

Report

New frontiers, new tricks: new threats to people and nature from biodiversity offsetting linked to mining and development

From Madagascar to middle England, *New frontiers, new tricks* explores how harmful mining, development projects and infrastructure schemes are deploying biodiversity offsetting as a new form of conservation action.

Developers, industries and their lobbyists are using offsetting to mask the damaging effects of their largely unreformed activities and to further persuade governments, academic bodies, parts of the conservation sector and communities on the ground that their activities can be trusted to be clean, green, fair and sustainable.

Behind the promises and the allure of biodiversity offsetting as an apparent solution to nature's decline, *New frontiers, new tricks* finds that the makeover of offsetting is just the latest sustainability gloss for unreformed, fundamentally unsustainable industrial activity and poorly conceived development.

Biodiversity offsetting is no substitute for lasting changes in business and industrial practices and for proper investment in proven nature conservation action to reverse the decline of nature and natural ecosystems.

The Andrew Lees Trust (UK) 77-79 Rushey Green, London, SE6 4AF • Website andrewleestrust.org/

with

Friends of the Earth Limited • 1st Floor, The Printworks, 139 Clapham Road, SW9 0HP • Tel 020 7490 1555 • Website friendsoftheearth.uk

Company number 1012357, registered in England and Wales.
Registered office: 1st Floor, The Printworks, 139 Clapham Road, SW9 0HP

Introduction and framing

This paper was initially conceived and developed in April 2017 as a communication tool for a workshop in London about biodiversity offsetting.

The workshop was organised by Friends of the Earth, London Mining Network, the Andrew Lees Trust, Collectif TANY, War on Want, Re:Common and World Rainforest Movement. It examined how biodiversity offsetting is being deployed around the world.

The event also previewed a film¹ produced by Re:Common, which documents the impacts of biodiversity offsetting on a community in Madagascar where land and land rights have been lost to mining, and a cartoon explaining biodiversity offsetting².

The workshop explored the situation in Madagascar, as well as a number of other case studies. The rich exchange exposed many facets by which this new way of negotiating environmental destruction, packaged as a solution or 'environmental gain', has both eroded natural sites of great value and undermined the survival of local communities dependent on land and natural resources. Summary notes from the workshop are in Appendix C.

This paper has been developed to share our position more widely and promote greater scrutiny and debate about the advance of biodiversity offsetting, especially in global biodiversity hotspots such as Madagascar.

Paul de Zylva (Friends of the Earth) and Yvonne Orengo (Andrew Lees Trust UK)

March 2019

Contents

Nature in trouble	4
Framing biodiversity offsetting	5
- The gap between theory and practice	6
Whose biodiversity? Whose agenda?	8
- Value systems	8
- Decision-making power	9
- Governance and compliance	10
Conservation tool or con trick?	11
- Marketised nature	12
- Rough justice	12
Offsetting the world – case studies	13
- Australia	13
- Germany	15
- Madagascar	16
- United Kingdom	17
Conclusions	19
Appendices	
- A: IUCN offsetting policy	20
- B: IUCN's response QMM's offsets	21
- C: Summary notes of April 2017 meeting	23
References	26

Nature in trouble

It's widely recognised that damaging human activity and overconsumption is creating the biggest threat to biodiversity and life on the planet, through the loss and degradation of natural ecosystems and habitats. This is happening principally by unsustainable farming, mining, logging, energy production, transport and residential or commercial development.

The Living Planet Report 2018 shows wildlife populations have decreased by 60% globally between 1970 and 2014, with a loss of 67% predicted by 2020³. The decline in wild species – a biological annihilation of extreme proportions that's heralding what some scientists have called the sixth mass extinction – is inextricably linked to the state of the ecosystems that sustain them.

Damage to ecosystems and the biodiversity within them represents not just a risk to plants and wildlife but also to human welfare and civilisation:

“Biodiversity is really necessary for the full enjoyment of rights to food, water, health – the right to live a full and happy life...Without the services that healthy ecosystems provide across the board, we really can't enjoy a whole range of human rights. And healthy ecosystems really depend on biodiversity.”⁴

It's within the context of an extraordinary acceleration in the destruction of the natural environment and increased pressure to secure the remaining natural resources available on our planet for the purpose of economic growth that biodiversity offsetting is being promoted as a viable solution to current conservation and environmental challenges.

Proponents of biodiversity offsetting argue that it provides for or protects some form of habitat when other habitats elsewhere are affected by or lost to development and infrastructure schemes such as roads, dams and mines.

In practice *New frontiers, new tricks* finds that biodiversity offsetting isn't working well and is far from ready to be treated as a trusted tool in the concerted effort that's now required to end and then reverse the decline of nature across the planet.

Offsetting is being enthusiastically adopted and advocated by corporations, especially those involved in minerals, oil and gas exploration; consultancies that see offsetting as a new business opportunity; governments aspiring to prioritise protection and restoration of nature and ecosystems; and some conservation groups.

Faced with increasing habitat loss and the pressing need to focus on ending threats to nature and restoring the functioning of natural ecosystems, offsetting risks perpetuating damaging practices by allowing governments, businesses and others to continue unsustainable activities premised on unlimited growth:

“...the ultimate drivers of those immediate causes of biotic destruction, namely, human overpopulation and continued population growth, and overconsumption, especially by the rich. These drivers, all of which trace to the fiction that perpetual growth can occur on a finite planet, are themselves increasing rapidly. Thus, we emphasize that the sixth mass extinction is already here and the window for effective action is very short.”⁵

New frontiers, new tricks

According to the United Nations' biodiversity chief, the world has just two years to thrash out a new deal for nature or humanity could be documenting its own extinction⁶.

As Africa faces the loss of 50% of its birds and mammals and Asian fisheries are expected to collapse by 2050, the loss of plants and sea life will undermine the Earth's ability to absorb carbon, creating a vicious cycle of environmental destruction.

Now is hardly the time to be negotiating with nature about what else it can afford to lose. Now is the time to act, to properly protect, conserve and restore species, habitats and ecosystems, to address and reverse the rates of destruction that threaten so many species' survival on the planet – including our own.

All countries will need to mobilise their governments to agree targets to protect species and habitats vital for global food production, clean water, restored soils and carbon sequestration.

Framing biodiversity offsetting

The principle behind offsetting is to protect or enhance tree, animal and plant species in one area to compensate for or mitigate development-related led harm done to the natural environment and associated populations elsewhere. Offsetting requires that conservation efforts are undertaken in one or more locations, on sites separate from the development site, in ways that can deliver a measurable *no net loss (NNL)*, and perhaps even a *net gain (NG)* of biodiversity in a wider area over time.

The International Union for Conservation of Nature (IUCN), the global authority on the status of the natural world and the measures needed to safeguard it, defines biodiversity offsetting as “a measurable way to compensate for residual impacts in development projects”⁷, with the caveat that offsetting is “only appropriate for projects which have rigorously applied the mitigation hierarchy (avoid, minimise, restore / rehabilitate and offset) and when a full set of alternatives to the project have been considered.”

In its policy and standards for offsetting, the IUCN, is clear that “avoidance is the first and most important step in the mitigation hierarchy” and, it reinforces that:

“...offsets must never be used to circumvent responsibilities to avoid and minimise damage to biodiversity, or to justify projects that would otherwise not happen.”

However, it's unclear whether the IUCN's high standards on paper are being observed in practice. In particular, how rigorously damage is being avoided; how well the much-mentioned mitigation hierarchy is being adhered to; and whether net gains in nature and ecosystems are occurring as a result of fundamentally harmful activity.

The IUCN itself has found that despite an increasing number of governments and companies applying offsets, the “current efforts to mitigate impacts were proving insufficient to reduce biodiversity decline”⁸, and it concludes that:

“...evidence is lacking as to the extent to which NNL/NG and offset policies are achieving their goals or contributing to better biodiversity outcomes in the jurisdictions where they exist.”⁹

At best, the endorsement and promotion of biodiversity offsetting by governments, business interests and by some conservation bodies is a one-step-forward, two-steps-back approach to conservation action, when the dramatic decline of nature and natural life-supporting ecosystems requires full attention on proven actions without excuses, half measures or drags on the process.

The gap between theory and practice

Biodiversity offsetting sets out to provide or protect one form of habitat when other habitats elsewhere are affected by or lost to development. That’s the theory.

In practice, the mechanisms by which offsetting is applied are complex to negotiate and difficult to administer. This raises questions about the efficacy of offsetting as a trustworthy tool in the protection, conservation and restoration of nature.

