

## Additional evidence from Professor Alister Scott to support oral evidence given to the Environment Audit Committee on 20<sup>th</sup> November 2024 (hearing on National Planning Policy Framework reforms and the environment):

I am pleased to submit further evidence in support of my oral evidence given to the committee on 20<sup>th</sup> November 2024. I am focusing this material on key questions asked of me in the oral evidence session to provide more detail and practical recommendations. Thus, these should be seen as extensions to my original evidence rather than simply stand alone pieces.

1. What specific recommendations would you make to break down silos?
2. How can we improve the way the NPPF supports green space more generally.

I have provided summary points below in the form of recommendations with justification but a more detailed case for support is presented in the Appendix drawing from my own research and knowledge exchange work.

### 1. How to break down policy silos and improve joined up planning.

#### **Recommendation 1 Redrafting Chapter 11 in the National Planning Policy Framework to integrate with the land use strategy championing multifunctionality**

Chapter 11 “Making Effective Use of Land” should be a chapter within the NPPF that explicitly integrates the economic, nature, climate and health and well-being components helping to break down existing policy silos. However, the current focus of the chapter is on housing and economic benefit with only passing reference made to the role of nature based interventions, social enterprises and multifunctional approaches in the introduction. This contrasts with the support given in both the [Royal Society 2023](#) and [House of Lords 2022](#) reports on the importance of developing multifunctional solutions to our key land use challenges. Furthermore, there is weak policy wording in terms of any direction or push to use nature based interventions in developments. Words like “should” or “must” have real value here. “Consider” and “seek” are weak and do not convey any sense of urgency or priority.

Making effective use of land links directly to the emerging [land use strategy](#) which, in my view, must be a cross departmental publication; not the sole preserve of Defra (to include HM Treasury, MHCLG, Culture, Media and Sport, Net Zero, Heath, Transport and Science and innovation). These departments all have major influences and impacts on land use and need to be actively involved in the design of the land use strategy and not “reluctant” partners.

If the chapter was refocused to integrate with the emerging English land use strategy setting out a spatial strategy for development and environmental priorities as in Scotland ([Land Use Strategy 3](#)), this chapter could represent a significant culture change in how planning is undertaken. It also has the potential to fuse the economic and environmental and social limits and opportunities in pursuit of multifunctional solutions. Clearly tradeoffs need to be identified and to happen and these will be different in different areas of England reflecting context and needs. This then leads to the sustainable development definition which at present in the NPPF is not fit for purpose.

This chapter also demands a reevaluation of what strategic planning is. Hitherto the duty to cooperate and statements of common ground have been the key vehicles to fill the strategic planning void for most of England outside the ad hoc devolution agreements where sometimes planning is part of the remit (e.g. GMCA). However, for the most part, they have been rooted on housing and economic development numbers as opposed to any active consideration involving nature and climate matters (see [South Downs national park](#) for an interesting exception). This absence has been detrimental to good strategic planning especially given the way that nature does not respect our artificial administrative boundaries used for planning. In this vein the use of catchment or more natural regions becomes an important opportunity space to make more effective use of land. These ideas are enshrined in my [Scott and Kirby \(2024\)](#) paper on strategic planning. This also argues that strategic planning has to be a process that unites the different land use interests rather than being simply targeted on a single sector such as nature or economic growth as a single policy objective. Good strategic planning by its nature has to break down rather than reinforce policy silos.

## **Recommendation 2 Redefining Sustainable Development (SD) in the NPPF set within a wider SD duty embedded in legislation.**

The current definition of SD in the NPPF is a strange adaption of the [Brundtland definition](#). Although it is referenced in the NPPF with the qualification that this is a very high level the document then goes on to define it for plan making and decision taking.

Paragraph 7 “The purpose of the planning system is to contribute to the achievement of sustainable development, including the provision of homes, commercial development, and supporting infrastructure in a sustainable manner”. This puts the economic imperative at the heart of the NPPF definition. It then goes on to state :

For plan making par 11 “all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects; (b) strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas”.

[Viability is also defined in the NPPF](#) importantly at the plan making stage, but there is no consideration of environmental or social limits into the viability assessments. It is here that tools such as the [NATURE tool](#) can help illuminate the environmental impacts of a development. Again the emphasis is on meeting housing and development needs with no mention of objectively assessed needs for nature and community. Furthermore, the issue of equity and intergenerational equity is not really addressed in the NPPF. Yet social and environmental justice represents a key plank of SD as captured in the authoritative 17 [UN Sustainable Development goals](#). Equity remains a key policy gap in the planning system and equally there is a deficit of research work informing this. Some interesting work in the US ([Grabowski et al 2023](#)) reveals the scale of the problem where in a survey of urban plans it was found that 89% did not even define or address equity considerations at all. I fear a similar picture may exist in the UK.

However the approach to SD is not uniform across the UK. In Wales the [Well Being of Future Generations Act 2015](#) provides a useful world leading exemplar of a legal sustainable development duty set within 7 well-being goals: a prosperous Wales; a resilient Wales a healthier Wales a more equal Wales ; a Wales of cohesive communities; a Wales of vibrant culture and thriving language and a globally responsible Wales. The overarching duty reflects the Brundtland report (section 5).

Set within this duty they have identified different ways of working set within changes to governance including a future generations commissioner.

- Looking to the long term so that we do not compromise the ability of future generations to meet their own needs;
- Taking an integrated approach so that public bodies look at all the well-being goals in deciding on their well-being objectives;
- Involving a diversity of the population in the decisions that affect them;
- Working with others in a collaborative way to find shared sustainable solutions;
- Understanding the root causes of issues to prevent them from occurring.

