

# Biodiversity offset markets: current challenges and prospective developments: PhD thesis – executive summary

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# **Biodiversity offset markets: Current challenges and prospective developments**

## **PhD Thesis – Executive Summary**

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## 1. Overview

In 2012, the British government offered its support to the start of six biodiversity offsetting pilots. In doing so, Britain became one of over 30 countries where biodiversity offsets are used worldwide. However, despite the increasing importance of these mechanisms of environmental conservation, research on the conditions for emergence and success of biodiversity offsetting markets remains scarce.

Biodiversity offsets consist of “...conservation actions intended to compensate for the residual, unavoidable harm to biodiversity caused by development projects, so as to ensure no net loss of biodiversity.”

*Ten Kate et al. 2004, p. 13*

This executive summary compiles and shares the key findings from the doctoral research conducted by Carlos Ferreira into the emergence and development of biodiversity offset markets, between 2009 and 2013. The research was conducted at the Manchester Institute of Innovation Research (MIOIR), part of the Manchester Business School, University of Manchester. It was supported and financed by a Doctoral Scholarship from the Sustainable Consumption Institute, and supervised by Dr Sally Randles (MIOIR) and Prof Dan Brockington (Institute for Development Policy and Management, School of Environment, Education and Development at the University of Manchester).

## 2. Research aims. Sampling and method

The project aimed to research the creation and development of markets for biodiversity offsets.

Biodiversity offsets not only rehabilitate sites but also address the company's full impact on biodiversity at landscape level, thus assisting companies to manage their risks, liabilities and costs”

*Ten Kate & Inbar 2008, p. 189*

The research focused first on identifying biodiversity offsetting programmes in operation worldwide. Following this, three specific programmes were chosen for closer evaluation:

- Biobanking, in the USA;
- *Eingriffsregelung* (Impact Mitigation Regulation), in Germany; and
- Pilot Biodiversity Offsets programme, in England.

These programmes were selected for analysis for three reasons: diversity in terms of length of time they have been implemented for; diversity in terms of nature values covered by the rules; and existence of a legal requirement to compensate for biodiversity losses.

The methodology used to analyse these three markets for biodiversity offsets consisted of interviews with stakeholders in each market, including promoters, biodiversity offset sellers, regulators (at national and local level), NGOs, consultants and academics.