According to a comprehensive assessment of biodiversity offsetting uptake, mining and extraction is one of the main industrial sectors responsible for the declining state of our natural environment:

“Mining is one of the industry sectors with profound impacts on biodiversity. Surface mining strips land from forest, reducing wildlife habitats that are already under threat from climate change and other developments.”¹⁰

Efforts to green industrial mining by applying offsetting don’t reduce the industry’s immediate environmental impact or necessarily mitigate longer-term damage in the way companies seek to suggest.

In Madagascar, for example, unique littoral forest is being lost to ilmenite mining along six thousand hectares of the south-east coastline. This loss is calculated by the mining company Rio Tinto/QMM to be offset by a conservation programme which restricts use of forest resources for communities in neighbouring areas some 50 km to the north of the mine site at Bemangidy-Ivohibe in the Tsitongambarika Forest, and at a second site approximately 230 km further north at Mahabo (see page 16 and Appendix B).

The loss of unique flora and fauna from the indigenous littoral forests in this internationally recognised biodiversity hotspot is supposed to be offset by restricting use of forest resource in other areas. However, the conserved areas don’t harbour the exact same species profile or can only partially match what will be lost. Researchers have critiqued the Rio Tinto Madagascar offsets because “they represent ‘out-of-kind’ offsets which don’t compensate for the loss of unique littoral forest.”¹¹

Nevertheless, Rio Tinto claims its plan goes beyond the delivery of no net loss of biodiversity in the region and that it can yield net positive impact (NPI), an ambitious assertion given the difficulties in calculating how different types of biodiversity are recorded and lost (soils, insects, plants, birds, aquatic species, mammals and more) and when more than 80% of the species of flora and fauna on the island are unique.

The challenge is already proving too much for some. Rio Tinto’s Biodiversity Committee

resigned in 2016, saying:

“Rio Tinto’s reframing of its approach to biodiversity fundamentally compromises its commitment to NPI... [producing an] untenable level of reputation risk for committee members”¹²

In other cases, the principle of like-for-like replacement (‘in-kind’ offsets), assumes that important habitats, protected species and ancient natural and cultural assets can simply be moved or recreated elsewhere, although precise characteristics cannot be recreated or translocated.

Even where species match or are regarded as comparable, habitat fragmentation and loss may affect the ultimate viability of species populations, both before and long after the biodiversity offsetting deal has been done.

In-kind offsets	<ul style="list-style-type: none">• Offset composition required to closely resemble biodiversity lost
Out-of-kind offsets	<ul style="list-style-type: none">• Biodiversity outcomes from the offset are different from the biodiversity lost at the development site• Flexibility to secure an offset of higher conservation significance – “trading-up”
(Very) Out-of-kind offsets	<ul style="list-style-type: none">• Biodiversity offsets rely on indirect mechanisms to deliver outcomes e.g., the funding of research & development or education schemes

Whether offsets are evaluated as ‘in-kind’ or ‘out-of-kind’, there are substantial questions about the methods and accounting frameworks used¹³ and the potential for offsets to undermine more important steps in the mitigation hierarchy¹⁴.

Fig 1. Equivalence type of biodiversity offset¹⁵

The littoral forests of south-east Madagascar and the unique biodiversity within them have taken millennia to evolve and consequently can be regarded as irreplaceable. On this basis, it’s highly arguable that avoidance should have been the priority for all sites involved.

The IUCN has stated that:

“without the protection afforded by the offset, there is a strong likelihood that Tsitongambarika Forest and its biodiversity values would have been lost to future generation and Madagascar’s biodiversity further diminished.” (Also see Appendix B)

However, the forest already falls under a national conservation programme. From this perspective it’s questionable whether the Rio Tinto offset legitimately creates an additional conservation effort, or if it’s simply supporting an existing national programme by providing a more localised form of policing around community forest use.

Even with additional oversight, where a community has been excluded or constrained from accessing natural resources in a mining or biodiversity offsetting site, it may seek to find and exploit resources elsewhere. Then there’s no actual gain – the problem has simply been displaced to another location in what is known as ‘leakage.’

New frontiers, new tricks

Another challenge is measuring ‘additionality’ (net benefit). This requires estimating exactly what restoration to the forest would have happened naturally, without any offset investment. Such projections require robust scientific discipline and methodology, which isn’t always evident in current practice.

For example, in Madagascar:

“...Rio Tinto did not take into account the fact that the potential deforestation its offsetting programme aimed to avoid was partly inflicted by the company itself, through road-building, arrival of migrant workers, and other factors.”¹⁶

Furthermore, the baseline habitat loss applied by Rio Tinto for this offset (~2%, based on a 10-year national average) assumes that Madagascar is unable to develop, to control forest use or replace wood biomass as an energy source for its poorest populations. In this regard its approach reinforces a “defeatist ‘locking in’ of loss”; and it “implicitly eliminates hopes of development of the world’s poor, and should be a cause of concern from the perspective of social justice and global inequality.”¹⁷

The challenges of offsetting are clear and tangible. Additionality, leakage and whether it produces permanent benefits are currently insufficiently addressed. Of equal concern is whether offsetting reinforces negative perceptions and defeatist projections of local forest governance, undermining local ownership of development, and exacerbating inequality and conflict around access to land and natural resources.

Whose biodiversity? Whose agenda?

Beyond the challenging issues of measurement and implementation, there are questions about value systems and decision-making processes by which biodiversity offsetting is applied, and whose interests these serve.

Value systems

As explored above, systems for analysing and measuring biodiversity are complex. The notion of no net loss presents considerable challenges. The definition of loss may vary according to different stakeholders. And the decisions made about how biodiversity is measured and how change is interpreted may also be subject to differing value systems.

The importance of local forests and endemic natural resources to indigenous peoples can have a much higher conservation value than that decided by a mining company in control of the land and any compensation packages.

For poorer communities living on the edge, unrestricted access to medicinal plants, natural produce such as honey, and other resources like vines for weaving, can be vital for survival.

Forests and lands may also hold profound spiritual value for local people, as is the case in south-eastern Madagascar, where communities believe ancestral spirits reside in the forest and actively participate in protecting them and their wellbeing.

These natural resources and social goods may not be counted in a vertical hierarchy of measurement that, for example, simply looks at loss of tree/forest cover, as in the case of Madagascar¹⁸.

Decision-making power

Although economic arguments for promoting and deploying offsetting often include promises to local communities of jobs and new ways to earn income, offsetting measures invariably restrict access to lands and forests necessary for survival and wellbeing. The majority of indigenous peoples don't hold formal tenure to their lands.

Consequently, many communities have little or no say in how or where offsetting is introduced, and no recourse for preventing or contesting plans. Instead, they're expected to live with constraints on natural resource access, and restrictions to their livelihoods and traditional practices. In this way, rural communities frequently carry the cost of environmental destruction wrought elsewhere by external forces such as international mining corporations. One Malagasy villager poignantly captures the immediate impacts of local offset restrictions:

“We understand the importance of protecting the forest. But they should have started the projects to help us grow food before stopping us from using the forest. Otherwise we are left with no food and this is a problem.”¹⁹

Arguments to proceed with mining and other deleterious environmental activities in fragile settings are frequently premised on the notion that local people will destroy the targeted habitat themselves. Such othering of indigenous communities, vilifying their traditional practices, is used to justify the advance of environmentally-damaging, externally-driven development schemes, as in south-east Madagascar where Rio Tinto erroneously claimed locals would decimate the littoral forests within twenty years by the practice of 'tavy' – slash-and-burn subsistence farming and other unsustainable uses²⁰.

Several studies have measured the human impact on forests in south-east Madagascar and, using data across three decades, have determined that Rio Tinto's assumptions about deforestation and human impact were incorrect²¹, that its approach was misleading²² and reinforced a simplistic analysis and narratives that present forest loss as an 'environmental crisis' caused by local people, which can then mobilise funding and support for conservation and development agendas. Indeed, satellite images testify that forests in areas without mining are remarkably intact after over twenty years.

Better understanding and respect for how indigenous communities treat natural features and assets can allow for conservation efforts to be more sensitively and appropriately addressed at local level, rather than using externally imposed offsetting to justify restrictions on access to land and resources. In this, it's vital to address power imbalances, access to knowledge and information, and means of redress, as Friends of the Earth's synthesis of work on protecting the global commons says:

“a high degree of equality between users or stakeholders is likely to be important, especially at the level of procedural power and justice, implying a rebalancing of power away from overly powerful corporations and towards the powerless and most marginalised. ...if we are to seek to design 'user communities' through multi-stakeholder partnerships, we cannot expect these to function well if they are lopsided in terms of authority, monitoring or recourse.”²³

Recognising contextual realities, understanding the political and economic landscape as well as the framing of global policy is important when addressing questions of authority and the balance of power.