This model reflects a national culture and behavior change that accords with the HM Treasury [Dasgupta 2021 review](#) which stressed the need to think, act and measure progress and prosperity differently when incorporating nature and which identified a key role for the planning system therein. **The creation of a legal sustainable development duty here across all government departments and supporting delivery bodies would help break down the silos and foster joint working to a set of common goals.**

The final piece in the SD jigsaw is to reconnect with the value of [sustainability appraisals](#) (SA) as a tool for plans and programmes to help facilitate this. Within a revised SD definition these can be used to strengthen the value of the SA process. Currently SA is seen as a tick box exercise; as a constraint to overcome or as a means to justify an already agreed plan rather than as a tool to improve the quality of a plan. The same rationale applies to EIA involving projects. Far from considering their removal from the planning process, they should be seen as an agent for good planning.

### **Recommendation 3 To improve the mainstreaming of environmental principles into all areas of government work**

The status and requirements of environmental principles under the Environment Act is unclear and currently subject to [legal appeal by the OEP](#) and Green Alliance.

An important starting point for me is to embed environmental principles within key policy documents from government including the [NPPF](#) and [Treasury Green book](#). It is strange that there is no reference to these principles in both these documents. From my perspective these should appear in the early paragraphs in terms of how they should be used in plans, policies, projects and programmes and decision making. Translating these different principles; integration principle; prevention principle; rectification at source principle; polluter pays principle and the precautionary principle, into a series of statements for policy and decision making is a mechanism to help break silos and to ensure that environment is better mainstreamed. Within this the role of the mitigation hierarchy needs to be reinforced as all too often it is being bypassed in pursuit of compensatory provisions for biodiversity net gain for example. This also dovetails with the previous recommendation for a wider duty for sustainable development. I would also add the importance of another environmental principle; the participation principle upholding the requirements of the [Aarhus convention](#) to which the UK is a signatory. Here there is a need for improved consultation on matters of environment and access to information. At present there is an unacceptable narrative that any opposition to growth and development is NIMBYism and a threat to the national economy. As stated in the evidence the right to object is an inherent democratic right that we have in the civil society space where such rights are enshrined in law. Participation should be seen as an opportunity space and in my view the problems arise more through lack of early involvement and co-designed approaches where plans and projects are presented as a fait accompli. Good and effective public engagement using expert and local knowledges for policy and project design is a key step for good policy. The NPPF is actually quite strong on early engagement and consultation ([Scott and Hislop 2024](#)).

The [Environment Improvement Plan](#) building on the original [25 year plan](#) is a further mechanism to help integrate policy. Here I would argue that all government ministers should be required to submit reports on their own departments progress in each of the target areas rather than it being the preserve

of Defra. This would give departments a real stake in the process as opposed to the current status where a HMG publication means that all departments have signed up to it but do not necessarily reference it explicitly in their own policy documents.

Significantly, the [OEP reviewing previous Government work](#) up to 2023 shows it is not on track to meet the 23 environmental targets it set out in the plan. Only 4 will be met and improving nature is off track. They have also responded with [suggested improvements to the EIP process](#).

#### **Recommendation 4 To identify cases of good practice where policy silos have been broken and use this in NPPG material or other guidance.**

There is a danger in many reports of a policy practice gap whereby policy ideals can't be delivered. The need for good case studies becomes paramount to show how silos can be broken down and to then identify the key drivers that lead to such positive changes. However, many case studies are presented as summary snapshots with a focus on the positive outputs and outcomes achieved rather than any assessment of progress. My work ([Scott et al 2023](#)) with Dempsey and Bader looked in detail at three case studies (South Downs local plan policy; (Sheffield City Council grey to green Suds) and Glasgow (integrated water management system) that had broken down policy silos to deliver multifunctional interventions with economic, social and environmental benefits. The case studies are presented first as detailed narratives with a focus on both process and outcomes. Then from these very different case studies we identified the common themes shaping success and the lessons learnt. These include inter- and transdisciplinary collaboration and engagement with co-design and coproduction embedded; strong and effective leadership within cross-sector partnerships and an appetite for innovation and risk-taking. The barriers identified include a current lack of embedding of nature in the business case and BGI maintenance being seen as a liability. Collectively, the case studies challenge conventional wisdom that environment planning is a development constraint rather than a mechanism supporting regeneration and development.

## 2. How can we improve the way the NPPF supports green space more generally.

**Recommendation 1 Provide stronger national planning policy supporting the role of green infrastructure as an integrated delivery mechanism for local nature recovery strategies, biodiversity and environment net gains, nature based solutions and green belts**

**Recommendation 1a The requirement for a green infrastructure plan for all developments highlighting how the natural environment is benefiting from projects whilst still respecting the mitigation hierarchy.**

Outside formal statutory nature conservation designations there is no statutory legislation for nature. This means there is heavy reliance on voluntary mechanism for the delivery and maintenance of green and blue infrastructure. In my view green infrastructure has the potential to become an integrating “bridge”; a delivery vehicle that binds climate, nature, economy and health and well being together. However current work with Max Hislop ([Scott and Hislop 2024](#)) assessing national planning guidance on green infrastructure reveals that policy wording is weak rendering nature easy prey to being trumped by economic and housing policy interests making it a desirable optional extra rather than mandatory. This fails to understand what green infrastructure is and can be.

In chapter 15 of the NPPF there has been no changes to the text which represents a missed opportunity particularly in light of recent legislation (Environment Act 2021) with the advent of [Local Nature Recovery Strategies](#) and tool developments ([green infrastructure framework](#); [natural capital approach](#)) and mandatory biodiversity net gain and optional environmental gains where feasible. Currently there is no mechanism that links these concepts together, so we see silos within silos further increasing the complexity of environmental governance incrementally.

