These plans were not considered in detail, but serve as a warning that an NPF that is not spatial and does not have the natural environment at its heart could pose a significant risk to the status and direction of the natural environment in the UK.

8. Recommendations

The following recommendations are based on the lessons learned from the research reported above. They are recommendations that RSPB may wish to consider and/or put forward in developing their advocacy for a spatially explicit NPF which has the natural environment at its heart. The SWOT-tail and SWOT-blot diagrams highlight that there are numerous opportunities and strengths presented by an NPF, but also some potential threats and weaknesses. An NPF will not inevitably be good for the environment or sustainable development – it will depend to a large extent on the way in which it is framed.

Recommendation 1: **RSPB should highlight the potential negative implications of a non spatial NPF without the natural environment at its heart.**

This report has focused on the positive potential of NPFs and sought to highlight the potential of a spatial NPF with the natural environment at its heart. However, due to the potential influence of a NPF and the loss of strategic oversight at the regional level the RSPB should be explicit that a non spatial NPF, without the environment at its heart, has very real potential to undermine efforts to improve the environment and associated wellbeing.

Recommendation 2: The Government should take advantage of the opportunity provided by the development of an NPF to seek to secure as wide a consensus as possible and a shared vision for sustainable spatial planning, through a participative process.

The NPF should provide a broad and long-term vision of what sustainable development means for spatial planning, how spatial planning can proactively help to deliver it, and how this relates to the country's wider sustainable development strategy.

Recommendation 3: **The vision in the NPF should re-affirm a view of sustainable development that fully recognises the concept of environmental limits and the precautionary principle.**

This should include recognising the important role of the environment and ecosystem services in enabling socio-economic development and the dependency of economic development on a well functioning natural environment.

Recommendation 4: The NPF should be spatial but not site-specific, and be a material consideration for lower level spatial plans.

The NPF needs to consider geographical trends and distributions, priorities and functional units at the strategic (and landscape) level and provide a framework for planning policy, for Local and Neighbourhood Plans, and for making decisions on planning applications and appeals

Recommendation 5: **The NPF should recognise England's spatial relationships (migration, development, environmental resources etc.) and dynamics with the devolved administrations and internationally.**

The NPF should provide a means of looking spatially inwards to the local and regional levels and outwards to the other countries of the UK and the EU/internationally.

Recommendation 6: **The NPF should consider the role of a national ecological network to guide a landscape scale approach to the management, enhancement and protection of the natural and built environment.**

The integration of such an approach into the NPF would recognise and enable the need for improving and facilitating the natural environments' connectivity to counter the stress of climate change and the effect of continual expansion of society's footprint.

Recommendation 7: The NPF should set out a long term strategic horizon for spatial planning in England.

The long term vision should include setting a time horizon of 30 - 50+ years, particularly given the critical role for spatial planning in adapting to climate change and other global trends, and supported by short and medium term goals (or action plans) and short term review periods.

Recommendation 8: The NPF should provide a forum for debate and be informed by participation.

Considering the scope and potential influence on the NPF it is crucial that the process that underpins it should be legitimate, transparent and pluralistic. This could be achieved by undertaking early and effective participation to enable the views of experts and the public to provide input to the possible and preferred directions for the NPF.

Recommendation 9: The NPF should be fully informed by strategic environmental assessment.

The practical and proactive use of SEA would facilitate the consideration of different spatial options or scenarios and stakeholder participation in strategic dialogue. Any short or medium term actions plans should be separate from the NPF, but also subject to SEA to ensure appropriate level of assessment.

Recommendation 10: The NPF should be an iterative, reflective process.

The NPF should be able to provide a feedback mechanism from the local to national level and to contribute to national data sets through an effective monitoring system facilitated through the SEA; in addition these data sets could contribute to the environmental accounting tools required to satisfy recent Convention on Biological Diversity commitments.