Governance and compliance

Defending indigenous rights to land and forest, and mitigating or avoiding biodiversity loss, can be particularly challenging for communities in countries where there's weak governance and rule of law. Host governments are expected to play an important role in ensuring that the mitigation hierarchy is "embedded in the framework of landscape and seascape level planning and legislation, and is part of existing and future strategic development plans", according to the IUCN²⁴.

However, where mining and other environmentally deleterious activities are happening in countries with weak governance, such as Madagascar, dependence on state monitoring and mechanisms to curb inappropriate use of offsetting or monitor poor implementation may be ineffective. In Madagascar's case, offsetting was applied under state conservation mechanisms in partnership with Rio Tinto and implemented by Birdlife International's local affiliate, Asity.

The affected community in Antsotso highlighted that the process of offsetting had been far from transparent. As well as complaints that the community had been misled about the Rio Tinto offsetting plan at the start, and were not afforded Free Prior Informed Consent, villagers also complained that 'user zones' for local people had not been clearly demarcated in the forest area by the implementing agency:

"Asity delimits while the community knows nothing about the hard core limit (forbidden zone) or the limit of the area of use."²⁵

Only after international pressure on Rio Tinto at its 2017 AGM, and following a letter from Collectif TANY to the Office National de L'Environnement (ONE), did ONE representatives meet with the community about their concerns and complaints and conceded the inadequacy of signage:

"the Committee accepts that these panels are not very clear and what causes confusions in people's minds as they think it is strictly forbidden to enter the forest of Bemangidy. This prompted the Committee to tell Asity...to renew these panels. ...Make it clear that...the strictly forbidden area starts here. Another different panel to indicate the area of daily use (right-of-use area)."²⁶

This example highlights the difficulties of providing robust implementation, adequate review, oversight and compliance when offsetting is applied. It also underlines the challenge for developing countries, which may lack the resources and capabilities to undertake the work of monitoring, although similar challenges are present in advanced economies such as the UK, Australia and Germany, where offsetting has been practised for much longer (see *Offsetting the World* – page 13).

Conservation or con trick?

Despite the significant concerns discussed above, and the lack of evidence that it can be designed and delivered to robust scientific criteria, the politics behind offsetting can mean that it's pursued over-optimistically and for entirely the wrong reasons.

If governments regard protecting biodiversity as a barrier to development, then biodiversity offsetting may be used expediently, as a tool to facilitate development, not to protect and restore biodiversity.

The discourse and practice become further complicated and potentially confusing when financial institutions, academics and some conservation organisations collaborate in advancing offsets that support the interests of state-corporate actors, with doubtful outcomes for biodiversity. For example, in 2010 the IUCN entered into a close collaboration with Rio Tinto and its ilmenite mine in south-east Madagascar. The mine is run by QIT Madagascar Minerals (QMM) and was “chosen as a pilot site to test the tools designed to achieve and quantify NPI on biodiversity.”²⁷

As well as collaboration with the IUCN and the Malagasy government, and support from the World Bank, the mine also enjoys international partnerships with conservation organisations such as Bird Life International, the Wildlife Conservation Society (WCS), Missouri Botanical Garden, Conservation International (CI), and the Royal Botanic Gardens, Kew. Collaboration with conservation NGOs enhances and strengthens a mining company's green credentials and their social licence to operate. However, the nexus of state-government-NGO collaboration closes the political space where questions about offsetting and resistance to inappropriate or environmentally damaging development can be contested.

Over the past few decades, as environmental agendas have successfully captured mainstream policy attention and funding, the interests of conservation NGOs and corporates have increasingly overlapped²⁸. Biodiversity offsetting may have become the latest greenwashing of corporate agendas and of growth at any cost, serving to neutralise environmental challenges to development projects and their impacts, while doing little to protect, conserve and restore declining biodiversity and natural ecosystems in diminished state.

Indeed, as the private sector has increasingly dominated conservation agendas, the language of the green economy coupled with market-based strategies, such as offsetting and promises of net gain, are contributing to ways in which nature is redefined and financialised²⁹ in order to afford greater access for capitalist accumulation³⁰.

One study observes that, in “a very short period of human history, and a mere blip of Earth's history”, the drive for economic growth has “altered and destroyed the material world at an unprecedented speed and on a scale previously achieved only by natural evolution or other kinds of (non-human) biophysical change.”³¹

The danger is that, in a bid to maintain growth at all costs, biodiversity offsets are being promoted beyond being used as a last resort, permitting the rationalisation of development and the environmental harm it causes, by deeming it unavoidable. This in turn can be used to create a development-led demand for offsets, which can be further marketised³².

Marketised nature

The assumption that it's possible to place a financial value on nature, to quantify its worth in market terms, and negotiate its survival from a trading perspective, raises considerable ethical questions about humans' perception of their role in the planet's ecosystem. Some cultures have already made significant steps towards recognising the natural world as a living organism and accorded the same rights to nature as to humans. Offsetting allows for no such respect of nature's rights. A recent study shows that economic factors are a principal driver in determining how offsetting is framed and implemented. In this respect, the compulsion to reduce costs and create value for money may have negative effects on determining outcomes for nature conservation³³.

Working under market pressures, offsetting values are inevitably vulnerable to lobbying by developers and investors along financial-bargaining faultlines. In this, it's important to acknowledge multiple competing interests within any offsetting negotiation. These can include developers aiming to keep their costs low, and land owners seeking to optimise market opportunities by offering mitigation sites for financial gain.

Competing requirements of different actors in the market create tension around efforts to standardise offsetting policy and comparability metrics. This can result in the metrics, like those of UK environment ministry Defra, used to determine conservation values according to a standardised approach being *creatively designed and competitively negotiated*, with a risk to biodiversity outcomes.

Moreover, biodiversity values are likely to be adjusted *downwards* to enable cheaper compensation packages for developers. When this happens, those tasked with enforcing and monitoring environmental safeguards may be less motivated or less able to facilitate pragmatic exchange and agreements over offsetting arrangements.

Competitive and creative negotiation for offsetting may reflect the complexities of the market, but may also undermine robust measurement and conservation priorities established through rigorous scientific methods and just, democratic processes.

Rough justice

For some communities, biodiversity offsetting is regarded as a form of land grabbing. Land taken for damaging activities such as mining is accompanied by additional land taken for use as a biodiversity offset, amounting to a 'double land grab.'³⁴

Land grabs involve the acquisition and / or seizure of land for the sole use of certain interests to produce commodities. They have been on the rise and are particularly aligned to industrial farming and the production of rubber, biofuels, mining and other extractive industries, initiated by capital-rich countries and by private, government and public-private joint ventures.

Recent estimates suggest acceleration in land grabs motivated by commodity prices – between 2005 and mid-2009 an estimated 20-30 million hectares were transacted³⁵. The World Bank estimated about 45 million hectares had been transacted since 2007-2008³⁶, and in 2011 Oxfam calculated 227 million hectares transacted since 2001³⁷.

Foreign investment in large-scale land deals tends to target countries that suffer weak governance, low accountability to their citizens, and lack of regulation of the private

sector, as well as corruption and weak rule of law³⁸. For example, large-scale extractive and agribusiness projects can acquire land and set about offsetting additional areas in order to help secure global grants, for example from the International Finance Corporation (the World Bank's private sector lending arm), which demand mitigation of environmental damage. These projects are increasingly threatening the livelihoods of indigenous people and rural producers, who have little protection under traditional land tenure or customary rights.

Indigenous peoples are heavily reliant on land and forest access for subsistence farming, food security, and natural resources such as medicinal plants. They make up around 5% of the world's population, but own, occupy or use nearly a quarter of the world's land. The World Bank estimated in 2008 that 60 million indigenous people depend entirely on forest resources for their livelihoods³⁹.

NGOs War on Want, London Mining Network, Re:Common, Global Justice Now, Survival International and Global Witness all report human rights violations, people forcibly displaced from their lands, restricted access to natural resource such as forests, and the criminalisation or murder of people who defend, protest or resist land grabs⁴⁰. Conflict is increasingly linked to tensions over access to natural resources⁴¹. Most resource-related conflicts are domestic, but increasing scarcity of land, water and energy is regarded as a potential catalyst for international adversity. For example, more than 1.8 billion people are expected to be affected by water scarcity by 2025⁴².

The continued pressure to grab land and forests for offsetting is therefore a potential driver for conflict and insecurity. Coupled with climate change, these drivers will require joined-up thinking, a review of practices and a more holistic and just approach to conservation efforts, especially in fragile political landscapes.

Offsetting the world

Biodiversity offsetting has been in use in some parts of world for some time. In Germany offsetting has been adopted as official policy for over forty years.

