environment innovation business

Delivering environmental net gain:

an EIC position paper

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Foreword

The concept of ‘natural capital’, of treating the natural world as a set of vital assets, has caught the imagination of policymakers. It is now Government policy to improve our country’s natural capital over the next 25 years.

The EIC Natural Capital Taskforce, consisting of natural capital experts from the UK’s large environmental consultancies, and from some of the UK’s main landholders, such as utilities and property developers, has come together to make a constructive input to how we do this. These businesses are on the frontline of the interaction between natural capital and the needs of customers and shareholders. The Taskforce has produced this paper to show how ‘environmental net gain’ could be accounted for in a way which contributes to the 25 Year Environment Plan and also allows investors and developers to plan and invest with confidence. As one of our members has said, we need to make environmental net gain ‘investable, workable and repeatable’.

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Chair of EIC Natural Capital Task Force

Introduction

The government's primary goal for environmental policy over the last few years has been the overarching ambition to "leave the environment in a better state for the next generation". In the last two years some significant detail has been added to this high-level vision. The Government launched a 25 Year Environment Plan (25YEP) in February 2018. The Plan sets out the Government's aspirations for our key natural assets: air, water, land, and wildlife, to be achieved over the next quarter century. The Plan also emphasises the need to improve resource efficiency and decrease waste and pollution, and to connect people with nature.

In addition, the Plan emphasised that to make the goal of overall long-term environmental improvement a reality, individual housing or infrastructure developments should contribute to this improvement. The Plan calls this the principle of 'environmental net gain (ENG)' explained as follows: ***"we support development and the environment by embedding the principle that new development should result in net environmental gain – with neglected or degraded land returned to health and habitats for wildlife restored or created."***[1] While the focus of debate on 'net gain' has been on its role in new development, the concept is also relevant to existing infrastructure assets and their operation and maintenance.

The 25YEP pledged to consult on making it 'mandatory' for planning authorities to deliver ENG (25YEP p33) and foresees the 'mainstreaming' of biodiversity net gain (BNG) approaches followed 'in the future' by ***'expanding the net gain approaches used for biodiversity to include wider natural capital benefits, such as flood protection, recreation and improved water and air quality. Those approaches will sit alongside existing regulations that protect our most threatened or valuable habitats and species. They will enable local planning authorities to target environmental enhancements that are needed most in their areas and give flexibility to developers in providing them'*** (25YEP p33).

In March 2019 the Government committed to making BNG mandatory for developments. In July 2019, the government set out its response to the BNG consultation and provided information on how mandatory BNG may be delivered in practice. The Environment Bill sets out provisions to do this.

The 25 Year Plan rightly emphasises the need to deliver environmental net gain (ENG) and its precursor Biodiversity Net Gain (BNG) in ways which facilitate well-designed sustainable infrastructure and development. The planning system is complex already, and developers are naturally cautious about new policies which may make it more so. At the same time some NGOs fear ENG will be a 'license to trash' regardless of environmental impact.[2]

The direction of travel set out by the Government is clear and given the scale of the pressures on the UK's biodiversity and wider environment is strongly welcomed by EIC members and by wider stakeholders (see Fig 1: Net Gain consultation results). The challenge is to operationalise the concept of net gain in a way that developers, consultants, utility sectors such as water, communities and local authorities can all work with and trust, and which will ensure that necessary development can proceed such that it contributes to the delivery of natural capital recovery and enhancement.

The remainder of this paper sets out recommendations for how this might be done.

