Considering People as well as Biodiversity

When, why, and how should affected people be considered when applying the mitigation hierarchy?

Impact Mitigation and Ecological Compensation
Thematic Group

Ecosystems provide people with a wide range of benefits, sometimes called 'ecosystem services' or 'nature's contributions to people'. These benefits make life possible and enhance wellbeing, and many cultures and traditions involve biodiversity. Without care, development projects, their impacts and associated mitigation measures, including biodiversity offsets, can harm people's lives and livelihoods. Conservation or restoration activities can also result in the displacement, rather than mitigation, of negative impacts to other locations. Good practice requires careful design of mitigation measures, building benefits for affected people into their design, so that their wellbeing is at least maintained and, if possible, enhanced.

The importance of considering people

When applying the mitigation hierarchy at both project and strategic levels, the consequences of project development and associated mitigation options for all potentially affected groups of people should be addressed well in advance of any impacts occurring. This includes consideration of people's diverse values, and the complex interdependencies between biodiversity, ecosystem services and human wellbeing. The outcome from project development and impact mitigation should be that people perceive the aspects of their wellbeing that are affected by biodiversity losses and gains to be at least as good as (no net loss), and preferably better (reaching a net gain) than before the project.

Indigenous peoples and local communities with long-established cultural and material relationships with an area's ecosystems and species, in particular, can play a vital role in biodiversity conservation. Their involvement in planning the design of projects and mitigation measures, and in their implementation, is key to successful outcomes.

The role of ecosystem services

While it is important to plan for the restoration of biodiversity at disturbed and damaged sites to the extent feasible, it is important to recognise that not all impacted areas may be able to be restored to the same condition or quality as they were pre-impact. This means that even in areas subject to restoration efforts, there is likely to be some residual negative impact.

Ecosystems directly provide valuable resources such as food, timber, building materials, and medicines. They support productivity on land and in water and—in turn—people's livelihoods, health and safety. The development project itself can also be dependent on the continued provision of some of these services such as raw materials, a reliable source of freshwater, or to provide resilience against extreme events in the context of climate change.

Species are the building blocks of ecosystems, and some species play special roles for people. For example, some wildlife provides sources of protein for local communities, and some species are important pollinators for crops. Both ecosystems and their associated species offer artistic, spiritual, cultural, aesthetic, recreational and tourism benefits. Sometimes, these benefits are closely tied to particular places.

While people the world over, and our economies, depend on nature, some people's dependence on biodiversity and ecosystem services is very direct and immediate. This is particularly so in many rural areas where subsistence-based livelihoods dominate and where there may be limited or no alternative sources of food, water, medicines, and essential materials.

The effects of project development and impact mitigation on people

A development project can have direct impacts on biodiversity and associated ecosystem services—for example, by causing the pollution of critical water sources, or the loss of pasture or cropland, timber and fuelwood, fish stocks, or medicinal plants. It can also result in indirect impacts—such as through introducing invasive alien species or facilitating over-exploitation of species by an influx of employees. It is important that both direct and indirect impacts are assessed and mitigated through appropriate measures, since they can have severe consequences for affected people as well as biodiversity if not addressed.

Rigorously applying the mitigation hierarchy, from avoidance through to offsets and compensation, can alter both the nature and the severity of a development project's impacts on people. Impacts on ecosystem services should be avoided whenever possible, or at least minimised. Indeed, preventing impacts from occurring in the first place is sometimes the only mitigation option (see *Brief 5: Steps 1 and 2 in the Mitigation Hierarchy: Avoid and Minimise*). The need for outright impact prevention increases with the level of human dependence on ecosystems. Where no alternatives or replacements exist for the ecosystem services on which affected people rely, later steps in the mitigation hierarchy are not able to replace the lost ecosystem services.

People can be affected not only by the development project, but also by activities intended to mitigate anticipated negative impacts on biodiversity, particularly offsets. Examples include:

- People on or within the area of influence of a project site may suffer loss or deterioration of important ecosystem services and may then require compensation for residual impacts (*Impact site in Figure 1*). The area of influence includes areas where raw materials are sourced and where demand from the project may disrupt patterns of land use or natural resource extraction.