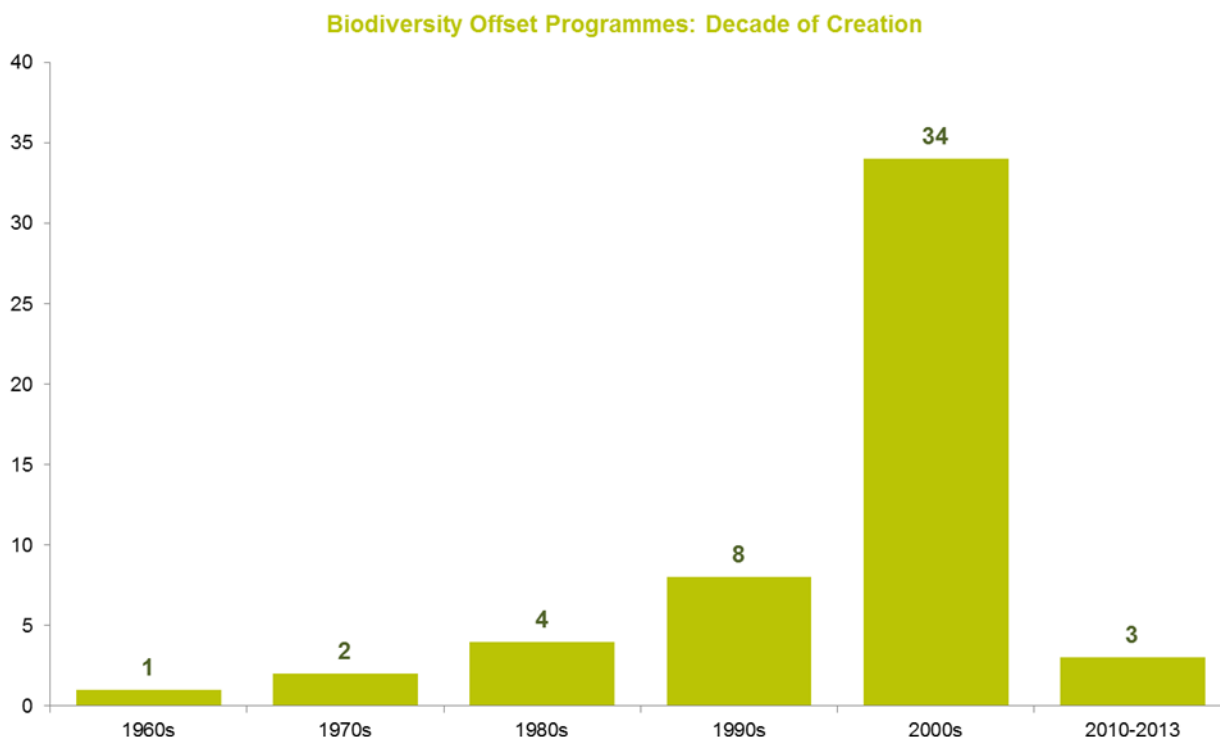


Figure 1: Biodiversity offset programmes worldwide, by decade of creation. Source: author

A total of 23 interviews were made over a period of 10 months.

The interviews were transcribed and analysed using a grounded theory-based approach, whereby the researcher allows the main themes to emerge from the data analysis, rather than using a pre-designed analysis frame look for contents. This method was chosen to in order to allow respondents’ opinions to show through in the analysis and inform the results.

### 3. Findings

The data analysis produced a number of findings, summarised here.

#### Biodiversity offsets are varied

The research identified 59 biodiversity offsetting programmes active or under study, operating in 32 countries, as of February 2013. The oldest programmes have been evolving since the 1960s. However, the greatest push for the creation of markets for biodiversity offsets took place in the 1990s and early 2000s (Figure 1).

There is no single model of a market for biodiversity offsets

Biodiversity offset programmes, even the longest-established ones, are experiments.

This means that there is a great variety of understanding of offsets, from country to country and from programme to programme – a valid biodiversity offset in one location may not be an acceptable offset elsewhere. Furthermore, different people working in the same programme will often have different ideas about what biodiversity offsets are, what they are for, and the limits of their usage. All three programmes studied show signs of change and evolution, which highlights that the situation remains in flux – overall, there is no single model of a market for biodiversity offsets.

**Markets for biodiversity offsets require legal support to emerge, even if this support is indirect**

Requiring biodiversity offsets stabilises demand and creates incentives for innovation

The largest, longest-running and most successful biodiversity offset programmes are grounded in a legal requirement to offset biodiversity losses. Requiring biodiversity offsets stabilises demand

and creates incentives for innovation from sellers of offsets. This process has been observed in the United States, with the creation of biodiversity banks, and to a point in Germany, where changes to the legislation have progressively allowed private suppliers to create compensation pools (a form of biodiversity bank).

Offsetting biodiversity losses in England is not legally required. However, as noted by respondents, biodiversity offsets could be used to simplify and accelerate the planning process, which would make them attractive to developers. However, it is a potentially problematic situation if the most compelling arguments for biodiversity offsetting markets lie with economic growth, not nature conservation.

**No net loss of biodiversity is the unique selling point of biodiversity offsets**

Markets for biodiversity offsets don't operate in the vacuum. All existing markets for biodiversity offsets operate against an existing background of regulations, Environmental Impact Assessment (EIA) rules, and local, regional and state-level traditions and ingrained forms of doing things. Many of these forms of governing nature operate in the understanding that some compensation for losses to nature must be provided by developers. In other words, most of the ideas behind biodiversity offsets already exist and are enshrined in law or tradition.

However, most of the compensation and offsetting that takes place requires extensive negotiation, and may involve differing objectives between different parties.

Most of the ideas behind biodiversity offsets already exist and are enshrined in law or tradition

It is in simplifying this situation that biodiversity offsetting presents two clear advantages:

1. A clear formulation of objectives: *no net loss of biodiversity* clearly frames the debate and limits what is open to negotiation.
2. Better quantification mechanisms: *no net loss of biodiversity* puts the focus on demonstrating equivalence between biodiversity lost and biodiversity gained. This clearly guides promoters, regulators, NGOs and academics

Quantifying and demonstrating *no net loss of biodiversity* is what distinguishes biodiversity offsets from other forms of compensating for nature impacts

Better quantification, with the explicit objective of demonstrating *no net loss of biodiversity*, is what distinguishes biodiversity offsets from other forms of compensating for negative nature impacts. The potential effects in simplifying the negotiations about appropriate compensa-

tion and achieving stakeholder buy-in are the advantage of biodiversity offsetting over alternative mechanisms of obtaining compensation for biodiversity losses.

