NATURE FOR SALE

How corporations benefit from the financialization of nature

Friends of the Earth International

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Introduction

This report describes the interests and role of corporations and business groups in the 'financialization of nature'. It is one of a two-part series exploring developments in financialization of nature processes over the past decade or so.

The report focuses on the involvement of the financial services industry in the discourse around financialization of nature, and on international initiatives in which the financial services industry, multilateral development banks and extractive industries play a prominent role. It further explores the commercial and reputational benefits that corporations seek from financialization policies.

Chapter 1 outlines the background and theory of financialization of nature.

Chapter 2 looks into the different mechanisms by which corporations benefit from financialization. This includes gaining access to areas that would normally be inaccessible (an aspect which is outlined in more detail in the other report of this series), the potential for greenwashing, access to finance, and profits through increased value of land that can be used for offsetting.

Chapter 3 specifically searches for some of the ways in which business are involved — both openly and even more so behind closed doors — in ensuring that environmental policies take into account their needs, while more stringent rules are kept off the table. Financialization is one of the main instruments used to obtain this.

Chapters 4 to 7 look at the different sectors involved in the financialization of nature, starting with the sector that makes it possible. **Chapter 4** looks specifically at the emergence of a new conservation industry, which manages the measuring, standard setting, accounting and building of policy proposals needed to make financialization work.

Chapter 5 describes the banking sector's involvement. This sector has been interested in offsetting and more extensively involved in other instruments able to generate profits through green profiling, such as green bonds.

Chapter 6 looks into the sector which probably has the most significant interest in biodiversity offsetting: mining, oil and gas extraction, and quarrying, collectively known as the extractive industries.

Chapter 7 considers three other industrial sectors: real estate and construction, consumer goods, and aviation.

The other report in this series — *Regulated Destruction: How biodiversity offsetting enables environmental destruction* — explores how corporations and states use the financialization of nature discourse to weaken laws and regulations designed to protect the environment, in order to facilitate exploitation by extractive industries and allow mega-infrastructure projects in protected areas and other contested places.

Together, these two reports aim to inform much-needed critical debate over the consequences of the financialization of nature.

Financialization of nature: Turning nature into tradeable units

1

A key argument put forward by supporters of the 'valuing nature' approach has been that companies or individuals squander 'natural resources' and 'ecosystem services' because there is no financial incentive to use them sparingly. Assigning an economic value, they argue, would provide such a financial incentive.

Since 1987, when the influential report *Our Common Future* by the Brundtland Commission[1] first addressed the conflict between economic development and protection of the environment, it became common to view environmental issues through an economic lens. Many conservation bodies began to use economic concepts and language, hoping to influence economic policies and adapt them to the needs of biodiversity conservation.

The three 'Rio Conventions' — on Climate Change, Biodiversity, and Desertification — agreed in 1992 clearly incorporate economic language and seek to reconcile economic interests with the environment.

The UN Millennium Ecosystem Assessment, published in 2005, popularized the term 'ecosystem services'. Since then, the concept has become mainstream, promoted by governments, the corporate sector and even some conservation NGOs.

This approach has been driven by initiatives such as 'The Economics of Ecosystems and Biodiversity' (TEEB) initiative as well as the World Bank, which actively promoted it through its 'Wealth Accounting and the Valuation of Ecosystem Services' (WAVES) program[2] and a series of carbon market and biodiversity offsetting initiatives. Like many advocates of financialization of nature, the World Bank argues that describing nature as 'natural capital' helps make the natural world 'visible' in the financial arena. Advocates for an economic valuation of nature claim that, in turn, this will help the financial sector to respond by moving to maximize financial opportunities and minimize financial risks, at scale, including by creating more sustainable commodity supply chains and 'green infrastructure' (for example by protecting or 'creating' wetlands to maintain a company's water supplies).[3,4]

Valuation of nature generates figures that, under the current economic priorities, are of theoretical relevance only: They are so big that breaking them down into costs to be integrated into the cost of doing business would render the majority of current industrial activity financially unviable

Financialization of nature

The term ***financialization of nature*** is as much a reflection of the initially prominent role of the financial services industry in the debate, as it is a reference to the financial thinking, methods and language used to turn natural functions (such as carbon storage, water purification or provision of habitat for wildlife) into items for which value can be expressed in monetary terms.

The term ***financialization*** is also used here in a wider sense, to mean the growing power and influence of financial actors, motives, language, methods and values in the discourse and practice of protection and use of nature. As a result, financial motives and priorities increasingly determine social and environmental policy-making in a way that benefits corporations and investors in two different ways: by generating profits from investment in biodiversity conservation and by facilitating licensing of destructive activities in natural places.

Measuring, accounting and comparing parts of nature described as 'ecosystem services' are a central part of the financialization of nature. This is most developed in the area of carbon markets, where nature is reduced to a storage place for carbon, and its value calculated in tons of carbon. Other instruments of financialization of nature use other units of measurement, for example the biodiversity-richness of an area, the density of species within it, and/or specific (endangered) species. Financialization of nature also includes viewing environmental threats through the lens of financial risk.

This 'natural capital' perspective of nature effectively sets the context for the financialization of nature.

Many initiatives have been launched on the basis of the argument that nature needs to be more visible to financial actors and that putting a monetary figure on the functions that nature provides will incentivize a more thoughtful use. Most have focused on the carbon storage capacity of forests, but the capacity of forested areas or wetlands to retain and filter water, the pollination carried out by bees, and the importance of natural areas as habitat for biodiversity have also been subject to economic valuation. Proponents of financialization of nature hope to use such economic values to enable direct comparisons with the financial costs of inaction or destruction.

In 1997, a study by scientist Robert Constanza et al. suggested that 'ecosystem services' were worth US$33 trillion per year to the global economy, a figure almost twice as large as global GDP at the time![5] As this comparison shows, valuation of nature generates figures that, under the current economic priorities, are of theoretical relevance only: They are so big that breaking them down into costs to be integrated into the cost of doing business would render the majority of current industrial activity financially unviable. The value is far too small, or "a serious underestimate of infinity", as economist Michael Toman described it.[6]

More recently, an assessment for TEEB of the ecosystem services provided by 63 million hectares of wetlands globally estimated their value at $3.4 billion per year.[7]

The majority of such estimates are seriously flawed because they are derived from extrapolating the economic value of a small number of specific ecosystems in specific places at specific times to all ecologically similar areas around the globe, even though the assumptions that underpin estimates at these specific places may not be valid elsewhere.

Payment for ecosystem services

Increasingly, governments support and engage in financialization of nature initiatives. One argument put forward by government officials is that attributing an economic value to nature could help attract private sector capital which in turn could reduce the costs to the public sector. However, there is little evidence of such financial flows existing. Many governments have experimented with so-called 'Payment for Environmental Services' (PES, also known as 'payments for ecosystem services') programs to support nature conservation goals. A wide variety of such schemes exists. A typical example includes payments to landowners to maintain forests or grasslands in important watersheds. The source of financing varies, as well as the ways in which payments are made. It can be private, with companies making the payments because their operations extract, for example, large volumes of ground water. Or it can be public, with states or subnational entities paying for forest restoration, watershed protection, etc. Financing sometimes comes from a dedicated tax or from state budgets. There are also public-private partnerships.

Several schemes have been criticized for causing conflicts, being ineffective or serving as corporate 'greenwash' for extractive industries.[8] PES schemes have come to resemble compensation offsets, in a sense that payments are increasingly linked to quantification of an ecological function, often referred to as an 'ecosystem service', for which the payment is made. As such, they have become a key tool for implementing the concept of economic valuation of nature.

In the case of REDD+ (Reducing Emissions from Deforestation and Forest Degradation) — currently the most prominent PES scheme for forest protection — payments are linked to the measurement and regular monitoring of the volume of carbon stored in a forest which would have been released into the atmosphere without the REDD+ payment. Payments can be in exchange for tradable offset credits, or the carbon measurements can be used merely as an accounting unit that links the level of payment with a quantified promise of carbon stored in the forest. Many reports[9] have documented how uncertainty in measurements has been used to exaggerate carbon storage (and thus increase payments) and how the regular monitoring of areas under REDD+ has led to land use conflicts.[10]

REDD+ as an example of a payment for ecosystem services

Influenced by the financialization of nature discourse, climate change debates mainly consider forests as a carbon store, and carbon storage is now often referred to as an 'ecosystem service' provided by forests. This exemplifies how economic valuation of nature has turned the carbon storage capacity of forests into an 'ecosystem service' attracting private sector funding, and causing countless conflicts.

The idea is that REDD+ (Reducing Emissions from Deforestation and Degradation of Forests, with the 'plus' indicating that activities involving forest conservation, forestry management and tree planting also qualify for REDD+ payments) provides forest owners with positive financial incentives to keep trees standing. REDD+ was originally envisaged as a carbon offset scheme, with funding coming from the sale of carbon credits. Such credits enable a company which buys them to claim that its emissions have no negative impact on the climate because, through payment to a REDD+ project, an amount of emissions equivalent to those they have released has been avoided. Following this logic, the forest owner must demonstrate that the carbon in the trees would have been released — in other words, that the trees would have been cut down — without the REDD+ payment. Of course, such hypothetical assumptions of what would have happened cannot be proven, and for this reason alone (although there are other problems with REDD+) trading of these credits is fraudulent.[11]

Despite the well-documented reality of REDD+ as a threat to peasant communities and indigenous peoples, as well as an ineffective tool to halt large-scale deforestation, it has become a pivotal part of voluntary carbon markets and climate programs.

