



# Widen the net

**S**ustainability professionals were elated at the prospect of a biodiversity net gain (BNG) requirement for new developments when it was confirmed in the Queen's Speech earlier this year, under the UK government's Environment Bill. These plans were put on hold with the announcement of a general election and dissolution of Parliament, although we can expect the legislation to gain royal assent sooner, rather than later.

However, there is still debate over how best to deliver net gain, and whether current plans go far enough to tackle the scale of the environmental and biodiversity crisis. The stakes are high, and getting this right could help unlock trillions of pounds for environmental protection.

## The next big step

Although BNG is in its infancy, there are already plans for a broader environmental net gain (ENG) requirement. This was first proposed in the government's 25-Year Environment Plan, and would encompass air pollution, waste, flood risk and various other environmental impacts. It could be transformative for natural resources,

Delivering optimal sustainable development through environmental net gain is a source of much debate among policymakers and ecologists.  
**Chris Seekings** reports

forcing developers and planners to consider how they can improve the wider environment. However, there are fears that biodiversity could suffer in the pursuit of broader goals.

"There is a risk there," says Natural England's principal advisor on net gain, Nick White. "If you take a classic engineering approach to a problem, it might give you an environmental gain in some form but damage biodiversity."

There is a consensus that BNG must be consolidated before ENG is a realistic prospect. The argument goes that enhancing biodiversity is fundamental to environmental improvement, and must never be traded for other goals. "Habitats are the building blocks from which other aspects of the environment can be improved," White says. "BNG is a non-tradable component, and we expect it to be at the heart of a wider approach."

Preventing trade-offs can be difficult. Alison Smith, senior research associate at the University of Oxford's Environmental Change Institute, gives recreation as an example of an area in which biodiversity could be compromised. "If you create a new football field, that could involve biodiversity loss, so that's a trade-off," she says. "However, BNG and ENG are usually in synergy. The main threats to biodiversity are the developments themselves, not ENG."

IEMA has developed 10 principles for BNG on developments, one of which refers to the Mitigation Hierarchy. This recommends developers do all they can to first avoid impacts on biodiversity, with offsetting a last resort. However, the idea of favouring net gain on developments is a point of contention.

## A licence to trash?

Some experts are worried that offsetting could give developers an excuse to destroy wildlife and woodlands. Various

campaign groups adopted the phrase 'licence to trash' after the government proposed biodiversity offsetting in 2013.

White says that offsetting on its own could lead to "ecological deserts", with biodiversity gains pushed out to certain areas. "You could see all the benefits of a development going elsewhere, with no net gain locally," he explains. "For both BNG and ENG, we think it is important that there are benefits to communities, contributing to placemaking."

White argues that focusing on delivering gains on-site would make developers think more about how to incorporate greening components – bringing aesthetic, air quality and energy efficiency benefits. "By retaining the gains on-site there is an opportunity to ensure surrounding communities can benefit. Off-site delivery – in part or in whole – may be the best outcome where on-site is not possible or does not make ecological sense. However, we encourage developers to look on-site first."

Others take a more forthright view. David Hill CBE, chairman of the Environment Bank, believes there is little evidence that focusing on-site brings considerable gains. "Offsetting does not promote a 'licence to trash'," he says. "New developments are done on areas of low biodiversity value. High-value areas should be screened out if the planning system is working." Hill claims that on-site benefits involve 'prettifying' areas for residents (which he agrees is important to sell houses and provide a pleasant area for people),

but provides very little biodiversity uplift. Conservation bodies are starting to see more value in offsetting.

"What has on-site biodiversity creation provided?" he asks. "It is about making sites look attractive, but developers will do that anyway to make their schemes competitive in a buyers' market. I am more interested in getting species and habitats back, and funding from BNG should be used to create a restoration economy where large-scale habitat creation and long-term management can reverse the green concrete of our present countryside."

## Money, money, money

The Environment Bank has looked at the costs of delivering benefits off-site versus on-site and found that the latter is 100 times more costly. "If you ask

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the proponents of on-site if they have done the specific costing per hectare, they will fudge it," says Hill.

Additionally, on-site benefits are often neglected because they are not

managed properly, failing to adhere to IEMA's principal of "creating a net gain legacy". "If you are constrained on your requirement to have net gain on-site, there has to be an agreement to manage that site for 30 years. It must be a legally binding document that is enforced, with developments monitored every year."

