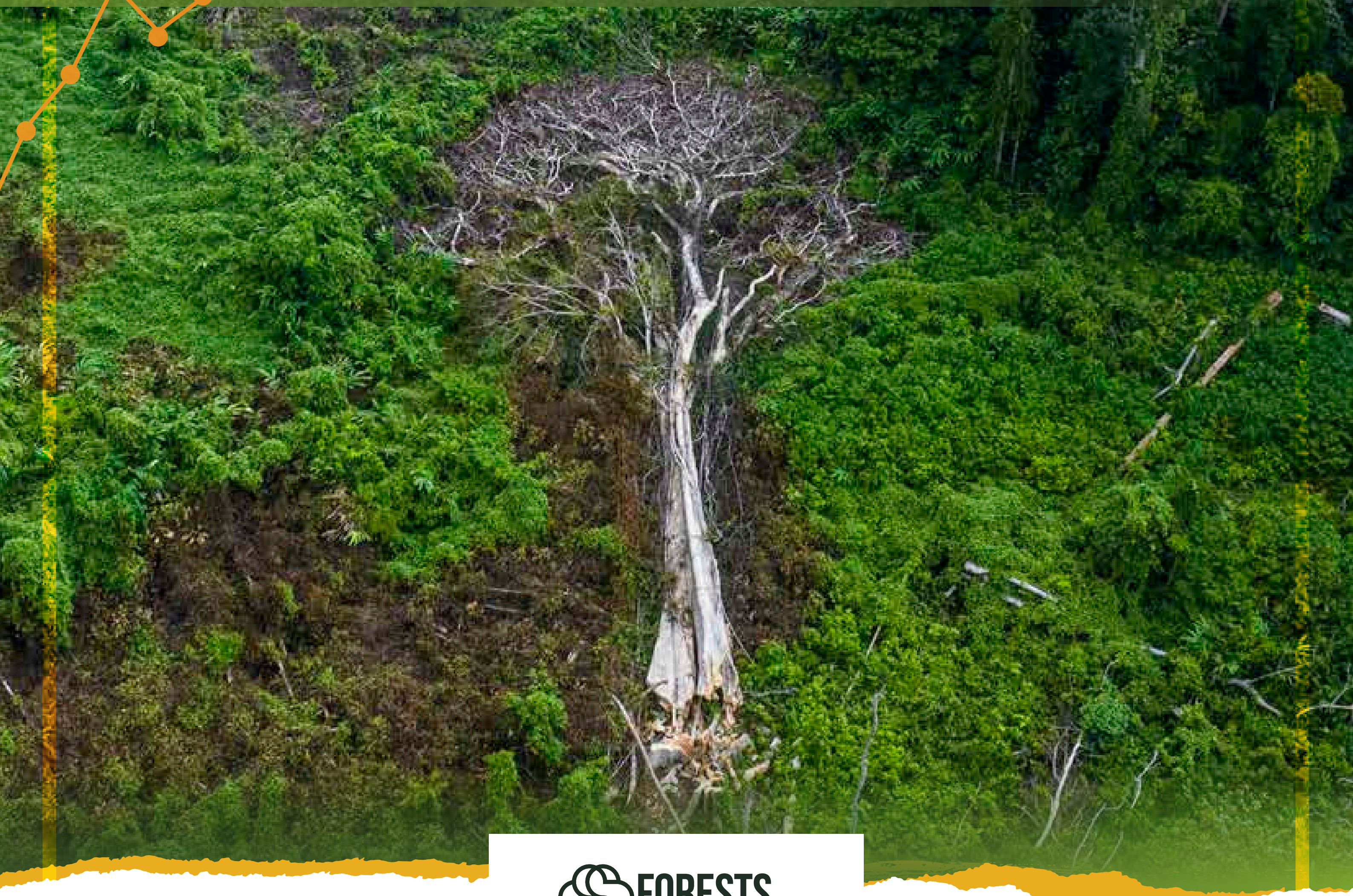
Banking on BIODIVERSITY COLLAP$E 2025

After ten years of paper promises, it's time to regulate finance



FORESTS & FINANCE

RAINFOREST ACTION NETWORK · TuK INDONESIA · Profundo Research & advice · AMAZON WATCH · MILIEU DEFENSIE FRIENDS OF THE EARTH NETHERLANDS

Centre pour l'Environnement et le Développement · Repórter Brasil · Mining Observatory · BANKTRACK · SAHABAT ALAM MALAYSIA · Friends of the Earth United States