This section explores how well biodiversity offsetting has been designed and adopted in four nations where the experience calls into question reliance on and deployment of biodiversity offsetting.

Australia: Maules Creek and Moolarben coal mines

Biodiversity offsetting has been used in Australia for over a decade. One might expect substantial evidence of biodiversity gain, but offsetting has contributed to further loss of biodiversity instead. The controversy over offsetting in Australia led to a Senate Inquiry in 2014, where evidence of its many problems was heard⁴³.

The Environment Defenders Office (EDO) in Victoria (now known as Environmental Justice Australia) told the inquiry that "The intention of biodiversity offsets is preferably to achieve a net gain, or at a minimum a no net loss of biodiversity on the ground. However, after a decade of offsetting in Australia there are no studies that show this is what occurs in practice. Indeed, studies indicate the opposite."⁴⁴

EDO referred to numerous projects that don't meet the standards set out in the Environment Protection and Biodiversity Conservation Act, which is meant to ensure that offsetting does not undermine statutory protection for habitats and species.

EDO concluded that offsetting is primarily a tool of “regulatory negotiation to facilitate development”. For example, EDO said that Whitehaven Coal’s Maules Creek coal mine shouldn’t have been approved due to the known and significant impacts on listed threatened species.

The Central West Environment Council (CWEC) also submitted evidence to the inquiry, in particular highlighting the inappropriate use of offsetting in major mining developments. For example, the Moolarben coal mine project (Stage 2) requires the removal of over 1,500 hectares of native vegetation, including endangered ecological communities and loss of critically endangered species.

The offset proposals for the project should be protected in perpetuity but they’re located within an area that’s licenced for further exploration. This led CWEC to raise concerns that they may be destroyed in future mining operations, meaning no lasting benefit from the offset.

Professor Philip Gibbons of the Australian National University and an adviser to the Australian government told the Senate inquiry that offset sites are meant to provide a gain in biodiversity that would not otherwise have occurred, but that:

“Anecdotally I believe that many offsets established to date under Commonwealth (and State) policy are not additional”.⁴⁵

Professor Gibbons also cited cases where offset sites were on land where conservation actions should have taken place anyway, as part of the existing duty of care of the land manager. Professor Gibbons said:

“this type of activity is, in effect, cost-shifting, or the replacement of existing funding for environmental protection with funding from development and thereby creating a dependency between conservation and development.”

The Senate inquiry led to several recommendations, including that offsets should provide additionality and protection for the offset site in perpetuity. The inquiry also said that: “environmental offsets must be used only as an absolute last resort”; that prior to the granting of environmental offsets, “all reasonable steps should first be taken to avoid and then mitigate adverse impacts on the environment”; and expressed concern at “evidence that this mitigation hierarchy is not being rigorously applied and that there’s insufficient emphasis on avoidance and mitigation measures.”⁴⁶

But the situation does not seem to have changed as a result. In 2016 Professor Gibbons reported that farmers are clearing land six times faster than detected by the New South Wales government, and most offsets used to compensate for vegetation destruction merely preserve existing conservation areas⁴⁷.

Notwithstanding the New South Wales government proposing new biodiversity legislation, the Environmental Defenders Office NSW has raised serious concerns about the new offsetting proposals:

“Vulnerable ecological communities are excluded from the definition of threatened species, and mining is still permitted in areas that supposedly offset previous losses of biodiversity and areas of outstanding biodiversity value.”

Germany: national policy for 40+ years

In response to concerns about the eroded condition of nature and landscapes in Germany, biodiversity offsetting has been deployed in some states (Länder) since the early 1970s. Offsetting became official national policy under the Federal Nature Conservation Act (FNCA) in 1976, with the various rules comprising an Eingriffsregelung or Impact Mitigation Regulation (IMR).

The IMR requires adherence to a mitigation hierarchy setting out how developers and others wanting to use biodiversity offsetting must avoid harm to start with and then reduce its effects. Only effects that are entirely unavoidable are supposed to be subject to offsetting schemes.

Germany allows mitigation to cover both the avoidance and minimisation of harm and the 'compensatory' action. According to the Business and Biodiversity Offsets Programme (BBOP)⁴⁸, the stated aim of offsetting is to achieve no net loss, with a preference for net gains for biodiversity and "measurable conservation outcomes". Significant negative effects are also supposed to be avoided, although it's uncertain how 'significant' is defined under the IMR.

Studies show that a substantial proportion of offsetting schemes failed to achieve their stated objectives, weren't implemented or took place but failed to compensate for harm:

"Studies have revealed that a substantial proportion of offsets failed to achieve their objectives. This was considered to be due often to restrictions on their location, which made it difficult to find suitable sites and the absence of clear requirements for authorities to monitor the long-term performance of the offsets. Subsequent amendments to the legislation and learning have improved offsetting in practice by enabling a more efficient and effective process. However, a substantial proportion of offsets is still not implemented nor achieves their objectives. Despite this, the Impact Mitigation Regulation (IMR) is considered to reduce overall rates of biodiversity loss from built developments, although this cannot be quantified as no overall evaluation of the instrument has been carried out in Germany. Furthermore, the impact of the IMR is significantly constrained by the exemption of agricultural, forestry and fishery related activities from the regulation's scope."⁴⁹

An important factor in assessing whether biodiversity offsetting will deliver the claimed benefits is the durability and longevity of compensation measures. In principle, the compensation must be in place as long as the impact exists.

A review of compensatory measures identified that, in practice, many planted trees died and weren't replaced, meadows were abandoned and compensation areas near settlements were claimed by neighbours and used as an extension of their gardens⁵⁰.

A 2010 study identified that only one third of the offsetting schemes implemented in Baden-Württemberg achieved their stated aims for nature⁵¹. Notably, there has also been no proper assessment of how the IMR itself is working, including whether it prevents harm and protects ecosystems from farming, fisheries and forestry activities.

Over the years scarcity of land and possible options for compensation have led to an erosion of the regulation and a tendency towards the far end of the mitigation hierarchy, with increasing use of habitat banking to secure conservation measures.

Avoidance of harm, on the other hand, appears to have been rarely used, beyond looking at different alternatives in the course of the SEA / EIA procedure. There are no known cases of a project being abandoned because of its environmental impacts. Development decreased from 129 hectares/day in 1997 to 66 in 2015⁵² but this still meant a net loss of area to development, and it's hard to say if the decrease is due to the IMR.

The state of nature in Germany needs attention with 36% of species threatened or extinct⁵³. But even with the IMR the 2011 indicator value was only at 67%⁵⁴ of 1975 when the IMR was introduced. Overall, it is not clear how the IMR has been able to improve the state of nature and biodiversity in Germany. Despite over 40 years' experience, the general assessment of how well biodiversity offsetting is operating in Germany isn't encouraging⁵⁵.

Madagascar: the Rio Tinto/QMM mine and biodiversity offsetting

Rio Tinto/QMM's mine is extracting ilmenite for use in whitening agents and paint. An offset scheme that includes forest at Bemangidy-Ivohibe, some 50 km north of the mine, has been promoted as a model that will have net positive impact (NPI) on biodiversity in the region and endorsed by the IUCN and BirdLife International.

The scheme has been used to justify the destruction of a unique coastal forest with extremely high levels of endemic wild species and with only a few unfragmented remnants of the forest left. Investigations by Re:Common and the World Rainforest Movement (WRM) have exposed the concerns and losses of the local community and raised questions about the claims of the company to promote and justify the scheme and to mollify contestation.

Claims of positive impact ignore the severe negative effects the offset is causing for villages such as Antsotso. For example, the subsistence livelihoods of villagers in Antsotso within the Bemangidy-Ivohibe offset have become more precarious as a direct result of the offsetting programme. Land at the edge of the forest, which was used by the villagers to grow manioc, their staple food, has been lost. The villagers have consequently been forced to grow manioc in sand dunes, but this is proving unproductive. At Mahabo too there are reports of evictions from the land.

WRM and Re:Common highlighted that local people were under the impression that loss of forest access and customary food security practices would be compensated by QMM through tree planting and other employment programmes, as cited by one villager:

“Some people from the village were involved in planting the trees, and they were paid 3,000 Ariary [1 euro] per day. The cost of buying the manioc we need to feed our families for one day is 6,000 Ariary [2 euros] per day, so you see that this is a problem.”⁵⁶

In Antsotso, alternative livelihoods or income-generating opportunities have not been evident; paid tree planting activities have been minimal, only offering occasional work to a small proportion of the community; and watering of planted trees, although time consuming, isn't being remunerated. The scheme left villagers without cash income to buy food and without productive land to grow food of their own to feed their families; the cost of mining 50 km away falling heavily on their shoulders with no obvious or tangible gains or benefits to mitigate their direct losses.

