

# 'Nature positive' must incorporate, not undermine, the mitigation hierarchy

Martine Maron, Fabien Quétier, Mariana Sarmiento, Kerry ten Kate, Megan C. Evans, Joseph W. Bull, Julia P. G. Jones, Sophus O. S. E. zu Ermgassen, E. J. Milner-Gulland, Susie Brownlie, Jo Treweek & Amrei von Hase



For the concept of nature positive to succeed as the lodestar for international action on biodiversity conservation, it must build upon lessons learned from the application of the mitigation hierarchy – or risk becoming mere greenwash.

Nature positive is a hot topic in conservation<sup>1</sup>. Described as the biodiversity version of a 'net zero' climate goal, the desired outcome is an improvement in the state of nature and not merely the mitigation of impacts. Coined in 2020 (ref. 2) amid negotiations over the [Global Biodiversity Framework](#) under the Convention on Biological Diversity, the concept is being rapidly embraced by industry, governments, financiers and the conservation sector<sup>1–4</sup>. More than 90 world leaders have signed on to the [Leaders' Pledge for Nature](#), which calls for a nature-positive future to be achieved by 2030, and 11 of the global Fortune 100 companies already have aspirations to contribute to nature positive<sup>3</sup>.

Although the recently agreed Kunming-Montreal Global Biodiversity Framework did not adopt the term explicitly, its mission and headline goals reflect the ambitions of nature positive. The framework envisions the current biodiversity crisis being halted and reversed, putting nature on a path to recovery through repairing damage, recovering species, restoring ecosystems and ensuring connectivity across landscapes to allow for adaptation<sup>5</sup>. This optimism and the shared, positive vision that this represents is to be celebrated. However, as the focus turns to defining what counts as nature positive, and organizations of all kinds seek to make claims about their contribution towards it, the race is on to prevent it from becoming greenwash<sup>6</sup>.

Economic activities often harm biodiversity. For more than two decades, the mitigation hierarchy has been a guiding principle for addressing such harms<sup>7,8</sup>. This standard framework is widely embedded in the environmental impact assessment policies of governments and financiers around the world<sup>8</sup>. For a development project to comply with international best practice in applying the mitigation hierarchy, it must achieve at least a 'no net loss' (ideally net gain) of biodiversity<sup>9,10</sup>. This requires first avoiding potential impacts on biodiversity, minimizing unavoidable impacts and restoring biodiversity damaged by the project, before any remaining impacts are offset. Those offsets must typically benefit the same biodiversity features as those affected – that is, they must be 'like-for-like'. This is important, especially when the requirement for an offset is because the affected species or ecosystem is already threatened. Actions that benefit different species or ecosystems to those affected cannot mitigate the particular harm caused by the development.