However, green infrastructure does provide that uniting umbrella consistent with the [Broadway initiative](#) idea of Local Environment improvement plans where they call for a single delivery plan to improve how nature is dealt with. Drawing from my own work with Bath and North East Somerset and Essex Councils, the design and development of a green infrastructure plan can provide that vehicle. This also dovetails with a [green infrastructure assessment tool](#) in Wales which is a mandatory requirement. This should also embrace the green belt as they form a core component of the green infrastructure network around the cities where they exist.

## **Recommendation 2 Improve the priority for green and blue infrastructure investment using a bundle of regulatory and incentive tools for policy and decision making**

My current work with Max Hislop ([Scott and Hislop 2024](#)) assessing national planning guidance on green infrastructure reveals a challenging picture in England for how the NPPF supports green spaces. Here we uncover notable omissions covering blue infrastructure and stewardship (long term management). It also reveals that the mainstreaming of nature in other chapters of the NPPF is limited further weakening its potential understanding, role and value to the non-environmental sector. As stated previously chapter 11 has scope to address this but there is scope to identify how nature can be used to address challenges in all chapters. Here I argue that nature-based interventions need to be adapted and used based on an improved understanding of other sectors respective needs; a positive trojan horse if you like.

There are some important tools to help improve the quality and investment in green space and improve the multifunctional benefits being delivered.

1. The example of the [8 hills regional park](#) as a multifunctional intervention in pressurized green belt to address nature, climate and well-being agendas.
2. The use of [building with nature](#) standards to raise the quality of plans and projects using 12 holistic criteria covering economic, social and environmental criteria. Often the planning system deals with acceptable rather than excellent or outstanding. Building with nature is a voluntary scheme that raises the quality bar.
3. It is noteworthy and extremely positive to report that the government published amendments to the [Water \(Special Measures\) Bill](#) to give Ofwat a nature and climate duty and embed nature-based solutions in primary legislation for only the fourth time. This would undoubtedly help improve the investment case in green and blue spaces.
4. It is important that nature is seen as critical infrastructure and thus embedded more effectively **in all infrastructure delivery plans**; both at [national](#) and [local authority](#) levels. These represent powerful documents for the future investment of resources in infrastructure, but they rarely include nature as a priority although flooding does feature. However, with the climate and biodiversity emergency and post Covid recovery lessons now recognized in many authorities, they represent powerful hooks /bridges to build upon.
5. This is also relevant to the way the **community infrastructure levy** works and the use of this tool is limited even though [CIL guidance \(par012\)](#) states that “Charging authorities should think strategically in their use of the levy to ensure that key infrastructure priorities are

delivered to facilitate growth and the economic benefit of the wider area” ..... including social and environmental infrastructure, and facilitate the delivery of planned development”.

6. Researchers at Northumbria University ([Dyca et al 2020](#)) have assessed the potential of **Transferable development rights** as tools for leveraging more funds for green and blue infrastructure addressing the stewardship deficit. These do have significant risks attached to them based on the place and financial contexts and the separation of giving and receiving areas but there are notable successes such as the high line development in New York. These warrant further investigation and piloting in England.

Ultimately we need to change the perception of nature as a constraint and management liability into the idea of nature as a critical infrastructure asset that also delivers important economic benefits. Here some recent data on health benefits reveal the importance of the natural health service. For example, recent research by the ([Wildlife Trusts 2023](#)) has shown that green social prescribing could save the NHS £635 million per year.

## Appendix : Supporting evidence to recommendations: Key ingredients for breaking down policy silos and investing in green infrastructure.

### 1. Championing Inter and transdisciplinary work from the outset

Interdisciplinarity analyses, synthesises and integrates links between academic disciplines into a coordinated and coherent framework creating novel and/or new insights whilst transdisciplinarity integrates academic disciplines and professional practice into a holistic framework.<sup>1</sup> Here, the involvement of academics and policy and practice communities as one team is integral to the process.

These forms of working are difficult and time consuming requiring significant upfront collaboration, social learning and communication; all supported by strong leadership championing co design and delivery ([Cowling et al 2008](#); [Scott et al 2023](#)).

This way of working actively demands breaking down or better linking<sup>2</sup> disciplinary and professional silos that all too often currently dominate much policy and research activity. This more integrated thinking is evident in the key lessons from the [Sheffield Grey to Green](#) and the [South Downs National Park](#) case studies.

However, the pursuit of separate targets in separate plans and even separate governance frameworks is the current norm. This accords with [Leach et al \(2018\)](#) who highlight that problems and interventions are designed and delivered in separate silos; a process [Scott et al \(2013\)](#) term (dis)integrated development<sup>3</sup>.

This practice of producing multiple single sector or problem plans in isolation from other plans risks losing potential synergies and creating duplication or conflict. Thus, separate nature, health,

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<sup>1</sup> A useful plain English guide to the terminology here is provided in the Valuing Nature Initiative <https://valuing-nature.net/sites/default/files/documents/demystifying/VNP25-DemystifyingInterdisciplinaryWorking-A4-28pp-144dpi.pdf>

<sup>2</sup> This term “linking” was used in an EKLIPSE webinar as an interesting response to the more aggressive “breaking down” silos. <https://www.youtube.com/watch?v=JmOMK-F3XSM> (within the question time session)

transport, flood, climate, recreation, economic, housing and infrastructure plans rarely align and perhaps most crucially also do not always inform or integrate with statutory development plans. A notable exception to this in the work done in [Greater Manchester Combined Authority](#).

One tangible action that can be done to tackle this disintegration and policy fragmentation is to start with all the individual different plans and just kind of map out the links between them and the way in which they could be better connected. Such work was undertaken in Bath and North-East Somerset Council (BANES: Figure 1) to support a June 2024 workshop on mainstreaming nature where the necessary people involved in designing and delivering those plans listed were brought together. The audit of the multiple plans and strategies was also a key initial step.