[1] Our Green Future: Our 25 Year Plan to Improve the Environment
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf

[2] https://friendsoftheearth.uk/nature/biodiversity-offsetting-and-net-gain-licence-trash-nature

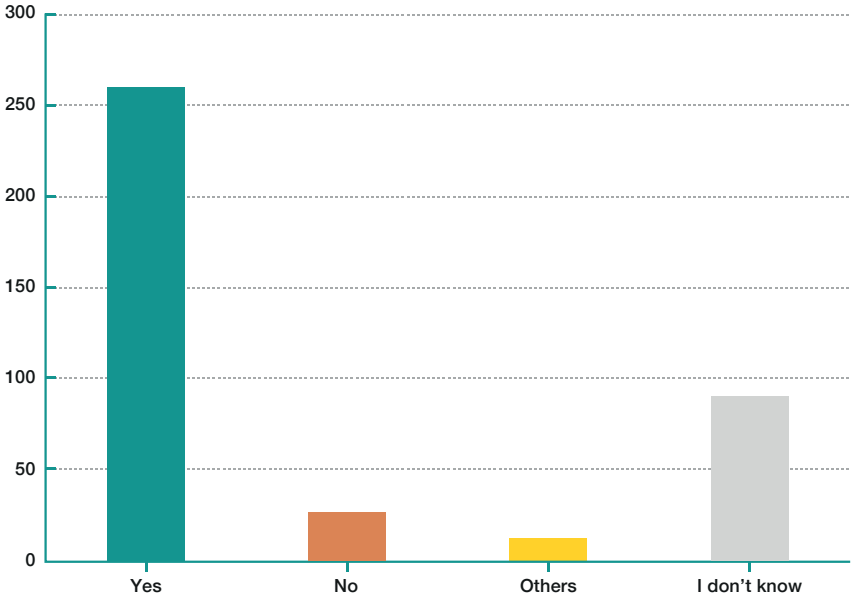
Defining ‘environmental net gain’ (ENG)

As a policy concept ENG is a way to ensure that all developments make a measurable contribution to improving the natural environment, and the services that are provided to society, over time. It uses the concept of natural capital and ecosystem services [see Fig 2] as a way to assess, and in some cases quantify, the impact of development and operational activities on the natural environment.

This approach considers that the UK has a set of natural capital assets (e.g. soil, rivers, woodlands) which produce a flow of ecosystem services (e.g. pollination, fresh water, air quality and other regulating services). The extent and condition of these assets determines the volume and sustainability of these services and the benefit that society derives from them.

Figure 1: DEFRA Net Gain Consultation results

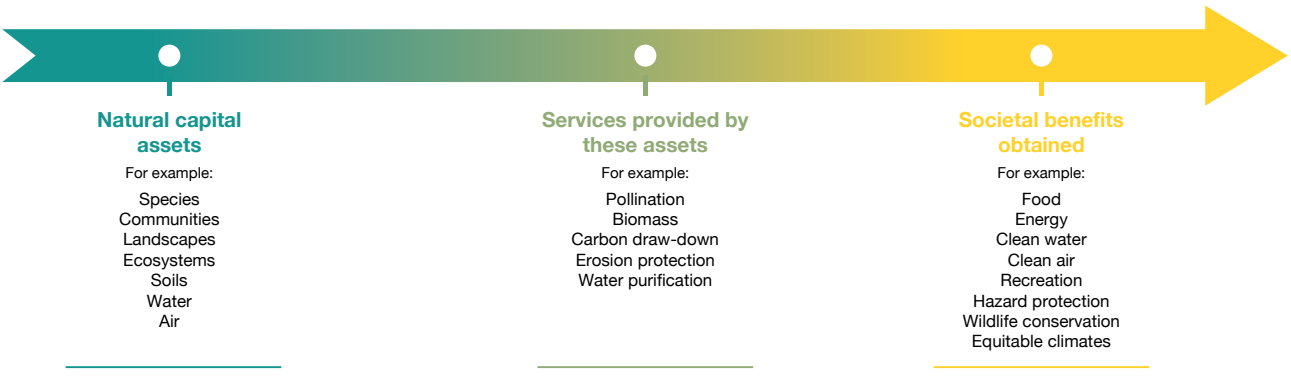
Question 9: Are there wider elements of environmental net gain that could be better incentived?



