



BANKING ON THE AMAZON: HOW THE FINANCE SECTOR CAN DO MORE TO AVOID TROPICAL DEFORESTATION



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FOREWORD

At WWF, we're striving to transform the future for the world's wildlife, as well as rivers, forests and oceans. We're pushing for the reduction in carbon emissions needed to avoid catastrophic climate change. And we're pressing for the true value of natural resources to be reflected in political and economic decision-making.

In pursuit of these aims, we're determined to build links with public and private sector financial institutions. We're encouraging them to shift their finance flows so they favour more sustainable activities – and to change the conditions by which they assess financial transactions.

One of the places we regard as a particular priority is the Amazon. We know that if we're to address major threats to the ecological integrity of this region, the sectors that rely on its natural resources must transform, and follow best practices.

The finance sector can play a key role in ensuring best practices are followed. So, in this report, we seek to raise awareness of the need for change among institutions that provide finance for goods and services that are linked to the main economic drivers of deforestation in the Amazon.

We aim to continue a dialogue to encourage them to adopt stronger environmental criteria (as well as taking a regional and integrated approach) in their financing operations.

We outline ways in which WWF can help financial institutions become more aware of the complex sustainability challenges that the Amazon biome faces. And we identify existing incentives and opportunities to promote more sustainable approaches to business.

It's in the interests of the financial industry to prioritise sustainable economic activities. By doing so, they will minimise business risks, avoid the current over-consumption of natural capital that's compromising long-term business opportunities, and spearhead the transition to a low-carbon economy.

We hope this study encourages dialogue and stimulates financial institutions to adopt improved social and environmental performance standards that will contribute to the ecological integrity of the Amazon.



Paolo Revellino
Head, Sustainable Finance WWF



INTRODUCTION

FROM 2001 TO 2012, BRAZIL, PERU AND BOLIVIA TOGETHER ACCOUNTED FOR 90 PER CENT OF ACCUMULATED DEFORESTATION IN THE AMAZON BIOME

Spanning 670 million hectares (twice the size of India) the Amazon biome is one of the most special places on Earth. It covers eight South American countries and one overseas territory and is the single largest remaining tropical rainforest in the world. Yet, the biome is fragile and at constant risk of human-induced deforestation. Forest losses from 2001 to 2012 averaged 1.4 million ha per year for the Amazon biome, resulting in a total loss of 17.7 million ha in those 12 years¹. More recent studies indicate these figures are very conservative from a regional perspective. Brazil was responsible, on average, for 75 per cent of accumulated deforestation, with Brazil, Peru and Bolivia together accounting for 90 per cent².

In the last few years, major private sector players have pledged to eliminate deforestation from their supply chains. Examples include the Consumer Goods Forum's commitment to zero net deforestation by 2020; the New York Declaration on Forests that aims to cut natural forest loss in half by 2020; place-specific actions such as the Brazilian soy industry's moratorium on purchasing soy from lands that have been deforested in the Amazon; and zero deforestation commitments by key traders of palm oil (Wilmar International, Golden Agri-Resources, and Cargill) covering about 60 per cent of global trade.

In parallel, finance institutions have started to recognise both the importance and complexity of deforestation issues, but little is still known about the scope of their forest policies. Banks and investors provide companies with the financial capital to conduct their activities and are well placed to encourage sustainable corporate behaviour.

This report is based on an extensive research project commissioned by WWF's Living Amazon Initiative (LAI) that aimed to identify key financial institutions behind the financing of sectors driving forest loss in the Amazon biome (mainly Brazil, Bolivia, Peru, Colombia and Ecuador). Our ultimate goal was to assess the extent to which selected financial institutions that enable these sectoral activities through the provision of debt, equity and other forms of capital, apply comprehensive forest conservation policies when financing a company.

The research focused on the following sectors driving forest loss in the Amazon biome: cattle ranching, mechanised and small-scale agriculture, hydropower dams, infrastructure, timber extraction, mining, and oil & gas exploration.

This report also examines the economic benefits of a sustainable approach to investment and suggests ways in which banks can improve their lending policies and reverse current deforestation trends in the Amazon biome. **It is important to emphasize that the companies and financial institutions cited in this report are not necessarily themselves linked to deforestation: our objective was to identify the financial institutions which are overall most influential in providing finance to economic sectors that have been associated with deforestation in the Amazon.**

The research reveals that there are important opportunities for these financial institutions to adopt and implement more stringent policies to avoid and mitigate forest and biodiversity loss as a result of companies' operations in different sectors.



AMAZON DEFORESTATION PRESSURES

The most significant deforestation pressures in the Amazon biome are agricultural expansion, in the form of mechanised large-scale cultivation of monocultures and cattle-ranching; subsistence farming and the cultivation of illicit crops; infrastructure development such as hydropower dams and roads; and extractive industries including oil and gas exploration, mining and logging. The relevance of these sectors varies across different Amazon countries but all have a direct influence on deforestation and forest degradation in the region.

These pressures also influence each other. For example, land-use change due to soy farming replacing pastures is thought to be pushing cattle ranching further into natural forests. Logging is leading to the construction of roads, while the expansion of roads is making remote areas accessible, contributing to increased logging activities in the surrounding areas. A new hydroelectric dam causes deforestation in itself, but also powers mining activities and both result in more road construction. At the same time, the direct causes of forest loss are also connected with, and influenced by, a range of indirect drivers through complex interactions, such as subsidies, migration, unclear land tenure, economic development, corruption and weak law enforcement.

Current deforestation frontiers in the Amazon can be summarised geographically in a hydrocarbon frontier in Ecuador, Peru, Colombia and Bolivia; several gold frontiers, with the Madre de Dios department in Peru standing out; a soybean frontier in the Brazilian state of Mato Grosso; palm oil frontiers in the state of Pará, Brazil and the Amazonas department in northern Peru; a hydropower frontier in the Andean Amazon and in Brazil; a cattle frontier in Brazil; and numerous smaller timber and mining frontiers throughout the region. In Guyana, French Guiana and Suriname the growth in timber exports and monocultures for the production of biofuels, as well as gold mining, are the main drivers of deforestation and forest degradation in the region.

In recent years deforestation dynamics in the Amazon biome has been changing. It has been growing in both the Andean-Amazon countries, especially Bolivia³ - due to the expansion of agriculture - and the Guiana shield, namely Guyana - due to informal mining and agriculture. Although deforestation in Brazil has decreased significantly since 2004, changes to the Forest Code in 2012 may be associated with recent increases in deforestation in parts of the Brazilian Amazon biome⁴.