Appendices

Appendix 1: Long list of potential case studies

Country	Title / and author
Netherlands	National Spatial Strategy
Brazil	***Estudo da Dimensão Territorial para o Planejamento (2008)*** Study on the Spatial Dimension of Planning Ministério Do Planejamento, Orçamento E Gestão / Secretaria De Planejamento E Investimentos Estratégicos Portuguese only
Portugal	***PNPOT (Programa Nacional de Política de Ordenamento do Território) (2007)*** Policy ***Programa Nacional Da Política De Ordenamento Do Território (2006)*** National Programme on the Spatial Planning Portuguese only
Denmark	***Danish Spatial Plan (2006)***
	Spatial Planning in Denmark (2007)
Hong Kong	***Territorial Planning Framework (1995)***
Tonga	***National Spatial Framework (2009)*** Prime Ministers Office
Germany	***Spatial Development and Spatial Planning in Germany (2000)*** Federal Office for Building and Regional Planning (BBR) presents a comprehensive documentation of spatial development and spatial planning in Germany.
Lombardy (Italy)	Not identified
Finland	***Finland National Land Use Guidelines (2000)*** Finish Council of State
Republic of Ireland	***National Spatial Strategy for Ireland 2002 – 2020***
Romania	***National Spatial Planning Plan (2000)***
Canada	***Building Canada Plan***
Australia	***Nation Building for the Future***
Australia (states)	***State Planning Policy Framework***
Taiwan	***Strategic Plan for National Spatial Development***
Malaysia	***National Physical Plan***
New Zealand	***National Infrastructure Plan***
Korea	***Comprehensive National Territorial Plans***
Philippines	***National Framework for Physical planning 2001-2030***
Mexico	***National Infrastructure Programme***

Appendix 2: Interview proforma for the three 'types' of interviews

Interview questions for RSPB National Planning Framework Project

A. Case Study Interviews

1. Questions for representatives of RSPB and Birdlife International:

Objectives of the interviews: *to get the perspective of the* RSPB / Birdlife International *regarding the case study Plan. The aim is to supplement (and provide additional justification (triangulation of data sources) where appropriate) the information based on the desk review of the plan.*

The priorities are how the Plan has or has not considered the natural environment, with a particular focus on landscape-scale conservation.

1. How would you describe / categorise the **style** of the plan and how **detailed / strategic** is it? (for example, does it include just high level policies or does it include a spatial expression of policies; a sub-national / regional dimension; national significant projects; etc?). Would you describe it as a "spatial" plan?
2. How **effective** is the plan in promoting the conservation and enhancement of the natural environment?
3. Does the plan adopt a **landscape-scale approach** to conservation? (*explain what we mean by this if necessary*)
4. How does the plan promote the **conservation and enhancement of** the natural environment (including beyond designated sites)? What **mechanisms / measures** does it use to promote the natural environment? e.g. through policies, areas identified for conservation or enhancement etc.
5. Are you aware if Strategic Environmental Assessment (SEA) (or another form of strategic assessment like Sustainability Appraisal (SA)) was **undertaken** during the preparation of the plan? [*If not, go to Q12.*]
6. (if one was undertaken) *How did the SEA/SA influence the plan? What changed as a result of it?*
7. *In your view, how effective was the SEA/SA in integrating the natural environment into the plan? Please explain/give examples.*
8. Were key environmental **stakeholders** (and the **public more** generally?) involved in the process of developing and finalising the plan? If so, how was this undertaken (or if not, how should it have been undertaken)?
9. Do you think there are **lessons** that can be learnt from the experience of this plan for the proposed National Planning Framework for England? (what are the good aspects, both related to the process of preparing the plan and content, and what pit falls should be avoided?)
10. Overall, what are your views on the plan and do you consider that it successfully promotes **sustainable development**? (assuming this was partly its objective)
11. Any other points you would like to make? e.g. how could the plan be improved, lessons for the NPF for England etc?