Title	Specific targets/objectives GI can contribute to
<b>Bath and North East Somerset</b>	
<a href="#">B&amp;NES Corporate Strategy 2023-27</a>	To improve peoples lives Tackling the climate and ecological emergency  Giving people a bigger say.
<a href="#">B&amp;NES Local Plan 2022-2042 (review in progress for March 2025)</a>	plan for housing and employment space in response to local needs, in attractive, healthy and sustainable places zero carbon by 2030 protect and enhance nature improved connectivity for all and reduced need to travel conserve and enhance heritage assets improve physical and mental health and wellbeing for all align provision of infrastructure and development
<a href="#">Bath and North East Somerset Health and Wellbeing Strategy (2023)</a>	Ensure that children and young people are healthy and ready for learning and education Improve skills, good work and employment Strengthen compassionate and healthy communities Create health promoting places
<a href="#">Building A Fair, Green, Creative and Connected Bath with North East Somerset An Economic Strategy for Bath and North East Somerset 2024-2034</a>	create a Greener Economy that is net zero, nature positive support our residents to access and thrive in Good Work establish BANES as a centre for scientific and health academic excellence, Inclusive Innovation and Creativity create Resilient Businesses by building a diverse, creative, and sustainable business base support Stronger Places, building resilience and sharing prosperity more fairly
<a href="#">B&amp;NES Climate Emergency Strategy 2019-2030 (updated 2023)</a>	Cut council operational carbon emissions to net zero by 2030 Decarbonising transport - provide transport infrastructure and environments that will encourage the use of sustainable modes of transport
<a href="#">B&amp;NES Ecological Emergency Action Plan 2023-2030</a>	Nature positive by 2030 Increase the extent of land and waterways managed positively for nature across Bath and North East Somerset Increase the abundance and distribution of key species across Bath and North East Somerset Enable more people to access and engage with nature
<a href="#">Journey to net zero – Reducing the environmental impact in Bath (updated 23)</a>	Reducing vehicle carbon emissions to achieve carbon neutrality by 2030 Improving air quality and health Promoting sustainable mobility Improving quality of life in the city Supporting and enabling economic growth, competitiveness, and jobs Widening travel choice Widening access to opportunities: jobs/learning/training Safeguarding and enhancing the unique historic environment and World Heritage Site status Improving quality of life in the city
<a href="#">B&amp;NES Local Flood Risk Strategy 2015-2025 (updated 2024)</a>	improve understanding of local flood risk promote community awareness and build capability for appropriate action manage local flood risk through capital and maintenance investment prevent inappropriate development that creates or increases flood risk improve flood preparedness, warning and ability to recover.
<a href="#">City of Bath World Heritage Site Management Plan 2018-2022 (currently being updated – will include Great Spa Town designation ref)</a>	Promote sustainable management of the Site ensure that the Outstanding Universal Value of the Site and its setting is understood, protected and sustained maintain and promote Bath as a living and working city which benefits from World Heritage Site status improve physical access and interpretation, encouraging all people to enjoy and understand the Site improve public awareness of, and interest and involvement in, Bath's heritage, achieving a common local, national and international ownership of the Site's management.
<b>Regional</b>	
<a href="#">Joint Local Transport Plan 4- 2020-2036</a>	Take action against climate change and address poor air quality Support sustainable and inclusive economic growth Enable equality and improve accessibility Contribute to better health, wellbeing, safety and security Create better places
<a href="#">Bristol Avon Catchment Plan 2022-2027</a>	Enhance people's enjoyment and connection with water Improve water quality Restore biological and ecological connectivity Adapt and build resilience to changing climate Delivery of <a href="#">Bristol Avon Fish Recovery Strategy</a>
<a href="#">Forest of Avon Plan- A Tree and Woodland Strategy for West of England (2021?)</a>	Doubling the West of England's semi-natural tree and woodland cover, including open wooded landscape and mosaic habitats.
<a href="#">West of England Climate and Ecological Strategy and Action Plan 2023</a>	Decarbonise the transport system; reduce car dependency; manage demand; increase cycling, walking, wheeling and public transport; embed nature recovery within transport capital projects Increase the energy performance, climate resilience and environmental benefits of buildings and places Wildlife and the natural environment are in recovery, with their decline halted and in line with the West of England Nature Partnership the abundance of wildlife has increased by 30%. Help all businesses become more sustainable and resilient to meet our 2030 objectives; help low carbon sector businesses and ensure local people benefit from growth in the green economy Take action to accelerate and ensure we are adapting to a changing climate and increase climate resilience across our region
<a href="#">West of England Local Nature Recovery Strategy (in development)</a>	Build connected nature networks that are resilient to climate change.
<a href="#">West of England Nature Recovery Prospectus</a>	Nature Recovery through delivery of Strategic Nature Recovery Network Project Areas programmes and projects includes Limestone Landscape Link, Chew Valley Reconnected, Somer Valley Rediscovered and Bathscape
<a href="#">West of England Destination Management Plan 2023-2033</a>	Achieve longer stays from visitors coming to the West of England. Support product development of the 2 of the 3 themes - Heritage Reinterpreted and Wellbeing

If you want to access web links of these please cut and click here please copy (cntrl C) and paste into web browser <https://www.dropbox.com/scl/ri/vU9ws35lwex2b9t61fx2/Strategies-and-plans-GI-table.docx?rlkey=vz24oxxcddanwpcp4nq45tm&dl=0>

Figure 1 : Key Plans impacting upon nature in BANES (source BANES workshop preliminary material).