- In cases where resettlement of people affected by project development is necessary, the availability of ecosystem services at the resettlement site may be insufficient, and competition for these services may be increased (*Displaced livelihood activities site in Figure 1*). Adequate planning is needed well in advance to prevent delays in the benefits from relevant services. This means that additional resources and initiatives may be needed to supplement deficits in ecosystem services, develop alternative income streams and ensure sustainable livelihoods.
- People can also be affected by biodiversity offsets associated with a development project (*Offset site in Figure 1*). People living near an offset area could benefit from improved ecosystem services due to restoration and better management of degraded ecosystems at the offset site. However, livelihoods and cultural uses could also be negatively affected, for example, if some access to, or use of, natural resources is prevented or limited in order to achieve the offset's biodiversity goals, and/or if resettlement of people is required.

Designing and implementing appropriate mitigation measures therefore requires serious consideration of all potentially affected groups of people well in advance of any impacts occurring.

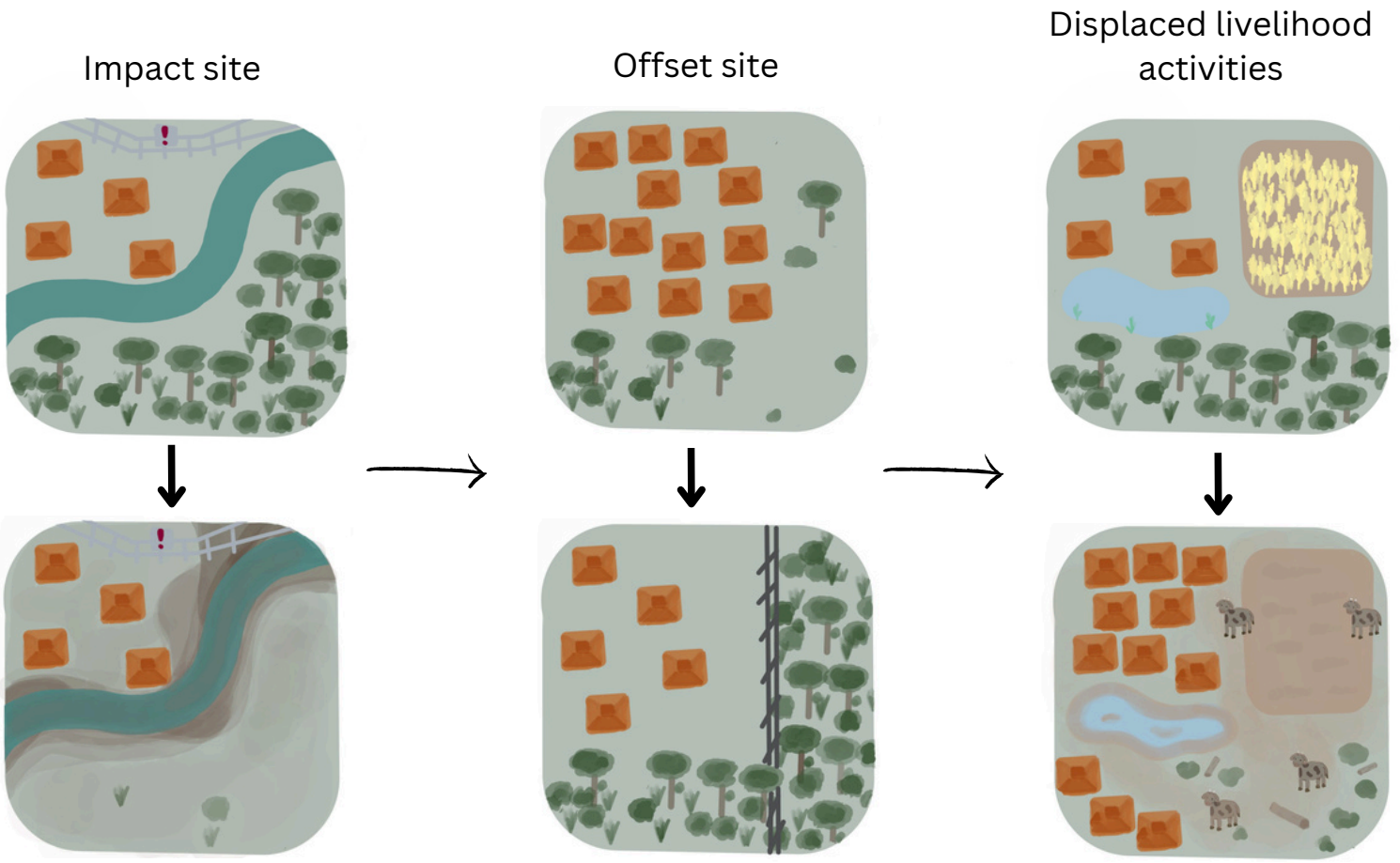

Figure 1. Offsets need to be carefully designed to avoid displacing people and impacts to other locations.

Best practice for mitigating impacts on affected people

Good stakeholder engagement and social impact assessment are central to best practice impact mitigation (see *Brief 3 on Impact Assessment and the Mitigation Hierarchy*). There are excellent guidance materials on how best to address project impacts on people, to ensure that their social and cultural values are respected and impacts fully mitigated. Guidance on doing so in the context of restoration and conservation activities will be directly relevant to offsets and compensation for impacts on biodiversity.

Key principles include:

a) Early engagement with stakeholders

Dialogue with potentially affected people, including indigenous peoples and local communities, and other interested parties, needs to happen at the earliest possible stage of project planning to identify any human or customary rights issues, concerns and information needs.

This dialogue needs to start at the scoping stage, with specialist support from experienced social (including cultural) impact specialists to identify key values early, and obtain an understanding of the affected area's cultural, social and economic dimensions in relation to ecosystems and biodiversity.