KEY DEFORESTATION PRESSURES IN THE AMAZON BIOME



CATTLE RANCHING



HYDROPOWER



LARGE-SCALE AGRICULTURE



MINING



SMALL-SCALE AGRICULTURE



OIL & GAS

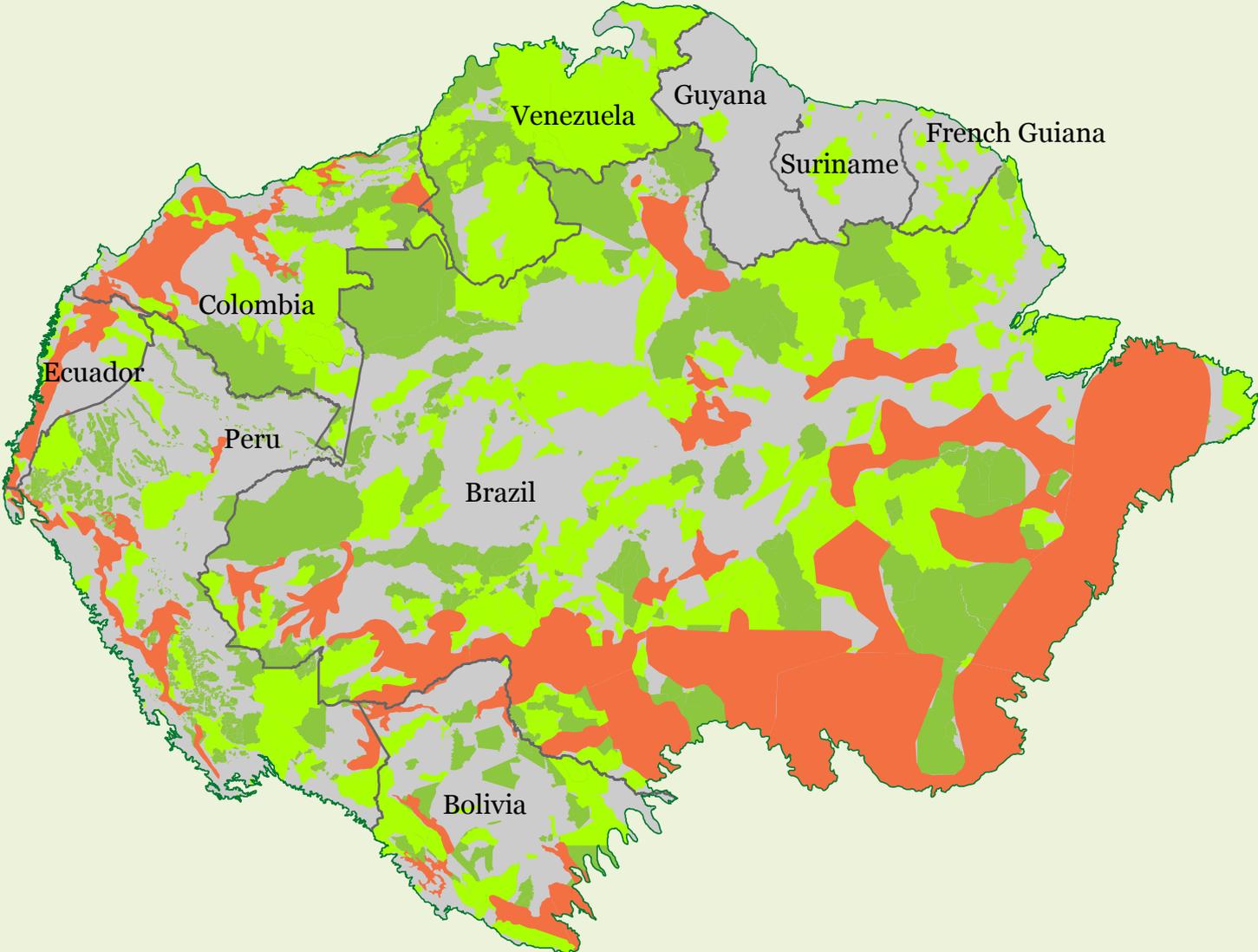


INFRASTRUCTURE



UNSUSTAINABLE LOGGING

FIGURE 1: THE AMAZON BIOME



-  PROTECTED AREAS
-  DEFORESTATION FRONTS
-  INDIGENOUS LANDS

Source: WWF State of Deforestation report, 2015

DEFORESTATION PRESSURES IN FOCUS



Pasture and cattle ranching: Pasture and cattle ranching, specifically beef and dairy, is the dominant cause in many areas and is also linked to land speculation in some countries⁵.

Brazil has the largest commercial cattle herd in the world (2013: >74 million heads located in Amazon). Sixty seven official slaughterhouses, of which 34 licensed to export, are located in the Legal Amazon⁶. The invasion of the Brazilian Amazon has also occurred as a consequence of monoculture expansion, especially soybean in the Cerrado, displacing the cattle industry into as yet forested areas⁷. Land speculation is rife – In Brazil's Mato Grosso state, clearing forest to create pasture was found to lead to a five-fold increase in land value, and upgrading the land to soy production doubles the price again⁸. Flawed land tenure is a big problem: ranchers have to wait for years to receive a title to their land⁹. Without a title, banks will not approve ranchers for the credit they need to make the transition to a deforestation-free operation¹⁰.



Agriculture: Expansion of mechanized agriculture, particularly for animal feed and biofuels, using soy, oil palm and also corn, is a key cause, with increased production linked to subsidized resettlements in some countries¹¹.

Soybean cultivation area in Brazil grew from 11 million hectares in 1993 to 28 million hectares in 2013, mainly on land directly or indirectly converted from natural ecosystems and heavily affecting the Amazon and Cerrado ecosystems¹². Brazil also holds the world's largest forest area suitable for oil palm (228 million hectares) and sugar cane (199 million hectares). Expansion remains an important threat to the biome.

Small-scale agriculture is expanding in regions such as northern and eastern Bolivia, Colombia, Ecuador, Peru and the Guianas, where high levels of poverty, pressure for land, unsustainable practices and problems of control are leading to an expansion¹³.



Dams and hydropower expansion:

Dams and hydropower expansion, including settlement around dams and associated infrastructure, is a major driver behind deforestation. The area at risk from deforestation impact occurs between 40 and 100km from hydroelectric dams¹⁴. There are 154 constructed dams, and another 298 either under construction or planned in the Amazon biome¹⁵. If all are finalised as planned, only three free-flowing Amazon tributaries would remain¹⁶. Dam impacts often overlap with protected areas and indigenous territories.

Ecuador has the only mega dam in the Andean Amazon that exceeds 1,000 MW and several smaller dams planned. Financing by Chinese banks, primarily the China Development Bank and the Export-Import Bank of China, is playing an important role in the expansion of hydro-dams in the Ecuadorian Amazon.



Oil and gas exploration: Areas blocked for oil and gas concessions amount to more than 100 million hectares or

14 percent of the Amazon biome. The Andean countries have the largest surface areas dedicated to hydrocarbon activities across all phases (open for bidding, under tender, under exploration and under production)¹⁸. Approximately 84 percent of the Peruvian Amazon was covered by oil and gas blocks as of 2013¹⁹. The country was followed by Colombia (40 percent of the Colombian Amazon), Ecuador (21 percent), and Bolivia (15 percent)²⁰.

Ecuador is the country with the largest area of hydrocarbon blocks currently under production in the Amazon biome²¹. In Peru, Two-thirds of indigenous lands are overlapped by oil/gas blocks, as are half of the protected areas in the Peruvian Amazon²².



Transport infrastructure: The fronts showing the greatest deforestation rates are areas with more roads, showing a strong correlation between deforestation and the presence of roads and projections of new roads. Nearly 95 per cent of deforestation in Brazil Amazon was found to be within 5.5km of roads and 1km of navigable rivers¹⁷.



Mining: The five Amazon countries covered in the research account for considerable

quantities of the world's production of key minerals. Production of iron ore and bauxite are especially relevant in the Brazil Amazon biome: the country is the third-largest player globally for both minerals, and production is prevalent in the state of Pará. Gold mining, both large-scale and small-scale (artisanal), is an important economic activity in the Amazon region, with Peru being the world's fifth-largest gold producer.