The EU's No Net Loss proposal

The **No Net Loss initiative** was a proposal made by the European Commission to require biodiversity offsetting for damage to species and habitats not covered by EU nature legislation.[12,13] The proposals were extensively discussed in 2013-2014, and a public consultation was held in 2014. Afterwards, the development of the No Net Loss initiative by the European Commission has been halted, while the idea has not been entirely abandoned.

> Biodiversity offsetting schemes use a range of different units that have no clear common denominator. Some units are based on measurements of hectares with a certain ecosystem, others on numbers of species, yet others on genetic measurements. All systems imply a huge oversimplification of ecosystems and their functioning

1.1 Units of carbon and biodiversity: measuring nature to create the currency of offset schemes

When nature is described as 'natural capital', the focus turns to opportunities for making a profit. In the process, functions such as the capacity of a forest to store carbon or regulate water flows are turned into services. These 'services' are described in units that can be measured, compared and sold as financial products, such as carbon or biodiversity credits, or listed in 'natural wealth' accounting balance sheets.

Different kinds of units are created to represent particular ecological functions. The economic value of nature's functions is expressed through these units: once they have been defined and measured, these units can be compared to the same type of units from other places, or their monetary value can be compared to other monetary values. Thus, if more profit can be made from turning a forest into an oil palm plantation or a mangrove into a shrimp farm, for example, than the defined economic value of nature, then implementing these projects becomes a reasonable outcome.

Turning ecological functions into measurable and comparable units also allows for their use as 'compensation units', for which the seller receives a payment and the buyer can claim that environmental damage has been cancelled out by extra protection represented by the 'compensation unit'.

Biodiversity offsetting schemes use a range of different units that have no clear common denominator. Some units are based on measurements of hectares with a certain ecosystem, others on numbers of species, yet others on genetic measurements. All systems imply a huge oversimplification of ecosystems and their functioning. The comparability is even less clear than the carbon in trees and the carbon dioxide released from burning petrol or coal. Yet, these units are bought as offsets by developers seeking to gain permission for a planned project that will cause ecological damage.

Even more academic controversy exists around the definition of such units for biodiversity offsets and the economic valuation of ecological functions.[14]

Biodiversity offsetting is most developed in the United States, where there are over 100 mitigation banks generating transactions estimated at US$1.3 to 2.2 billion a year.[15] However, comprehensive information about the overall state of biodiversity offset markets worldwide is hard to find. This is even more so in relation to reliable information and long-term monitoring of the effectiveness of compensation offset projects.[16]

2

Ways in which corporations can benefit from financialization

Corporations are concerned about resource scarcity, diminishing access to land, possible increases in environmental regulations, and rising consumer consciousness regarding the environmental impacts of their consumption. They try to deal with these concerns in ways that do not threaten their business.[17] Through the financialization of nature, they find answers that can appease profit-seeking shareholders and reassure regulators and consumers that 'green growth' is possible.

Corporations use the financialization discourse to:

1. make compliance with environmental regulation less onerous for them, securing access to protected areas and habitat of high biodiversity which environmental regulations have increasingly rendered off-limits, especially for extractive industries;

2. maintain access to finance;

3. greenwash their destructive activities, especially in protected areas and places where corporate destruction is particularly controversial;

4. explore new avenues of revenue generation from corporate-owned land, for example intact forests or regenerated lands after mining.

> Offsetting schemes allow companies to exceed legally defined limits of destruction at a particular location, or destroy protected habitat, on the promise of compensation elsewhere; and allow banks to finance such destruction on the same premise

2.1 Relaxing compliance with environmental regulation

For companies in the extractive industries, and for those involved in mega-infrastructure projects or in climate-damaging activities, the introduction of compensation offsets into environmental regulation has relaxed environmental protection and pollution control requirements.

New rules introduced through compensation offsets have made compliance less onerous for companies engaged in destruction of natural places that are considered to provide 'critical habitat' for biodiversity. Offsetting schemes allow companies to exceed legally defined limits of destruction at a particular location, or destroy protected habitat, on the promise of compensation elsewhere; and allow banks to finance such destruction on the same premise.

Companies from the extractive industries sector readily admit that biodiversity compensation, as a legal option, helps open up natural places deemed to provide 'critical habitat', which would previously have been rigorously protected and inaccessible to activities such as mining, oil and gas exploitation.

Friends of the Earth International's *Regulated Destruction* report describes how compensation offsets facilitate irreversible corporate destruction in protected areas and biodiversity-rich habitat.

2.2 Maintaining access to finance

Closely linked to the planning of destructive corporate projects is the financing of those same projects. Biodiversity offsetting, and compensation offsets in general, play an important and increasing role here too. Companies that meet certain environmental and social performance standards will be able to secure capital or cheaper borrowing rates from development institutions or from the growing number of commercial banks that apply similar standards when assessing likely controversial investments. Meeting these performance standards is taken as an indicator that the risks of a project are being minimized.

In 2012, the World Bank's International Finance Corporation (IFC) introduced biodiversity offsetting as a requirement for financing destructive activities in what the Bank defined as 'critical habitat'.[18] [19]

Biodiversity and carbon offset schemes are often mentioned in performance standards of rating agencies, both as a tool to reduce investment risk and as an 'innovative financial product'.

Ratings agency Moody's now incorporates environmental, social and governance risks into its credit analysis, which inform the interest rates banks charge on loans to companies.[20] [21] Standard & Poor's also assess the extent to which they think companies are exposed to risk due to environmental regulation. They have changed ratings on this basis and note that 80% of ratings changes were downwards as a result of increased risk.[22]

Similarly, RobecoSAM and the S&P Dow Jones Indices assess whether financial service providers are addressing climate change through their financial products (for more detailed information on this see Chapter 4).[23]

In this sense, the rating policies of these agencies encourage offsetting practices.

2.3 Greenwashing

Even where corporate interest in biodiversity offsetting remains lukewarm, the industry can benefit from the positive PR that pilot biodiversity offset initiatives initially generate.

Corporations and financial institutions such as the World Bank often refer to biodiversity offsetting as the instrument that helps companies achieve a 'Net Positive Impact' or 'No Net Loss' of biodiversity. Such euphemisms allow both the corporations and their financial backers to greenwash destructive or polluting activities.

One prominent example is the Rio Tinto's reaction to opposition from conservation groups for its mining operations in southeastern Madagascar.[24] In order to undermine resistance to its plan to destroy 1,600 hectares of rare coastal forests with high species endemism for its ilmenite mine, the mining giant entered into partnerships with several international conservation groups, announced its intention to become the first mining company to achieve a 'net positive impact' on biodiversity and committed to 'offset' the loss of biodiversity from destroying the 1,600 hectares through investment in biodiversity offsets. Opposition

among international conservation groups dissipated and Rio Tinto has been destroying forests to extract ilmenite since 2011 (see box in section 6.2).

Another example which demonstrates the value of the financialization of nature discourse and its emerging corporate greenwashing instruments is the pledge by mining giant BHP Billiton to purchase carbon credits from a REDD+ project in Kenya (see box in section 5.3). BHP Billiton made the pledge shortly after spillage of mining waste at its Brazilian mine caused the largest mining accident in Brazilian history.[25]

Another way of greenwashing is by both transferring responsibility for pollution to the consumer, and then offering offsetting solutions. BP is 'helping' its customers to offset their greenhouse gas emissions through an offsetting scheme called BP Target Neutral: "Fuel-switching, micro-hydro, methane capture and wind energy are all projects which BP Target Neutral has been proud to support. Our global portfolio of projects ensures that when you offset with us, your money goes directly to these types of projects, and the local communities where they are based."[26]

Similarly, many airlines offer their customers offsetting schemes.[27] And increasingly, companies are being set up to offer internet users the opportunity to offset the emissions caused by their use of the server. One example is Ecosia, which claims to plant trees for every internet search, thereby offsetting the impact.[28]

Most corporations prefer to have their own greenwashing projects, or work with well-known conservation NGOs. Private initiatives to provide greenwashing opportunities to other business have proved less successful. In Borneo, Malaysia, the Malua BioBank was set up in a conservation area, with the objective of selling offset credits to companies that wished to greenwash their oil palm plantations. However, only 0.6% of the available credits had been sold during the six years of implementation of the project, most of them being state funding.[29]

2.4 Valuing assets and avoiding devaluation through 'natural wealth'

Another possible corporate benefit comes from initiatives aimed at valuing 'natural wealth'. These can increase the value of land held by a company and offer the potential to generate new income streams from that land. 'Natural wealth' accounting enables companies to include prospective income streams and hypothetical monetary values for 'natural wealth' on corporate balance sheets, inflating the value of the company and possibly enabling it to borrow more.

