***A summary report from the Pie and a Pint event in partnership with the Chartered Institute of Ecology and Environmental Management, held via Zoom on 8th***

***September 2020***

***“Opportunities for Implementing Biodiversity Net Gain in Scotland”***

# Introduction

Pie and a Pint (PAAP) events are informal information sharing opportunities run by the British Ecological Society (BES) Scottish Policy Group (SPG), and open to anyone with an interest in the topic. This event was held in partnership with the Chartered Institute of Ecology and Environmental Management (CIEEM) to provoke discussion and debate by professionals, researchers, students and policymakers around the topic of Biodiversity Net Gain (BNG). Overall, 45 attended, including members from the BES SPG and CIEEM. This was the first ever PAAP to be held entirely online, via Zoom.

The evening began with five invited speakers offering short presentations on the topic that reflected their position and experience. Following a short Q and A, the participants broke out into groups to discuss several key questions in more detail. Participants were also invited to add their thoughts and responses to any of these questions to a Padlet during and after the event. The evening finished with the opportunity for open discussions and networking within the wider group.

This report reflects some of the key points and discussions from the evening: it is designed to be a summary document, and not a complete transcript.

# Short Talks

Each speaker was given a 7-minute slot to present their views on “Opportunities for Implementing Biodiversity Net Gain in Scotland”. All questions for speakers were kept until the end of the session. This section highlights the key points from each speaker.

## *Vikki Patton, Ramboll*

* Biodiversity Net Gain (BNG) can be defined as development that leaves biodiversity measurably better than before.
* It is a habitat-driven tool, used in more than 100 countries in development and other fields. In many parts of the world it has been used for several years.
* BNG is a useful tool that generates wins for nature, as well as for business and people.
* Scotland has used BNG since 2017, England has used it since 2012.
* Many organisations such as CalMac, Scottish & Southern Electricity Networks, Scottish Power, and Network Rail have trialled BNG and are delivering on it.
* There is also a growing body of consultants in Scotland being trained by CIEEM and able to deliver on BNG.
* And, we have everything we need to use BNG in Scotland:
  + A metric developed by Defra in 2012, and later tweaked for use in Scotland;
  + 10 guiding principles and a guidance document.
* The world is facing a biodiversity crisis as well as a climate crisis. We need to deliver increased biodiversity alongside development and other land use change like agriculture, agroforestry.
* What’s missing at the moment is the policy and legislation to make BNG a requirement in the UK (like in other countries), and level the playing field across the board.
* At the moment, BNG is only a voluntary requirement in Scotland. However, in England it is a current policy requirement and will be mandated soon via the Environment Bill.

## *David Burslem, Aberdeen University*

**Background**

* David and Liliana Mijares conducted a research project on BNG in collaboration with Aberdeenshire Council and Aberdeen City Council, to help council planning departments to become better prepared for the future introduction of BNG policies.
* The project had two phases:

1. Literature review to learn about BNG best practice and what’s been done elsewhere.

2. Retrospectively looking at two approved planning applications (for a housing development and football stadium) in Aberdeen with no BNG aim, and identifying what they would have needed to do differently to achieve BNG. The research implemented the Defra protocol and biodiversity calculator, calculating biodiversity values pre-implementation and projections for post-implementation based on assumed inputs.