SUSTAINABILITY: RISKS AND OPPORTUNITIES FOR FINANCIAL INSTITUTIONS

DEFORESTATION IMPACT CAN LEAD TO A VARIETY OF FINANCIALLY-MATERIAL RISKS, INCLUDING OPERATIONAL, REGULATORY, LEGAL, MARKET AND REPUTATIONAL RISKS

Banks and investors have a direct influence on the health of the Amazon biome: many business activities in forest areas would indeed not be possible without the services provided by financial institutions such as commercial and investment banks, export credit agencies and development banks. This is especially true for companies active in large-scale agribusiness, infrastructure, mining and hydrocarbon exploration which are rarely fully self-financed.

Companies can finance their activities in many different ways. The most common options are debt (corporate loans, including revolving credit facilities and project finance, bond holdings, underwriting of bond issuances) and equity financing (share issuances, share holdings, underwriting of share issuances).

Financial institutions have many business reasons to embed sustainability and address exposure to deforestation in their lending and investment practices. Deforestation impact by companies can lead to a variety of financially-material risks, including operational, regulatory, legal, market and reputational risks. These, in turn, can affect investors and lenders through different channels. For instance, financial institutions can be affected if clients are unable to service debt obligations in full and on time, if assets become 'stranded' due to changing market and political conditions, or if the market value of companies deteriorates as revenue and profits are impacted. Financial institutions are also vulnerable to reputational risks, as seen by recent media coverage of banks financing ranching within indigenous territories in Brazil and the financing of pulp and paper companies associated with deforestation in Indonesia²³. (see diagram adapted from the NCD on the following page).

In addition to financial and reputational considerations, there is a strong and very important conservation argument to safeguard the Amazon biome: it is the single largest remaining tropical rainforest in the world, housing at least 10% of the world's known biodiversity, including endemic and endangered flora and fauna, and its rivers account for 15-16% of the world's total river discharge into the oceans.

The Amazon also plays a critical role in maintaining climate function regionally and globally. The Amazon is estimated to hold almost 10% of the global carbon reserves stored in land. The rainforest not only absorbs carbon dioxide and releases oxygen, it pumps vast amounts of water vapour into the atmosphere, generating what has been termed "flying rivers" that circulate across South America bringing vital rains to the region's breadbasket areas. It is estimated that 20 billion tonnes of water are released into the atmosphere per day by all the trees in the Amazon, an amount greater than the volume of water discharged daily into the sea at the mouth of the mighty Amazon river.

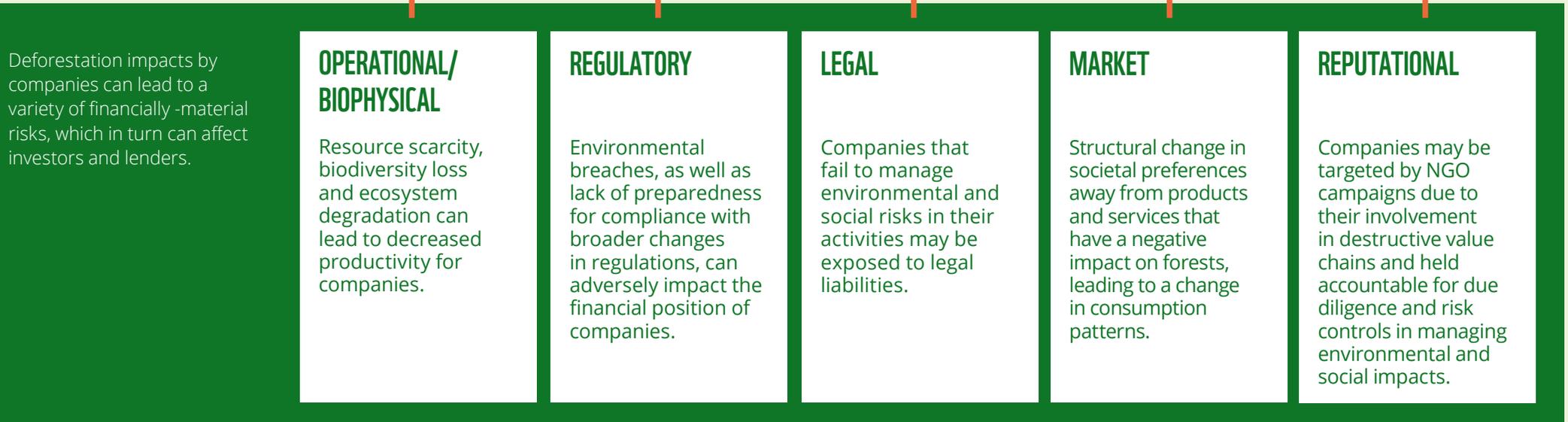
By focusing on clients who adopt strong sustainable practices, banks and investors are not just effectively managing their risks but also safeguarding a biome that is vital for planetary health.

FIGURE 2: DEFORESTATION RISKS TO COMPANIES AND FINANCIAL INSTITUTIONS

RISKS: FINANCIAL INSTITUTIONS



RISKS: COMPANIES - SUPPLY CHAINS



Financial institutions are starting to recognise both the importance and complexity of deforestation issues. As lenders or shareholders they have an important role to play in influencing businesses and creating positive sustainable value with companies and governments.

A series of international agreements and risk management frameworks focused on environmental sustainability for the finance sector have been created in the last decade. The most important ones include the Equator Principles, the Natural Capital Declaration, and the Soft Commodities Compact. The UN Global Compact is also relevant but is not solely focused on financial institutions. These are laudable initiatives but, in isolation, are insufficient to guarantee the health of forests: their voluntary-based approach, applicability to certain types of transactions only, or focus on specific sectors as opposed to wider landscapes, are just some of their limitations.

The next section presents the results of the detailed policy analysis of ten selected banks: BNDES, Banco Itaú Unibanco, Banco do Brasil, Grupo Santander, Grupo BBVA, Bancolombia, China Development Bank, HSBC, JPMorgan Chase, and Citigroup. **These banks were chosen for their presence in more than one country and/or sector and for the volume of credit conceded to the chosen sectors in the Amazon region.**

The first step involved identifying key companies active in the chosen sectors based on information extracted from scientific publications, company databases and registers, market reports and media articles, as well as input from WWF-experts on the ground.

We then researched the lending and underwriting activities of financial institutions for the selected companies and their subsidiaries for the period July 2009 until July 2014. Information was sought primarily in specialized financial databases (Thomson ONE Banker, Bloomberg) and company publications. In the case of financing provided for general corporate purposes, an estimated share equivalent to the relative importance of the activities with potential impact on the Amazon biome was assigned to this business area. Out of a long list of relevant financial institutions, WWF then selected the ten banks above for an in-depth policy analysis.

Once again, it is important to emphasize that these banks are not necessarily linked to deforestation: it was beyond the scope of this study to identify the exact companies deforesting across their supply chains and which banks were financing their activities. We can say, however, that these banks are some of the most influential in providing finance to economic sectors that have been associated with deforestation in the Amazon. With influence, comes responsibility.