Banking on BIODIVERSITY COLLAP$E 2025

After ten years of paper promises, it's time to regulate finance

CONTENTS

PHOTO: Paralaxis / Alamy
COVER: Paul Hilton / RAN

EXECUTIVE SUMMARY

As leaders gather in Brazil for COP30, life on Earth hangs in the balance. Forests and nature, too often treated as peripheral, are now central to the global policy agenda. In the decade since the Paris Agreement, banks have poured over USD 429 billion into forest-risk commodities — of which USD 72 billion was in the last 18 months. Despite high-profile voluntary initiatives such as the Glasgow Financial Alliance for Net Zero, their principal effect has been to delay binding regulation while harmful finance has surged. Net Zero Alliances have fractured, exposing the limits of voluntary action — with little to no real world impact to show for it.

In 2024 alone, the world lost 6.7 million hectares[1] of primary rainforest, driving biodiversity collapse and pushing us further off track from Paris and the Global Biodiversity Framework. More than half of this loss was caused by fires made worse by record heat. The World Meteorological Organization confirmed 2024 as the hottest year on record, and the first to breach the Paris target of 1.5°C warming above pre-industrial levels. Yet for people living in the tropics, new research[2] shows the reality is even harsher with 28,330 heat-related deaths a year linked to deforestation over the last 20 years. The loss of shade, reduction in rainfall and increased risk of fires due to deforestation causes localised temperature rises with severe impacts.

Our analysis makes one thing clear: voluntary approaches have failed. Despite better data, improved disclosure, and enhanced risk frameworks, major financial institutions are still banking on biodiversity collapse. A handful of agribusiness giants dominate supply chains for soy, palm oil, beef, and pulp – and their financiers continue to fuel and profit from this expansion. Even where real-time satellite monitoring tools can be used to monitor the impact of financial institutions' portfolios and expose non-compliance with No Deforestation, No Peatland and No Exploitation standards, banks and investors remain complicit. They are choosing profit over life, time after time.

This decade of self-regulation has not slowed destructive finance. This was not technical failure — it was the political choice to let finance govern itself. Voluntary pledges have failed to shift capital or prevent deforestation. As tropical forest loss now destabilizes rainfall, food systems and economic stability, the gap between rhetoric and reality has become indefensible. To deliver on the promises of the Paris Agreement and the Global Biodiversity Framework, governments must now close the accountability gap,[3] making it unlawful for banks and investors to profit from deforestation and rights violations. The time for paper promises has passed; the next decade must be defined by strong financial regulation, accountability, enforcement, and justice.

KEY FINDINGS

Investors have increased their exposure to forest-risk commodity companies by USD 7.8 billion since the Paris Agreement, rather than withdrawing — signalling continued expansion, not retreat.

As of **September 2025,** investors held **USD 42 billion** in bonds and shares across these companies — led by **Permodalan Nasional Berhad (USD 3.8 billion), Employees Provident Fund (USD 3.5 billion)** and **Vanguard (USD 3.4 billion).**

Five financial centres dominate this financing: the **United States (USD 15.9 billion), Malaysia (USD 9 billion), Brazil (USD 2.8 billion), Japan (USD 2.6 billion)** and the **United Kingdom (USD 1.9 billion).**

Banks have also increased their direct financing, providing **USD 429 billion in loans and underwriting** to tropical forest-risk sectors since the Paris Agreement — led by **Banco do Brasil, Sicredi, Bradesco, Itaú Unibanco, Caixa Econômica Federal, Santander** and **Banco do Nordeste do Brasil.**

Forest-risk credit rose 35% between 2016 and 2024, growing from **USD 35 billion to USD 47.1 billion** — while banks publicly claimed to be aligning with climate and nature goals.

Half of the top 30 banks actually increased their exposure, including extreme surges from **Scotiabank (+717%), BCA (+496%), Banco do Nordeste do Brasil (+295%)** and **Banco da Amazônia (+283%).**

FORESTS & FINANCE

ABOUT US

Forests & Finance is an initiative by a coalition of campaign and research organisations including **Rainforest Action Network**, **TuK Indonesia**, **Profundo**, **Amazon Watch**, **Milieudefensie**, **CED Cameroon**, **Repórter Brasil**, **Observatório da Mineração, BankTrack**, **Sahabat Alam Malaysia**, and **Friends of the Earth US**. Collectively we seek to prevent financial institutions from facilitating environmental and social abuses common in forest risk commodities. We seek to achieve this through improved financial sector transparency, policies, systems and regulations.