Green Infrastructure (GI), as a nature proxy, arguably serves as a [potential delivery vehicle](#) to bring all these plans and strategies together. Its role and remit as “a strategically planned network .....designed and managed to deliver a wide range of ecosystem services..... This network of green(land) and blue (water) spaces can improve environmental conditions and therefore citizens’ health and quality of life. It also supports a green economy, creates job opportunities and enhances biodiversity” ([European Commission 2013:3](#)), illuminates how GI acts as a “bridge” to other plans and strategies thus catalyzing mainstreaming efforts (Figure 2).

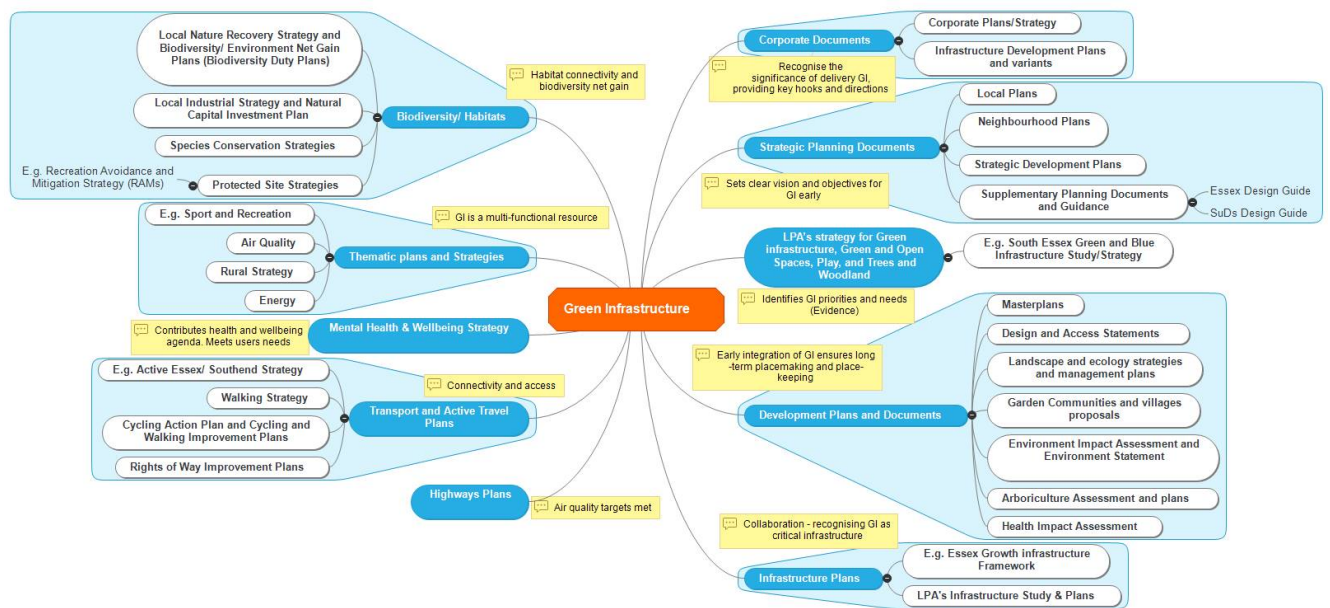


Figure 2: The integrative role of GI in the natural environment (Source Essex County Council 2022 (adapted))

There is a strong academic consensus that key societal problems are better tackled jointly but there is currently a disconnect with the skills agenda to fully recognise and deliver on this potential. For example, much higher education is still focussed on specialised degree topics, reluctant to cede their disciplinary sovereignty in interdisciplinary course design..

Success involves bringing the right people to the table from the beginning which is time consuming, requiring upfront investment in process. This was very much the rationale for the [Planning Advisory Service Local Authority nature recovery toolkit](#) to consider how nature could be made more relevant across multiple departments and senior managers who currently do not perceive nature as useful for securing their objectives or priorities.

It is also important to define the end goal of any process or intervention. Often this is not clearly defined at the outset of a process beyond a generic utopian vision statement; strong on ambition but weak on delivery (Scott and Kirby, 2024). Set within a desire for evidence-based policy, this is a concern that needs to be addressed by better data, participatory processes and long-term monitoring of interventions. However resources for monitoring and evaluation are poor reflecting its Cinderella status in the planning system

Success is also influenced by the efficacy of multi-level governance frameworks (Adams et al 2023) encompassing transparency, accountability, leadership, innovation and risk (Lockwood 2020: Santos et al 2023). Current governance structures at the macro (regulation; risk aversion) and micro levels (appraisals; micropolitics) often hinder such efforts and successful initiatives are ad-hoc and due to motivations, actions and personalities of individuals, going beyond their established duties, in spite of the system rather than because of it (Scott, 2011).

My work with the South Downs National Park (2012-2016) highlighted how mainstreaming nature is most successful when it permeates the whole culture of the organization including the senior leadership team and members across all departments (including the planning team), rather than resting with one or two individuals identified as champions (Scott et al 2018: 2023). Alongside this, there is the need for effective communication between and within departments. However, the National Park



has the benefit of having a more nature-focussed remit with supporting legislation rather than relying on voluntary activity ([Runhaar et al., 2024](#)).

A supportive governance culture can be highly motivational but the pragmatic reality is that people have to go beyond normal work requirements to make things happen for nature. This was evident in the [North Glasgow Integrated Water Management System](#) case study with an interdisciplinary management group who were prepared to take risks contrary to usual local authority risk aversion culture.