This potential addition to corporate balance sheets is proving an attractive reason for corporations to engage in financialization of nature initiatives. As the Tropical Forest Alliance 2020 (TFA 2020) — a global partnership involving governments, the private sector, and civil society organizations — says: "If strategic and financial investors over the next 5-10 years continue to make 'traditional' investments in the expansion of production, they might create tens of billions of dollars in assets at risk of stranding. If all historically illegal production areas were deemed at risk of stranding, then hundreds of billions of dollars of existing productive assets might be at risk."[30]

Allegheny Power Company cashes in on eco-assets and tax deductions

In 2002, the Allegheny Power Company, a US electric utility company, won approval to 'appraise developable eco-assets', doubling the market value of their land holding in West Virginia from US$17 million to US$33 million.

The company sold 12,000 acres to a conservation NGO, the Fish & Wildlife Foundation, for the traditional land price (US$17 million), then claimed a tax deduction on the 'gift' based on the inflated valuation, thereby reducing their tax liability by $5.1 million.[31]

3

Corporate influence pushes a financialization agenda

While a number of countries have adopted national legislation regarding biodiversity offsetting, it is the global scene that largely determines whether corporations can access financial and land resources and continue to conduct their business. For example, several countries determine their approval for destructive projects according to whether they are approved by international institutions, such as the World Bank or the IFC, which use offsetting schemes as criteria for their approval. Influencing the global agenda is therefore essential for corporations.

This chapter describes how:

1. The debate on environmental policy and financialization is increasingly held in forums which are not part of the public debate, but which can clearly influence them. Business and business representatives play a key role in these forums.

2. There are revolving doors between business and think thanks that set out to propose financialization policies.

Business wants to cooperate with the biodiversity community, but they want this to be done on their own terms, where win-win situations for business and biodiversity are held more important than stringent rules that prohibit environmental destruction

3.1 The financialization debate moves behind closed doors

Discussions relating to the financialization of nature are happening in many overlapping public and private fora and in sector-specific spaces, making them difficult to track. Spaces that are related to the official UN meeting often take on ideas or recommendations from these public-private fora.

When UN fora promote offsetting, this provides a further incentive for countries to approve similar policies at the national level. It also influences which projects become acceptable to international development banks and international cooperation. It is therefore no surprise to see that business is engaging actively in debates linked to these international fora.

A large number of business-oriented fora and initiatives are also working on valuing 'natural capital' in one way or another.

UN fora and initiatives

The **UN Convention on Biological Diversity** (CBD) established the Global Partnership for Business and Biodiversity[32] following on from 'business engagement decisions' taken at previous CBD conferences. The primary purpose of this partnership is to promote information sharing, yet it has become another intergovernmental platform to advance the financialization of nature agenda: In the December 2016 Cancun Declaration[33] of the CBD, governments agreed to improve the regulatory framework for private-sector activities and introduce or scale up the use of environmental economic accounting and natural capital accounting.

The last two Conferences of the Parties (COP) of the CBD started with a Business and Biodiversity Forum. The one at COP 13 in Cancun focused on "Mainstreaming Biodiversity: opportunities for businesses" and the one at COP 14 in Sharm el-Sheik focused on "Investing in Biodiversity for People and Planet". Both Forums provided extensive space for businesses to showcase their so-called contributions to nature, to explain the limits of what is acceptable, and to frame the debate of the conference.

A brief comparison of the participants list for the forum and those actually participating in the CBD negotiations indicates that some 70% of the participants in the forum appear to have flown in only for the private business and biodiversity event. The indications are that while the UN conference provided an important hook for these business gatherings, from a business perspective, the important debate and networking opportunities were happening outside the UN, and mostly with each other, rather than with governments.

These meetings set the tone for the rest of the meeting: business wants to cooperate with the biodiversity community, but they want this to be done on their own terms, where win-win situations for business and biodiversity are held more important than stringent rules that prohibit environmental destruction. Holding these meetings at the beginning of the COP enables business interests to influence those delegates who stay on.

The **UN Environment Programme Finance Initiative** (UNEP FI) is a global partnership between the UN Environment Programme and the financial sector that is focused on the concerns of private sector interests. Over 200 financial institutions from all continents, including banks, insurers and fund managers, work with the UNEP FI. Among them are ABN AMRO Bank, Citigroup, Credit Suisse, HSBC Holdings, Lloyd's (UK insurance), Mizuho Financial Group, Rabobank Netherlands and RBS.[34]

The **Biodiversity Finance Initiative** (BIOFIN)[35], which is managed by the **UN Development Program** (UNDP), seems to be where much of the practical work on developing and driving the overarching context of 'biodiversity finance' is happening, with a view to "building a sound business case for increased investment in the management of ecosystems and biodiversity". The initiative is also developing, piloting and implementing a new methodological framework for assessing and resolving the biodiversity 'finance gap' at the national level. Though several ways of bridging the finance gap are proposed, offsetting is an important one. BIOFIN is also working in core countries to support governments revising National Biodiversity Strategies and Action Plans and to catalyse 'sustainable financing' for protected areas.

Biodiversity offsetting is among the issues addressed by the UN's key public-private sector space, the **Global Compact**. A document co-published with the International Union for Conservation of Nature (IUCN), 'A Framework for Corporate Action on Biodiversity and Ecosystem Services', also focuses on biodiversity offsetting. The development of this framework was supported by a working group of companies, UN agencies, civil society and academia. The companies and lobby groups involved were: International Council on Mining and Metals, World Business Council for Sustainable Development, Movimiento Empresarial Pela Biodiversidade (MEB), Novartis, Eskom, Holcim, Nestlé, Carbones Del Cerrejon, Grupo Boticario and Syngenta.[36]

The World Economic Forum (WEF)

The **World Economic Forum** (WEF) describes itself as "the International Organization for Public-Private Cooperation" although it is a private not-for-profit organization, and is generally better known as an institution dedicated to promoting the interests of business. It also describes itself as a membership organization that "provides a platform for the world's 1,000 leading companies to shape a better future."

The WEF has launched initiatives in connection with the financialization of nature, including the Tropical Forest Alliance 2020 (TFA 2020), another 'public-private' partnership promoting the financialization of nature. It was a continuation of the Global Agenda Council on Biodiversity and Natural Capital[37] and later the Global Agenda Council on Forests, which focused mostly on 'sustainable commodity supply chains'.

TFA 2020's website gives the appearance that it is an independent organization, but it is listed as an initiative of WEF on their own website.[38] In addition, the WEF's Head of Private-Public Partnership is on TFA 2020's Steering Committee,[39] and TFA 2020's Secretariat is hosted at the WEF offices in Geneva, Switzerland. TFA 2020 is supported financially by the governments of the Netherlands, Norway and the United Kingdom, and has promoted REDD+ on several occasions.

A joint publication from WEF and TFA 2020, on 'The Role of the Financial Sector in Deforestation-free Supply Chains', published in January 2017, gives an example of TFA 2020's approach to the financialization of nature. The report essentially makes the case that demand for deforestation-free commodities needs to be met by "sufficient intensification of production" in at least the four sectors it looks at, which are beef, soy, palm oil, and pulp and paper. There is an assumption that deforestation-free production will soon be a requirement, and the report cautions businesses against being left with stranded assets (i.e. forest land that cannot be converted for industrial agriculture).[40]

TFA 2020's partners include a long list of companies engaged in timber, pulp and paper, palm oil, food production and retailing, and other sectors. Among them are APP, APRIL, Cargill, General Mills, Golden Veroleum Liberia, Golden-Agri Resources, Grupo Exito, Kellogg's, Marfrig Global Foods, M&S, Mars, McDonalds, Mondelez International, Nestlé, New Forests, Poligrow Colombia, PwC, Pt Rimba Makmur Utama, PZ Cussons, Sime Derby, South Pole Group, Terra Global Capital, The Consumer Goods Forum, Unilever, Walmart, and Wilmar International. According to TFA 2020's 2016 Annual Report, Marfrig, Wilmar, Cargill and Unilever were also on the Steering Committee in 2015-16.[41] A number of governments are also notably participating, including those of Colombia, Cote d'Ivoire, Gabon, Ghana, Norway, the Central African Republic, the Democratic Republic of the Congo, the Netherlands, Indonesia, Liberia, Sierra Leone, Congo, the UK, and the US, along with the Governors' Climate and Forests Task Force.

European Business and Biodiversity (B@B) Platform

The **European Business and Biodiversity (B@B) Platform**,[42] initiated by the European Commission is designed to integrate biodiversity considerations into business practice, including by raising awareness of innovative approaches and showcasing best practice. It has three work streams: natural capital accounting; innovation for biodiversity and business; and access to finance and innovative mechanisms. Its members include British American Tobacco, Earth Capital Partners, the Environmental Defense Fund, The Environment Bank, Kering, and Shell. There are also numerous member states, lobby groups and NGOs participating.