PHOTO: Paul Hilton / RAN

FOREST-RISK INVESTMENT TRENDS

As of September 2025, institutional investors held USD 42 billion in bonds and shares in over 191 forest-risk commodity companies. This investment is split between the three tropical forest basins with 51% (USD 21 billion) in South America; 47% (USD 19.7 billion) in Southeast Asia; and 2% (USD 936 million) in Central and West Africa. The pulp and paper sector received the most investment in this period securing USD 17 billion, followed by palm oil with USD 16.8 billion.

SHAREHOLDER ANALYSIS: TEN YEARS SINCE PARIS

Forests & Finance conducted a new analysis of investor performance in the decade after the Paris Agreement to assess efforts to align finance with climate action. By tracking actual portfolio values and comparing with the value that a baseline 2016 portfolio would have if its shares were unchanged, we were able to identify how investors were orienting their portfolios.

Overall, shareholding in forest-risk commodity companies rose by USD 7.8 billion compared with the 2015 Q4 baseline. This means that in the decade following the Paris Agreement — when the financial sector has portrayed itself as a catalyst for climate action — investors have actually increased their support for sectors that drive deforestation. Forests & Finance assessments[4] of financial institutions' forest-risk policies over the decade has also raised alarm bells as the average score for the world's largest investors was just 15% in 2023. Finance without responsibility cannot support a sustainable economy within the planetary boundaries.

The largest changes in forest-risk shareholding since 2016 were identified for three of the six commodities we track. These were beef, palm oil, and pulp and paper. Our analysis showed that pulp and paper increased the most against the baseline showing an increase of investment positions of USD 4.9 billion. This was followed by palm oil which received an increase in investments of USD 4.6 billion between 2015-Q4 and 2025-Q3, though investment was elevated for several years between 2018 and 2021. Investments in the beef sector actually reduced with investors shedding USD 2.4 billion in investments when compared to baseline development by 2025-Q3.

Graph 1: Forest-risk Shareholding Baseline vs Actual Since Paris (2015 Q4 - 2025 Q3)