Our main objective is to understand the extent to which these institutions account for the preservation of forests in their lending and underwriting criteria, and what can be done to improve them. Our analysis was based on publicly available information including statements, news, annual reports, websites and official documents issued by financial institutions. In some cases, our findings were complemented by direct engagement with the banks.

For all institutions, including the ones that have detailed forest policies in place, it was also beyond the scope of this study to assess the effectiveness of policy implementation. The results show that, for many relevant players, there are still considerable opportunities to make improvements, even at the most basic policy levels.

OUR MAIN OBJECTIVE IS TO UNDERSTAND THE EXTENT TO WHICH THESE INSTITUTIONS ACCOUNT FOR THE PRESERVATION OF FORESTS IN THEIR LENDING AND UNDERWRITING CRITERIA, AND WHAT CAN BE DONE TO IMPROVE THEM



FINANCIAL INSTITUTIONS: POLICY ANALYSIS

THERE ARE STILL OPPORTUNITIES FOR IMPROVEMENT AND INCREASED TRANSPARENCY IN FOREST POLICIES AMONG FINANCIAL INSTITUTIONS

Our analysis has shown that some of the analysed financial institutions have yet to develop specific forest sector policies. For the ones that do have policies in place, there are still opportunities for improvement and increased transparency.

In some cases, whilst critical risks associated with forests are described in financial institutions' policies, it is not clear how these policies are implemented in practice and how adherence of banks' customers is being verified. Clear criteria for due diligence checks and possible consequences in case of noncompliance should be part of comprehensive environmental, social and governance (ESG) policies. The following table summarises the questions used as a base assessment of general forest policies for the ten financial institutions. Key findings were:

- Participation in international standards, initiatives and principles:** Our research identified an insufficient participation in international voluntary initiatives relevant to forests and land issues, such as the BEI Soft Commodities Compact and the Natural Capital Declaration (NCD). Among the analysed institutions, only Santander is a member of the BEI and BBVA an observer of the NCD. Santander and JP Morgan are the only ones that have adopted the Soft Commodities Compact. BNDES and the China Development Bank, two of the world's largest development banks with a large portfolio of clients operating in the Amazon biome, are not signatories of the Equator Principles. These principles set a minimum standard for environmental and social due diligence when deciding whether or not to finance projects that could have adverse impacts on forests.
- Clients' adherence to main international standards, initiatives and principles:** Our research identified few references to explicit requirements or practical encouragement for customers to improve corporate disclosure through the participation in international reporting frameworks such as the Global Reporting Initiative (GRI) and the OECD Guidelines for Multinational Enterprises. These voluntary initiatives offer investors a framework to assess and compare companies and should be encouraged.
- Deforestation in ESG policies:** Opportunities exist to intensify the attention given to deforestation in ESG policies, particularly among sectors other than forest harvesting, such as oil and gas developments, mining, large scale infrastructure and agribusiness. This ignores the importance of cross-cutting issues in driving deforestation dynamics.
- Scope of application of ESG standards:** There are huge variations and lack of clarity in the scope of application of ESG standards, with some institutions setting minimum transaction thresholds, or excluding equity investments, asset management, bond underwriting and loans for general corporate purposes from ESG scrutiny. The application of minimum thresholds, for instance, can be problematic due to the fact that some sectors are less capital intensive than others. Additionally, the exclusion of loans for general corporate purposes could be allowing the financing of activities with material impact on forests.
- Scope of exclusion of financing:** There is insufficient information regarding the issue of whether exclusion of financing applies only to specific companies or subsidiaries undertaking controversial activities or parent companies as well.
- Independent assessment:** There is a general lack of independent assessment of companies and/or proposed projects prior to providing finance. Project financing, for a mine or hydropower dam for example, often requires independent environmental impact assessments but the same is not always required for other types of investment.

FOREST COMMITMENTS (Table 1)

For each issue covered, the table indicates where each bank makes a clear statement relating to the issue.

○ Partial or brief reference to the issue by 2014

● Clear positive statement by 2014

	Banco do Brasil	Bancolombia	BNDES	China Development Bank	Citigroup	Grupo BBVA	Grupo Santander	HSBC	Itau Unibanco	JPMorgan Chase
Forest commitments										
Signatory to the main international standards, initiatives and principles relevant to forestry and land issues.	●									
• BEI							●			
• Soft Commodities Compact							●			●
• Equator Principles	●	●			●	●	●	●	●	●
• Natural Capital Declaration						○				
• UN Global Compact	●	●				●	●	●	●	
Financier explicitly demands its investee to adhere to the main international standards, initiatives and principles relevant to forestry and land issues.	●									
• Global Reporting Initiative								○		
• OECD Guidelines for Multinational Enterprises								○		
• UN Global Compact								○		
Financier gives specific attention to deforestation issues in its ESG-policies.	●	○					○	●	○	●
Financier applies its ESG-standards on forests to the sectors which are seen as most relevant in Amazon biome deforestation:	●									
• Farming	●							●		○
• Cattle ranching	●							●		
• Forestry	●	●					●	●		○
• Hydro-power dams	●							●		○
• Transport infrastructure (incl. roads, ports, waterways, etc.)	●							●		○
• Oil & gas exploration & exploitation	●									○
• Mining	●							●		○
Financier applies its ESG standards to all forms of investments and financial services provided.	○	●		○	○	○				
Exclusion of financing moves beyond specific companies/subsidiaries to also incorporate parent companies.	○	○								
Financier requires an independent assessment of the impact of business activities on forests before financing is provided and that the assessment is repeated regularly.	●				○		○			

Source: Profundo's research paper prepared for WWF Living Amazon Initiative based on publicly available information from financial institutions 2009-2014. In the time since our analysis, several corporate events have taken place including sales or divestitures of Latin American operations by international banks that may affect some of the results we present here.

In the final area of analysis we looked at forest policies in more detail, including the banks' approach to specific environmental standards and their understanding of more complex issues related to the protection of forests. Key findings in this regard included:

- **Degradation or conversion of natural forests:** Our research found that the majority of the ten financial institutions assessed do not offer enough detail on their views on financing activities that lead to degradation and forest conversion. The same applies to their policies on financing the expansion of plantations or other activities happening on already converted or degraded natural forests. In some cases, they acknowledge the importance of those issues and confirm that companies will be subject to an enhanced review but do not offer details as to what this process entails. JPMorgan, for example, states that it only finances plantations on non-forested areas, including previously planted areas, or on heavily degraded forestland. There is no clear definition as to what 'heavily degraded' implies and who will make this evaluation. HSBC also states that it does not finance customers involved directly - or indirectly via their supply chains - in forests being converted to plantation or to non-forest use, e.g. deforestation.