**Main findings and points of discussion**

* Of the two planning applications looked at, biodiversity loss created by the housing development was significantly higher (36.55 %), than the loss from the stadium (3.78%) even though the stadium was four times bigger. Highlights the importance of careful sites selection and baseline biodiversity value.
* The literature review made clear that many countries have been using BNG for much longer than us, but there have been good experiences of using BNG in the UK.
* It suggested that most (99.7%) of projects globally are driven by legislation, with relatively few determined by voluntary or corporate social responsibility initiatives. Therefore legislation is needed.
* There’s a choice between on-site or off-site mitigation e.g. US Wetland Mitigation Banking System – an entirely off-site approach – is very effective. Potential source of funding for conservation work of local planning authorities (LPAs).
* Currently none of the traditional survey methods provides all the information needed for BNG. Habitat maps are important but currently incomplete, e.g. the Habitat Map of Scotland did not cover one of the two sites in this study.
* Question of permanency, i.e. how to ensure that commitments adopted at the planning stage are adhered to, and for how long. Who would be responsible for monitoring and enforcement.
* No consideration of ecosystem services. Do we need to consider Ecosystem Services Net Gain?
* Current BNG metrics don’t handle connectivity very well and aren’t well grounded in ecological theory. Can’t just consider on-site biodiversity; we need a landscape-scale approach. How can we improve this?

## *Francis Williams, Scottish and Southern Electricity Networks*

* BNG is a precursor to wider Environmental Net Gain.
* BNG approaches have been trialled for sub-station land owned by SSEN.
* From April 2020, there will be no biodiversity net loss resulting from SSEN developments.
* BNG is incorporated in the process from the first stage: site optioneering.
* The aim is for total BNG from 2025.
* However, there are some logistical challenges with implementation.
* This is a change from previous mitigation strategies such as tree planting as it considers impacts over the long term.
* It requires a change to the whole approach for big developers: staff training, how data is recorded etc.
* The trade-offs between wins for climate change (carbon) vs. biodiversity present challenges from some stakeholders.
* Future steps include engaging third sector stakeholders and local communities.

## *Andy Tharme, Scottish Borders Council*

* The LDP Policy EP3: Local Biodiversity states that any development that could impact on local biodiversity though impacts on habitats and species should:

c) Compensate to ensure no net loss of biodiversity through use of biodiversity offsets as appropriate; and

d) Aim to enhance the biodiversity value of the site, through use of an ecosystems approach, with the aim of creation or restoration of habitats.

* ‘Compensate’ here refers to no net loss, and ‘enhance’ essentially means BNG.
* There is a requirement for delivery of compensatory measures offsite where habitat measures are undeliverable on site for a variety of reasons.
* Section 69 agreement Local Government Scotland Act 1973 requires a one off payment as a developer contribution, contribution to local authority to exercise its functions e.g. to further the conservation of biodiversity. Required prior to the release of Planning permission. Land identified following conclusion of legal agreement with developers.
* Section 75 agreement Town and Country Planning (Scotland) Act 1997 puts the burden on land- sites must be identified prior to conclusion of legal agreement.
* Measures for mitigation and compensation may include:
  + retention or restoration of key habitats and features on the development site
  + creation of new habitats on or off site
  + appropriate management and aftercare of habitats on or off site
  + provision of access for education and awareness
* There are 5 key steps of the Borders biodiversity offset *Net Gain* mechanism:

1. Implement development plan policies

2. Negotiate with the developers

3. Legal agreement – planning authority and developers – S69 flexibility; S75 host area identified.

4. Legal agreement – planning authority and Local Biodiversity Action Plan (LBAP) partners- simple agreement and work programme including target 2-3 year timescale for delivery.

5. Project management and reporting.

* Each step is key, officer support from different Council services, partnership work with developers and LBAP partners.
* This mechanism was initially negotiated in 2006, first implemented in 2009.
* There are now 13 Delivery-Biodiversity offset schemes in the Scottish Borders e.g. the Langhope rig biodiversity offset. 77 hectares of native woodland currently are delivered as part of this offset, also natural flood management and biodiversity gains.
* Net Gain principles:

1. Avoid losing biodiversity that can’t be offset by gains elsewhere
2. Be inclusive and equitable
3. Address risks
4. Make a measurable Net Gain contribution
5. Achieve the best outcomes for biodiversity
6. Be additional
7. Create a Net Gain legacy
8. Optimise sustainability
9. Be transparent
10. Apply the mitigation hierarchy

* There’s currently no strong national policy on BNG, , but this is being looked at under NPF4.