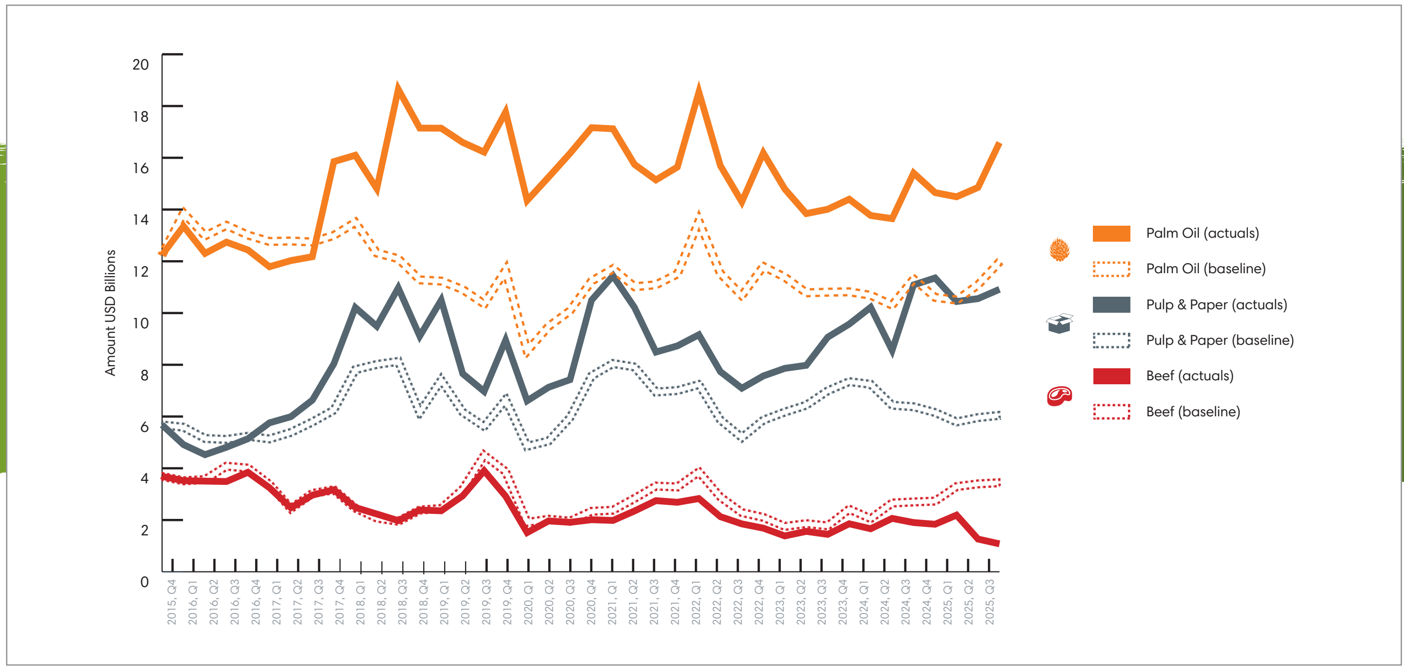
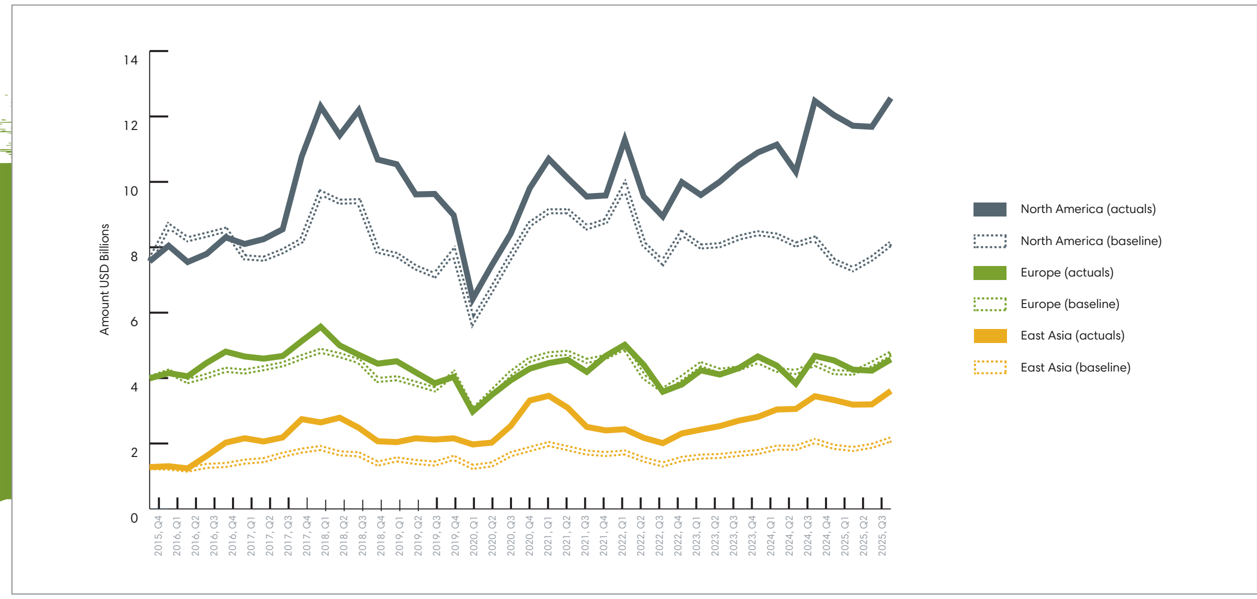