The set of transferable, softer personal skills become important in cultivating good relationships with senior managers, within and across organizations and departments and elected members (where relevant) to enable things to happen on the ground.<sup>4</sup>

Significantly, only certain areas of nature such as biodiversity and public access are governed by regulation. Green infrastructure, for example, does not have any statutory legislation, thereby requiring more indirect approaches such as designing stronger planning policies in local plans (Public Sector); using incentives such as market-based instruments, certification schemes or CSR, or tackling the planning process within other strategies, such as Essex County Council in their Green Infrastructure Strategy. Within a [Birmingham case study on nature recovery](#), the importance of effective champions as communicators together with key bridges such as climate change, deprivation and Covid were seen as key political hooks to get dialogues and actions started.

As well as the more traditional top-down approaches, community voices from the “bottom up” perspective are important, reflecting the power of local cultural knowledge(s) and connections with nature ([Sanga et al 2019](#)) and through communities of practice championing social learning ([King et al., 2023](#)). Perhaps, community based natural resource management offers an important contribution to mainstreaming discourses which rarely gets traction in a UK context ([Reid, 2015](#)).

For me the key opportunity space to exploit here is the creation of a managed, safe space at the top down – bottom up interface where the key proponents can participate ([Grace et al 2023](#)). The university can play a key role here as the managing agent ([Vallance et al 2020](#)).

One neglected area of governance is **monitoring and enforcement functions**. Often limited resources are available for what is an essential activity which should be undertaken through the design delivery processes rather than bolted on at the end. Measuring success and learning from mistakes are essential elements but monitoring activity is heavily skewed by top-down government targets. There is little monitoring of how well planning authorities are doing on planning in general and nature in particular. Hence some of the current alarm bells raised over BNG monitoring are nothing new in relation to efficacy of previous planning tools (e.g. section 106, SSSI favourable condition) requirements ([Zu-Ermgassen et al 2021](#)). This also applies to the mushrooming development of carbon trading schemes where in a recently published meta study in Nature ([Benedict et al 2024](#)) that only 16% of traded carbon credits represent real emissions reductions. This raises real alarm bells how effectively the monitoring of such schemes will be carried out.

Finally, interdisciplinary and transdisciplinary work will bring people and agencies together in partnerships who do not usually interact. Partnerships are the principal delivery vehicles in this new governance agenda ([Scott 2012](#)). However, how you get such people to commit time and resources to such ventures beyond an initial meeting when their time is pressurized poses its own challenges, as expanded upon in the next section. Such interactions need careful and expert facilitation and

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<sup>4</sup> Work by Birmingham City Council <https://www.local.gov.uk/pas/topics/environment/nature-recovery-and-biodiversity-case-studies/how-birmingham-city-council> See also the powerful story by Charlotte Glazier of how pocket park initiative was codeveloped with a councillor after complaints of motorbike noise. Creative thinking, personal motivations and serendipity interact. <https://www.youtube.com/watch?v=2O091Dg01-A>

management to understand different positions, priorities and vocabularies and seek pragmatic solutions that go beyond generic lowest common denominator solutions. Such processes are not solved quickly and expectations about what can be achieved in one-off events or programmes need to be managed carefully given the dangers of unmet expectations.

One of my personal reflections is that often people expect such activities to deliver far more than is possible and this exposes, in my mind, a lack of understanding of the complexity and capacity-building needed for successful interdisciplinary/transdisciplinary working. This is why we often see a plethora of partnerships with poor representation and legacy ([Scott 2012](#)).

## **2. Joining up nature's silos to better address other sectors' priorities**

One of the major challenges with mainstreaming nature is the ever-expanding and complex environmental vocabulary and language which limit understanding thereby confusing and alienating other sectors/interests who equally have their own vocabularies and priorities to pursue.

Whilst each concept (Natural capital, ecosystem services, green infrastructure, biodiversity and environment net gains, nature-based solutions and LNRS) have a defined role in their own right, they were all introduced at different times and for different purposes, with little attention focused on how they might be delivered together in policy and practice and the positive cumulative benefits of such actions ([Scott et al 2022](#)). The links and synergies and cross benefits are not considered which often makes it challenging to align because they are being implemented at different time scales making it hard to marry up or assigned to different departments. Furthermore, these concepts have generated their own champions which creates competition and potential conflict, with diverse voices and arguments emerging within the environmental sector itself. This is not helpful to those trying to navigate the nature policy ecosystem. Set within a more global framing, [Castellino \(2021\)](#) reveals conflicts between community and environment voices; "*it is crucial that the global 30 by 30 target to preserve biodiversity does not pit one voiceless constituency, the environment, against another, indigenous populations*". There is also the influence of the issue attention cycle ([Downs 1972](#)). For example, BNG currently dominates environmental policy discourses as people seek to understand how the new rules affect them. In effect, everyone is putting on the brakes elsewhere.

Environmental specialists rarely take the time to better understand the disciplines, languages and priorities of other built environment interests and their challenges. In essence we need to speak to those audiences and in a way then that they can understand each other's priorities. It is only from that mutual understanding that you can then start to formulate interventions that can help them deliver. Currently such work is limited by the very silos we currently operate in, and the limited time given to build the necessary social capital.

Moreover, in the UK environmental domain there is now a rapidly changing policy framework which itself spawns many separate environmental plans and strategies, resulting in significant duplication but also potential inconsistencies and confusion across non-environmental bodies trying to navigate and make sense of them. The fallacy of "environmental incrementalism" is in full view ([Allan 2019](#)), whereby new environmental strategies are just overlain on to the existing governance framework, further complicating matters, rather than undertaking any substantive work to transform the problematic governance frameworks themselves.