2. Questions for representatives of Ministries and Government:

Objectives of the interviews: *to get the perspective of government representatives regarding the case study plan. The aim is to supplement (and provide additional justification (triangulation of data sources) where appropriate) the information based on the desk review of the plan.*

Focus will be on the process that went into producing the plan and the role of SEA (or other assessments).

1. How were you involved during the preparation and adoption of the plan?
2. What were the main **drivers** for producing the national plan and what were the plan's **objectives**?
3. How would you describe / categorise the **style** of the plan and how **detailed / strategic** is it? (for example, does it include just high level policies or does it include a spatial expression of policies; a sub-national / regional dimension; national significant projects; etc?). Would you describe it as a "spatial" plan?
4. Does the plan promote the **conservation and enhancement of** the natural environment (including beyond designated sites)? And if so, how? (i.e. what **mechanisms / measures** does it use to promote the natural environment? e.g. through policies, areas identified for conservation or enhancement etc)
5. In your view, how **effective** is the plan in promoting the conservation and enhancement of the natural environment?
6. Does the plan adopt a **landscape-scale approach** to conservation? (*explain what we mean by this if necessary*)
7. Was a Strategic Environmental Assessment (SEA) (or another form of strategic assessment like Sustainability Appraisal (SA)) **undertaken** during the preparation of the plan?
8. (if one was undertaken) How did the SEA/SA **influence** the plan? In particular, did the SEA/SA contribute to the **integration** the natural environment into the plan?
9. Do you consider that the SEA/SA was a **beneficial** process? If so, in what ways was it beneficial? If not, how could it have been improved?
10. Were key environmental **stakeholders** (and the public more generally?) involved in the process of developing and finalising the plan? If so, how was this undertaken?
11. Do you think there are **lessons** that can be learnt from the experience of this plan for the proposed National Planning Framework for England?
12. Overall, do you think that the plan successfully promotes **sustainable development**? (assuming this was partly its objective)Any other points you would like to make? e.g. lessons for the NPF for England.

B. Academic / Expert Interviews

***Objectives of the interviews**: to get the perspective of a range of academics / experts on the proposals for a National Planning Framework (NPF) for England (or in general) and how it should incorporate the natural environment, specifically landscape-scale conservation.*

Priority is on getting the latest discourse regarding spatial planning in general and national level plans in particular.

1. What are your views on the need for a National Planning Framework for England? (What are the pros and cons? What should be its objectives?)
2. (If one is needed) What style of national plan should be prepared and at what level of detail? (for example, should it include just high level policies or should it also include a spatial expression of policies; a sub-national / regional dimension; national significant projects; etc?)
3. Do you have any further thoughts on the need for / drivers for spatial planning at the national scale?
4. (If one is needed) What time horizon should the National Planning Framework consider? (are there particular factors which should influence this - e.g. relationship with lower level plans; timescale for planning infrastructure; underlying drivers and pressures - e.g. demographic, climate change etc)
5. (If they are familiar with them) Are there lessons that can be learnt from the Welsh and Scottish experience of preparing a national plan? (what good aspects, both related to the process of preparing the plan and content, could be adopted for England and what pit falls should be avoided?)
7. Are there international examples of national plans you would hold up as good examples? And what can we learn from them for England?
8. How should the NPF seek to promote sustainable development? (and link with other national strategies, like Defra's natural environment white paper?)
9. How should the NPF reflect the need to conserve and enhance the natural environment? (including beyond designated sites) What mechanisms / measures should be adopted in the NPF to promote this? (e.g. through policies, areas identified for conservation or enhancement etc)
10. Do you see scope for a landscape-scale approach to conservation being adopted by the NPF?
11. Do you think Strategic Environmental Assessment (SEA) / Sustainability Appraisal (SA) could play a significant role during the preparation of the NPF (and in particular the integration of the natural environment) and if so how?
12. How should key stakeholders (and the public?) be involved in the process of developing and finalising the NPF
13. Any other points you would like to make etc?