

Explainer · December 2022

Biodiversity offsetting and biocredits

Key points:

- Biodiversity offsets are a form of impact mitigation, often mandatory, that aim to compensate for biodiversity loss from developments such as mines by protecting or restoring similar habitat elsewhere
- Biodiversity credits, or biocredits, are investments, typically voluntary, in projects that support biodiversity conservation, but which do not imply biodiversity loss elsewhere
- There is concern that companies could use biodiversity offsets to meet their environmental targets without making any meaningful changes to their unsustainable practices
- As biodiversity losses arising from development cannot be properly quantified, it is impossible to know what needs to be compensated for, so offsets are unlikely to compensate properly for these losses
- Increased focus on trading biodiversity credits could draw attention away from more effective conservation actions and may also provide further opportunity for greenwashing
- Biocredits may contribute meaningfully to conservation if strict accountability guidelines are followed.

Biodiversity offsetting

The negative biodiversity impacts of some developments cannot be avoided, minimised or restored. Biodiversity offsetting is a form of impact mitigation that aims to compensate for these negative biodiversity impacts – at least in theory – by protecting, enhancing or restoring similar habitat elsewhere. These biodiversity offsets are based on a ‘no net loss’ policy – in other words, overall biodiversity is left no worse off than if the development had not happened.

For example, a developer clears land to build a mine and then compensates for the resulting loss of biodiversity by either purchasing degraded land and restoring the ecosystem on it, or by purchasing land that has a natural ecosystem on it and protecting it – assuming that it is likely to become degraded in the future.

Biodiversity offsetting is now widely used to compensate for biodiversity losses from developments and is part of planning and decision-making processes – for example as a [component of mandated Environmental Impact Assessments](#) for developments.

But as a conservation practice, biodiversity offsetting is highly controversial. Critics are concerned that offsets may be used by companies to meet their environmental targets

without making any meaningful changes to their unsustainable practices. Parallels can be drawn with carbon offsets. For example, a fossil fuel company offsets its carbon emissions by planting a forest to remove CO₂ from the atmosphere rather than actually reducing its emissions, thereby “[trading a known amount of emissions with an uncertain amount of emissions reductions](#)”, the consequence of which could be increased net emissions.

Similarly, the consequences of biodiversity offsetting are, ultimately, increased biodiversity loss. This is in part because most offset projects compensate for a lost ecosystem by protecting land that *might* be lost in the future. Offset policies mostly define ‘no net loss’ against a [baseline of what would have happened without the project and its offset](#). If the biodiversity loss from future degradation is overestimated, then the positive contribution of the offset will also be overestimated, giving the developer more scope to have a negative impact on biodiversity. While this may be defined as ‘no net loss’ within the current framework, the outcome would be less biodiversity than if the project had not happened.

Biodiversity credits

In response to these criticisms, biodiversity credits, or biocredits, which are typically voluntary, have recently emerged to direct money “[towards meaningful and well-designed biodiversity conservation and management](#)”. [A recent IIED and UNCD report endorsing biocredits](#) argues that biocredits, unlike biodiversity offsetting, do not imply biodiversity loss elsewhere and therefore represent a “positive investment in biodiversity” that companies or other entities – such as philanthropists – can choose to make.

However, whether biocredits would realistically be used for non-offsetting purposes is a [point of contention](#). There is also concern that policies may weaken over time under increasing pressure from developers, and that frameworks are being redefined to include financial and other non-environmental metrics, which could [facilitate claims of success when the environmental contribution is, in fact, weak](#). Some also argue that without enforcement, there [will not be sufficient investment in biocredit projects](#).

But the IIED and UNCD report is clear that, if used correctly, [biocredits can contribute meaningfully to nature conservation and restoration](#). To ensure this, “buyers should be screened to ensure they are not using the credit to offset damage elsewhere” and “the investment in the purchase of the biocredits [should] maximise the social and biological impact compared to other potential investments”. The report also recommends that the metrics used to define a unit of biodiversity should include its cultural and social value.

Issues with trading units of biodiversity

The concept of ‘no net loss’ does not sit well with ecologists because it fails to recognise that [biodiversity exists within complex ecosystems](#) and cannot easily be isolated from their social, historical and evolutionary context. Because of this complexity, the losses arising from development cannot be properly quantified, and so it’s impossible to know what needs to be compensated for. In fact, a 2021 study found “[no evidence that biodiversity gains from offsets actually compensate for development-associated losses, because losses were never estimated](#)”.

Moreover, as the ecological circumstances of two areas will never be identical, [offsetting the impacts to one area by restoring or conserving another will always result in some degree of biodiversity loss](#).

Though a development may only be impacting a small area of land, the land required for compensating for this development may be much bigger – indeed policy often requires

that at least twice the area of biodiversity loss must be generated. Conservationists worry that there is simply [not enough land available to compensate for expected biodiversity losses](#) from development in the future.

There is also [concern](#) that increased focus on the trading of biodiversity credits will draw attention away from other, more robust, conservation actions. It could also [create even more scope for greenwashing](#) - tricking consumers into thinking that their choice is sustainable through a false claim - if badly designed offsets or biocredits are marketed as supporting biodiversity or social equality.

As biocredit schemes are aimed at [providing both economic and environmental benefits](#), this may also allow [financial markets and short-term speculators to determine the price of conservation](#), thereby framing the value of conservation purely in terms of its profitability. But [assigning monetary value to nature does not always promote the conservation of biodiversity](#) and may, in fact, result in the opposite. This also creates a “[dangerous and misleading illusion of the substitutability](#)” of critical ecosystem services that may actually be irreplaceable.

If not biodiversity offsetting and credits, then what?

The most straightforward solution is to avoid biodiversity losses as much as possible, with offsetting only used as [a last resort](#).

Biocredits can encourage positive investment in biodiversity if strict accountability guidelines are followed and governance is transparent, and if a holistic approach that considers social, cultural and biological value is used.

Another solution might be target-based ecological compensation, which is a new policy framework that offers an alternative to traditional biodiversity offsetting. It requires that [compensation for biodiversity loss is linked to broader goals to ensure that overarching targets for biodiversity are met, thereby enhancing compensation beyond an ad-hoc, reactive response](#).