Work by the [Broadway Initiative](#) on place-based frameworks has tried to tackle this, in part, through their proposal championing [Local Environmental Improvement plans](#) (LEIP). They make the argument that current plans treat the environment in silos rather than as connected systems. Separate management and finance systems hinder investment opportunities for multiple benefits. They are managed on short term timeframes rather than the long-term nature that environmental challenges

require. They lack coherence to plan for nature's recovery and are often unaccountable to local people. Finally, they are treated as separate from, and often fail to feed into, development plans. The recommendations thus seek to integrate all aspects of the environment and existing spatial instruments into a coherent plan championing resilience, transparency, accountability and policy integration.

### **3. Improving the framing of nature using hooks and bridges**

How nature is currently framed and communicated within projects, programmes and initiatives is also an important component in mainstreaming. The use of plain English and using principles and concepts that non-experts can easily understand is crucial but often neglected

In a review of three successful mainstreaming case studies (Sheffield, South Downs National Park and Glasgow), [Scott et al \(2023\)](#) highlight the significance of positive framing(s) of all projects according to the target audiences' specific priorities. For example, in the Sheffield 'grey to green' project, nature was framed to water engineers as an answer to their drainage problems. For traffic engineers, it slowed traffic, reducing accidents. For council members, it was about amenity in the city. For businesses, it brought back life and activity and regeneration. Finally, for the public it reconnected pedestrians to the city. This multi-pronged approach to communication was key in securing audience engagement and support, changing the perception of nature as a constraint into an asset; a point also emphasized by [Runhaar et al \(2020\)](#) in a meta review on successful policy integration.

Use of strong positive framing for nature is also evident in the "nature-positive" concept which has stimulated multiple initiatives such as the Science-based Targets for Nature, Taskforce for Nature-related Financial Disclosures, and the Conservation Hierarchy approach ([Milner-Gulland et al 2021](#)). Equally, natural capital in general and the [natural capital approach](#) in particular is now (having gained significantly more traction) seen as a positive way of capturing the value of nature so that it can't be overlooked by policymakers.

My work on mainstreaming ecosystem science introduced the concepts of [hooks and bridges](#) as key mechanisms to help catalyse mainstreaming dialogues. Whilst "hooks" are useful for engaging with specific audiences on their specific priorities, "bridges" offer a potentially more significant role as they are built on concepts that help unite multiple audiences together (Figure 3), thus helping to break down the policy silos that have been exposed as a major mainstreaming barrier.

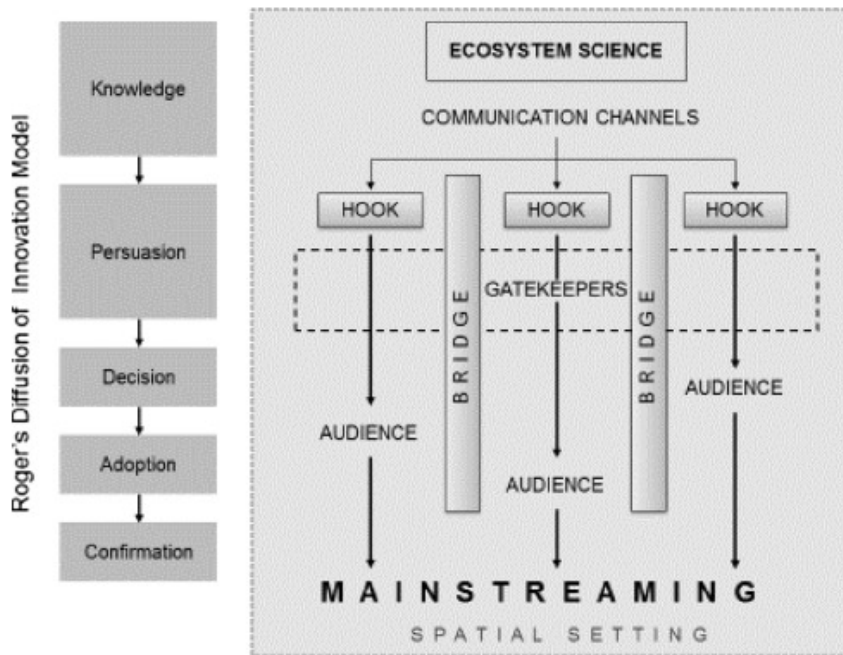


Figure 3 Hooks and Bridges in Mainstreaming (Scott et al 2018)

Bridges provide uniting mechanisms to get the right people in the room from the outset and are therefore crucial for successful mainstreaming processes and strategic planning (Scott and Kirby 2024). The Planning Advisory Service highlight the need for such mechanisms as a first step in their draft Local Authority Nature Recovery Toolkit materials (PAS, 2024). Thus, more emphasis is needed on how best to get the right people in the room with sufficient influence and interest to make things happen.

But, getting the right people in the room from the outset and **maintaining their commitment** is a key skill and rarely achieved. Many initiatives, conferences, webinars and workshops fail by not devoting enough preparation time to this task, often resulting in an audience missing key interests. Indeed for a successful workshop the time involved and actually planning for it took much longer than the actual workshops themselves. The risk of “preaching to the converted syndrome” is often encountered in such events with little evaluation of how specific audiences were targeted, if at all. Essex County Council for their GI strategy follow-up work in July 2024 invested in up-front dialogue via separate Teams meetings with 6 out of 14 local authorities to understand how a workshop could best meet their specific agendas and priorities. This undertaking helped ensure the workshops were co-designed and fit for purpose; designed to maximize participant priorities and also ensure a good attendance by securing their stake from the outset.