PHOTO: Paralaxis / Getty Images

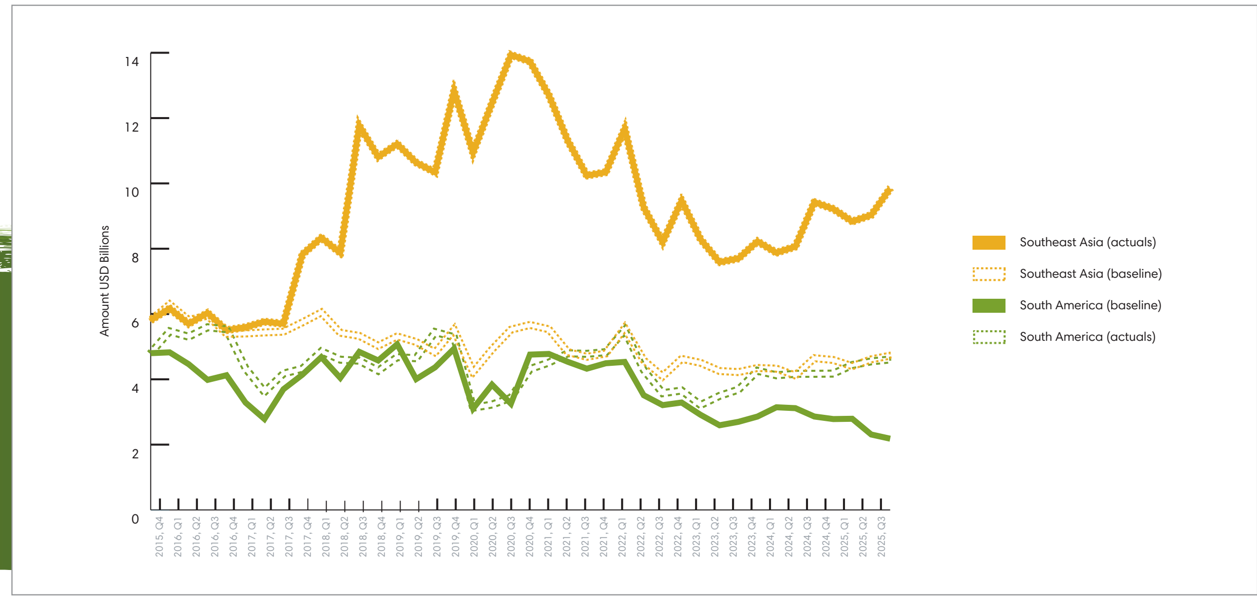
A comparative analysis of forest-risk shareholding investment trends in the financial center regions shows that European investors have decreased their exposure to forest-risk commodities companies slightly (USD 179 million between 2015-Q4 and 2025-Q3). However, at USD 4.6 billion, these investments are still significant. North American investors, on the other hand, have doubled down, increasing their forest-risk investments by USD 4.5 billion compared to the baseline. East Asian peers also increased their investments, by a smaller yet still significant USD 1.5 billion.

Graph 2: Financial Centers: Forest-risk Shareholding Baseline vs Actual Since Paris (2015 Q4 - 2025 Q3)



Investments by institutions in producer regions show notable trends. Southeast Asian investors have increased their investment in forest-risk companies by USD 5.1 billion between 2015-Q4 and 2025-Q3. Their South American peers, on the other hand, have decreased their investments in forest-risk companies by USD 2.4 billion compared to the baseline. This may, in part, be due to mergers (e.g. Marfrig and BRF), or the listing of JBS on the New York Stock Exchange, completing its dual listing corporate restructure.

Graph 3: Producer Regions: Forest-risk Shareholding Baseline vs Actual Since Paris (2015 Q4 - 2025 Q3)



The league table on page 8 shows the ranking of the largest thirty investors based on their forest-risk shareholding between 2016 and September-2025. The five largest investors have all increased the value of their forest-risk shareholdings between 2016 and 2024, though there are some downward trends for the BNDES, Dimensional Fund Advisors and Capital Group over the last four years.

LEAGUE TABLE: Investing in **Biodiversity Collapse**

The thirty largest shareholders based on their September 2025 holdings in 191 forest-risk commodity companies operating in the tropical forest basins. It shows historical shareholdings for 2016 to 2024 based on year-end positions, and the September 2025 position. Figures shown in USD millions.