Proposals for BNG recommend that sites deliver 10% more 'biodiversity units' using the Defra biodiversity metric. The Environment Bank calculates that a scheme for 2,800 houses on 100 hectares would have, on average, 

a value of around 390 biodiversity units. Applying the 10% rule, that scheme would have to deliver 429 biodiversity units under net gain criteria. "How do you deliver all those units into 100 hectares along with 2,800 houses?" Hill asks. "This is a question that has never been answered by policy-promoters in government."

Just delivering 20% of the 429 biodiversity units on-site would result in 683 fewer houses, according to Hill's calculations, costing developers around £50m of average land value. "You could offset those 430 units into something like a 100-hectare habitat bank, costing just £5m – the difference is phenomenal."

What worries Hill is the potential for backlash from developers if they are forced to provide maximum net gain on-site and confronted with the economic realities of this. He argues that offsetting is the only way to mobilise funding on the scale needed. "The investment could be equivalent to lottery funding," he explains. "Big landowners see environmental markets and offsetting as a fantastic opportunity. They are not interested in marginal biodiversity on-site. If we are going to do something serious, we need a lot of money."

"Government needs to support a proper market for offsite provision by, for example, habitat banking – otherwise developers will find it hard to effectively deliver their BNG requirements."

### Measuring up

Despite recognising the potential for offsetting, Smith argues that 'licence to trash' remains live, and that safeguards are needed in the metrics used for valuing natural capital. The University of Oxford and Natural England are developing an Eco-metric for ENG to help enable better consideration of the losses and gains in ecosystem services from development. This will measure 18 ecosystem services, including water availability and quality, carbon storage

and flood risk. "We have to be clear about the guidance that comes with the Eco-metric tool, which has safeguards to avoid a licence to trash," Smith says. "The challenge is ensuring those safeguards are understood and implemented."

Pre-emptive trashing is another challenge, with landowners depleting nature on-site before putting it up for development, knowing they will not have to offset the damage. "This is a big danger, and no one has come up with an effective way of avoiding it," Smith says.



"And if you cut down a woodland and replant it somewhere else, what happens to all those species in the original woodland? Offsetting is better than what we have at the moment, but it is not stopping all the damage."

Smith is also sceptical as to whether mandatory ENG is feasible. "It is difficult to get net gain across all ecosystem services. There is a limit to what you can do on a housing estate, for example, with the roads, pollution, noise and light. I think it is about making gains and losses transparent, and optimising environmental benefits in line with mandatory BNG."

There are fears that rushing through the Eco-metric could confuse businesses and planning authorities that are still getting to grips with BNG plans. Certain issues still need to be ironed out, such as the multipliers used to account for the time that habitats take to reach their 'target condition'. "I think you will see a voluntary process within the next two years, but I would hesitate to put a timeframe on a mandatory requirement," White says. "There has been a lot of interest in ENG from IEMA members, but I think it needs that voluntary usage first so people have confidence in it."

### Raising ambitions

There are also hopes that ENG could help with the transition away from Common Agricultural Policy subsidies after Brexit.

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"The net gain mechanism would allow farmers and landowners to generate an income stream for conservation," Hill says. "This would enable large-scale conservation programmes to no longer be the domain of NGOs and that is critically important to really restore nature at scale. The NGOs will not achieve that on their own."

Moreover, there is an ambition for ENG to be used for sustainable development beyond the built environment. It is thought that a metric could be used to create net gains in corporates' supply chains. "I think that the ENG process is valuable to wider corporate entities that want to demonstrate natural capital accounting to shareholders," Hill says. "They know that some regulatory mechanism is coming and want to do something voluntarily to show they are investible."

There are already plans in Europe for an overarching body that takes money from high-net-worth individuals and industries such as aviation to fund ENG in a more strategic way. "You have to try and create an investment vehicle for pension funds and the corporate sector. We have an existential threat with climate change and biodiversity loss, and can only address it with large-scale funding. Trillions of dollars are required every year, and that needs overarching cooperation across countries."

There are many initiatives currently in place for offsetting, such as the Woodland Carbon Code and the Carbon Offsetting and Reduction Scheme for International Aviation. A new governance framework may be needed to deliver a more joined-up approach. But the polluter should always pay, Smith says. "Developers ought to fund any damage they cause, and airlines should pay for damage from their emissions. Any future framework needs to recognise that."

Despite the challenges and debates, net gain could be a game-changer for sustainable development. "BNG is reshaping how we think about development process, and pushing through ENG would be significant in the wider context around moving to net zero," White says. "We can't carry on the way we have done, and ENG would be a huge step forward."