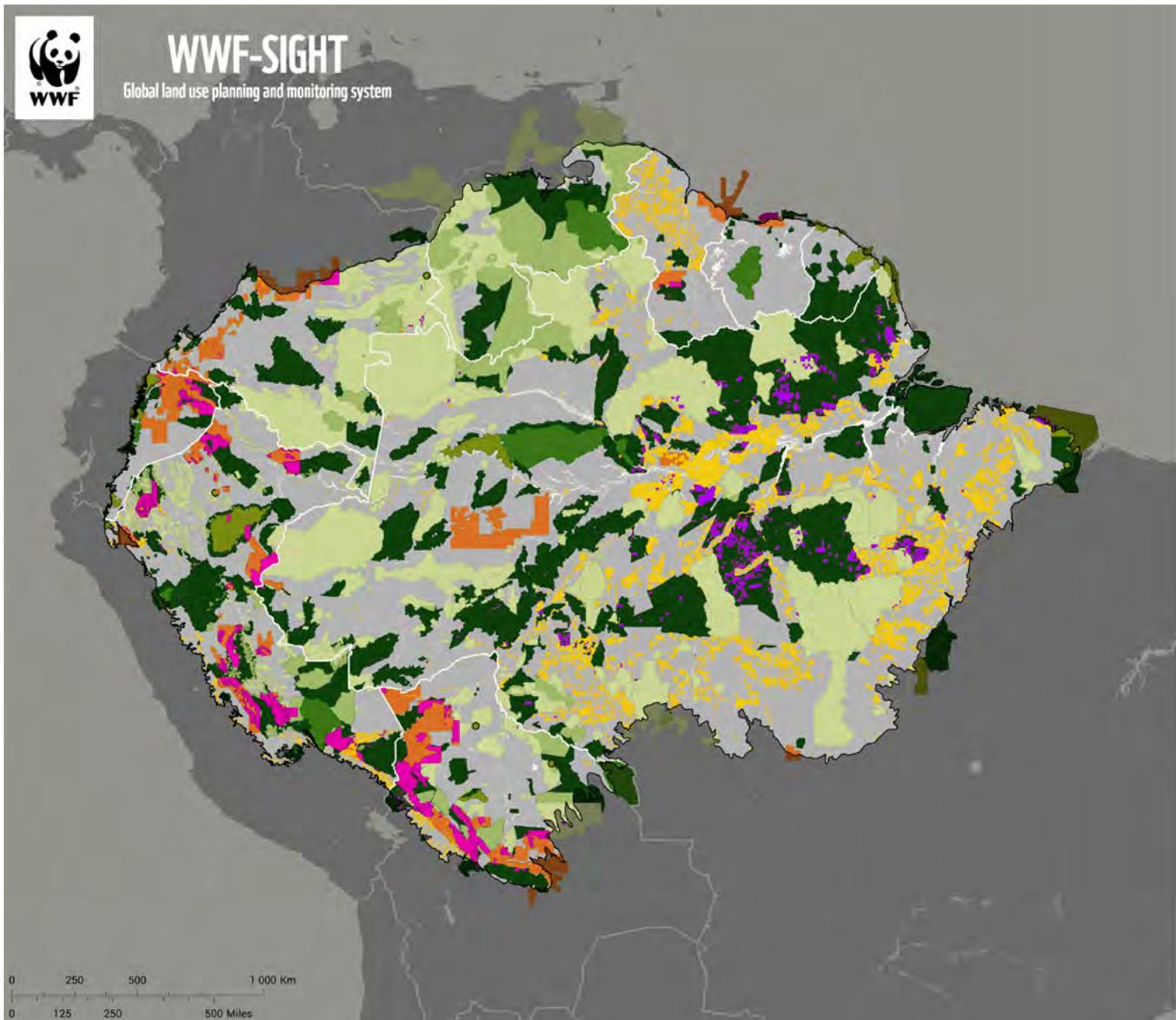
This issue is further complicated given the legal realities of some Amazon countries, where the law still allows for some deforestation. In Brazil, for instance, the new 2012 Forest Code granted an amnesty to landowners who deforested illegally before 2008 and reduced the restoration commitment by 58% relative to the old Forest Code²⁴. The new code also reduced legal reserves in some parts of the Amazon from 80% of the property's area to 50%, allowing the remainder to be legally deforested. For banks and financial institutions, financing activities that degrade natural forests, even if permitted by law, should be assessed in light of increasing risk, including reputational risk.

- **Safeguarding High Conservation Value (HCV) and High Carbon Stock (HCS) forests:** Our analysis revealed that many financial institutions don't exclude, and in some cases don't even consider, activities in High Conservation Value (HCV). These areas need special protection for a variety of reasons, including biodiversity value and potential carbon emissions associated with forest harvesting. Santander and HSBC explicitly exclude activities that fail to protect HCV forests, with HSBC referencing the threat from mining and metal sectors in particular. None of the analysed institutions mentioned High Carbon Stock (HCS) forests²⁵.
- **Protected areas:** Our analysis revealed that many of the analysed financial institutions lack clear policies on the financing of activities in nature protected areas (PAs), such as national parks, World Heritage and RAMSAR sites. Protected areas are the best known mechanism to conserve Amazon ecosystems for people and the planet²⁶. By 2013 the surface area in the Amazon under protection was significant, with 390 PAs, representing 25% of the Amazon biome, totalling some 167 million hectares²⁷. However, protected areas are suffering from increasing pressure on several fronts, in particular from extractive activities.

In Peru, hydrocarbon blocks occupy over 80% of the country's Amazon surface area, overlapping half of the Peruvian Amazon protected area system and two-thirds of the total surface area of indigenous territories²⁸. In Bolivia, a law passed in May 2015 specifically permits "the development of hydrocarbon exploration activities in the different zones and categories within protected areas"²⁹. And in 2014, Ecuador signed permits for oil drilling in Amazon's Yasuni National Park, a UNESCO site and home to two remote tribes.

Bancolombia, for example, excludes finance to projects and companies associated to the deterioration of a national parks or another similar protected areas, including World Heritage sites, the UN List of National Parks and Protected Areas, wetlands declared of international importance (defined by the Ramsar Convention), or determined areas defined by the IUCN (International Union for the Conservation of Nature). HSBC excludes operations in World Heritage Sites and Ramsar Wetlands, citing customers involved in forestry, agriculture, mining, energy, property and infrastructure developments. Other institutions either don't have a policy in the area or give protected areas some attention without offering more details or excluding activities from their books.

FIGURE 3: MINING AND OIL AND GAS IN THE AMAZON BIOME



Legend

- Ramsar Sites
- Natural and Mixed World Heritage Sites
- Protected Areas
- Indigenous Lands
- Granted Mining Claims
- Awarded Oil and Gas Contracts

Recent WWF research has shown that in total 15% of biome area is covered by claims, contracts, and applications and is potentially under threat. As the map shows, in many cases, these overlap protected areas and indigenous territories. WWF is conducting further research in this area.

Produced by
WWF-SIGHT

Data sources:
 Indigenous Territories: HIS-ARA (Hydrological Information System & Amazon River Assessment) database.
 Protected Areas, Ramsar Sites and World Heritage Sites: Protected Areas (WDPA) [On-line], [01/2016], Cambridge, UK: UNEP-WCMC. Available at: www.protectedplanet.net.
 Oil and Gas: Drillinginfo, Inc. [Accessed(12/2015)]
 Ramsar sites: The Ramsar Sites Information Service (RSIS). [Accessed(01/2016)]
 Mining Claims: SNL financial. Contains copyrighted and trade secret material distributed under licence from SNL. For recipients internal user only. [Accessed(01/2016)]

Map produced using WWF-SIGHT, 2016
 Author: Pablo Izquierdo (pizquierdo@wwf.no), WWF-Norway, 2016

- **Certification requirements for agro-commodities and proof of timber legality:**

Our research found few references to internationally recognised certification for agro-commodities and proof of timber legality as pre-conditions for financing. In the case of timber, for instance, we found evidence that HSBC, JPMorgan Chase, and Santander require that clients have certifiable systems in place as part of their lending policy, with references to the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC). Itaú Unibanco also refers to compliance with the FSC, or companies' plans to attain this certification, but more as a 'good to have' policy as opposed to a firm exclusion criteria for financing.