## *Paul Sizeland, NatureScot (previously Scottish Natural Heritage)*

## BNG doesn’t have to be considered in terms of the detailed process and laid out set of metrics as described under the Defra model.

* We can for Scotland think about how we can develop an approach to development that leaves biodiversity in a better state. NatureScot and the Scottish Government are interested in this.
* Section 2(4) of The Planning (Scotland) Act 2019 requires the National Planning Framework (NPF) to contain a statement about how Scottish Ministers consider that development will contribute to a set of six listed outcomes. These include “securing positive effects for biodiversity”, though the Act does not provide further detail on the scope or content of the statement.
* The statement is an opportunity to provide a clear and robust policy context for delivering positive effects, which will be part of the statutory development plan against which proposals will be assessed.
* Current practices in development planning and development management is not securing the positive effects for biodiversity in a consistent way.
* But there are some good examples at all development scales where developers and the professional ecologists working alongside have implemented some excellent schemes; but this is usually via informal mechanisms.
* We want more of that, and not just “reduction of impacts” mere “no net loss” or “tick box” add -ons.
* We think it is unlikely that in Scotland there will be an appetite for new legislation as there has been in England.
* So we need to think about the planning system and the existing regulatory tools like; Strategic Environmental Assessment and Environmental Impact Assessment, and of national policies and frameworks like; National Planning Framework that will in the next iteration NPF4 incorporate Scottish Planning Policies like, “Open space”, “Creating Places”, “housing”, “Green Infrastructure”, “Active Travel”
* Some local authorities have already adopted the concept of BNG in their LDPs, and some developers are practicing BNG in Scotland. There are some useful industry led initiatives like the building with nature standard accreditation scheme that incorporates measures of wellbeing, water and wildlife. And local authority led schemes like the Urban Greening Factor for London.
* In a future addressing the twin challenges of climate change and biodiversity loss; the challenge will be to quantify positive effects of biodiversity gain so that not just the health and wellbeing aspects of nature is appreciated, but that tangible contributions to addressing these challenges can be factored into development plans and cascaded through to their delivery e.g. as in sustainable drainage schemes, erosion control and flood attenuation.
* Upcoming planning frameworks like Regional Spatial Strategies and Regional Land Use Frameworks under the Land use Strategy may offer some opportunity to identify priorities.
* A green recovery is also important, with its focus on economic recovery through jobs and green growth.

# Panel Q&A

Audience members raised several key issues during the Q&A. Each response given below was provided by one of the speakers and should not be considered to represent the opinion of all panellists. Other speakers may have had different views but due to time constraints not all speakers answered all questions.

Q. What’s the timescale for BNG legislation in Scotland?

A. It’s being looked at, but there’s no current timetable for legislation. We won’t hear anything until next year. But, we are hopeful that it will happen soon!

Q. Why has there been no appetite for BNG legislation in Scotland so far?

A. Maybe because there is too much conflict with other development policies, but there could be strong policies in place for BNG. In England, it was only when local authorities ran with the BNG concept that there became appetite for the legislation (as opposed to policy).

Q. What were the tweaks to the Defra BNG metric for usability in Scotland?

A. Coniferous woodlands (i.e. native Scots pine) weren’t being picked up correctly by the original metric, and peatlands of poor quality were incorporated (not just medium to good quality).

Q. In ecosystem services net gain projects how have people managed trade-offs between different types of ecosystem service?

A. It’s early days for ES net gain – a metric exists but the panel don’t know case studies. There will be movement towards this in future, a move to quantify natural capital and ES by developers. Need natural capital to work at site level.

Q. Do you find that BNG has been successfully enforced in the Scottish Borders?

A. Some early schemes were weaker or front-loaded projects with measures over a short time frame, but we need to think about this in the long term. It’s about maintenance and monitoring, rather than enforcement.