International campaigning in 2017, in solidarity with the local community, has placed significant pressure on the company to address Antsotso's losses and livelihoods issue. Following UK national press exposure and AGM action by international activists, Rio Tinto mobilised higher-level engagement with community representatives in Antsotso to start addressing their complaints.

By January 2018 the company had started to offer some livelihood projects, including beekeeping and red pepper production. Rice-growing was launched, but villagers complain they lack the technical training needed to succeed at growing rice, following the significant change to their traditional farming practices. The immediate loss of food security remains a considerable challenge and an ongoing pressure for the community.

United Kingdom: Smithy Wood, Lodge Hill and High Speed Rail 2

The UK government consulted on options for offsetting in 2013, but the public raised significant concerns in response. These concerns were not resolved at the time and the government went on to set up pilot offsetting projects, the results of which also raised doubts about the ability of local authorities to implement a robust policy.

The UK has not formally adopted an offsetting policy, but it's already being used to try to justify damaging development. The government's statutory wildlife watchdog Natural England lists "Contribute to delivering Defra's biodiversity offsetting initiative" as one of its tasks for 2014-19.

Smithy Wood, a much loved ancient woodland near Sheffield, Yorkshire, is threatened by plans for a motorway service station. The wood is a haven for a wide range of ancient woodland flora, birds, fungi and butterflies, is of significant historical interest and is used for walking, recreation and enjoyment.

The developers argued that the ecological benefits of managing other woodlands in the area and planting new woodland outweigh the loss of the ancient woodland. They offered increased compensation, but local people say they would still lose a forest that would take 850 years to re-establish.

Campaigners, including from Sheffield and Rotherham Wildlife Trust, argue that there are alternative sites for the scheme and that according to UK planning policy, damaging an ancient woodland shouldn't be considered, whatever compensation is offered.

Lodge Hill in Kent, the so-called The Garden of England, is one of south-east England's last refuges for nightingales. Nightingale populations in the UK have declined 90% over the past 50 years but Lodge Hill, one of the most important nightingale habitats and a protected site, was placed under renewed threat.

A planning application for 5,000 houses on Lodge Hill was accompanied by a proposal to 'offset' the damage to the nightingale habitat by creating a new habitat – at some distance from the site – in the hope that the nightingales would move. The proposal also included a plan to move rare grasslands to a new location.

The application was called in for review by the Environment Secretary in 2015. The local council, under pressure from central government to build more houses, planned to designate the site for housing in its Local Development Plan. The council withdrew its

plans in 2017, but the question remains whether the area should have been targeted for development in the first place.

High Speed Rail 2 (HS2) is the UK's largest infrastructure scheme, aiming to link London to Manchester and Leeds via Birmingham. It involves the loss of irreplaceable ancient woodland, although ministers have repeatedly claimed that HS2 will result in net biodiversity gain and that irreplaceable ancient woodland is replaceable. In response to such claims, Woodland Trust Chief Executive Beccy Speight, said:

“You can't achieve 'no net loss of biodiversity' if you're destroying irreplaceable ancient woodland – it's impossible.”⁵⁷

Conservation charity, The Wildlife Trusts⁵⁸, stated “Back in 2013, we were concerned that the 55,000-page Environmental Statement was so seriously deficient as to be inadequate, despite the stated intent of HS2 Ltd that the development should result in 'no net loss to biodiversity'. Based on the incomplete evidence presented in the Environmental Statement, we felt the consequence of building HS2 Phase 1 would be a net loss of biodiversity.”

The Trusts added that: “When HS2 Ltd published their 'No Net Loss' in biodiversity calculation, it showed a 3% deficit in 'biodiversity units'. However, we had significant concerns about the approach taken by HS2 Ltd and requested that an independent review was carried out. Natural England completed that review and made a number of recommendations. One was that HS2 Ltd should remove ancient woodland impacts from their calculation of no net loss to biodiversity.”

The original scheme threatened to destroy up to 45 hectares of irreplaceable ancient woodland. Thanks to The Wildlife Trusts and Woodland Trust, this dramatic loss has been slightly scaled back and the first phase of HS2 from London to Lichfield will now destroy just over 30 hectares of ancient woodland from 34 individual woodlands along the 240 km route. The scheme will also indirectly affect 29 other woodlands in the form of noise, dust and lighting from construction and operation.

Natural England agreed that irreplaceable ancient woodland cannot be offset and this has required HS2 Ltd to back down on its claims that the project meant no net loss of biodiversity. Natural England warned that the threatened land has been covered with woodland since at least 1600 and should be regarded as irreplaceable and therefore be removed from HSC Ltd's metric aimed at ensuring no net loss since its inclusion "gives the impression that it is tradeable or replaceable."

Natural England called on HS2 Ltd to raise its ambition in compensating for any truly unavoidable loss of ancient woodland by creating 30ha of new woodland for every hectare lost. The 30:1 ratio is higher than previously proposed but the government's rejection of this prompted Beccy Speight to champion Natural England's report which, she said, brings: "...clarification that HS2 has failed on its key objective of 'no net loss of biodiversity' and that this project will be to the detriment of the natural environment."

Even so, HS2 minister Andrew Jones MP claimed: “HS2 is doing more than any other major project to protect the environment and leave as little trace as possible. The new woodland will be managed for up to 50 years so that the trees are protected and communities will be able to enjoy the new woodlands for hundreds of years to come.”⁵⁹

Conclusions

Offsetting is being promoted as a new approach to conservation without sufficient safeguards and rigorous science to ensure authentic, measurable benefit. It therefore cannot be trusted as a credible, reliable tool in the conservation toolkit, or as part of a serious effort to restore and protect nature locally, nationally and internationally.

Offsetting is generating considerable activity in the form of private consultancy, reports and policy exercises – some of which make substantial claims to persuade governments, conservation bodies and communities that offsetting can deliver what it promises. But these schemes are proceeding without proper, exhaustive attempts to follow the mitigation hierarchy supposedly required by governments, and by the IUCN.

Biodiversity offsetting is being used to legitimise and justify the continuation of business as usual – further destruction of nature, people's livelihoods and the future functioning of natural ecosystems. Money that could be spent on genuine, proven conservation activity for the public good is being diverted into unproven biodiversity offsetting activity instead.

At a time when robust action is required to seriously and imaginatively confront the rapid changes needed to reverse nature's decline, offsetting risks promoting unsustainable industries like mining as the so-called green champions of nature conservation, often with the complicit support of some academic institutes and conservation organisations.

Given rising pressures on land, natural resources and food production as a result of climate change, agribusiness, extractive industries and energy demands, it's doubtful that biodiversity offsetting can address the drivers for damage and biodiversity loss.

Instead, offsetting is more likely to exacerbate current economic and commercial drivers that destroy the natural environment, undermine food security, restrict the rights and resilience of indigenous populations, and create conditions likely to catalyse conflict. Despite this, offsetting is being advanced through:

- Complacent regulatory frameworks and failures of governance.
- Attitudes that nature can always be moved or recreated elsewhere in the same state to make way for damaging activity.
- The idea that damage can be compensated fairly and accurately.
- Less than mature use of economic pricing, metrics, and accounting systems to 'capture' the value of nature.
- Negligence towards indigenous rights and traditional land tenure.
- The acquiescence of some highly regarded and high-profile accredited academics and conservation organisations.

As the world faces a limited window to address the startling biodiversity and species loss on planet Earth, biodiversity offsetting represents an unwelcome distraction from the harsh choices and political will needed to reverse the current environmental trajectory and its inevitable social, economic and environmental consequences.

Appendix A: IUCN policy on biodiversity offsetting, no net loss and net gain

The IUCN has set the international standards for biodiversity offsetting. Its policy sets out both the conditions under which offsetting is acceptable and contributes to positive conservation aims, and where its use is inappropriate: “under the specific conditions... biodiversity offsets can contribute to positive conservation outcomes” but they’re “only appropriate for projects which have rigorously applied the mitigation hierarchy (avoid, minimise, restore/rehabilitate and offset) and when a full set of alternatives to the project have been considered.”

The IUCN emphasises that “Avoidance is the first and most important step in the mitigation hierarchy” and “Biodiversity offsets must never be used to circumvent responsibilities to avoid and minimise damage to biodiversity, or to justify projects that would otherwise not happen.” ‘Avoidance’ should mean assessing whether a project needs to go ahead at all, whether a mineral can be extracted elsewhere with less harm and even if the mineral is needed at all if other materials can be used.

The IUCN is also clear that “Offsets must only occur after all previous steps in the mitigation hierarchy have been considered and no alternatives are available” and that “The mitigation hierarchy must be applied at the landscape or seascape level with mitigation actions designed and implemented at a site or project level.”