Drawing on intelligence from the interviews and workshops I have held and attended over my NERC fellowship and beyond, the following “bridges” are proposed to help multiple stakeholders unite around the natural environment (Table 1). Whilst these bridges are presented separately, they are most effective when pursued as part of a multifunctional agenda to optimise impact. I

However, whilst these bridges are important in bringing groups together, securing their longer-term resilience is also important. Thus, we need to progress beyond talking shops to dedicated task and finish<sup>5</sup> groups in response to identified challenges. Currently we are seeing too many single-issue

<sup>5</sup> Task and finish groups are action oriented groups that have a task defined by why you are doing something and considering how you approach the task. The finish is actually delivering on the tasks through actions and adapting what you do.

partnerships reinforcing the silo mentalities observed earlier. The task and finish component makes the partnership outcome-orientated and thus builds collective capital. The challenge is to embed this into individual work programmes so it is not seen as an extra to what are already burgeoning workloads.

Furthermore, there is a risk that people rely too heavily on a single workshop or meeting to generate progress rather than locate them in a planned and deliberative process leading to key outputs. Indeed, diverse groups who may not usually interact or understand each other's positions and red lines need conflict management strategies and interventions. Single workshop events can raise expectations, but they will not work unless the impetus for action is generated with strong leadership and audience enthusiasm and commitment to roll on forward.

Work with Essex County Council in 2020 and 2021 supporting the development of their bespoke [GI standards](#) through [3 deliberative workshops](#) reveals what can be achieved in carefully worked out and designed programmes of meetings and follow-up work. The outputs led to material published in the design guide with high impact potential.

<b>Bridges</b>	<b>Comment</b>
Climate Emergency /Net Zero	Declaration of <a href="#">climate emergency</a> in many local authorities represents a key action to build upon. <a href="#">Net Zero</a> is also a key commitment in government, requiring immediate actions in order to meet targets Some <a href="#">combined authorities</a> formally declared a climate emergency, setting in action more strategic objectives and actions.
Biodiversity emergency and the Environment Act legislation	The need to make space for nature and meet the requirements in national planning policy and the Environment Act, 2021 to deliver mandatory <a href="#">Biodiversity Net Gain</a> (BNG) provides a key bridge. However, It is important that this is embedded in the wider <a href="#">local nature recovery strategy to avoid it becoming its own silo</a> . Furthermore, the Environment Act gives all local authorities a duty to protect and enhance biodiversity with a reporting requirement.
<a href="#">Natural Capital</a>	Key concept that ties in with the other capital and can therefore be used in decision making. Ties in with the <a href="#">HM Treasury green book</a> for project assessment and appraisal.
Public Health /Active Lives): the natural health service <a href="#">Covid highlighting inequality and access to green space</a> .	Covid19 response to people’s health and wellbeing has highlighted the importance of GI but also highlighted the current inequality to green space. <a href="#">Health impact assessments</a> provide a further opportunity to ensure access to greenspace and form part of policy responses. The rise of social prescribing is an important mechanism here.
Business Improvement Districts (BIDS)	Local projects like developing <a href="#">greening the BIDS in London</a> help integrate place, economy and community under a collective GI umbrella .
Placemaking and place keeping	Both placemaking (Standard 5) and placekeeping (Standard 6) are core standards as part of the refreshed <a href="#">Building with Nature framework</a> for accrediting good GI across the UK. <a href="#">The Parks for London</a> has drawn together resources for both placemaking and placekeeping.
Community led agenda as part of climate adaptation	Example of <a href="#">Islington Pocket Park</a> financial framework. scale up urban greening for climate adaptation building on local residents’ interests and challenges. Here an example of problems with mopeds led to a major funding initiative.
Forest Schools and schools	Working with children is a great way to build relationships with nature and indirectly reach their parents.
Green and Blue Infrastructure with nature-based interventions.	A concept readily understood in the built and natural environment but still subject to sector specific definitions and work. However, it has potential to bridge multiple areas of policy through its focus on nature based interventions.
<a href="#">The Taskforce on Nature-related Financial Disclosures</a> (TNFD) where risk becomes a useful bridge	Guidance that encourages and enable business and finance to assess, report and act on their nature-related dependencies, impacts, risks and opportunities. <a href="#">Recommendations</a> provide pathways for action. Here <a href="#">natural capital accounting</a> is proposed as a useful tool to facilitate this. <a href="#">Nature positive</a> as a concept has become increasingly used but beware of greenwashing.
Mitigation Hierarchy adapted to become the <a href="#">Mitigation and Conservation Hierarchy</a>	Mitigation Hierarchy for mitigating and compensating the biodiversity impacts of developments (1, avoid; 2, minimize; 3, restore; and 4, offset, toward a target such as "no net loss" of biodiversity) within a broader framing encompassing all conservation actions
<a href="#">Well Being of Future Generations Act (Wales) 2015</a>	The Well-being of Future Generations Act requires public bodies in Wales to think about the long-term impact of their decisions, to work better with people, communities and each other, and to prevent persistent problems such as poverty, health inequalities and climate change. The Act is unique to Wales. Important as this means you need to have equality of outcome. This gives an important delivery role to GI.
Risk	<a href="#">Risk</a> is a useful concept; whilst it has negative connotations, managing risk is universal and key to successful work. Key might be using risk in a positive sense. This can be a cross-cutting theme to the other bridges listed above
<a href="#">Multifunctionality (OECD 2001 p6)</a>	This refers to the fact that an activity may have multiple outputs and, by virtue of this, may contribute to several societal/economic objectives at once. Thus multiple benefits may be the bridge also.

Table 1 Bridges for mainstreaming Nature complete with hyperlinks.

Making the “bridges” work effectively is down to the personal and leadership skills of people promoting the value of nature. Arguably this works better if the champions are not embedded in the

nature camp already. As stressed previously, this is helped by a supportive organisational culture, but the individuals often make progress due to their abilities and skills in reaching out across multiple groups and departments which is not necessarily a prescribed work role. Personal characteristics such as risk taking, working outside personal comfort zones and ability to work within a bigger strategic picture all have potency (Local Government).

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