Banco do Brasil, on the other hand, requires the Forest Origin Document (DOF, in Portuguese): an electronic system established by the Brazilian Institute of Environment and Renewable Natural Resources, IBAMA, to track timber harvested in legal areas to track the timber harvested in legal areas. The DOF system has been found to have many limitations including reports of computer hacking and the entering of false information, and the lack of integration between states and federal systems which has increased the scope for fraud³⁰. Moreover, the DOF system only guarantees the timber legality - the volume of legal wood harvested at the origin is the same that reaches the destination - but does not guarantee that the timber was extracted in a sustainable manner like the FSC does, e.g. that the trees that are harvested are replaced or allowed to regenerate naturally. The FSC also protects the rights of indigenous people and local communities and is increasingly recognised by international government authorities and consumers.

- **Support for voluntary moratoria:** Among the banks analysed we found few references of support for relevant moratoria, such as soy and cattle in the Brazilian Amazon. While research provides evidence that the Brazilian moratoria have had a positive impact on reducing deforestation in the Amazon biome, consideration of these is mostly absent from financial institutions' policies. Only Banco do Brasil actively supports the soy moratorium, and participates as an observer to the cattle moratorium. In addition, among the analysed financial institutions, only Banco do Brasil, Santander, and HSBC are members of the GTPS (Brazilian Roundtable on Sustainable Livestock) and the RTRS (Roundtable on Responsible Soy), multi-stakeholder initiatives to disseminate responsible beef and soy production and use. The RTRS, for instance, bans the conversion of areas with high conservation value to agricultural land and includes third-party auditing to certify soy producers who adhere to the RTRS standard, in a transparent and standardised way.

A photograph of a herd of white cattle in a field at sunset. The sun is low on the horizon, casting a warm orange glow over the scene. The cattle are gathered behind a wooden fence in the foreground. In the background, there is a line of trees and a small hut. The overall atmosphere is peaceful and rural.

Beef and soy moratoria in Brazil: Companies that have signed up to these two voluntary moratoria, created in 2006 and 2009 respectively, commit to monitor their supply chains and no longer purchase soy or cattle from deforested areas in the Amazon biome. Many exporters, processors, slaughterhouses, and supermarkets have taken part. The actions of the independent federal public prosecutors, particular in the key states of Pará and Mato Grosso, have been an important link between these voluntary business actions and government enforcement³¹. A 2015 study observed data on land use in the state of Pará before and after the 2009 beef moratorium and found that the deforestation rate among ranch owners has since been cut in half³². In the case of soy, another recent study found that, prior to the moratorium's commencement in 2006, about 30% of the soy planted in the Amazon directly replaced rainforest. But after the moratorium, the impact on the Amazon from soy fell sharply: by 2014, less than 1% of soy replaced rainforest³³. Initially, the soy industry extended the moratorium to May 2016, by which time they asserted that Brazil's environmental governance, such as the increased enforcement and national implementation of the Rural Environmental Registry of private properties (Portuguese acronym CAR) mandated by the Forest Code, would be robust enough to justify ending the agreement. However, ending the moratorium prematurely would risk a return to deforestation, as full compliance and enforcement of CAR and Forest Code regulations is likely to be years away. It is therefore positive that in May 2016 the soy moratorium has been renewed indefinitely – or as the renewal document says – until it is no longer needed. The renewal of the moratorium indefinitely ensures producers and trading companies can continue to rely on forest friendly Amazon soy to keep the doors to the global market open, even in times of environmental and political-economic crisis.

ENVIRONMENTAL STANDARDS (Table 2)

For each issue covered, the table indicates where each bank makes a clear statement relating to the issue.

- Partial or brief reference to the issue by 2014
- Clear positive statement by 2014

Environmental standards	Banco do Brasil	Bancolombia	BNDES	China Development Bank	Citigroup	Grupo BBVA	Grupo Santander	HSBC	Itau Unibanco	JPMorgan Chase
Degradation or conversion of natural forests excluded from financing.		○		○	○			●		●
Operations in high conservation value (HCV) forests excluded from financing.		○					●	●		
Operations in high carbon stock (HCS) forests excluded from financing.										
In protected areas, prohibited operations excluded from financing.		●					○	○		○
Proof of legality in timber operations and sourcing required, ensuring that the client is not involved in, and does not collude with or purchase timber from illegal logging operations.	○	○			○		●	●	○	●
Infrastructure (including hydro-dams and transport infrastructure) projects with risk of large-scale biodiversity loss and socio-economic impacts excluded from financing.				○				●		
Financier explicitly demands its investee to obtain certification under relevant, internationally-recognised certification schemes in the relevant economic sector it operates in, so as to minimise negative environmental impact of its operations:										
• ProTerra, RTRS, EcoSocial or organic certification for soy.		○						●		
• RSPO or organic for palm oil.		○			○		●	●		○
• FairGold or Fairmined standard for precious metals from artisanal and small-scale mining.	○	○						○		
Where voluntary moratoria are in place in order to reduce tropical deforestation, financier explicitly demands that its investee supports these commitments in order to obtain financing, so as to minimise negative environmental impact of its operations.										
• Soy moratorium in the Brazilian Amazon biome.	●									
• Beef moratorium in the Brazilian Amazon biome.	○									

Source: Profundo's research paper prepared for WWF Living Amazon Initiative based on publicly available information from financial institutions 2009-2014. In the time since our analysis, several corporate events have taken place including sales or divestitures of Latin American operations by international banks that may affect some of the results we present here.

SOCIAL STANDARDS (Table 3)

For each issue covered, the table indicates where each bank makes a clear statement relating to the issue.

- Partial or brief reference to the issue by 2014
- Clear positive statement by 2014

Social standards	Banco do Brasil	Bancolombia	BNDES	China Development Bank	Citigroup	Grupo BBVA	Grupo Santander	HSBC	Itau Unibanco	JPMorgan Chase
A check of land tenure legality required.	●		●					○		
Proof of the free, prior and informed consent (FPIC) of affected communities required where applicable.	○	○	●		○	○	○	○	○	○
Activities in breach of the four fundamental principles and rights at work as defined by the ILO excluded from financing:										
• Freedom of association and the effective recognition of the right to collective bargaining	○	●	○		●	●	○	○		●
• No forced or compulsory labour	●	●	○		●	●	○	○	●	●
• No child labour	●	●	○		●	●	○	○	●	●
• No discrimination in respect of employment and occupation.	○	●	○		●	●	○	○		●
Health and safety protections for the community and workers required.	●	○		●	○	○	○	○	○	○
Communities affected by client operations have access to any grievance mechanism.	○	○			○	○	○	○	○	○

Source: Profundo’s research paper prepared for WWF Living Amazon Initiative based on publicly available information from financial institutions 2009-2014. In the time since our analysis, several corporate events have taken place including sales or divestitures of Latin American operations by international banks that may affect some of the results we present here.

Our research also analysed the approach of the ten financial institutions to wider social issues.

We found that many social standards are automatically required as part of certification schemes and included in the IFC Performance Standards used by the Equator Principles. This is the case, for instance, for land tenure legality checks; grievance mechanisms; free, prior, informed consent (FPIC) of affected communities; and the four fundamental principles and rights at work as defined by the International Labour Organisation (ILO).