The European Commission promotes business engagement by pointing out (amongst other things) that "Membership in Phase 2 of the EU B@B Platform" gives organizations a number of benefits including: recognition; improved brand identity and business reputation; the use of the B@B logo on their materials; and improved risk management in relation to "possible future legislation".[43] Another explicitly listed benefit is opportunities to engage directly with the Commission. Under its work stream 3 on access to finance and innovative mechanisms, the platform has established a further subgroup, the EU Community of Practice for Finance and Biodiversity (EU CoP F@B).[44] This focuses on integrating biodiversity and 'natural capital' into mainstream financial activities and fostering investments in 'natural capital' as a new asset class. Business can seek support for their research, coordination and support needs from the EU research and innovation framework program Horizon 2020, and companies can borrow money for biodiversity offset projects and similar mechanisms from the 'Natural Capital Financial Facility' (NCFF) of the European Investment Bank (EIB). However, it has been shown that the NCFF has a track record of prioritizing funds before policies.[45]

Conclusion

This section has clearly shown the amount of business fora which are linked to and have great influence over official decision-making spaces. Many of them promote financialization of nature.

The mere fact that these spaces exist gives businesses a legitimacy which they do not deserve when talking about biodiversity policies. It is also clear that other stakeholders have considerably less opportunity to influence policy makers, for example with the CBD secretariat organizing a dedicated forum only for business and not for other stakeholders.

These fora contribute considerably to the framing of the biodiversity policy debate in terms of natural capital, and tradable 'units' that provide 'ecosystem services'. They also further enhance the idea that environmental policy is only possible in as far as it does not hurt economic interests but instead that 'win-win' situations benefitting business and biodiversity are possible.

3.2 Revolving doors and institutional interlinkages

Many of the think tanks and standard setters with key influence in the definition of new environmental policies also have business representatives on their board. For example, the board of Forest Trends (see section 4.2 below) includes representatives from Columbia Pulp and New Forests Pty Limited, while that of the Global Canopy program (see section 4.2) is primarily made up of people with a professional investment or accountancy background. And the board of standard-setter Verra involves a range of high profile people including former climate change negotiators from Canada, Chile and the UK, and people currently or previously working for companies and lobby groups including the International Council on Mining and Metals and Goldman Sachs.

The fact that companies are investing time and resources in board duties indicates that they expect to gain from them in one way or another, possibly through greenwashing or securing access to resources.

Some more specific cases of significant conflict of interests are:

- The Environment Bank — a private bank which benefits from the sale of biodiversity offsets — is owned by David Hill, a long-time promoter of offsetting. He is at the same time Deputy Chair and Board Member of Natural England, a UK public body sponsored by the governmental Department for Environment, Food and Rural Affairs (DEFRA). Natural England ran six biodiversity offsetting pilot area trials from 2012-2014, together with DEFRA.

- Andrew Sells has been appointed as Chairman of Natural England (a UK public body sponsored by the DEFRA) from 2014-2020. As a result, he also sits on their board. However, his appointment has been controversial due to his background in investment banking and housing development. In particular he was Chairman of Linden Homes from its start up in 1991 until its sale in 2007. Yet, housing construction projects present some of the major threats to the wildlife and habitats that Natural England is supposed to be protecting. Holding the line against damaging developments in the face of intense political pressure from the government is one of the agency's most important challenges. In addition, Sells was, until 2013, a director of Conservative think tank Policy Exchange, which has been described as putting biodiversity offsetting "on the political agenda".[46,47]

4

A new conservation industry springs to life

A whole new industry has effectively been generated around ‘green finance’, including specialized companies and conservation groups that seek and advise those wanting to create or buy biodiversity offsets, and those dedicated to measuring and counting biodiversity and creating new markets where they can be traded. Among them are think tanks, information hubs, investment companies, standard setters and assessors, certification companies, consultants preparing elaborate project documentation, credit brokers, biodiversity banks, and project managers.

Many of these individuals and companies are also very much involved in the policy discussions and other processes described in this report, on the basis of their ‘expertise’. What the label ‘expert’ fails to convey, however, are the manifold economic interests and conflicts of interest that can — and do — arise from this double role as ‘experts’ in policy negotiations and parties with a commercial interest in a particular policy outcome: the promotion of for-profit conservation finance and the inclusion of compensation in environmental regulation. Some of these companies and their links to the processes are described briefly below.

Even if several of these organizations are not big market players, it must be underlined that they are instrumental in setting the political line which is the basis of a new kind of environment regulation: replacing older regulations that establish red lines regarding conservation areas, with new regulations that allow the market to define which areas need to be conserved.

These types of conservation NGOs have implications for other environmentalists, who face the challenge of having to explain why calculating an economic value for nature is dangerous when it enjoys not only widespread support but also active involvement from many of the world’s most well-known conservation groups

4.1 Conservation NGOs

A number of large and well-funded conservation NGOs have adopted the financialization of nature approach. Most of these organizations are involved in lobbying to promote financialization policies as solutions to the planetary crisis, as well as in setting up concrete offsetting projects that enable companies to compensate destructive activities.

Examples are The Nature Conservancy, Conservation International, Environmental Defense Fund, World Wildlife Fund, and Wildlife Conservation Society. Many of them have CEOs or board members who are closely related to the corporate sector, which has a vested interest in the financialization of nature.

The Nature Conservancy (TNC) has ties to many large companies, including in the oil, gas, mining, chemical and agricultural industries. Current CEO Mark Tercek is a former managing director for Goldman Sachs. The TNC website states that Tercek is "a champion of the idea of natural capital — valuing nature for its own sake as well as for the services it provides for people". TNC also has a Business Council, which it describes as a consultative forum and which includes representatives of Bank of America, Boeing, BP America, Cargill, Caterpillar, Chevron, The Coca-Cola Company, The Dow Chemical Company, Duke Energy, Monsanto, PepsiCo and UPS.[48]

Conservation International (CI) offers offsetting to corporations as a way to minimize their impact on the climate. It set up an alliance with BHP — one of the biggest mining and oil extraction companies worldwide and responsible for the dam disaster in Mariana, Brazil, which killed 19 people and left an entire village under mining waste. Nevertheless, the project will "share BHP's experience" in forest conservation through REDD+. Their view on forests focuses on the natural capital value these represent.[49]

CI's board is comprised predominantly of members representing international corporations. They also have a list of 118 "corporate partners", including the most important corporations from the mining, oil, aviation, car manufacture, food, pharmaceutical and technology sectors.[50]

The World Wildlife Fund (WWF) has a long-standing relationship with the corporate sector. The President of WWF's International Board, Pavan Sukhdev, was the Study Leader for TEEB, which played a key role in the development of the financialization discourse. He was previously a banker. Many WWF board members have or have had significant executive roles in international corporations or other institutions with close ties to corporations.

On its website, WWF states explicitly that it welcomes corporate funding: "Companies may also provide funding to help support specific WWF conservation initiatives and the local communities they serve. Whether funding an initiative which is directly related to their core business or an issue that the company and its employees find meaningful, WWF works to ensure each philanthropic contribution supports lasting conservation solutions that will benefit species, people and the environment."

These types of conservation NGOs not only enable corporations to achieve access to land or resources and to greenwash their image, they also have implications for other environmentalists, who face the challenge of having to explain why calculating an economic value for nature is dangerous when it enjoys not only widespread support but also active involvement from many of the world's most well-known conservation groups. The involvement of these NGOs has stifled critical voices challenging the neoliberal bid to turn unique and contested natural places into providers of generic 'ecosystem services'.

4.2 Specialized think tanks and information hubs

The following think tanks and information hubs have been instrumental in promoting the financialization of nature, and enabling the theoretical and legal frameworks that sustain it:

Forest Trends is a key player. The organization was created in 1999 by a group of conservation organizations, forest product firms, research groups, multilateral development banks, private investment funds and foundations. Forest Trends runs nine different initiatives, including Ecosystem Marketplace, an information service on environmental finance, markets and payments for ecosystem services. Other activities include launching a Business and Biodiversity Offsets Program for forests, organizing think tanks, and providing information on public and private funding of national forest and climate programs in key REDD+ countries. Several of their initiatives involve research on innovative financial mechanisms, which include offsetting and PES schemes.

Ecosystem Marketplace is an information platform providing information about market-based approaches to conservation, including voluntary carbon markets, forest carbon markets, watershed investments and biodiversity markets. For example, it has published State of Private Investment in Conservation 2016: a landscape assessment of an emerging market.[51] It also advises and consults on these topics and publishes four newsletters: Carbon Chronicle, Mitigation Mail, the Water Log and Supply Change.

Business and Biodiversity Offsets Programme (BBOP) was a very influential initiative active from 2004-2018. One of its main aims was to mainstream the concept of 'No Net Loss' of biodiversity into policy and practice. It has been preparing an inventory of initiatives on the biodiversity mitigation hierarchy (see *Regulated Destruction* report). BBOP established Biodiversity Offsetting Principles and also published a 'Standard on Biodiversity Offsets',[52] which provided different ways of quantifying biodiversity. BBOP's Biodiversity Offset Cost-Benefit Handbook is part of a package of tools, including a paper on No Net Loss & Loss-Gain Calculations.[53] [54]

BBOP was a significant collaboration by more than 80 organizations and individuals. These included: companies interested in offsets; 'service providers' including many of the specialized consultancies listed in this report; financial institutions including the European Bank for Reconstruction and Development, the Global Environment Facility, IFC and the Inter-American Investment Corporation; private banks; numerous governments; and conservation and civil society groups.