Rank	Investor	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	**Permodalan Nasional Berhad** (Malaysia)	1,353	1,061	1,322	5,049	6,110	5,876	4,397	4,693	3,844	3,717	3,723
2	**Employees Provident Fund** (Malaysia)	2,250	2,089	3,893	3,253	3,706	4,342	3,399	2,654	2,328	3,055	3,492
3	**Vanguard** (United States)	908	1,138	2,067	1,939	1,769	1,871	1,689	1,685	2,038	2,595	2,606
4	**BlackRock** (United States)	1,220	1,689	1,898	1,967	1,636	1,920	1,746	1,684	1,931	1,902	2,119
5	**KWAP Retirement Fund** (Malaysia)	564	573	985	924	1,146	1,309	991	864	769	1,065	1,057
6	**Government Pension Fund Global (GPFG)** (Norway)	481	592	869	504	824	781	940	598	666	617	658
7	**State Street** (United States)	176	194	284	269	266	285	326	405	503	562	602
8	**Dimensional Fund Advisors** (United States)	626	659	1,375	1,216	679	504	459	482	543	534	600
9	**BNDES - Brazilian Development Bank** (Brazil)	3,148	2,840	2,287	2,889	3,322	1,316	1,302	641	750	878	482
10	**Geode Capital Holdings** (United States)	36	57	87	106	128	167	213	236	262	443	455
11	**Fidelity Investments** (United States)	171	212	351	391	498	755	459	369	490	438	401
12	**Silchester International Investors** (United Kingdom)	337	454	388	275	267	184	326	361	403	394	378
13	**UBS** (Switzerland)	154	194	172	122	169	517	413	337	387	378	364
14	**Capital Group** (United States)	616	385	647	827	98	205	370	582	536	480	360
15	**Ackermans & van Haaren** (Belgium)	139	159	247	185	202	179	227	239	226	226	340
16	**Nomura** (Japan)	84	103	180	143	167	177	189	166	228	263	307
17	**Berkshire Hathaway** (United States)						88	100	136	219	251	303
18	**Malaysian Hajj Pilgrims Fund** (Malaysia)	340	312	343	120	183	152	202	219	221	294	292
19	**T. Rowe Price** (United States)	132	156	181	276	246	202	221	190	275	148	285
20	**Naman Capital** (Brazil)				256	256	296	282	243	305	263	258
21	**Kopernik Global Investors** (United States)	16	38	81	43	52	85	167	157	186	197	254
22	**Charles Schwab** (United States)	27	38	60	66	89	104	117	119	146	175	250
23	**Schroders** (United Kingdom)	214	262	195	205	126	126	138	106	180	203	244
24	**Prudential Plc** (United Kingdom)	183	234	186	269	282	353	231	160	258	275	242
25	**State Farm** (United States)	131	163	113	181	170	182	218	299	233	199	235
26	**TIAA** (United States)	106	100	104	91	85	89	112	100	108	256	235
27	**Sumitomo Mitsui Trust** (Japan)	60	66	257	91	199	207	194	105	165	129	218
28	**AIA Group** (Hong Kong)	77	100	98	72	144	346	182	202	183	213	213
29	**Principal Financial Group** (United States)	216	279	388	516	396	542	347	221	190	234	212
30	**Oversea-Chinese Banking Corporation** (Singapore)	191	207	383	308	416	937	499	281	237	252	200

FOREST-RISK FINANCING TRENDS

Forests & Finance has analysed credit flows to over 300 forest-risk commodity companies operating in the three tropical forest basins for the last ten years. During what should have been a decade of climate action, our research shows that banks have provided USD 429 billion in credit between 2016 and mid-2025. Much of this finance has been extended without adequate forest and human rights protections. Our assessment of bank policies for these sectors shows persistent weaknesses, vague commitments and glaring loopholes on policy scope and coverage beyond project finance.

Graph 4: Forest-risk Credit Trends by Sector (2016-2024)