# Break out groups

## *How do we reconcile the trade-offs between development, people, and nature?*

* BNG is about not being a trade-off- deal with existing trade-offs. We need to deal with the fact that certain interests and people often trump biodiversity.
* But putting biodiversity first is a win!
* We should push on the ecosystem services aspect of it.
* Environmental Impact Assessments impact on people – demonstrating BNG and services is a better direction. See BNG as bringing more things into the equation, from quantifying the net benefits that it can bring. But note that it’s early days!
* One problem with the above ecosystem approach is that biodiversity gets lost- flooding etc becomes more important. It’s not about looking at BNG in isolation.
* Doing something good for biodiversity is also good for other things. Finding the multiple wins. If you don’t consider biodiversity first, don’t get the benefits for nature necessarily.
* We need to have biodiversity targets leading these – this is a good starting point. Other environmental benefits can be quantified on top of these.
* Need to have comprehensive records to show that the benefits for biodiversity are being realised. Lack of data leads to false trade-offs?
* What are the metrics that we should be using and how do they work together – can it be easier to find the win-wins rather than the trade-offs?
* Very difficult to have this argument without the data – dealing with developers looking at rate of returns, how can it be demonstrated that there is a business case for these green solutions that can compare with engineering solutions.
* The conundrum is that if examples are readily available, why isn’t nature being used to solve problems for development at the moment?
* How do we all get on the same page?
* There’s something to come from re-educating, retraining, incentivisation. Need a policy framework, more encouragement in the right direction. Industry can take the lead in some places (e.g. Network Rail), but how can we best support this push?
* Consideration needs to be taken into potential for 'green gentrification' where net gains in local biodiversity make somewhere more desirable to live, pricing existing communities out.
* People should be involved and participate in the decision process so that they can be aware of the great benefits they are getting with net gain (reduced flooding risk, lower water management cost due to improved water quality). You do not want locals to think that creating ponds or wetlands is only to beautify their neighbourhood!

## *What does the future look like for No Net Loss / Net Gain when frames of reference are shifting (e.g. climate change)?*

* We need a strategic approach that considers connectivity and changing distribution ranges; we need adaptive management built in.
* It might require legislation to be flexible; LPAs tend to be the implementing body.
* Need to make sure sites are resilient to cope with climate change, pest/pathogens, other drivers of change. More diversity generally helps increase resilience.
* Needs be less about a particular species or a suite of species.
* We should think about the landscape rather than the site e.g. connectivity will be important, we need to enable species to move around.There are conflicts with like vs. like with better principle; onsite is better than offsite.
* Ecosystem health approach could work, and/or a network of sites.
* Landscape modelling work needed.
* There are concerns about nature lost.

Three key questions:

* Will environmental measures be pushed forward?
* Can the legislation be enforced?
* Will there be funding?

## *What is missing from current No Net Loss / Net Gain strategies?*

* It is important to prevent difficult or deprived areas from becoming a "far west" where development is unlimited, net gain/offsetting takes place elsewhere and residents are left with an increasingly impoverished, ugly and unhealthy suburb.
* We need strategic locations for offsetting where this will be necessary for some developments.
* We need consideration of species impacts to allow scope for wider conservation measures rather than just habitat enhancement.
* Consider how BNG fits in with the four capitals approach recommended in the AGER report -Towards a robust, resilient, wellbeing economy for Scotland. BNG can play its part in supporting the Natural Capital pillar and protect and enhance natural capital.
* Net loss is difficult to define and measure: people have used natural capital planning tool, which broadly sounds useful, but there are some deficiencies e.g. the coefficients incorporated into tool are broad: they might work for some situations but not in all cases e.g. microorganisms, fungi, protozoa… we assume that these correlate with broader habitat preferences.
* Sustainable drainage systems: developers tend to take easy option (that ticks the box), permeable pavement - developer has easy way out with no good solution; green roofs…
* Need to tighten policy and guidance / amend… close off ranges of options to developers.
* Net gain projects in England: sometimes have to resort to offsetting scheme.
* Connectivity doesn’t get factored in because there’s no landscape-level strategy e.g. how do you decide where the best sites are to carry out biodiversity offsetting? Is there a landscape scale plan? There may be landscape level tools for assessment to for some projects e.g. Scottish Borders Council were developing a major flood protection scheme - looking at catchment areas, using tools and working with landowners to see how it fit in with their needs. Have been linked with NGOs and applied tools linked to their projects, can still formulate tools e.g. woodland strategy a requirement; we need to develop more strategies like a regional peatland plan.
* What’s missing? In development of local plan, areas for biodiversity restoration plans are at the local level, but need national policy.