Other think tanks include the **Global Canopy Programme**, which describes itself as a tropical forest think tank, and is working with UNEP FI to promote the Natural Capital Finance Alliance. A further project, Unlocking Forest Finance, focuses on using innovative financial mechanisms in three 'sustainable landscape initiatives' in Mato Grosso and Acre in Brazil, and San Martin in Peru.[55] Other related projects include The REDD Desk, Forest 500, and Transparent Supply Chains for Sustainable Economies (TRASE), a new platform that draws on vast sets of production, trade and customs data relating to global flows of commodities such as palm oil, soya, beef and timber.

4.3 Specialized investment companies

Research for this report highlighted at least 13 investment companies which specialize in conservation finance. However, the extent to which they are really profiting from private conservation finance rather than public grants for pilot programs and consultancies, or subsidies from corporations seeking to greenwash their activities, is uncertain. On the whole, it is likely that most are relatively small with negligible turnover. For example, Canopy Capital, a private equity firm focused on developing new ecosystem services markets by "originating projects, developing financial structures and executing transactions" dissolved in July 2017.

One example of a specialist in this area is Nature Bank, an international advisory services provider, project developer and project investor. It carries out carbon management services for voluntary carbon market clients. It focuses on investments in natural assets to generate revenue from a range of commodities (cocoa, carbon, timber, etc.) and have expertise in climate change risk management, conservation finance, agroforestry and nature capital.[56]

4.4 Specialized standard settlers

Given that offset markets trade in avoided activity rather than actual physical products, the companies that set standards and the auditors assessing compliance with these standards play a special role in validating such trades, by backing entirely hypothetical claims by offset projects about the volumes of destruction and pollution being avoided. Without this third-party verification, it is hard to imagine that offset credits would ever have turned into a saleable product.

The contributions of BBOP (see above) have been a key resource in the discussion and definition of offsetting standards.

The Climate, Community and Biodiversity Standards (CCB Standards)[57] are a broad set of standards encompassing biodiversity, climate change, local communities and smallholders, and conservation. CCBA materials also include a Social and Biodiversity Impact Assessment Manual for REDD+ Projects and training materials, including CCB Standards Biodiversity Criteria.[58] [59]

4.5 Specialized Credit Brokers and Biodiversity Banks

The Markit Registry is a registry for managing global carbon, water and biodiversity credits, where participants can issue, transact or retire credits. Documentation and holdings can supposedly be searched, but on closer inspection it becomes clear that this is only the case for companies that have agreed for that information to be made publicly available.

Bolsa Verde de Rio de Janeiro (BVRio) is an institution with a political mission: to promote the use of market mechanisms to facilitate compliance with environmental laws.[60] To this end, it has established the BVRio Environment Exchange, which facilitates the sale of forest restoration credits (CRAs) that allow Brazilian forest owners to keep using land that was illegally cleared before 2012 as long as they can show that they have paid to offset the damage by purchasing a credit for restoration elsewhere.

The Environment Bank Ltd is a credit broker established as a private independent entity in the UK. It acts as a broker for biodiversity offset credits. In the UK, biodiversity offsetting has been trialed by the government at six sites. Local planning authorities can require developers to offset biodiversity losses even though there is currently no legal obligation for the use of biodiversity offsets.[61]

4.6 Companies managing biodiversity offset projects

There are currently many companies managing biodiversity offset projects — too many to list here. The Biodiversity Consultancy (TBC)[62] is an example: a profit-making company that donates 12.5% of profits to environmental causes. They describe themselves as "ecologists who understand the business context". TBC has a noticeable engagement with the extractive and energy sectors, with clients including Rio Tinto, Shell, the Cross Sector Biodiversity Initiative, the International Council on Mining and Metals, IPIECA, Anadarko, Oyu Tolgoi, Toro Gold, Guyana Gold Fields Inc, Joule Africa, Glencore, and others. TBC provides a map showing all of its projects, with information available for about half of them, while others are tagged 'confidential'.[63]

The Biodiversity Consultancy and the Majnoon field

The Majnoon field is one of the largest oilfields in the world. It is located in the Mesopotamian marshes, which are globally important for biodiversity and designated as a Ramsar site. Shell, Missan Oil Company and Petronas are working to increase production from the field. TBC has been collaborating with Shell, Wetlands International, Nature Iraq, IUCN and other organisations to provide offsets, whereby local communities are given micro-credits to change the "unstoppable use of wetlands, such as mangrove cutting".[64]

4.7 Measuring biodiversity/natural capital accounting

To function, natural capital accounting requires professionals who have the capacity to set up and implement systems that measure and express natural processes and resources in monetary terms. It also requires professionals who are able to integrate these new concepts into traditional financial accounting. Therefore, a whole new subset of accounting professionals is emerging.

Measuring nature

Specialist companies focus on measuring biodiversity and natural capital. For example, Natural Capital Project aims to make sure that nature's 'value' is incorporated into all major decisions, including by developing open source software (now downloaded in 160 countries) for this end.[65] One of their projects is the corporate risk management in global sourcing decisions for Unilever.

The creation of various environmental markets is now so established that they are tracked by indices such as the Financial Times Stock Exchange, which has created an Environmental Markets Classification System so that investors can define and measure the performance of global environmental markets. There are currently seven Sectors and 30 Subsectors. Sector E6 concerns 'Environmental Support Services', and Sub-sector E6.1 'Carbon and other environmental assets trading'.[66]

Universities also have an important role. Many biodiversity scholarships now include aspects of measuring and valuing biodiversity, with a considerable influx of private funds being made available for this.

Accounting companies are starting to see the areas of development, and are pointing their members towards specializing into this specific area. For example, ACCA, a global professional accountant's association, has developed a dossier on ecosystem accounting.[67] The Institute of Chartered Accountants for England and Wales (ICAEW) aims to integrate natural capital considerations into loans, equity, fixed income and insurance products, as well as in accounting, disclosure and reporting frameworks. The A4S (Accounting for Sustainability) Chief Financial Officer Leadership Network produced a 'Natural and Social Capital Accounting: an introduction for finance teams' guide.[68]

4.8 An additional benefit

Two decades after the first pilot projects for REDD and the basic policy ideas were designed, most projects are still 'pilot phases', 'readiness projects' and 'seed funding'. The advantages of this prolonged 'initial phase' are multiple for the industrial and financial sectors which are pushing the financialization agenda. As long as the impression can be given that a new viable system is being set up, then setbacks can be dismissed as short-term problems that inevitably occur in the early stages of a new project, and a thorough evaluation of financialization as an overall system can be postponed.

Meanwhile, vast amounts of subsidies have gone into developing financialization projects: from UN programs, such as the UN-REDD program, and bilateral cooperation involving countries like Germany, Norway, Australia and the UK, amongst others. Also, many of the above-mentioned think tanks and other institutions have heavily benefitted from public funding made available for the design of financialization-based policies.

As long as the impression can be given that a new viable system is being set up, then setbacks can be dismissed as short-term problems that inevitably occur in the early stages of a new project, and a thorough evaluation of financialization as an overall system can be postponed

The financial sector and biodiversity as a 'New Asset Class'?

5

From around the turn of the century to the 'Rio+20' UN Conference on Sustainable Development summit in 2012, corporate and development banks were actively and very visibly involved in financialization of nature initiatives and many of the large corporate banks, such as JP Morgan, Barclays, Morgan Stanley and Deutsche Bank opened carbon trading desks.

In the wake of the financial crisis of 2008-2009, carbon trading imploded and most corporate banks have closed or significantly reduced their carbon trading desks and scaled back their engagement in initiatives aimed at economic valuation of 'ecosystem services'. A possible additional reason for their withdrawal from such initiatives is that it remains unclear how they would create income streams for corporate banks. One area, however, where corporate and development banks have made use of financialization of nature is by integrating the provision for biodiversity offsetting into their risk assessments for financing extractive industry and infrastructure projects with high reputational and planning risks. One noteworthy trend is how the World Bank Group in particular is marketing 'green bonds' as part of the new era of for-profit 'conservation finance'.

The initiatives described in this chapter have their origin in the first decade of the 21st century, when corporate banks were particularly actively involved in advancing the financialization of nature.

5.1 Banks

Many financialization initiatives in the banking sector have been labelled as 'conservation finance'. Most are related to 'green bonds' and 'green investments' — of which the 'green' part is highly questionable.

A number of banks have been involved in developing programs that are closely related to the financialization of nature. It is worth noting that most of the institutions are much more involved in the policy-setting elements related to financialization than in the actual buying, selling and brokering of offset units, be they for carbon or biodiversity.