The role of governments in ensuring respect for the mitigation hierarchy is also highlighted in the IUCN’s policy: “Governments should ensure the mitigation hierarchy is embedded in the framework of landscape and seascape level planning and legislation and is part of existing and future strategic development plans.”

Achieving no net loss

The IUCN’s policy also covers no net loss and reiterates that: “The aim of biodiversity offsets is to achieve No Net Loss and preferably a Net Gain of biodiversity” and that, “Only after applying the earlier steps in the mitigation hierarchy should biodiversity offsets be employed to address the residual impact in order to achieve at least No Net Loss and preferably a Net Gain at the project level.”

The IUCN adds: “the terms No Net Loss or Net Gain refer to the outcome achieved compared to a reference scenario. This reference scenario can be what is likely to have occurred in the absence of the project and the offset, or one that provides a better outcome for biodiversity conservation. Societal values should also be accounted for and used to inform the design and implementation of biodiversity offsets.”

“In certain circumstances, residual impacts on biodiversity (after completing the avoidance, minimization and rehabilitation steps of the mitigation hierarchy) cannot be offset. Additionally, there are some components of biodiversity for which impacts could theoretically be offset, but with a high risk of failure. Under these circumstances, biodiversity offsets are not appropriate, and this means the project as designed should not proceed.”

Appendix B: IUCN's response to the question of the legitimacy of QMM's offset

Extracts from an email from IUCN to Rio Tinto dated 22 September 2017 (highlighted text = our emphasis of key text).

Background

In 2010, IUCN and Rio Tinto signed an agreement, a key focus of which included that IUCN scientifically and independently review Rio Tinto's progress towards their corporate wide NPI commitment. It should be understood that the focus of this work was on assessing that the systems Rio Tinto put in place were sufficiently robust and "fit for purpose". **IUCN has never acted in an operational verification or certification role – therefore we can only comment as to whether the QMM NPI system is adequate but have not actually undertaken site operational assessments to verify that the intended outcomes of these measures have been or are on course to be met.** This separation of responsibilities with respect to setting standards / advising on implementation of a system versus assessing the results (or outcomes) of implementation is considered in many fields as a fundamental element of best practice that reduces the potential for conflict of interest.

In this respect, **reviewing progress on establishing the NPI system at the QIT Madagascar Minerals operation (Rio Tinto QMM) formed a significant part of the IUCN-Rio Tinto collaboration and resulted in two publicly available documents:**

Forecasting the path towards a net positive impact on biodiversity for Rio Tinto QMM and Exploring ecosystem valuation to move towards net positive impact on biodiversity in the mining sector. In the course of providing this advice, **IUCN has undertaken two visits to QMM to facilitate and advise on the development of an NPI assurance tool.** the basis of this experience combined with the guidance provided by the IUCN Biodiversity Offset Policy (which was endorsed and approved by IUCN State, Government Agency and NGOs members at the Vth World Conservation Congress in Hawai'i, 2016) that the following opinion is provided to address these specific questions:

a) the importance of the Tsitongambarika Forest from a conservation perspective, and what was the anticipated scenario if this area had not been incorporated as an offset to the QMM NPI commitment, b) whether the Tsitongambarika Forest qualifies as a legitimate 'offset', c) whether the process that identified Tsitongambarika Forest as offset option was consistent with the QMM NPI systems requirements d) any further comments on the on-going conservation needs of these littoral forest patches.

Opinion

QMM has put a robust system of conservation actions in place to minimise, mitigate and restore the project's operational impacts on key species and habitats. However, in order to approach NPI on biodiversity, it's important to recognise that the site operations leave a significant residual impact that requires additional compensation measures in the form of biodiversity offsets. Biodiversity surveys point to the biodiversity values of Tsitongambarika Forest providing like for non-like compensation for endemic species and matching more widespread species. In addition to these taxonomic similarities, the Tsitongambarika Forest was, in consultation with local NGOs, assessed as important in terms of key ecosystem functions, including water soil fertility, non-timber products and local climate regulation. **The small fragments of littoral forest found here are considered a threatened habitat within Madagascar, with about 90%**

already lost to human activity and only 1.5% included within the existing protected areas network (Consiglio et al. 2006).

A legitimate offset must not only represent key biodiversity values but must also be under clear threat itself – in other words and (*sic*) offset must not be a similar natural areas whose future stability is already assured. In this respect, Tsitongambarika Forest was judged to be under imminent threat of degradation and deforestation, a threat that characterised many of Madagascar’s remnant forest areas. **Without the protection afforded by the offset, a strong likelihood that Tsitongambarika Forest and its biodiversity values would have been lost to future generation and Madagascar’s biodiversity further diminished.** IUCN believes in conservation through a rights-based approach, and although this was outside the immediate remit of our collaboration with Rio Tinto, we note that initiation of the community based forest initiatives have been previously tried and would hope that this community outreach is maintained.

IUCN recognises that balancing the protection of biodiversity and the needs of local populations can be difficult and it is willing to help solve any issues regarding local involvement in the Tsitongambarika offset. Moreover, it is imperative that all stakeholders work together to protect the unique biodiversity found on the island of Madagascar, and thus, IUCN commends QMM on its efforts so far to reach its NPI for biodiversity goal.

IUCN recognises that Rio Tinto QMM has supported significant conservation activities in this area with the aim of safeguarding the forest while assisting the communities. Therefore, some activities that Rio Tinto could consider might include assessing whether the company is providing sufficient support for the implementation of the collaborative Conservation Management Plan, which was developed for the forest with support on QMM; and whether it is possible to either restart pilot projects designed to incentivise the local communities to avoid deforestation through payments of ecosystem services or in partnership with other investment schemes.

Finally, in regards to whether the process that Rio Tinto followed to identify Tsitongambarika Forest as offset option was consistent with the QMM NPI systems requirements, IUCN is not in a position to evaluate the company’s performance.

Appendix C: Summary notes from April 2017 workshop

1. Policy and promotion, measuring and monitoring

“Nothing that’s based on complete fantasy can be perfect” Anon.

Offsetting is happening on many or all levels with significant amounts of new money coming in from the International Finance Corporation and EU Bank for research and development. More transparency is needed and exposure on where money is going and where it’s coming from.

The conservation community is highly involved in offsetting, but there are divisions about whether it’s a positive or negative policy/approach. Indeed, biodiversity offsetting has been good for dividing the social movement! It’s been a strategy, used by institutions, to involve everyone in biodiversity offsetting (Carrington and Carter).

There is a new and growing industry based around biodiversity offsetting – eg, to research and deliver metrics/guidelines/report and advice – all closely related to Business and Biodiversity Offsets Programme, IUCN and other policy processes. As such, biodiversity offsetting can travel across policy arenas.

There are significant unanswered questions about the kinds of framing used for biodiversity offsetting: whose nature? Are we part of nature? Also, there’s considerable contestation around the politics of the metrics and monitoring of biodiversity offsetting – biodiversity offsetting enables institutions and extractive industries etc to claim no net loss, but this is abstract and the detail doesn’t hold up, so it can be challenged on that level.

The financialisation of nature is also a key area of dispute and interrogation, part of a wider process to reassign value and control over resources. On valuing nature, there are differences in how different aspects are valued. The value assigned to services that ‘things’ provide can be another entry point of challenging biodiversity offsetting.

There is an imbalance with regard to communities, because of partnerships between state and private companies. Communities are struggling against these powerful alliances and the current situation has become worse. The issue of conservation throwing people off land isn’t new, especially in Africa, but the situation seems to be getting considerably worse, or at least more diverse.

There are issues around who decides about offsetting: what’s the legal framework? Is there a consultation law? Is there an ombudsman or other non-biased entity to broker negotiations between different parties?

There is an inherent racism in some of the decisionmaking processes, where local people are seen as “part of the problem”. This is reflected in EU narratives of othering communities – blame is put on the community, who then struggle to assert their rights and priorities.

2. Livelihoods and conflict

It's hard to talk about livelihoods, in the context of biodiversity offsetting, without talking about everything else. It's part of a wider process to reassign value, and who has control over resources.

There's a problem of the power imbalance against communities, with new partnerships of state and companies combining (along with civil society organisations) to hide expropriation. We are fighting against the promotion of a win-win, or even win-win-win, idea.

Need to define conflict – It's often seen as people vs parks or mines, but it can be different actors or situations (level of conflict, and unseen conflict). It can be within communities (conflict caused by others), or even people conflicted within themselves.

Livelihoods – the key question is who gets to decide what legitimate livelihoods are. There's inherent racism in how local communities living sustainable lives become the problem. Local people get lost because there tend to be key European narratives that belittle them and allow them to be blamed.