## *If a site can't achieve BNG and offsetting is required who is responsible (e.g. for identifying, management, funding) for these now and in the future?*

* In terms of identifying an offsetting location a developer could use own land holdings, seek to identify an area to purchase, form a partnership with a landowner, fund an LPA site in contributions.
* For identifying best sites it is best for for a developer to do that or the LPA? May depend on competencies within LPAs as under-resourced.
* Always best to enhance a site rather than offset. BNG should follow the mitigation hierachy. Offsetting should be the last resort.
* Ultimately developers should be responsible. If offsetting is done strategically then management and monitoring costs could be reduced.
* Is this where the regional land use partnerships may act as a mechanism for identifying sites for offsetting. Could take years to implement.
* Community trusts could play in a role.
* To ensure that the best outcome is obtained: LAs should cost the management required and business will need to fund it.

## *General comments/questions left on Padlet*

* Comparability across sites and in networks of sites (greenspace, GI, etc.) is important - BNG metrics will be a critical tool not just to help secure positive benefits for biodiversity, but in monitoring how Scotland performs against the Sustainable Development Goal on biodiversity/nature. Adopting BNG within NPF4 is therefore critical to achieving the biodiversity outcome under the 2019 Planning Act and under the National Performance Framework that is aligned to SDGs
* Commercial forestry is having some of the biggest impacts on biodiversity in Scotland - need a mechanism for applying BNG to forestry. There's no policy equivalent at the moment whereas some LAs have some form of BNG policy.
* Swift nest boxes are a perfect and simple example of improving biodiversity in development! Will be looking into the ecosystem service value of these nest boxes in future as well as training people to remind developments to support the Edinburgh Council guidelines to put in swift nest boxes – it’s not yet mandatory.
* The term win/win can be a worry: does it mean that all the stakeholders have not been included in the assessment?

# Conclusions

The workshop provided an opportunity for interested parties to discuss ideas regarding the opportunities, and challenges, for implementing Biodiversity Net Gain in Scotland. The BES SPG and CIEEM would like to thank all the speakers for providing such a stimulating debate, and to all the attendees for participating in the workshop.

# Additional resources

**PAAP Padlet September 2020:** <https://padlet.com/annierobinson/CIEEM_BES_EVENT>

**A Nature Recovery Plan: 11 transformative actions for nature in Scotland, RSPB**: <https://www.rspb.org.uk/globalassets/downloads/nature-recovery-plan---scotland/nature-recovery-plan.pdf>

## **Trust and SEPA publish route map towards £1 billion for nature conservation, Scottish Wildlife Trust:** <https://scottishwildlifetrust.org.uk/news/route-map-to-1-billion-for-nature-conservation-published/>

**Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide.** https://cieem.net/resource/biodiversity-net-gain-good-practice-principles-for-development-a-practical-guide/

Biodiversity Net Gain: Good Practice Principles for Development Case Studies

<https://cieem.net/resource/biodiversity-net-gain-case-studies/>

**Biodiversity Net Gain in Scotland, CIEEM Scotland Policy Group:** <https://cieem.net/wp-content/uploads/2019/06/Biodiversity-Net-Gain-in-Scotland-CIEEM-Scotland-Policy-Group.pdf>

**Scottish Borders Council document: Supplementary Planning Guidance for biodiversity:** https://www.scotborders.gov.uk/downloads/file/931/biodiversity