Credit Suisse has been particularly active in driving the conservation finance agenda forward.[69] Together with IUCN, The Nature Conservancy and Cornell University, it launched the Coalition for Private Sector Investment in Conservation.[70]

Mizuho Financial Group from Japan is another example of a financial institution that has been very involved in the drive to mainstream conservation finance. Mizuho Bank Ltd was the first private financial institution to join the Business and Biodiversity Offsets Program (BBOP) in 2010. It also helped to establish the extractive industries' Cross Sector Biodiversity Initiative (see section 6.3) and has since participated in a number of its meetings. In August 2016, Mizuho joined the Japan Business Initiative for Biodiversity. The Mizuho Financial Group also demonstrates how biodiversity finance might be integrated across the financial sector: Mizuho Securities Co Ltd sells socially responsible investment and environment-related financial products.[71]

5.2 Investors

So far, conservation finance remains a niche market. Some boutique investors and conservation NGOs keep it in the news with occasional reports that tend to inflate investment in the sector. A real shift towards environmentally sound investments is far away.

One example is the report published in 2014 by Naturevest and EKO Asset Management, supported by JP Morgan Chasel,[72] Gordon and Betty Moore Foundation, and The David and Lucile Packard Foundation. Titled 'Investing in Conservation: a landscape assessment of an emerging market', the report considers, among other things: market size; major investors; investor motivation and investing criteria; different types of investment; and projected financial return on private investments. It also contains a number of case studies.[73] The report observed that traditional institutional investors, such as pension funds, insurance companies and others, did not appear to be direct investors at that time. Overall, it estimated that some US$1.9 billion — the equivalent of just 4% of total global annual 'impact investment' by private investors — was spent on 'conservation impact investments' in 2009-2013. Impact investment is investment supposedly intended to create a social or environmental benefit. Of this US$1.9 billion, 66% went to 'sustainable food and fiber production' (which includes industrial agriculture and FSC-certified forestry projects), 23% to habitat conservation, and the remaining 11% to water quantity and quality conservation. The top ten private investors accounted for more than 80% of the market, with the vast majority investing in land for forestry and agriculture projects.

Perhaps tellingly, the 2017 Annual Impact Investment Survey published by the Global Impact Investing Network (GIIN) does not refer to biodiversity specifically, only to the forestry and timber sector. It says that the 24 respondents in the forestry and timber impact investment sector were responsible for 4% of the total US$114 billion of impact investment assets under management. There were no forestry and timber investors seeking "less than market rate returns". This is the only impact investment sector in which this is the case.[74]

The following table, based on information from Credit Suisse (CS)[75] and Ecosystem Marketplace (EM),[76] [77] gives some idea of the size of current environmental markets. However, it should be noted that these values are small compared with investments in commodities sectors, and are also likely to incorporate large sums of money that have been paid for consultancy services.

Table 1 Current State of Environmental Markets

Carbon markets trading in greenhouse gas emissions	"The last decade has seen US$4.5 billion spent by companies, governments, and individuals on one billion carbon offsets generated by conservation and clean energy projects. About 15% of transactions were between US-based offset suppliers and buyers, while Europeans have been the major buyers for offsets sold internationally. In 2014 forestry and land use projects represented over half of offset transactions by volume. The annual volume of forest carbon markets has been estimated at US$200 million." (CS) *N.B. This does not distinguish between UN and voluntary market figures.*
Hydrological systems	"The 'State of Watershed Investment' 2014 report published by Ecosystem Marketplace indicated that the value of investment in global watershed services has been growing at a rate of 12% per year. In 2014, companies in the food and beverage sectors contributed nearly one quarter of all private sector investments in such initiatives (US$8.8 million), driven primarily by concerns for water quality and future supplies. In the US, water quality trading reached US$10.7 million in 2014, and new agreements were executed through cost-share agreements to manage wildfire risks on public lands. Businesses are primarily engaged in such activities due to regulations, water availability, and quality risks." (CS)
Habitats and biodiversity banking	With reference to 'conservation investing' in general: "A total of US$8.2 billion private capital investment in conservation was committed between 2004 and 2015, up from US$$5.1 billion reported at the end of 2013. In 2015 alone, private organizations committed the most money (US$2.0 billion) out of all years tracked." (EM) "Between 2004-2015, investments in sustainable food and fiber [agriculture and forestry] production (US$6.5 billion) were nearly four times as large as investments in habitat conservation (US$1.3 billion) and water quality and quantity (US$0.4 billion)." (EM) "Habitat and species banking has so far primarily occurred in the US. For example, the Endangered Species Act in the US compels mitigation of negative impacts on listed species (e.g. permanent habitat protection). Corporate buyers have also transacted for voluntary biodiversity offsets, e.g. under the Business, Biodiversity and Offsets Programme (BBOP)." (CS)

5.3 Green bonds

Another form of raising 'conservation finance' is through so-called green bonds. The issuer of a bond — a government, company or bank — raises capital by selling bonds, which have to be bought back by the issuer after they expire. In return for lending the capital for a fixed period of time to the issuer of the bond, the buyer also receives fixed interest payments. Bonds have become a popular way of raising advance funding for a project.

Bonds are commonly used by state and local governments to finance public projects, but corporations also directly issue bonds to finance expansion of their activities. The World Bank, the International Finance Corporation (IFC) and a growing number of commercial banks (including as intermediaries for the World Bank, IFC and other multilateral banks) seem to have taken to labelling an increasing number of their regular bond sales as green bonds (see Section 5.1 above). Currently, the main focus is on using green bonds to raise finance for climate change-related projects. Many wind energy project investors, for example, raise finance through the issuance of green bonds. The website www.environmental-finance.com has launched a green bond database with league tables detailing the banks involved, the number of deals they have made in the current year and their value.

Green bonds are an increasingly popular tool to raise capital for financing a project with the expectation of repaying the debt with the proceeds of the project once it is operational. Bonds are thus a debt that has to be paid back in future. As such they risk increasing the often already unsustainable level of debt, especially for municipalities and countries in the global South.

Because no definition exists for what qualifies as a green bond, many bonds are being labelled as green although often their only green contribution appears to be corporate greenwashing.[78] Where green bonds are advocated as a way for governments in the global South to finance their country's transition to renewable energy, they run counter to the concept of ecological debt, which argues that much of the existing 'development' debt is illegitimate and that impoverished countries should be compensated for the environmental damage caused by industrialized countries. This means that grant finance should be given for new and clean energy technologies, for example, rather than Southern governments being pushed to further increase their debts.

The global market for green bonds has been steadily increasing, reaching an all-time high in June 2019, when the US$100 billion was surpassed in the first half of the year. This is a considerable increase in comparison with the US$3,9 billion in 2010, and numbers in the millions in preceding years. Still, the latest figures represent only an estimated 2% of the 2019 global bond issues. Furthermore, the lack of an agreed definition of what qualifies as a 'green' bond allows for inflated numbers that far overestimate the actual private sector funding available for conservation finance.[79] [80]

Corporate Greenwash: BHP Billiton and IFC Forests Bond

The IFC issued a 'Forest Bond' in October 2016 which raised US$152 million from institutional investors.[81] The label 'forest bond' is misleading, given that the capital raised through the bond sale is not dedicated to forest conservation. Where, then, is the link to forests? The IFC is offering investors repayment in either cash or carbon credits, and these carbon credits will be purchased from a REDD+ project in Kenya (the Kasigau Corridor project) that claims to reduce deforestation and restore so-called degraded forests. Investors can use these credits to offset their polluting activities, or they can sell them. In the event that investors choose to be repaid in cash, mining corporation BHP Billiton has pledged to buy up to US$12 million worth of REDD credits. Considering the record of ecological destruction, including forest destruction, the forest bond provides a cheap greenwash for climate-damaging and forest-destroying activities. The REDD+ project itself has been documented to cause severe negative impacts on pastoralists and local communities in Kenya. They claim to be receiving very few, if any, of the project benefits, while many rural residents see their crops destroyed by the wildlife attracted by the REDD+ project and face restrictions over use of the land that provides their sustenance.[82] [83]

5.4 Is this 'New Asset Class' a mirage?

There is a growing perception that the potential for mobilizing private sector finance for conservation is being massively over-hyped by the conservation industry supporting market-based conservation finance, and that flows are and will stay much smaller than implied by those involved.

Yet, maintaining the discourse about and promotion of possible future revenue streams serves as a persistent inducement to governments and philanthropic foundations to continue providing the conservation industry and large conservation groups with 'seed funding', grants for 'pilot initiatives' and consultancy income. This, in turn, is a sufficient incentive for governments to believe that financialization of nature is a good option for future policy regulation. They thereby step back from traditional conservation policies, to generate new policies, leaving environmental protection in the hands of the market.