Source: DEFRA[3]

ENG builds on the concept of Biodiversity Net Gain, whereby a development’s impact on local habitats must lead to a net increase in biodiversity. Defra has defined environmental net gain as ‘achieving environmental net gain means achieving biodiversity net gain first, and going further to achieve net increases in the capacity of affected natural capital to deliver ecosystem services’. The emerging model of ENG recognises that there may be a trade-off between wider environmental impacts that occur, but that the overall balance must combine BNG together with meaningful improvements in most of the natural capital affected.[4]

Figure 2: Natural capital approaches consider the relationships between natural assets, the services they deliver and the benefits to society derived from them



Source: Natural Capital Committee, How to do it: a natural capital workbook, Version 1, April 2017

[3] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819823/net-gain-consult-sum-resp.pdf

[4] Conceptually, the two are closely linked, though one could conceive of situations where a development had little impact on biodiversity but delivered some wider environmental gains (e.g. a redevelopment of buildings to create homes that incorporates water efficiency and sustainable drainage features). However, given that the Government has already decided to mandate BNG for developments, it makes sense in practice to make BNG a pre-requisite for full ENG.

Figure 3: biodiversity net gain in practice

The scenarios show the broad mechanism through which a residential development could achieve biodiversity net gain under the policy proposals. The same principles could apply for wider development and construction.

Scenario A

The developer is able to avoid harm, mitigate and enhance on site.

Scenario B

The developer is unable to avoid, mitigate and compensate all impacts on site, but is able to secure local compensatory habitat creation.

Scenario C

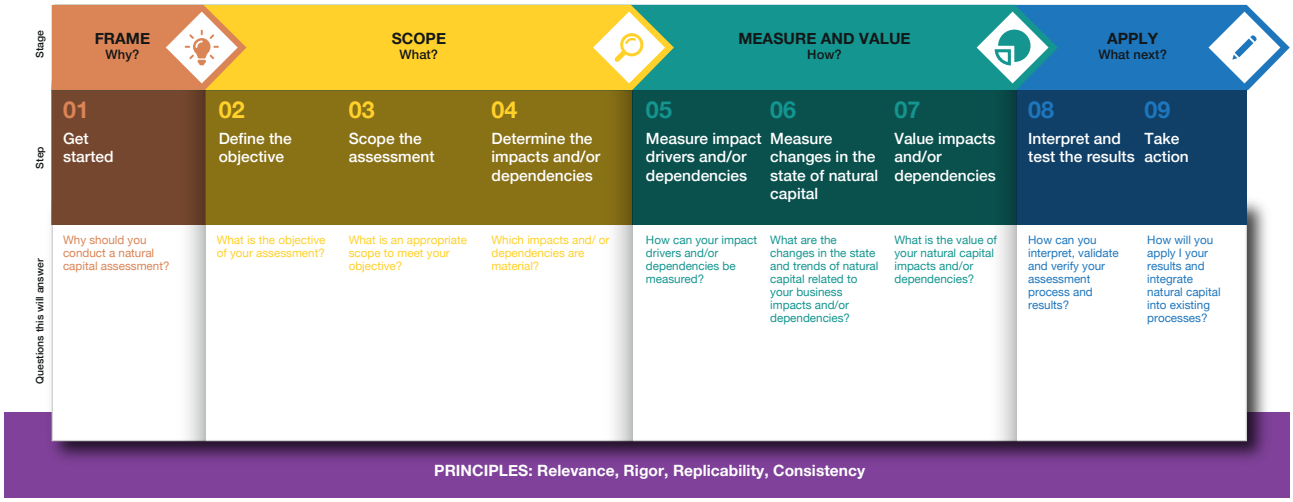
The developer is unable to avoid, mitigate and compensate all impacts on site, and unable to find local compensatory habitat to invest in. In this case the developer can invest in nationally strategic habitats through a government offering of 'statutory biodiversity units'.