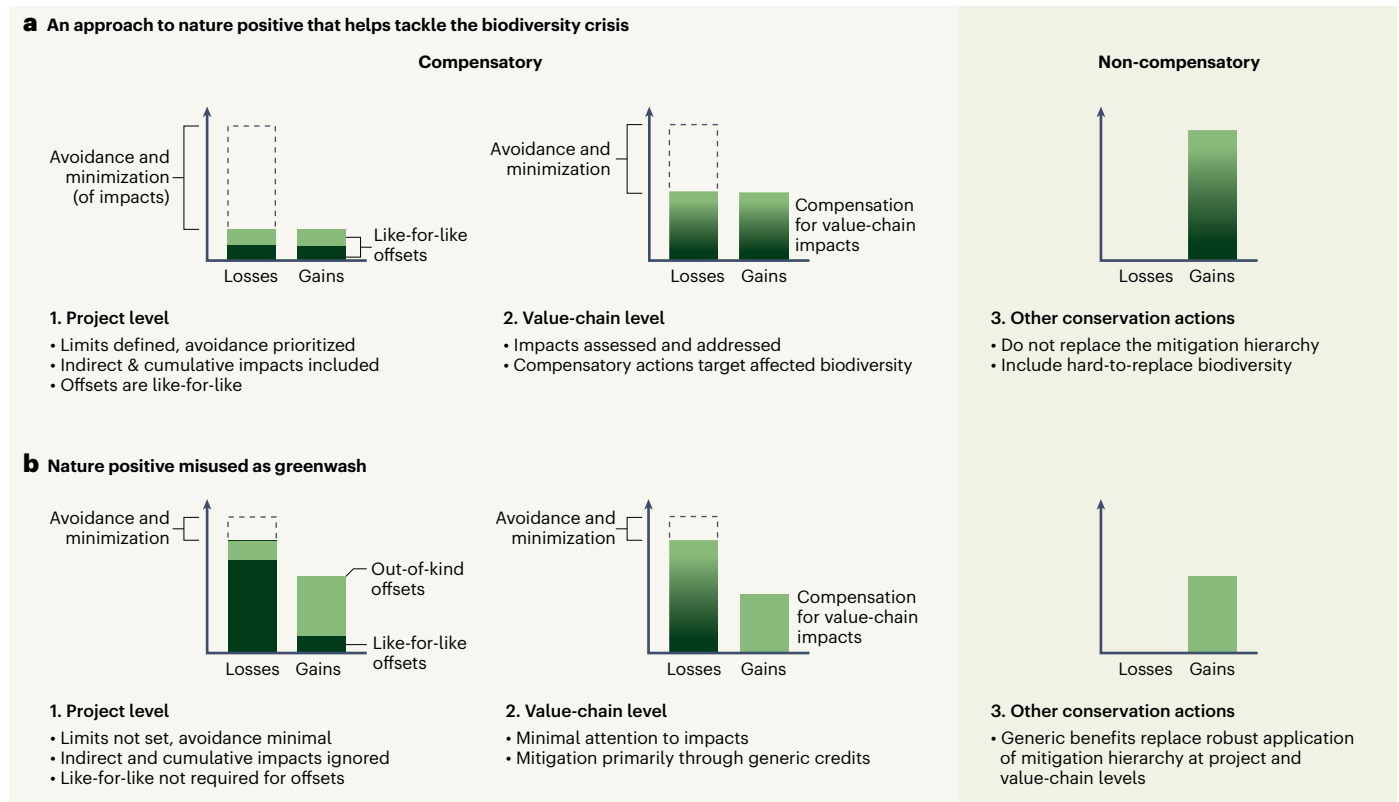
The concept of nature positive takes matters further still. Nature positive means more nature in the future than we have now. That means that even the impacts we have already had on nature need to begin to be reversed – we certainly cannot afford to accumulate more losses overall. Because of this, nature positive relies on a foundation of strong compliance with the mitigation hierarchy. Meeting that requirement and then expanding beyond it towards nature positive is a challenge for all sectors, operations, activities and projects. Whereas the mitigation hierarchy has typically been applied at the level of individual development projects (for example, a new mine) to manage their biodiversity impacts, nature positive explicitly broadens ambitious net gain requirements to entire value chains and financial portfolios<sup>2</sup>. This imposes obligations on (for example) companies that extend beyond the footprint of their individual projects, and beyond biodiversity to encompass other components of nature, including water, land and climate<sup>11</sup>.

Unfortunately, the scale and pace of commitments necessary to manage even direct and attributable impacts on nature have not yet been adequate. Failure to achieve the less-ambitious goal of the mitigation hierarchy – no net loss of biodiversity – is common and widespread: no net loss at the project level is often not achieved, evidence of avoidance is scarce, and biodiversity offsets are beset with design, implementation and integrity problems<sup>12–15</sup>. With an estimated US \$60 trillion of new infrastructure in the pipeline<sup>16</sup> (much of which will damage biodiversity), the need for best-practice implementation of the mitigation hierarchy has never been greater. However, this need risks being overlooked in the rush towards the more-alluring nature positive, unless firm guardrails are set.

If nature positive is translated into action with rigour, the wide global appeal of the concept presents an opportunity to trigger smarter avoidance and more-effective mitigation of impacts, as well as to incentivize long-term, fair and equitable outcomes for nature and people from ecological restoration and rewilding investments. However, if it replaces established, rigorous approaches such as the mitigation hierarchy, it risks amounting to mere greenwash. Embedding the mitigation hierarchy as an essential, but not sufficient, condition is the first step in the journey to nature positive.

## Risk of greenwashing

We are already seeing instances in which the embrace of nature positive is providing a platform for eroding the mitigation hierarchy. Without rigorous application of the mitigation hierarchy (including clear exchange rules), policies that seek to achieve a net gain across a range of natural capital assets could lead to inappropriate substitution in which losses of one asset are considered part of a 'net environmental gain' if compensated by gains in others.