> Available data indicates that private sector financing is small compared with state and philanthropic funding streams for conservation finance, and minuscule compared with other sectors of the economy

A recent academic analysis endeavors to use what little available information there is to make an overall assessment of financial flows, drawing data primarily from various industry and financial consultant reports, as well as some academic papers. It found that the available data, although patchy and produced using variable methodologies, does indeed indicate that private sector financing is small compared with state and philanthropic funding streams for conservation finance, and minuscule compared with other sectors of the economy. Numbers crunched indicate a total of just over US$50 billion in funding for biodiversity conservation and 'ecosystem services' projects, with about 20% of that coming from 'market-based activity'. Within this 20%, namely US$10 billion, some US$6.6 billion is spent on buying certified green commodities, and US$3.3 billion goes to forest carbon and biodiversity offset markets, most of which are based in North America.[84]

These perceptions of an over-hyped market for private sector conservation finance are reinforced by a close reading of the CBD's 2016 assessment of financing for biodiversity.[85] This looks at equities and equity markets, insurance, banking, institutional investments and bonds. In all but one of these sectors, it seems to hype up the possibilities by referencing the value of all the assets under management in companies that have, for example, signed up to the Principles for Responsible Investment and UNEP's Principles for Sustainable Insurance, rather than only the assets managed with a dedicated focus on conservation. This does indeed yield startling figures, in trillions of dollars. But there is no data about the amount of finance these companies are collectively channeling to biodiversity conservation and for-profit 'ecosystem service' investments in four out of five of the financial sectors examined.

6

Extractive industries: Gaining access to protected areas

Companies in the extractive industries sector have an unavoidably devastating impact on the environment where they operate. They also have an interest in continually expanding into new areas, which in many cases implies protected areas. In order to do so, they need to convince the public, policy makers and those providing the finance for their destructive activities that the impacts are still acceptable and the reputational risk remains manageable.

Biodiversity offsetting provides a tool to secure their continued expansion, despite the undeniable ecological and social damage their activities cause. Companies can, and do, tell the public that by investing in biodiversity offsetting, the destructive ecological impact of their mining or oil or gas drilling can be compensated, or it may even generate a 'net positive impact'. The assumption that such an approach can work opens the way for new policies: the offset option in the 'mitigation hierarchy' is strengthened and legitimized as a basis for decision making both in national and international environmental regulation. This, in turn allows companies to obtain mining or drilling licenses in areas they would otherwise not have been able to access. Loopholes introduced with regulations enabling biodiversity offsetting, such as the IFC's Performance Standard 6, enable the IFC and corporate banks that have adopted the PS6 provisions to finance corporate projects that destroy 'critical habitat' without the company even having to implement a biodiversity compensation plan, under certain circumstances.

It's also worth noting that in reality, biodiversity offsetting schemes are used only exceptionally in the mining sector, especially if a company wants to mine in a protected area, access IFC funds, or expects larger than usual public opposition to its operations.

This chapter explains some of the main developments in the push by resource-based industries towards more offsetting policies. The other report in this series, *Regulated Destruction*, complements the description of these initiatives with examples of how extractive industries and mega-infrastructure projects use biodiversity offsetting to gain access to areas rich in biodiversity, and to maintain their social license to operate through engagement in biodiversity offsetting and cooperation with the high-profile conservation groups that manage these offsets.

6.1 The energy sector

The global oil and gas industry association for environmental and social issues — still operating under the acronym of its former name **International Petroleum Industry Environmental Conservation Association** (IPIECA)[86] — has members in 146 countries, who are responsible for 60% of oil and gas production. They include BP, BHP Billiton, Chevron, ConocoPhillips, ENI, ExxonMobil, Petrobras, Shell, Tullow Oil and the World Petroleum Council. IPIECA works with the UN Environment World Conservation Monitoring Centre through a formal Memorandum of Understanding, and is a key participant in the extractive sector's Cross Sector Biodiversity Initiative (see section 6.3). As well as working on greenhouse gas emissions, IPIECA has a dedicated work stream on "biodiversity and ecosystem services issue management".[87]

At the European level, Eurelectric lobbies for electricity companies and has commented on the European Commission's No Net Loss proposals.[88] It supported a voluntary EU framework for compensation/offsetting, opposing the development of a legal framework. Perhaps unsurprisingly, it opposed prioritizing energy infrastructure, arguing that there should be a focus on the sectors that have the greatest impact on biodiversity — in its opinion, other sectors like agriculture.

Turning to individual companies, sustainability reports by both Shell[89] and BP[90] include much information about biodiversity but lack specific references to biodiversity offsetting. Both companies maintain separate entities, Shell Environmental Trading Solutions[91] and BP Target Neutral, which offer carbon credits or support business clients trading on carbon markets. BP Target Neutral is a not-for-profit entity, carbon credits are being sold at cost, and BP funding the running costs only.

6.2 The mining sector

The mining sector is also engaged in biodiversity offset initiatives and projects. As with the extractive energy sector, the mining industry's motive seems obvious: to maintain or improve access to remaining mineral deposits, many of which are located in protected areas or other places where mining can be expected to be contentious.

Mining companies engaging in offsetting have included Rio Tinto, Ambatovy, Exxon and Vale.

The **International Council on Mining and Metals** (ICMM) has observed that there is an "absence of a solid track record that causes the business community to remain hesitant to invest in offsets due to uncertainty of outcomes. However, some best-practice offset designs have recently emerged that demonstrate solutions based on practical experience."[95] Interestingly, a draft inventory from BBOP says that, as of 2014, almost half of ICMM's members had a policy commitment on offsets, but in

Rio Tinto abandons its Net Positive Impact claim[92]

Rio Tinto is perhaps the keenest proponent of the use of biodiversity offsets in the mining sector. It published a 'Net Positive Impact' (NPI) policy and funded biodiversity offset projects that it claimed would offset the ecological damage from forest destruction caused by its mining activities, for example in Madagascar (see Friends of the Earth International's *Regulated Destruction* report for a description of the Rio Tinto biodiversity offsetting in Madagascar). It also published, together with Shell, IUCN and The Nature Conservancy, a publication titled 'Net Positive Impact on Biodiversity: The Business Case' in 2015.[93] This states that companies can "gain a significant competitive advantage by, for example, avoiding costs and delays caused by protests about biodiversity impacts, and benefiting from a credible reputation for sound biodiversity management." However, in 2017, Rio Tinto backed away from its NPI commitment, stating that: "We've learned that allowing sites to tackle their own contexts on a case-by-case basis is more viable in the long run than applying a blanket NPI target. We're using the lessons of the past 12 years to further help us minimize our biodiversity impacts in the future. We'll continue to use the mitigation hierarchy to minimize our residual impacts."[94]

terms of actual application, this was largely limited to one or two sites per company,[96] which could well indicate greenwashing.

In Germany, energy company RWE has one of the largest 'eco-points' accounts. 'Eco-points' are a German system similar to biodiversity banks, whereby developers compensate for or offset environmental damage.[97] RWE is generating eco-points through the 'recultivation' of areas around old coalmines. The company continues to run climate-destroying operations such as its vast open-pit lignite mine in the Rhineland coalfields, while generating revenue from the management of land that it must maintain undeveloped after the closure of its underground coal mines and recultivated land on exhausted open-pit mines.

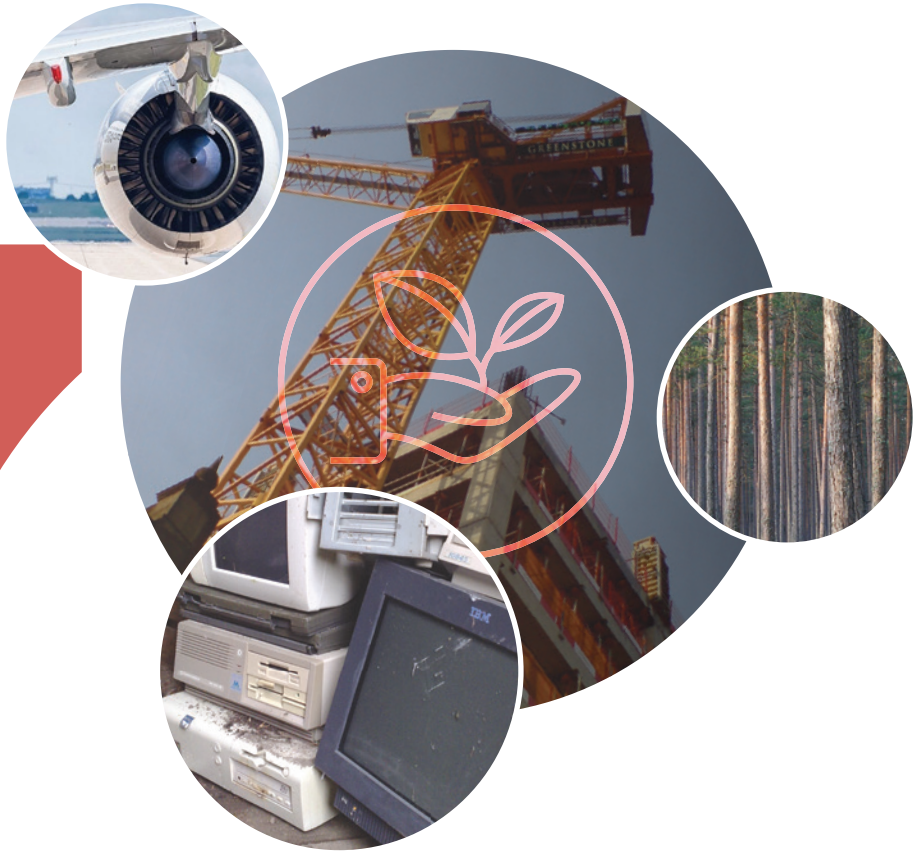
The European quarrying sector (extraction of stones, sand, etc.), under the umbrella of the Non Energy Extractive Industry Panel, is actively tracking a variety of EU policy areas including resource efficiency, access to raw materials and biodiversity, and participated in the EC's subgroup on the scope and objectives of the No Net Loss Initiative.