Source: Adapted from DEFRA, Net gain Consultation proposals, December 2018

Calculating ENG

It will be difficult to specify a process for calculating ENG that can be applied in all situations. However, EIC has supported Defra in developing the ENCA resource - an online portal which brings together the best evidence and datasets on UK natural capital to provide guidance assessing net gain (https://www.gov.uk/guidance/enabling-a-natural-capital-approach-enca). Tools such as the Natural Capital Coalition Protocol could also be used (Figure 4):

Figure 4: Natural Capital Coalition Protocol



Source: Natural Capital Coalition

Development occurs at a local level but can have wider environmental implications (up to global in terms of carbon impact). Equally, while some environmental changes – changes to tree cover or water quality for example – may be readily apparent to the local community, others such as changes to levels of certain air pollutants or insect biodiversity change may be invisible. If ENG is to succeed it is important that communities feel that it is relevant and sensitive to local needs and that awareness is created around the full range of benefits arising from a specific intervention.

The valuation of benefit should therefore have a spatial reference point, meaning that benefits can have greater or less value depending on where the natural capital asset is situated. The approach taken in the delivery of BNG can be readily extended to give due weight to local priorities when it comes to ENG. Particular locations can be assigned different rankings, according to their importance for the delivery of certain ecosystem services. It is easy to envisage a location being assigned a high ranking for, say, flood attenuation, if it is upstream of a settlement liable to flooding; or a location being assigned a high ranking for recreational services, if it is adjacent to a settlement with a high degree of social deprivation. Natural capital assets that deliver priority ecosystem services in these locations are therefore more highly valued – and it becomes more costly for development to impact on these assets, because the negative externalities are priced in. This would be similar to the way that the sequential test and Strategic Flood Risk Assessments are used in the planning system to steer development away from flood risk areas. This should have the effect of directing development away from those locations where it would have the most costly impacts. Equally, the restoration or creation of natural capital assets that deliver priority ecosystem services in these locations will be more worthwhile, and should have the effect of directing investment into enhancing priority natural capital assets.

'Mandatory net gain' would therefore come from the development being required a) to show BNG, and b) to have gone through an ENG assessment which assessed wider environmental ecosystem service impacts over time (both from habitat change and other changes). The local planning authority would then need to be satisfied that this and accompanying qualitative analysis represented a reasonable 'net' environmental contribution.

Recommendation: National and regional priorities for restoring natural capital are set on a scientific basis, but there is also an element of weighting given to community priorities and the developer is required to show that they have consulted effectively with the community to identify these.

Applying ENG – the scope of the policy

Requiring full mandatory ENG is likely to be a demanding process. It is possible that the demonstration required could be scalable depending upon budget and the type of the development. For example, for small schemes a "quick scan" could be undertaken. That is the quantification of existing habitats on site, their quality (as per the BNG guidance) and their ecosystem services delivered. A simple narrative as to how each ecosystem service has been addressed within the scheme would aid an holistic approach to decision making and design. A minor amendment to the NPPF could be used to start implementing this process. For BNG, the Government has decided to only allow a small number of absolute exemptions and this approach should be followed for ENG.

Recommendation:

1. Developments subject to an EIA should be required to achieve ENG as a condition of granting planning permission – there should be an 'ecosystems services enhancement chapter' in EIAs to facilitate this.

2. The NPPF should be amended to require local planning authorities to specify the approach taken to ENG for sub-EIA projects – this would allow local priorities to be taken into account.

3. A 'model' chapter on ENG for local development plans should be produced and published alongside the revised NPPF to support local authorities in developing ENG policies and in promoting consistency

4. Absolute exemptions from ENG should be limited as with BNG

Note: The above recommendations apply specifically to England, but we believe the principles could also apply to Scotland, Wales and Northern Ireland.