**Fig. 1 | Only high-integrity accounting will genuinely support the goal of nature positive.** **a**, Achieving true nature positive relies on strong avoidance of impacts at the project- and value chain-levels, and like-for-like compensatory actions for any residual impacts, plus further non-compensatory beneficial actions. At all three of these levels, investment in all priority biodiversity must be incentivized, not only those elements of biodiversity for which gains are easy to generate. **b**, Less-rigorous approaches to nature positive risk misleading

claims and greenwash that undermine achievement of its goal. In this scenario, impacts are only slightly reduced and impacts on difficult-to-restore biodiversity accumulate despite false claims of nature positivity. The y axis indicates the relative amount of biodiversity lost and gained; dark shading indicates biodiversity elements that are challenging to restore, pale shading indicates biodiversity that is easily restorable. Area within dashed lines indicates impact that would occur without the agenda of nature positive.

For example, the government of Australia recently released its long-awaited response to a [scathing review](#) of its national biodiversity conservation laws, which govern how it manages significant impacts on threatened species and ecosystems. The response was titled 'Nature Positive Plan'<sup>17</sup> and, although much in the document was welcomed by conservation groups, a worrying feature was a foreshadowed shift from a current policy requirement of best-practice implementation of the mitigation hierarchy towards financial payments to a centrally managed fund in cases in which offsets are unable to be found, and relaxation of like-for-like compensation requirements. This would allow the accumulation of losses of biodiversity that is already highly threatened (for which offsets are difficult or impossible), on the premise that a more general, nature-positive outcome might be 'better overall'. The approach also risks undermining the incentive for avoidance that is central to the mitigation hierarchy, in order to 'streamline' development approvals<sup>18</sup>. Nature positive should not be used as cover for accumulation of further losses for biodiversity features that are already threatened.

A second example demonstrates that even conservation nongovernmental organizations are engaging with nature positive in a way that threatens to undermine the necessary focus on rigorous application of

the mitigation hierarchy to all negative biodiversity impacts. WWF-UK described their recent landmark report, aimed at charting the pathway to net zero for agriculture, as 'A nature-positive pathway to decarbonise UK agriculture and land use'<sup>19</sup>. However, their use of the term nature positive related only to using nature to reduce and sequester carbon emissions, and in support of policies that have benefits both for climate and biodiversity (such as diet shifts away from meat). This loose use of the term by the environmental sector to mean simply 'doing things that are good for nature' may make it harder to convince government and business that recovering nature requires strong and rapid action to halt impacts – not only to invest in positive actions.

The emerging prospect of 'biodiversity credits' being used to contribute to nature positive introduces further risk. Such schemes are so new that methodologies and definitions are still emerging but, essentially, voluntary biodiversity credits are tradeable units that represent positive biodiversity outcomes<sup>19</sup>. These are described as being distinct from offsets as they are not intended to be used to compensate directly for biodiversity damage, even though reference to 'net' outcomes implies some form of compensatory role<sup>20,21</sup>. Companies are encouraged to purchase biodiversity credits as part of their 'nature-positive journey'<sup>21</sup>. However, there are so far no common standards around

either the generation or purchase of credits, nor for associated claims that companies could make related to nature positive. This means that companies can purchase voluntary biodiversity credits and make a claim relating to nature positive, but consumers, shareholders and investors cannot assess its veracity – nor know whether the mitigation hierarchy has been applied. Claiming to be aligned with nature positive on the strength of purchased credits without fully addressing a company's negative impacts is misleading at best.

## Ensuring nature positive is positive for nature

We argue that building on a foundation of full implementation of the mitigation hierarchy is essential for actions that benefit nature to be considered as genuine contributions to nature positive. An extended form of the mitigation hierarchy – the mitigation and conservation hierarchy – exemplifies such an approach, in which project-level impact mitigation can be achieved, while extending its principles across value chains<sup>11</sup>. From extensive experience with the mitigation hierarchy over the past 25 years, we recommend the following core elements to ensure that nature positive genuinely supports the recovery of nature.

'Nature positive' accounting must distinguish among three elements: (1) applying the mitigation hierarchy to direct and attributable impacts at the project level (including indirect and cumulative impacts); (2) addressing more-diffuse impacts through the value chain; and (3) achieving further conservation benefits unrelated to compensation, through other conservation actions (Fig. 1). First, all new impacts that are materially attributable to an organization's immediate sphere of influence must be subject to best-practice implementation of the mitigation hierarchy (graph 1 in Fig. 1a). This means that all their impacts on biodiversity must first be avoided, minimized and temporary damage addressed through restoration. Only after these steps are fully exhausted should any remaining impacts be compensated for based on like-for-like replacement, defined by science-based exchange rules that are well established in both policy and practice<sup>9,10</sup>. Compensation and offsets are simply not credible solutions in many circumstances, which makes it essential to establish limits to their use – especially for species at risk of extinction and ecosystems at risk of collapse<sup>22</sup>. In these circumstances, avoidance or prevention of impacts is the only acceptable mitigation option. The accumulation of uncompensated impacts on threatened biodiversity owing to out-of-kind or otherwise inadequate offsets (graph 1 in Fig. 1b) is not compatible with nature positive.