For example, in Colombia, mining companies show total contempt for rural people and their livelihoods. These companies think they're doing people a favour by forcing them to give up small-scale farming. Land is completely re-engineered and when it's reclaimed after mining, the companies see the return of these farmers as a threat to the re-vegetated land even though it's land that was once cared for by small-scale farmers.

What can be done?

- Engage in solidarity directly with communities and support acts of resistance. Note there are similar problems / situations here and we need to make links between affected communities.)
- Raise the profile of communities and the general situation. Pass on what communities are doing about it, talking about them as people, not as victims.
- Help to expose and amplify how we are connected to the problem, for example as consumers / investors.
- Hold companies and NGOs to account (there was a mention of Survival International taking an OECD Guidelines complaint against WWF for their complicity in human rights violations against forest peoples).

3. The voice of local communities

Key to a community strategy must be a claim for land for the people. They need to have part of the forest and not be forbidden to use it. In Madagascar for example, various community projects in the area are funded by Rio Tinto but aren't useful, such as poultry farming, which isn't part of local people's tradition.

Round tables: we should not forget how dangerous it is to sit communities around a table to negotiate when they're not the people who set the rules. It makes them dependent on getting the best out of a bad situation. Power relations must be kept at the centre of the process – communities are at a disadvantage and are forced to accept the unacceptable. In Madagascar, for example, we need to monitor the situation of the villages constantly to prevent oppression – the government is very oppressive. Villagers need help with food, legal help, and publicity about what is happening to them.

New frontiers, new tricks

One way to support communities' struggles is by publicising them. However, it's not always clear whether the attempt to publicise what is going on is helpful or a risk. We have a responsibility to back up communities when they do receive extra pressure. We can't change the power relationships, but we can make a difference by monitoring and reporting harassment. We need to try to keep attention high. It's important to take legal and other actions in parallel. For example, when Malagasy villagers who protested very strongly against a mining company last year were arrested, Collectif TANY recruited a lawyer. People got six weeks in jail and a one year suspended jail sentence.

It's important for these villagers to know that people across the world know what's happening, as this can reinforce their determination. In some settings, communities are very isolated. In Madagascar, where it's difficult for civil society, people are very fearful about speaking out because overt contestation isn't part of the culture and if citizens protest they risk being beaten by police. In the Anosy region (where the QMM mine is based) there's no separation between the company and the police because of regional security arrangements between the state and the private company.

Also, communications in rural areas are poor and connectivity is difficult. 4 out of 5 people live below the poverty line and people spend their time trying to put food on the table for today – so time and energy for activism is very hard to spare. The fear of reprisals is very strong, both socially and politically, including the belief in unseen forces (Tsiny/Tody), which can bring sickness and death if the social harmony is disrupted.

Political space can be hard to secure because it has been encroached upon by mining companies, for example. In Fort Dauphin most if not all civil society organisations are funded by Rio Tinto. There are considerable challenges due to this power asymmetry and poor communications. Consultation is often poor: In Madagascar, Collectif TANY has proposed putting consultation with local people in the mining code, as they're never consulted. The Malagasy government is a 20% shareholder in the Rio Tinto/QMM mine, so its interests are linked to Rio Tinto's rather than that of local people.

Action points:

- Monitor the situation in Madagascar. How to maintain communication with the communities? How to monitor pressure/promises from Rio Tinto?
- Publicise the situation.
- Learn and echo the communities' demands.
- Actions: insist that Rio Tinto accept communities' demands.
- Emphasise especially the need for food security.
- Promote exchanges between Global South communities on what they're doing to resist mining, so as to reduce fear in the communities. Share skills.
- Dub the Re:Common film into other languages to show to other communities worldwide. Solidarity strengthens communities' resolve.

-
- ¹ Your Mine, Re:Common, 2017. www.youtube.com/watch?v=x-ZB2xyCfQ&feature=youtu.be
- ² Re:Common, Stop biodiversity offsetting – cartoon, 2017. www.recommon.org/eng/stop-biodiversity-offsetting/
- ³ Living Planet Report - 2018: Aiming Higher, 2018, WWF, www.wwf.org.uk/sites/default/files/2018-10/wwfintl_livingplanet_full.pdf
- ⁴ John Knox, UN Special Rapporteur on Biodiversity and Human Rights, 2017. <http://srenvironment.org/2017/03/17/u-n-expert-biodiversity-is-essential-to-human-rights/>
- ⁵ Ceballos et al., Biological annihilation via the ongoing sixth mass extinction signalled by vertebrate population losses and decline, PNAS, 114: E6089, 2017. www.pnas.org/content/114/30/E6089
- ⁶ Stop biodiversity loss or we could face our own extinction, warns UN, The Guardian, 2018. www.theguardian.com/environment/2018/nov/03/stop-biodiversity-loss-or-we-could-face-our-own-extinction-warns-un
- ⁷ IUCN Biodiversity Offsets. www.iucn.org/theme/business-and-biodiversity/our-work/business-approaches-and-tools/biodiversity-offsets
- ⁸ IUCN Biodiversity Offsets. <https://www.iucn.org/theme/business-and-biodiversity/our-work/business-approaches-and-tools/biodiversity-offsets>
- ⁹ Crowe & ten Kate, IUCN, Biodiversity offsets: policy options for governments, 2014. <https://portals.iucn.org/library/node/44776>
- ¹⁰ Understanding Government Biodiversity Offset Policies in the Mining Sector, IUCN, TBC & IGF, 2017. www.iucn.org/news/business-and-biodiversity/201711/global-database-biodiversity-offset-policies-launched-preliminary-analysis-shows-progress-biodiversity-rich-mining-countries
- ¹¹ Virah-Sawmy & Ebeling, The difficult road toward real-world engagement: conservation science and mining in southern Madagascar, 2010. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1755-263X.2010.00126.x>
- ¹² Public Statement: Resignation of the QMM Biodiversity Committee, 2016. https://theecologist.org/sites/default/files/NG_media/403726.pdf
- ¹³ Moreno-Mateos, et al., 2015. The true loss caused by biodiversity offsets, Biological Conservation, 2015. www.researchgate.net/publication/283885251_The_true_loss_caused_by_biodiversity_offsets
- ¹⁴ Gardner et al, Biodiversity Offsets and the Challenge of Achieving No Net Loss, Conservation Biology, 2013. <https://onlinelibrary.wiley.com/doi/abs/10.1111/cobi.12118>
- ¹⁵ In Biodiversity Offset Schemes, O'Keefe, A., 2013. OECD Environment Directorate, Presentation to Expert Workshop on Biodiversity Offsets.
- ¹⁶ Virah-Sawmy, 2017. Does 'offsetting' work to make up for habitat loss to mining? <https://theconversation.com/does-offsetting-work-to-make-up-for-habitat-lost-to-mining-27699>
- Virah-Sawmy, M., Ebeling, J., Taplin, R., 2014. Mining and biodiversity offsets: A transparent and science-based approach to measure "no-net-loss". Journal of Environmental Management: 143, pp61-70. <https://www.sciencedirect.com/science/article/pii/S0301479714002138>
- ¹⁷ Curran et al, The jury is still out on biodiversity offsets: Reply to Quétier et al., Ecological Applications 25:1741, 2015. www.researchgate.net/publication/282401607
- ¹⁸ Ibid page 9
- ¹⁹ Rio Tinto's biodiversity offset in Madagascar: Double landgrab in the name of biodiversity? World Rainforest Movement and Re:Common, 2016, page 11 <https://wrm.org.uy/books-and-briefings/rio-tintos-biodiversity-offset-in-madagascar-double-landgrab-in-the-name-of-biodiversity/>
- ²⁰ Seagle, Inverting the impacts: Mining, conservation and sustainability claims near the Rio Tinto/QMM ilmenite mine in Southeast Madagascar. The Journal of Peasant Studies, 39: 447, 2012. www.tandfonline.com/doi/abs/10.1080/03066150.2012.671769
- ²¹ Ingram & Dawson, Inter-annual analysis of deforestation hotspots in Madagascar from high temporal resolution satellite observations, International Journal of Remote Sensing, 26: 1447, 2005. Ingram et al, Mapping tropical forest structure in south-eastern Madagascar using remote sensing and artificial neural network, Remote Sensing of Environment 94 :491, 2005. Ingram, et al., Tree Structure and Diversity in Human-Impacted Littoral Forests, Madagascar, Environmental Management, 35:779, 2005. Ingram & Dawson, Forest Cover, Condition, and Ecology in Human- Impacted Forests, South-Eastern Madagascar, Conservation & Society, 4:194, 2006.
- ²² Ingram et al., Assessment of change in the littoral forests surrounding Fort Dauphin, South East Madagascar, Chapter 5 of manuscript in preparation for submission.
- ²³ Childs & McLaren, A synthesis of literature regarding the governance of the commons together with the identification of interventions to increase the likelihood of sustainable management of the global commons, Friends of the Earth, 2014. https://friendsoftheearth.uk/sites/default/files/downloads/protecting_the_global_commons.pdf
- ²⁴ IUCN Policy on Biodiversity Offsets 2016 https://portals.iucn.org/library/sites/library/files/resrecfiles/WCC_2016_RES_059_EN.pdf