The role of ‘offsetting’ in ENG

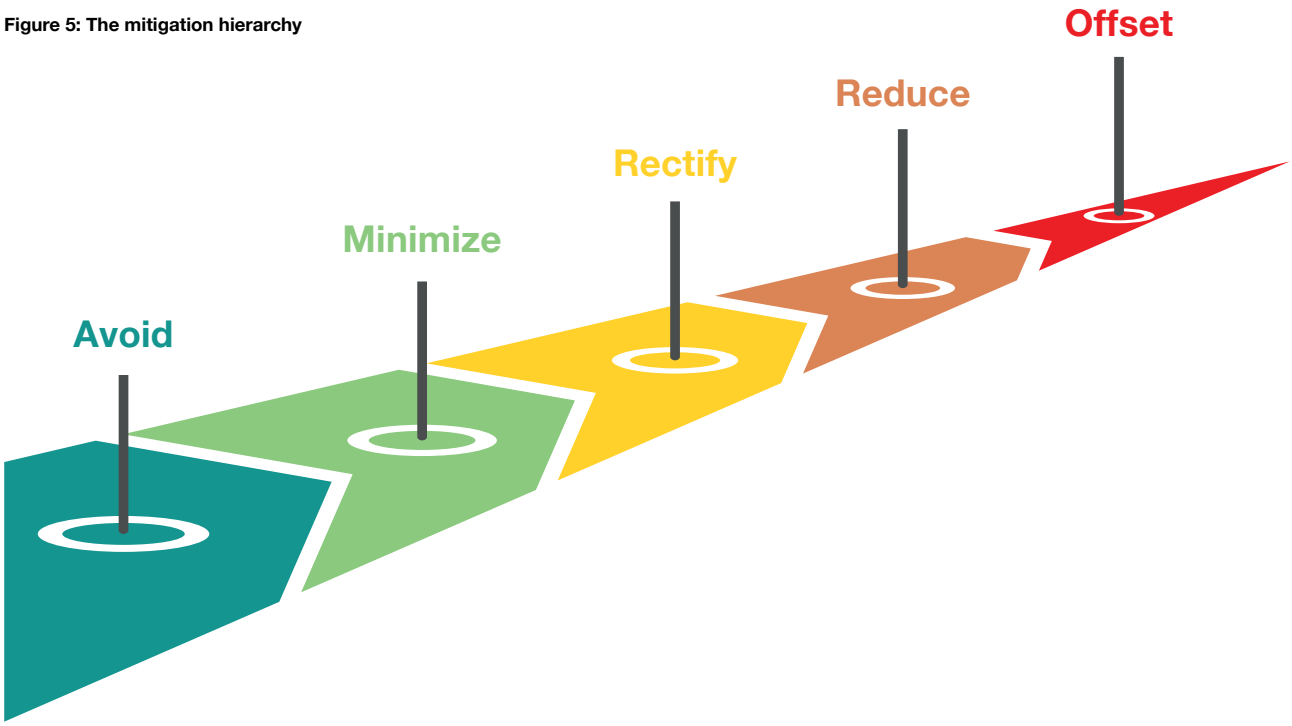
In some cases, the environmental impact caused by development on a site (especially a greenfield site), cannot be mitigated for on the site itself. Under the BNG approach, in such cases a developer can opt to fund habitat creation or restoration at another site and count the biodiversity gain that will result as part of the BNG calculation.

Offsetting can have genuine environmental value. It can allow the benefits from small developments to be aggregated around a larger restoration project with greater ecological connectivity and environmental benefits that would not otherwise be viable. It can also result in environmental improvement happening closer to the communities who might benefit most from it and giving communities greater access to the natural environment. Equally if not done well it can contribute to ongoing national loss of natural capital and localised loss of ecosystem benefits to local communities.

Recommendation:

1. Offsetting should be allowed as part of an ENG approach
2. Use of offsetting should be subject to the mitigation hierarchy (see Figure 5). Note that for very small sites some flexibility in the hierarchy may be needed.
3. Projects funded by net gain offsets must adhere to the goals of the 25 YEP and must state how they are achieving them.
4. There should be a national strategic oversight of the location of offset projects, to ensure they link with the Local Nature Recovery Strategies proposed in the Environment Bill (the Office of Environmental Protection to be created under the Bill could oversee this).