Second, nature positive requires engagement with the challenge of estimating the type and amount of biodiversity impacts through the entire value chain<sup>11,23</sup>. Any impacts throughout the value chain over which a company has leverage must be mitigated<sup>11</sup> (graph 2 in Fig. 1a). Impacts should be minimized, and unavoidable losses should be fully compensated. Like-for-like compensation can be more challenging to achieve for value-chain impacts, as most companies have imperfect visibility of their value chain impacts. This makes emphasis on identifying leverage points for avoidance of impacts all the more important, such as through the sustainable sourcing of ingredients<sup>23</sup>. Investment in compensatory actions that are as closely linked to the biodiversity that is affected by residual impacts through value chains remains key (graph 2 in Fig. 1a), instead of merely purchasing generic biodiversity credits that fail to benefit the affected biodiversity (graph 2 in Fig. 1b).

Third, once the mitigation hierarchy has been fully applied to both project-level and value chain-level impacts, additional investment in conservation actions that benefit biodiversity can help to fulfil the final step towards alignment with nature positive. Ideally, this investment in

conservation that goes beyond compensation for damage will benefit a wide range of biodiversity, including ecosystems that are of high value and difficult to restore (graph 3 in Fig. 1a) rather than only biodiversity components that are relatively easy and cheap to restore (graph 3 in Fig. 1b). This non-compensatory element is where there is greatest potential for well-designed 'biodiversity credits' to play a part in achieving the global goal of nature positive. However, only when the minimum requirements to apply the mitigation hierarchy to project- and value chain-level impacts are satisfied could claims that an organization is aligned with the global goal of nature positive be considered credible.

## No shortcuts to nature positive

Conservation is inherently difficult: a wicked problem. Because of this, conservation approaches tend to accumulate criticism over time, which can result in them being rejected in favour of a new, fresh-sounding idea – which often contains substantial elements of the old approach, under a new name<sup>24</sup>. Unfortunately, this cycle can result in a failure to learn the lessons from implementation. It is not uncommon to hear practitioners or policy-makers talk as if nature positive is a new approach to conservation that will solve the now well-known challenges that are inherent in achieving no net loss of biodiversity. Unfortunately, there is no easy solution to conservation's wicked problems. Careful and rigorous application of the mitigation hierarchy is as key to achieving nature positive as it is to delivering no net loss. There are no shortcuts.

Martine Maron <sup>1,2</sup> , Fabien Quétier <sup>3</sup>, Mariana Sarmiento<sup>4</sup>, Kerry ten Kate<sup>5</sup>, Megan C. Evans <sup>6</sup>, Joseph W. Bull<sup>7</sup>, Julia P. G. Jones <sup>8,9</sup>, Sophus O. S. E. zu Ermgassen<sup>7</sup>, E. J. Milner-Gulland <sup>7</sup>, Susie Brownlie<sup>10</sup>, Jo Treweek<sup>11</sup> & Amrei von Hase <sup>12</sup>

<sup>1</sup>School of the Environment, The University of Queensland, Brisbane, Queensland, Australia. <sup>2</sup>Centre for Biodiversity & Conservation Science, The University of Queensland, Brisbane, Queensland, Australia.

<sup>3</sup>Rewilding Europe, Nijmegen, The Netherlands. <sup>4</sup>Terrasos, Bogotá, Colombia. <sup>5</sup>Independent consultant, London, UK. <sup>6</sup>Public Service Research Group, School of Business, University of New South Wales, Canberra, Australian Capital Territory, Australia. <sup>7</sup>Department of Biology, University of Oxford, Oxford, UK. <sup>8</sup>College of Environmental Science and Engineering, Bangor University, Bangor, UK. <sup>9</sup>Department of Biology, University of Utrecht, Utrecht, The Netherlands. <sup>10</sup>Susie Brownlie & Associates, Cape Town, South Africa. <sup>11</sup>eCountability Ltd, Cullompton, UK. <sup>12</sup>Wildlife Conservation Society, Cape Town, South Africa.

 e-mail: [m.maroon@uq.edu.au](mailto:m.maroon@uq.edu.au)

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