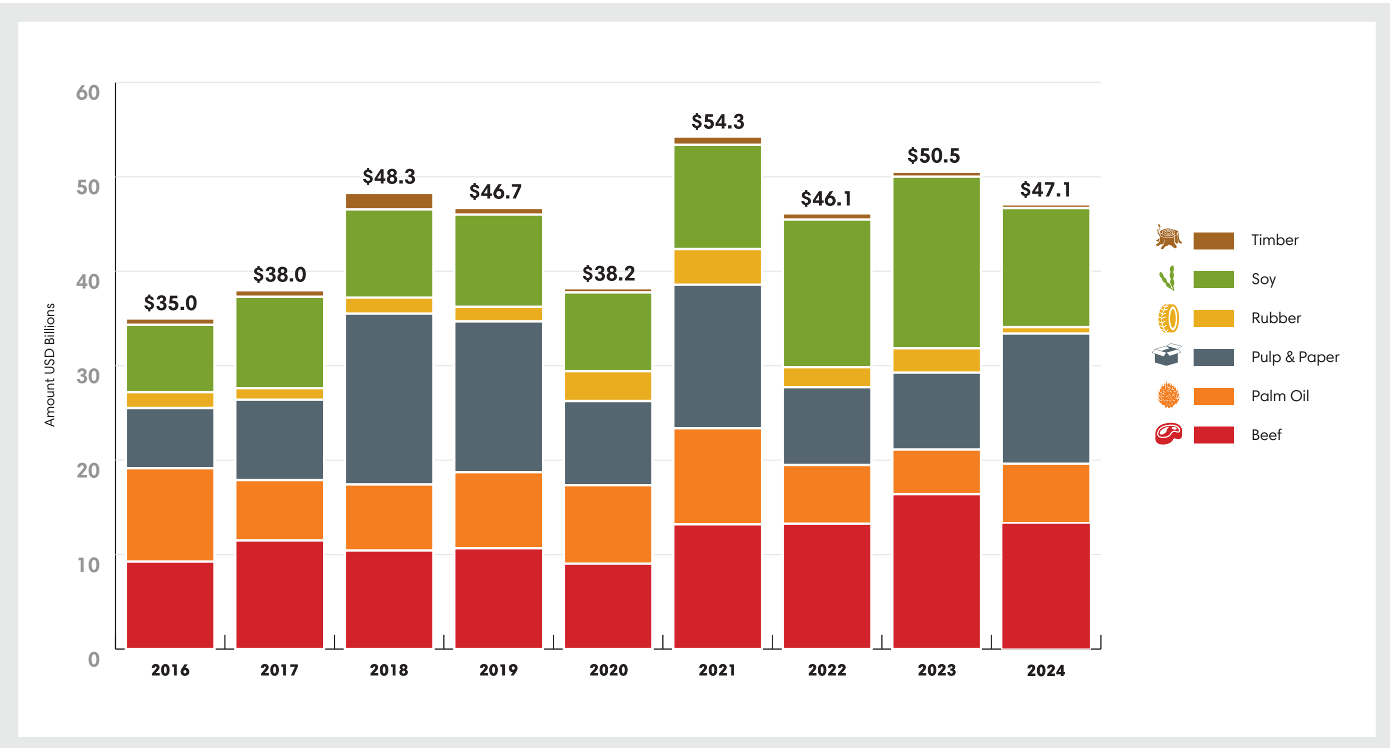


PHOTO: guenterguni/ iStock

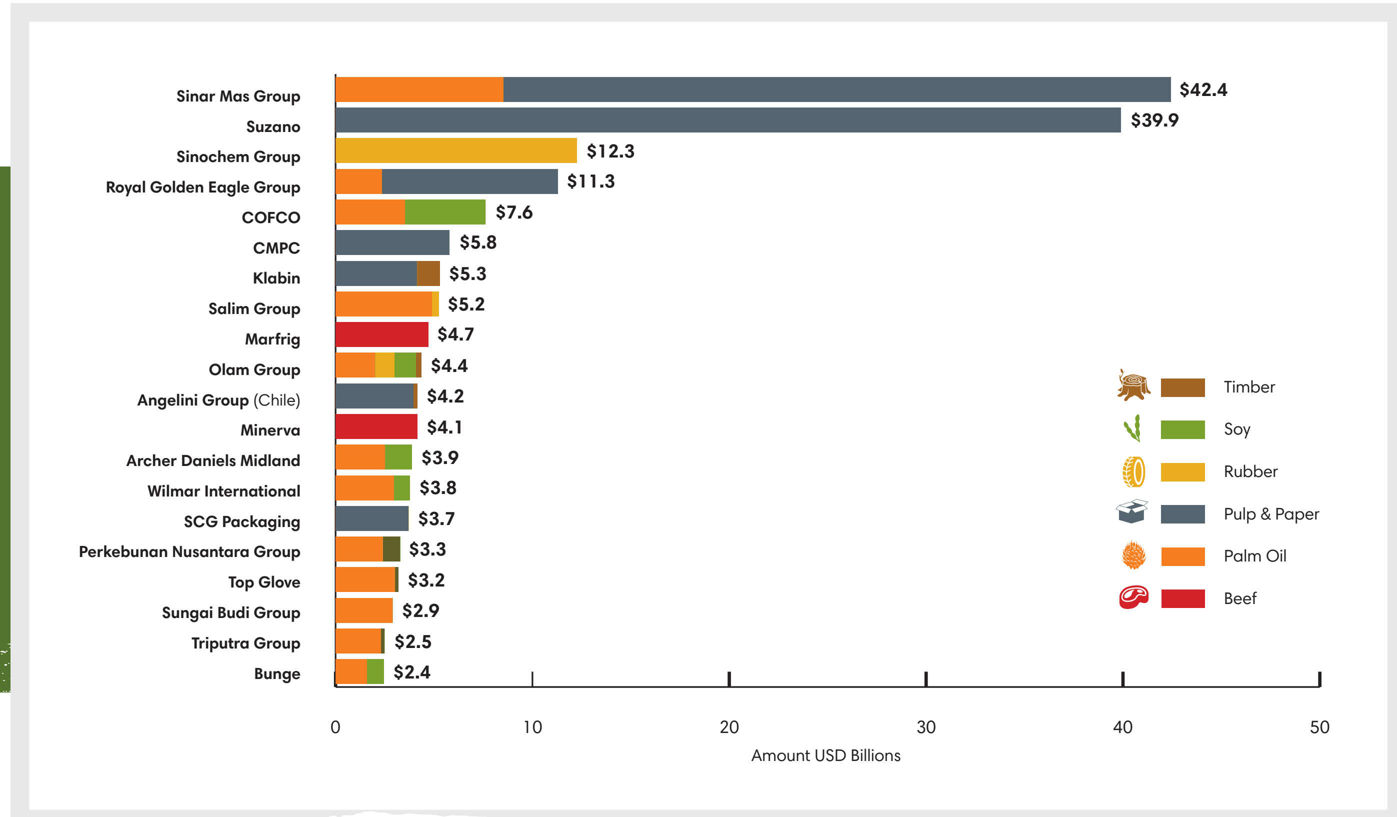
Since the Paris Agreement was signed in December 2015, the lowest year on record is 2016 at USD 35 billion. Between 2016 and 2024, financing for forest-risk commodities has increased by 35% to USD 47.1 billion. Apart from the Covid19 pandemic induced dip to USD 38.2 billion in 2020, the last five years have included record highs in 2021 and 2023 of USD 54.3 billion and USD 50.5 billion respectively.