Figure 5: The mitigation hierarchy



Source: Eco-intelligent, https://eco-intelligent.com/2016/12/11/levels-of-mitigation-in-environmental-impact-assessment/

Ensuring the duration of ENG projects

While the proposed Conservation Covenants[5] may incentivise and secure specific conservation and/or enhancement based aspirations for undeveloped land, one of the barriers to creating and maintaining ENG is the perceived challenge of maintenance of green infrastructure. There are great capital and operational opportunities that could be maximised should the costs and benefits of green infrastructure delivering a wide range of ecosystem service benefits be more widely understood along with design standards and the costs and mechanisms for securing long term management.

Recommendation:

> Engagement with a range of stakeholders including local authorities that adopt elements of green infrastructure management should be undertaken to produce a framework for cost benefit analysis, design standards and long-term stewardship.

[5] https://www.gov.uk/government/news/gove-unveils-new-covenants-to-protect-nature

Next steps

The Environment Bill is intended to put key aspects of the 25 Year Environment Plan on a statutory footing. Specifically, the Bill includes provisions to make Biodiversity Net Gain mandatory through making planning permission unlawful unless a 'biodiversity net gain plan' had been submitted by the developer and approved as part of the planning process. The Bill also sets out requirements for a national 'habitat map' and a spatial network of 'Local Nature Recovery Strategies' which would provide the context for biodiversity net gain plans.

Given the 'once in a generation' aspect of the Environment Bill, we would urge that the Bill's provisions be amended to provide enabling powers to ensure that the move to ENG as set out in the 25YEP can happen soon.

Recommendation:

> The Environment Bill should include a commitment that the environment secretary must publish a review by the end of 2022 of the impact of the BNG policy and consult on the practicality of extending this to ENG

There is also a need for more ecology and environmental expertise in local authorities. At present not every local planning authority has its own biodiversity specialist, and this role is often being filled by an ecological consultant contracted to the LPA to deliver this service. The 25 Year Plan aspiration of 'embedding' an environmental net gain principle in development policy will only work if local authorities have the expertise to work effectively with the private sector and to make careful judgements as to how net gain can be applied on the ground. Inevitably this will involve some extra resourcing. However, research by EIC's sister organisation, the Association of Consultancy and Engineering, has discovered that over £400m collected by local authorities from developers through the Community Infrastructure Levy remains unspent. The Levy is intended to enable councils to ensure that the impact of new development on local infrastructure is mitigated. Resourcing councils with the expertise needed to ensure that the community's natural capital is enhanced as part of new development would be a sensible use of some of these unspent funds.

Recommendation:

> The Government should require local authorities to use some of the £443m of unspent Community Infrastructure Levy money to enhance their ecology expertise[6].

[6] ACE, Scrapping the Levy: An analysis of council infrastructure spending

Conclusions

The Government's ambition to improve our natural capital over 25 years is both absolutely right and a real challenge. We need practical policies that can be implemented quickly without major disruption.

Biodiversity Net Gain has established the net gain principle but does not go far enough. We have developed enough knowledge of natural capital assets and how to assess them be more ambitious and encourage more comprehensive environmental improvement – full environmental net gain - that will resonate more with local communities.

We can use amendments to existing planning instruments such as Environmental Impact Assessments and the National Planning Policy Framework to implement environmental net gain without creating a lot of extra bureaucracy. Exemptions should be limited to ensure the policy has real impact, while the measurement of net gain should be specific to the local social and spatial context and the current condition of natural capital assets. Offsetting can be beneficial where it generates scale and connectivity of ecological networks and social value.

EIC and its members look forward to working with stakeholders to make environmental net gain a reality.

Annex: The EIC Natural Capital Task Force

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Acknowledgements: EIC wishes to thank in particular Joe Franklin, Charlie Russ, Sam Ralph and Federico Bruni Roccia for their contribution to this report.

[6] ACE, Scrapping the Levy: An analysis of council infrastructure spending

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