-
- ²⁵ Mayor of Antsotso, Anosy, SE Madagascar at meeting with ONE, 6 October 2017, Transcript of recording of local meeting between Antsotso villagers and Office National de L'Environnement (ONE).
- ²⁶ Mme Mamilaso. ONE Anosy, 6 October 2017, Transcript of recording of local meeting between Antsotso villagers and Office National de L'Environnement (ONE)
- ²⁷ Temple et al., Forecasting the path towards a Net Positive Impact on biodiversity for Rio Tinto QMM, IUCN and Rio Tinto Technical Series No.2, 2012.
<https://portals.iucn.org/library/sites/library/files/documents/2012-049.pdf>
- ²⁸ Adams, Sleeping with the enemy? Biodiversity conservation, corporations and the green economy. Journal of Political Ecology, 24:243, 2017.
<https://journals.uair.arizona.edu/index.php/JPE/article/view/20804>
- ²⁹ Kill, Financialization of Nature. Creating a New Definition of Nature, Friends of the Earth International, 2015. www.foei.org/wp-content/uploads/2015/10/Financialization-of-Nature-brochure-English.pdf
- ³⁰ MacDonald, Business, Biodiversity and New 'Fields' of conservation: The world conservation congress and the renegotiation of organisational order. Conservation & Society, 8:256, 2010.
www.conservationandsociety.org/text.asp?2010/8/4/256/78144.
- ³¹ Castree & Henderson, The capitalist mode of conservation, neoliberalism and the ecology of value. New Proposals: Journal of Marxism and Interdisciplinary Inquiry, 7:16, 2014. <http://ro.uow.edu.au/sspapers/1138/>
- ³² Sullivan, After the green rush? Biodiversity offsets, uranium power and the 'calculus of casualties' in greening growth. Human Geology, 6:80, 2013. <http://researchspace.bathspa.ac.uk/1805/>
- ³³ Carver & Sullivan, How economic contexts shape calculations of 'yield' in biodiversity offsetting, Conservation Biology, 31: 1053, 2017. <http://onlinelibrary.wiley.com/doi/10.1111/cobi.12917/abstract>
- ³⁴ Kill et al., RioTinto's biodiversity offset in Madagascar: Double landgrab in the name of biodiversity? A Field Report: World Rainforest Movement and Re:Common, 2016. http://wrm.org.uy/wp-content/uploads/2016/04/RioTintoBiodivOffsetMadagascar_report_EN_web.pdf
- ³⁵ Borras Jr et al., Towards a better understanding of global land grabbing: an editorial introduction, The Journal of Peasant Studies, 38:209, 2011. www.tandfonline.com/doi/abs/10.1080/03066150.2011.559005
- ³⁶ World Bank. 2010. Rising global interest in farmland: can it yield sustainable and equitable benefits? Washington, DC: World Bank.
- ³⁷ Zagma, Land and Power: The growing scandal surrounding the new wave of investments in land, Oxfam, 2011. <https://policy-practice.oxfam.org.uk/publications/land-and-power-the-growing-scandal-surrounding-the-new-wave-of-investments-in-l-142858>
- ³⁸ Fuentes-Nieva & Nicholls, Poor Governance, Good Business: How land investors target countries with weak governance, Oxfam, 2013. <https://policy-practice.oxfam.org.uk/publications/poor-governance-good-business-how-land-investors-target-countries-with-weak-gov-268413>
- ³⁹ World Bank, Forests, 2008. <http://www.worldbank.org/en/topic/forests/overview>
- ⁴⁰ Killings of environmental defenders in 2017, Global Witness and The Guardian, 2018
<https://www.globalwitness.org/en/blog/new-data-reveals-197-land-and-environmental-defenders-murdered-2017/>
- ⁴¹ Huff, Green development, Natural resource Financialization and Emerging Conflict in Southern Africa with Examples from Implementation Contexts in Madagascar, Tanzania and South Africa. IDS Evidence Report No 148, 2015. <https://www.ids.ac.uk/publication/green-development-natural-resource-financialization-and-emerging-conflict-in-southern-africa-with-examples-from-implementation-contexts-in-madagascar-tanzania-and-south-africa>
- ⁴² Human Development Report 2007/2008, Fighting climate change: Human solidarity in a divided world, United Nations Development Programme, 2008. <http://hdr.undp.org/en/content/human-development-report-20078>
- ⁴³ Inquiry into Environmental Offsets, Senate Environment and Communications References Committee, Commonwealth of Australia, 2014.
www.aph.gov.au/parliamentary_business/committees/senate/environment_and_communications/environmental_offsets/report/c01
- ⁴⁴ Submission in response to Senate Inquiry into Environmental Offsets, Environment Justice Australia, 2014. www.envirojustice.org.au/projects/senate-offsets-inquiry/
- ⁴⁵ Submission by Dr. Philip Gibbons to the Senate Inquiry into Environmental Offsets, 3 April 2014.
<https://www.aph.gov.au/DocumentStore.ashx?id=1307ac2b-55be-49cb-9106-9a776154a9de&subId=206972>
- ⁴⁶ Environmental offsets, Conclusions, Chapter 6, The Senate, Environment and Communications References Committee, June 2014.
www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Environmental_Offsets/Report/index
- ⁴⁷ 'Bombshell': Just one-sixth of rural land-clearing tracked in NSW, ANU's Philip Gibbons says, The Sydney Morning Herald, 2016. www.smh.com.au/environment/conservation/bombshell-just-onesixth-of-rural-land-clearing-tracked-in-nsw-anus-philip-gibbons-says-20160502-gojvkw.html
- ⁴⁸ Business and Biodiversity Offsets Programme (BBOP) <http://bbop.forest-trends.org/>

-
- ⁴⁹ Tucker, Biodiversity offsetting in Germany , Institute for European Environmental Policy, 2016.
<https://ieep.eu/uploads/articles/attachments/e121d600-5e85-44d4-86e4-02a05348164a/DE%20Biodiversity%20Offsetting%20final.pdf?v=63680923242>
- ⁵⁰ Lange et al. 2007, Die Umsetzung von Kompensationsmaßnahmen im Rahmen der Bauleitplanung in Rheinland-Pfalz , NABU Rheinland-Pfalz, 2007.
https://rlp.nabu.de/imperia/md/content/rlp/die_umsetzung_von_kompensationsma_nahmen_im_rahmen_der_bauleitplanung_in_rheinland-pfalz.pdf
- ⁵¹ Sperle, 2010. www.gisela-splett.de/pdf/Evaluation_Bericht_120110.pdf
- ⁵² Umweltbundesamt, Das Tempo des Flächenneuverbrauchs geht zurück, 2015.
<https://www.umweltbundesamt.de/daten/flaeche-boden-land-oekosysteme/flaeche/siedlungs-verkehrsflaeche#textpart-2>
- ⁵³ Bundesamt für Naturschutz, Artenschutz-Report 2015
https://www.bfn.de/fileadmin/BfN/presse/2015/Dokumente/Artenschutzreport_Download.pdf
- ⁵⁴ Bundesamt für Naturschutz, Artenvielfalt und Landschaftsqualität, 2014:
<http://biologischevielfalt.bfn.de/nationale-strategie/indikatoren-und-berichterstattung/indikatorenbericht-2014/indikatoren/artenvielfalt-und-landschaftsqualitaet.html>
- ⁵⁵ Wulf, Biodiversity Offsetting case studies in Germany, 2013. www.ceeweb.org/wp-content/uploads/2013/10/Presentation-Friedrich-Wulf-CEEweb-Academy-Budapest-08102013_light.pdf
- ⁵⁶ Ibid page 13
- ⁵⁷ HS2 rail link 'will destroy irreplaceable ancient woodland', Daily Telegraph, 2016.
www.telegraph.co.uk/news/2016/11/10/hs2-rail-link-will-destroy-irreplaceable-ancient-woodland/
- ⁵⁸ The Wildlife Trusts www.wildlifetrusts.org/hs2
- ⁵⁹ Seven million native trees to be planted along the HS2 route, Daily Telegraph, 2016.
www.telegraph.co.uk/news/2016/12/24/seven-million-native-trees-planted-along-hs2-route/