The World Bank is looking into the feasibility of expanding biodiversity offsetting to create a national scheme for the mining sector in Liberia,[98] on the basis that it could leverage private finance for the protected areas network and overcome some of the limitations of project-specific biodiversity offsets. This would scale up biodiversity offsetting to the national level.

6.3 Energy and mining interests converge: the Cross-Sector Biodiversity Initiative

The Cross-Sector Biodiversity Initiative (CSBI),[99] launched in 2013, is a partnership between the International Petroleum Industry Environmental Conservation Association, the International Council on Mining and Metals[100] and the Equator Principles Association.[101] It aims to develop and share 'good practices' related to biodiversity and ecosystem services in the extractive industries. The CSBI spells out the business case for biodiversity offsets very clearly:[102]

- reduced risks and liabilities;
- strengthened relationships with stakeholders (local communities, regulators, NGOs and others);
- trust built on a credible reputation — growing the 'social license to operate' with local, national and international benefits;
- continued access to natural capital and land;
- increased investor confidence and loyalty;
- improved staff loyalty;
- increased regulatory goodwill, avoiding delays in permitting;
- influence over emerging environmental regulation and policy;
- know-how built for cost-effective compliance with increasingly stringent environmental regulations;
- 'first-mover' benefits in the market;
- and strategic opportunities in new markets and businesses, as adoption of similar goals for biodiversity becomes more widespread.



7 Other economic sectors

7.1 Real estate and the construction sector

Offsetting requirements are so far a very rare requirement for the construction sector. Yet, the sector is looking ahead and is proposing offsetting schemes themselves, as a means to gain access to areas which could otherwise be restricted.

The global Institution of Civil Engineers (ICE) has published 'The role of Coastal Engineers in delivering No Net Loss through Biodiversity Offsets',[103] which looks at the pros and cons of coastal habitat loss (e.g. to coastal defenses, port infrastructure and waterfront development) and creation. ICE's overall position is that biodiversity offsetting could make a significant contribution to delivering no net loss of coastal habitats.[104]

In the UK, the civil engineering industry and the construction industry have worked together to set up the Biodiversity Net Gain principles and guidance relating to construction and development. They lobbied for offsetting principles to be applied in the UK.[105] Linden Homes, a large housing construction company in the UK, is supporting the use of biodiversity offsets, for reasons including that they increase planning delivery and avoid additional cost. Thus, developers can "proceed more quickly with greater certainty and reduced cost". However, they seem to have found that this theoretical stance has not been easy to apply in practice: "There is no value to biodiversity offsetting for the developer unless the market places responsibility for performance on the providers."[106]

7.2 Consumer goods sector

The consumer goods sector does not seem to have an entirely consistent position on biodiversity offsetting. The Consumer Goods Forum is a global, industry network that brings together CEOs and senior management of some 400 retailers, manufacturers, service providers, and other stakeholders across 70 countries. In November 2010, their Board agreed a resolution on deforestation with the aim of achieving net zero deforestation by 2020, focusing on changes in the palm oil, beef, soya and pulp and paper industries.[107]

However, they say: "Zero Net deforestation can be distinguished from zero deforestation, which means no deforestation anywhere. Zero net deforestation acknowledges that some forest loss could be offset by forest restoration. Zero net deforestation is not synonymous with a total prohibition on forest clearing."[108]

Of course, the consumer goods sector has many sub-sectors. Many will have different stances on how to handle increasing environmental pressure and resource scarcity.

Of particular interest is the agrocommodities sector. Palm oil and soy have acquired a particularly bad name regarding deforestation and environmental impacts. There have been some proposals to offset the impacts of palm oil by setting aside land for conservation.

However, it is clear that the major threat thus far to these companies is not from prohibitions against developing new plantations, even in forested areas. The main threat is consumers no longer wishing to buy their products unless they improve their environmental record. Therefore, palm and soy companies have set up, with the help of conservation NGOs, systems to certify that their palm oil is not causing deforestation.

The parallels with offsetting are clear: again, it is corporate responses, organized with the help of corporate-linked conservation NGOs, which also help push for these systems to be accepted as policy by governments and intergovernmental institutions. The need of companies to greenwash is also paramount in both cases.

Another relevant sector is the pulp and paper industry, who create tree plantations for industrial scale wood production. For this sector, offsetting is not about diminishing the risks of their impact, but rather reaping extra benefits. The timber industry can claim REDD+ payments for their industrial tree plantations, because they claim expanding plantations increases carbon uptake as their trees grow fast and the plantations cover large areas. This neglects the fact that the trees are also cut down again quickly.

7.3 Aviation

The aviation sector is probably the sector with the fastest-growing environmental impact.

The UN International Civil Aviation Organization is developing an offsetting scheme for aviation carbon emissions, named CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation), which claims it will make aviation sustainable. After long delays, the industry itself has developed this proposal in an attempt to avoid more stringent regulations similar to the commitments other sectors need to take on under the Paris Agreement.[109] CORSIA is very far from sufficient, both because of the nature of the policy — offsetting permanent fossil fuel emissions with impermanent REDD+ credits — and also because of the fact that the policy tackles only the growth part of the emissions and makes it obligatory only from 2023 onwards.[110]

While the biggest contributor to aviation's environmental impact are carbon emissions from jet fuels, biodiversity and ecosystems are also victims because of airport expansion all around the globe. A number of airport expansions are being approved as 'zero impact' because of biodiversity offsetting. The expansion of the London Heathrow and Western Sydney airports are some examples where biodiversity offsetting facilitated the approval of the project.[111] [112]

8

Conclusions

Financialization of nature has been portrayed as an answer to the biodiversity crisis. The proposition was that, if nature were valued adequately, the market would solve the biodiversity crisis. Furthermore, it would do so in a way that would also be good for business, generating an overall 'win-win' situation.

However, after two decades of pilot projects and working out policy proposals, it is still not the generally implemented system for governing biodiversity. Nor is the share of financial products related to financialization of nature sufficient, in comparison to the global financial products, to imply any degree of impact.

This study shows that there are sufficient well-promoted pilot projects, as well as institutes dedicated to the idea, to keep the discourse plausible and ongoing. As long as enough people can believe there is a future in this, policies can be oriented towards offsetting schemes. And, as long as it's not a fully worked-out system, inconsistencies and lack of credible prices to actually protect biodiversity can be hidden.

Financial instruments such as compensation offsets or green bonds, are not only actively contributing to the continued destruction of biodiversity and ecosystems, they also provide both financial and reputational benefits to the companies responsible for this devastation. Commercial benefits include the following:

- greenwashing a company's destructive activities and providing a social license to operate;
- avoiding lengthy civil society and local community protests;
- being seen to comply with biodiversity offsetting regulations speeds up planning approval processes;
- achieving better credit ratings and access to cheaper capital;
- avoiding the risk of stranded assets (e.g. forest lands in countries in which deforestation is banned);
- windfall profits for land owners;
- access to subsidies;
- policy changes that open up protected areas to destructive development, even where there are critically endangered species.

This aspect is described in detail in the *Regulated Destruction* report.

Different sectors have different interests in biodiversity offsetting and other forms of financialization:

- A significant number of new institutions – including think tanks, policy advisory committees, standard setters, investment banks, accountancy institutions, conservation NGOs, and academic departments dedicated to biodiversity measurement, have a vested interest in the continuation of the narrative that financialization will save nature.

- For some, this interest is principally the continuation of their own jobs and institutions. For many others, it is also mixed with the commercial interests of their board members, often current and former CEOs of corporations.

- For the extractives industry, the main interest in offsetting is the opening up of protected areas to which they would otherwise not have access.

- The main interest for the food, housing and manufacturing industries is the continued access to new land areas.

Those advocating for financialization of nature make it appear to be on the verge of being mainstreamed across the banking and investment world, with biodiversity now being referred to by some as a 'new institutional asset class', and a bewildering variety of financial products, systems and markets based on biodiversity and ecosystem services coming into play. Some members of the financial sector have been heavily engaged throughout.

But is this evidence of real growth in private investment, or is it actually a mirage?

There is little publicly available data to enable this question to be answered. However, a recent academic analysis does indicate that the involvement of private finance in biodiversity conservation is being massively over-hyped and that flows are actually much smaller — and will stay much smaller — than implied by those involved.

One reason why financialization of nature has not truly taken off in the financial sector is that it suits corporates to retain a nascent industry, which serves as a persistent inducement to governments and philanthropic foundations to continue to provide private sector participants with 'seed funding' and consultancy income. In the meantime, changes in regulations built on this model allow for further destruction of natural areas, and stringent environmental regulations that would restrict business are not on the table.

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