### Better quantification will help, but better communication is necessary

The single greatest challenge for biodiversity offsetting comes from opposition at local level.

Grassroots and NGO-led campaigns have successfully managed to communicate their negative opinions about biodiversity offsetting, through on-the-ground and online campaigns, and have in the process been noticed by the mainstream media. As a consequence, biodiversity offsetting promoters may be losing control of the message: while they have attempted to associate biodiversity offsetting as *no net loss of biodiversity*, opposition campaigners have framed it as a *license to trash nature*.

Biodiversity offsetting promoters may be losing control of the message

Much of the resistance to offsetting is related to the perception that unique aspects of nature may be displaced in the interests of developers. This represents a problem for promoters of biodiversity offsets: consumers have very little knowledge of offsetting, and whatever information they receive has tended to be negative. This has a negative impact on claims that biodiversity offsets can be a part of companies' CSR portfolios and creates pressures against the use of offsetting.

#### 4. Future scoping

Based on the research, it is possible to scope future developments which may impact on the success and acceptance of biodiversity offsetting.

##### Better integration of quantification of biodiversity with other technologies

Promoters of offsetting are putting substantial effort in integrating the mechanisms to quantify biodiversity with other technologies, including apps (which can be used by consultants to estimate biodiversity loss in a site on the fly), Geographical Information Systems (GIS) and databases of existing nature values. This integration could reduce costs and time spent in determining biodiversity gains and losses, as well as in locating areas which can serve as appropriate compensation.

##### Continued variety of programmes, but increased commonalities

Widespread acceptance of the concept of *no net loss of biodiversity*, and renewed interest in best practice in the quantification of biodiversity

National and local regulation and preferences will predictably continue to ensure that the different biodiversity offsetting schemes remain isolated and distinct – it is not foreseeable that a unique model of a

biodiversity offsets emerges. However, some common elements can be seen gaining ground across programmes: a widespread acceptance of the concept of *no net loss of biodiversity*, and renewed interest in best practice in the quantification of biodiversity losses.

#### Increasing reputation risks

Increasing take-up of biodiversity offsets means increased exposure to media and public scrutiny. This is a potentially positive development for the industry, but it carries the risk that an entire range of initiatives could be associated with specific cases of negative consequences or even malpractice. Furthermore, failure to communicate strict limits to usage, as well as positive impacts of biodiversity offsets may leave the message in the public arena to critics.

#### 5. Policy implications

Policymakers are confronted with a range of developments in the area of biodiversity offsets, and their actions can contribute to the success and good practice of practitioners and promoters. Well targeted regulation has the potential to foster the use and development of biodiversity offsets, as well as innovation and development in the area.

Biodiversity offsetting programmes require regulation. Nobody wakes up in the morning and says ‘I want a bowl of wetlands for breakfast!’

Biodiversity offsetting programmes require regulation to emerge; as mentioned by a participant, ‘nobody wakes up in the morning and says ‘I want a bowl of wetlands for breakfast!’



A legal requirement to offset impacts serves to create stable and predictable demand, which in turn promotes investment and innovation by providers.

But regulation has the potential to have a more significant impact. Regulation should clearly establish clearly which components of nature must be offset (i.e. endangered species, ecosystem types or ecosystem services), how long an offset must be provided for, and where the legal responsibilities lie at each point in the process. Simultaneously, regulation can address two of the greatest concerns about offsetting: how to

Regulation should fit and complement previous mechanisms for biodiversity conservation rather than try to substitute them

determine in what areas offsetting cannot be permitted, and what is the maximum distance between biodiversity losses and offsets.

It should be noted that any new regulation will exist against a historical regulatory back-

ground, and that the efficacy of biodiversity offsets is greatest when they complement existing conservation measures. Overall, any new regulation should fit and complement previous mechanisms for biodiversity conservation rather than try to substitute them.

## Further Reading

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