Early engagement is important to determine levels of dependence on affected biodiversity and associated ecosystem services, to enable rigorous assessment of impacts on people and their significance. This in turn informs the planning and implementation of robust mitigation measures, from avoiding impacts that would be unacceptable to affected people (e.g., loss of irreplaceable ecosystem services, severe loss of livelihood assets), to minimising impacts, restoring damage and providing appropriate and timely compensation.

Affected parties should be involved throughout the design of appropriate and acceptable mitigation measures, including offsets or compensation as a final mitigation option. An 'impacts and benefits agreement' can be a useful tool to help capture and clarify the mitigation commitments reached.

b) Free Prior and Informed Consent, and Social Licence to Operate

Where a project will affect Indigenous peoples, it is necessary to obtain their Free, Prior, and Informed Consent (FPIC) for the proposed project to proceed. Early and comprehensive engagement with indigenous peoples and/or local communities with a high dependence on nature is particularly critical where a project will affect their natural environment. Rigorous social impact assessment is essential in these cases.

The design of appropriate and sufficient mitigation measures to prevent impacts where they are unacceptable to affected communities, and pose a risk to priority ecosystem services, can help to secure a social licence to operate and support the necessary process to obtain FPIC.

c) Ongoing engagement with stakeholders during the life of the project

Provision should be made for ongoing, meaningful dialogue and engagement with affected parties both within the project-affected area and any areas affected by offsets. This can take the form of appropriate representation in a community liaison forum with established channels of communication. Grievance mechanisms need to be established to resolve issues as they arise.

Monitoring of compliance with commitments and social outcomes, performance audits, and transparent reporting, are all essential to maintain trust and credibility with affected people as well as other stakeholders such as lenders and government regulators.

d) Ensuring social equity and benefit sharing

People negatively affected by a project or its offsets should benefit from timely and appropriate mitigation measures to ensure that they are not left worse off because of a project, even temporarily, but preferably better off. This ideally goes beyond government taxation and general redistribution mechanisms, to appropriate mechanisms for mitigating local impacts and sharing some of the project's revenue with local people, such as through local development funds. In some jurisdictions, financial compensation for expropriation of land, buildings and other assets may be specified in law, but developers should be open to improving these systems.