However, the Equator Principles do not cover all types of projects and transactions: it is limited to project finance where capital costs are at least US\$10 million, and to project-related corporate loans of US\$100 million or more that also meet other specific criteria³⁴.

Additionally, many of the analysed financial institutions do not have certification requirements that incorporate social criteria, or these are limited to a small number of sectors. As such, social standards are not a precondition to all forms of financing of companies active in sectors considered to be drivers of Amazon forest loss. A broader uptake of social standards beyond the requirements of certification schemes and the Equator Principles financing is therefore needed.

Among the banks analysed, many refer to social criteria and human rights as points of particular concern but more information is needed regarding how these issues are verified and what steps and processes are put in place in case problems are reported across supply chains.



CONCLUSION AND RECOMMENDATIONS

**AS LENDERS AND
CAPITAL RAISING
AGENTS, BANKS HAVE
AN IMPORTANT ROLE TO
PLAY IN SUPPORTING
SUSTAINABLE
BUSINESSES PRACTICES
THAT SAFEGUARD
NATURAL FORESTS.**

The road to banks implementing fully robust forest-friendly investment policies is long, but worthwhile and essential. This latest research has identified key policy gaps and areas that can be improved. As lenders and capital raising agents banks have an important role to play in supporting sustainable businesses practices that safeguard natural forests. Our findings and recommendations can be applied not just to the Amazon but to other forest biomes as well.

As a starting point, the assessment questions used in this study set a benchmark for a responsible investment policy. Because our analysis was based primarily on our own interpretation of publicly available policy texts, some institutions may actually have more robust policies in practice. There is a strong case for more transparency and better disclosure from banks: clients and the wider public should have easy access to information about banks' forest policies, including lending criteria and enforcement plans.

WWF has a strong tradition of working with financial institutions to develop risk tools and improve sector policies. We encourage all banks, including the ones not listed in this study, and across all regions, to reach out to us and work together to improve forest policies and manage the risks – including financial and reputational - associated with tropical deforestation in banking portfolios.

The most important actions that we believe banks can take are grouped in three categories on the following pages:

1. COMMITMENTS

We encourage banks to join initiatives and platforms where they can exchange information and experiences with other financial institutions and participate in efforts to develop collective policies for specific issues and sectors, such as UN-PRI, UNEP-FI, Equator Principles, Natural Capital Declaration, the BEI, and the Soft Commodities Compact.

Global initiatives and platforms have continued to evolve and develop over the last few years. As these efforts are more firmly established, the engagement opportunity for financiers has improved and all parties will benefit from greater participation. This is quite different to just a few years ago, when goals and strategies were less developed, making now the ideal time to re-double efforts.

The Natural Capital Declaration, for instance, has recently launched a Soft Commodity Forest-risk Assessment (SCFA) Tool: a lending and investment policy tool for financial institutions to reduce the deforestation risk caused by the unsustainable production, trade, processing and retail of soft commodities, especially soy, palm oil and beef³⁵. Banks and other investors are encouraged to use the self-assessment tool to inform and improve their policies, taking into account impacts throughout their entire supply chain.

The relatively new Soft Commodities Compact, resulting from a collaboration between the BEI and the Consumer Goods Forum (CGF) with advice from WWF, has potential to transform supply chains and help clients achieve zero net deforestation by 2020. We encourage all banks to sign up to this initiative and, in particular, participate in dialogues that aim to understand the particularities of each country and the application of the Compact to different national contexts. WWF-Brazil, for instance, is working in this area and encourages further participation from relevant players in the Brazilian market.

BNDES and the China Development Bank – two of the largest development banks in the world - are not signatories to the Equator Principles, which is unfortunate particularly considering that both banks are involved in the financing of environmentally controversial projects in the Amazon biome, such as hydroelectric dams in Brazil and oil projects in Ecuador. We encourage these institutions to improve disclosure and transparency around minimum standard for environmental and social due diligence. They should follow not only the International Finance Corporation (IFC) model on Performance Standards on all projects that they finance, but also the IFC's provisions on transparency and accountability.

This research also identified few references to explicit requirements for customers to adhere to international standards, initiatives and principles, such as the Global Reporting Initiative and the OECD Guidelines for Multinational Enterprises. It should be standard practice for all banks to require good reporting from all companies they lend to or invest in. The OECD Guidelines, for instance, provide guidance for responsible business conduct in areas such as environment and human rights, and have an important dispute resolution mechanism for resolving conflicts regarding alleged misconduct.

Where credible agro-commodities standards exist, banks should encourage clients to obtain independent verification or certification to such standards as pre-conditions for financing. In some cases, audit costs can be high, particularly for small producers, and banks should work with clients and determine actions to achieve such verification or certification over an appropriate period of time.

In the case of FSC certification, for instance, a recent WWF cost-benefit analysis on a cross-section of forest operators found that companies that trade in tropical timber, as well as small or medium enterprises, regardless of geography, can benefit significantly from attaining FSC certification through price premiums and increased efficiency³⁶. This shows that while the investment costs of entering into a FSC certification process can be considerable, the investment can be good for the bottom line and should, therefore, be encouraged and favoured by banks. A similar study that looked at producing sustainable palm oil under the guidelines set out by the Roundtable on Sustainable Palm Oil (RSPO) also found that the economic benefits outweigh the financial costs of compliance³⁷. In addition, these certification schemes help ensure the quality of management and efficiency gains, that can result in higher profits and fewer risks to investment. Banks can even improve credit ratings for those with better management.

However, these voluntary initiatives are desirable but not sufficient: moving away from voluntary commitments, banks need to strengthen their policies and close the gaps left by non-binding instruments.

2. SECTOR AND CROSS-SECTOR POLICIES

Deforestation in the Amazon biome is a complex issue made of interconnections between many sectors and players – an understanding that is often missing from bank policies at the moment. Banks need to adopt and implement more stringent cross-sector requirements to avoid and mitigate forest and biodiversity loss as a result of companies' operations in different sectors in the Amazon biome.

We encourage financial institutions to develop clear no-go policies and demand full transparency from clients and potential clients when it comes to financing activities that are prohibited in or adjacent to protected areas. This is very relevant in the Amazon biome, where many hydrocarbon blocks currently overlap with protected natural areas and indigenous territories, particularly in Peru, Bolivia, and Ecuador.

Particularly for destructive industrial activities within or adjacent to natural World Heritage sites, banks should adopt exclusion criteria for finance or advisory services for key sectors, including forestry, agribusiness, mining, oil and gas, infrastructure, etc.

3. ENFORCEMENT AND MONITORING

Embedding sustainability in lending practices is clearly not a simple box-ticking exercise. Good policies need to be enforced on the ground, which requires strong monitoring and implementation checks.

Monitoring needs to encompass the whole supply chain and not just direct sales. For instance, monitoring only direct sales to meatpacking companies leaves the supply chain open to cattle laundering, where cattle may be reared in deforested land but sold to other compliant farms before they arrive at slaughterhouses³⁸. Banks could encourage big companies in particular to play a role in driving traceability down their own supply chains and report on it – small to medium sized companies selling produce grown on land converted illegally have to sell to someone.