Where residual impacts on ecosystem services occur, compensation may be able to be provided through a nearby biodiversity offset area. However, if the offset area is some distance away from the impact site, it is essential also to provide acceptable alternative resources to affected communities through compensation packages or local biodiversity-based solutions that restore—or provide alternative—livelihoods.

The potential roles and rewards for affected people in helping to implement mitigation activities (e.g., on-site restoration, offset activities as well as new business opportunities generated from biodiversity recovery through sustainable harvesting or tourism) should be explored. Employment of local community members should be a priority in implementing mitigation. The rights, roles and responsibilities of all parties should be clearly captured in management plans for the project and, if appropriate, supplementary agreements.

e) Ensuring biodiversity offsets do not create further impacts

When identifying potential offset areas, important factors to consider up front include the complexity and stability of legal and customary/traditional rights, and land and resource tenure, as well as the requirement for obtaining FPIC. This will affect the feasibility and long-term effectiveness of the proposed offsets. Opportunities for local people to be involved in the governance of the offsets' long-term management (power sharing) and to benefit from the offset activities through employment or entrepreneurial activities, as well as benefit sharing, should be explicitly pursued.

When biodiversity offsets are appropriate to address a project's residual impacts on biodiversity (see *Brief 1:The Mitigation Hierarchy*), they should be designed to respect customary livelihood and cultural activities to the greatest extent possible. In many cases, these activities are compatible with, and fundamental to, effective conservation.

In some cases, livelihood activities can be displaced away from an offset site, due (for example) to restrictions on access or use of that site's resources. This can have an unforeseen impact on biodiversity elsewhere - a phenomenon called 'leakage'. In this way, impacts from the original project might not end up being fully compensated for, but instead merely displaced to another location. This risk should be considered explicitly in impact assessment, the design of mitigation, and monitoring and evaluation programmes.

f) Avoiding temporal gaps between impacts and compensation

To ensure that no one is left worse off, even temporarily, it is important to minimise (or, ideally, eliminate) time lags between the impacts of project development and compensatory benefits from biodiversity offsets or other compensation. Delays in providing compensation can have severe consequences for affected people and can place biodiversity further at risk. In some cases, compensation packages or substitute resources need to be provided to affected parties to bridge the loss of ecosystem services until such time as biodiversity offsets mature, where they are intended to provide these services in the longer term.

About COMBO+ and IMEC

From 2016 – 2025 AFD and FFEM financed the **Conservation, Mitigation and Biodiversity Offsets Programme (COMBO+)**, as part of which technical briefs 1 -10 were drafted, in collaboration with the IUCN Thematic Group Impact Mitigation and Ecological Compensation. COMBO has been implemented across six countries in Africa and Asia, together with government, private sector and civil society, to help reconcile economic development and biodiversity conservation through application of the mitigation hierarchy in policy and practice to achieve no net loss or net gain of biodiversity and contribute to national biodiversity targets aligned with the Kunming-Montreal Global Biodiversity Framework. The initiative was led by the Wildlife Conservation Society in partnership with Biotope, BIOFUND, Guinée Ecologie, Myanmar Biodiversity Fund and the University of Queensland.

The **Impact Mitigation and Ecological Compensation (IMEC)** Thematic Group of the IUCN's Commission on Ecosystem Management (CEM) serves as an international community of practice, guiding best practice application of the mitigation hierarchy and improving alignment of impact mitigation and ecological compensation with biodiversity targets.

Useful resources

- Bidaud, C., Schreckenberg, K., Rabeharison, M., Ranjatson, P., Gibbons, J., & Jones, J. P. G. (2017). The sweet and the bitter: Intertwined positive and negative social impacts of a biodiversity offset. *Conservation & Society*, *15*(1), 1-13. https://doi.org/10.4103/0972-4923.196315
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