Investors need good information to be able to make informed decisions: good disclosure and reporting standards from clients is paramount. The Global Reporting Initiative and the OECD Guidelines for Multinational Enterprises are some of the international frameworks that can serve as strong starting points.

In some cases, whilst critical risks associated with forests are described in financial institutions' policies, it is not clear how these policies are implemented in practice and how adherence of banks' customers is being verified. Clear criteria for due diligence checks and possible consequences in case of noncompliance should be part of comprehensive environmental, social and governance (ESG) policies.

Banks should also develop clear wording on consequences for clients that fail to comply with their policy standards and are found to be involved in deforestation or forest degradation.

GLOSSARY OF TERMS

Banking Environment Initiative (BEI): Coalition of large banks formed in 2010 with the aim to lead the banking industry in collectively directing capital towards environmentally and socially sustainable economic development.

Consumer Goods Forum: A global industry network that brings together CEOs and senior management of over 400 retailers, manufacturers and service providers. Its strategic work is built on five pillars that underpin their voluntary collaborative work along the value chain for consumer goods: Emerging Trends; Sustainability; Safety & Health; Operational Excellence; and Knowledge Sharing & People Development.

Deforestation: For the purposes of this study we define deforestation as the conversion of natural ecosystems to other land uses such as tree plantations, agriculture, pasture, water reservoirs, extractive industries, and urban areas but excludes timber production areas managed to ensure the forest regenerates after logging.

Equator Principles: A risk management framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects. It is primarily intended to provide a minimum standard for due diligence to support responsible risk decision-making. The principles have been officially adopted by 83 Equator Principles Financial Institutions (EPFIs) in 36 countries, covering over 70 percent of international Project Finance debt in emerging markets. The Equator Principles apply globally, to all industry sectors and to four financial products: Project Finance Advisory Services; Project Finance; Project-Related Corporate Loans; and Bridge Loans.

Forest degradation: It happens when changes within the forest negatively affect the structure or function of the stand or site, and thereby lower the capacity to supply products and/or ecosystem services. Forest degradation creates less resilient and less productive forests and is often the first step to deforestation: large canopy gaps can dry out rainforests leaving them vulnerable to fire; abandoned logging roads provide access to settlers; and authorities are often more willing to grant conversion permits in heavily logged forests.

Forest Stewardship Council (FSC): International, non-governmental organisation dedicated to promoting responsible management of the world's forests. It runs a global forest certification system with two key components: Forest Management and Chain of Custody certification.

Free prior and informed consent (FPIC): The principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy or otherwise use.

Global Reporting Initiative (GRI): An international independent standards organization that helps businesses, governments and other organizations understand and communicate their impacts on issues such as climate change, human rights and corruption.

GTPS (Brazilian Roundtable on Sustainable Livestock): Created in 2009 and composed of representatives from different segments that make up the beef value chain in Brazil, the GTPS helps finance a program for the application and dissemination of good management practices, incentives for producers, progress indicators and promotional mechanisms. Members include industry representatives and related associations, ranchers and their associations, retailers, input suppliers, banks, civil society organizations, research centres and universities.

High Carbon Stock (HCS): A methodology that distinguishes forest areas for protection from degraded lands with low carbon and biodiversity values that may be developed. The main novelty of the HCS approach is its methodology for separating HCS areas (viable natural forest) from non-HCS areas (degraded land). In practical terms the two approaches – HCV and HCS – overlap substantially, and indeed, HCS explicitly incorporates the findings of an HCV assessment.

High Conservation Value (HCV): Landscapes with environmental and/or social values of outstanding significance or critical importance. The HCV concept serves as a generic, globally applicable standard for identifying and safeguarding these values in responsible land use and management. The definitions, research, and implementation around HCV are housed in the HCV Resource Network (www.hcvnetwork.org).

International Finance Corporation (IFC): The private sector lending arm of the World Bank Group, providing financial services to businesses investing in the developing world. The IFC's Performance Standards, which are part of their Sustainability Framework, define clients' responsibilities for managing environmental and social risks and have become globally recognized as a benchmark in the private sector.

Natural Capital Declaration (NCD): A finance sector initiative, endorsed at CEO-level, to integrate natural capital considerations into loans, equity, fixed income and insurance products, as well as in accounting, disclosure and reporting frameworks.

OECD Guidelines for Multinational Enterprises: Recommendations addressed by governments to multinational enterprises operating in or from adhering countries. They provide voluntary principles and standards for responsible business conduct in areas such as employment and industrial relations, human rights, environment, information disclosure, combating bribery, consumer interests, science and technology, competition, and taxation. The Guidelines were first adopted in 1976 and have been reviewed 5 times since. They are the only government-backed international instrument on responsible business conduct with a built-in grievance mechanism.

Ramsar sites: Wetlands of international importance designated under the Ramsar Convention. The convention is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.

Roundtable on Sustainable Palm Oil (RSPO): A multi-stakeholder non-profit group founded in 2004 with the objective of promoting the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders. It was established by WWF and a small group of business partners as a result of a global call for sustainably produced palm oil.

Soft Commodities Compact: Client-led initiative formed through extensive collaboration between the Banking Environment Initiative (BEI) and the Consumer Goods Forum (CGF), with advice from WWF, with the aim to mobilise the banking industry to help transform soft commodity supply chains, thereby helping corporate clients to achieve zero net deforestation by 2020.

UN Global Compact: A United Nations initiative to encourage businesses worldwide to adopt sustainable and socially responsible policies, and to report on their implementation. A principle-based framework for businesses, stating ten principles in the areas of human rights, labour, the environment and anti-corruption.

World Heritage Site: A place listed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as being of special cultural or physical significance. The list of sites is maintained by the international World Heritage Programme administered by the UNESCO World Heritage Committee, composed of 21 UNESCO member states which are elected by the General Assembly.

Zero net deforestation: It acknowledges that some forest loss could be offset by forest restoration. Zero net deforestation is not synonymous with a total prohibition on forest clearing. Rather, it leaves room for change in the configuration of the land-use mosaic, provided the net quantity, quality and carbon density of forests is maintained. It recognizes that, in some circumstances, conversion of forests in one site may contribute to the sustainable development and conservation of the wider landscape.



ENDNOTES

1. WWF 2015.
2. Ibid.
3. Ibid.
4. Ibid.
5. Ibid.
6. Walker, Patel and Kalif 2013.
7. Pacheco 2012; Arima et al. 2011; Lambin and Meyfroidt 2011; Barona et al. 2010.
8. Earth Observatory 2014; Agence France Presse 2013; KPMG International 2013.
9. Kirby 2014; REDD Monitor 2014.
10. Ibid.
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12. WWF 2014; Pacheco 2012; FAO 2014.
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14. Alencar and Pientokowski 2014.
15. Macedo and Castello 2014.
16. WWF 2015b.
17. Barber et al. 2014.
18. RAISG 2013.
19. Ibid.
20. Ibid.
21. Ibid.
22. Ibid.
23. GREENPEACE UK 2015.
24. Britaldo et al. 2014.
25. The definition and assessment of HCS forests is a relatively new topic. The HCS Approach Steering Group has launched in March 2015 a 'HCS Approach Toolkit: No Deforestation in Practice'. It is designed to standardise the methodology and to make it available to all practitioners. The Steering Group welcomes input on its implementation across different tropical regions in order to strengthen and refine the methodology.
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28. RAISG, 2013.
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