The ranking of the largest thirty banks financing forest-risk commodities are listed in the league table on page 12. Half of these banks have increased their financing since 2016, nine banks have increased by over 100%. The largest increase was Scotiabank (717%), Bank Central Asia (496%), Banco do Nordeste do Brasil (295%), Banco da Amazonia (283%), and Caixa Economica Federal (226%).

During this period, just under half — USD 206.7 billion — of the forest-risk credit tracked by Forests & Finance was provided through the Brazilian Agriculture Finance Program. Through this governmental program, banks can provide a variety of rural credit lines to farmers, often with subsidized interest rates and other favourable conditions. Beef and soy are the two sectors that attract most of the rural credit. Since 2016, total credit values to both sectors have increased year-on-year in Brazilian reais, with exception for soy in 2024, which saw a drop compared to 2023. The Forests & Finance data is presented in United States dollars, and due to the fluctuations in the exchange rate, the data also shows year-on-year drops in other years, including for beef in 2024.

The largest 20 companies receiving credit between 2016 and mid-2025 secured USD 172.8 billion and are largely active in palm oil and pulp and paper sectors. Pulp giants Sinar Mas Group (USD 42.4 billion) and Suzano (39.9 billion) lead by a significant margin. Indonesian Sinar Mas Group's pulp division has an egregious track record[5] of large-scale deforestation and unremediated social conflicts. Brazilian Suzano operates[6] an environmentally devastating industrial plantation model and has been implicated in the displacement and forced evictions of traditional and Indigenous communities.

Graph 5: Largest 20 Forest-risk Companies Receiving Credit, by Sector (2016-2025, JULY)



LEAGUE TABLE: Banking on **Biodiversity Collapse**

The thirty largest banks provided USD 327.3 billion in loans and underwriting to forest-risk commodity sector companies operating in the tropical forest basins, between January 2016 and July 2025. Figures shown in USD millions.

Rank	Bank Name	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	TOTAL (2016-2025)	VARIANCE (2016-2024)
1	**Banco de Brasil** (Brazil)	5,684	9,930	9,005	10,048	7,467	9,992	13,341	14,745	11,751	7,854	99,816	107%
2	**Sicredi** (Brazil)	1,084	1,520	1,623	1,839	1,707	2,165	2,308	2,948	2,289	2,023	19,506	111%
3	**Bradesco** (Brazil)	2,098	1,758	2,837	1,881	1,295	1,534	1,834	1,854	1,389	1,215	17,694	-34%
4	**Itaú Unibanco** (Brazil)	1,101	1,323	818	1,602	846	1,138	1,397	2,286	2,305	1,734	14,550	109%
5	**Caixa Economica Federal** (Brazil)	548	666	584	435	605	1,165	3,187	3,135	1,789	689	12,804	226%
6	**Santander** (Spain)	1,136	1,842	1,092	1,744	855	1,062	906	1,768	890	593	11,888	-22%
7	**Banco do Nordeste do Brasil** (Brazil)	420	696	739	825	706	846	1,365	1,719	1,656	1,331	10,303	295%
8	**Rabobank** (Netherlands)	899	1,029	3,755	1,211	617	1,128	580	558	289	223	10,289	-68%
9	**JPMorgan Chase** (United States)	921	1,018	2,673	1,612	422	1,130	211	536	274	157	8,953	-70%
10	**Bank Mandiri** (Indonesia)	889	660	927	687	1,290	1,785	315	1,048	1,125	121	8,848	27%
11	**Banco da Amazonia** (Brazil)	267	494	567	777	713	983	1,177	1,286	1,022	1,026	8,312	283%
12	**Mizuho Financial** (Japan)	542	848	1,589	1,887	801	1,399	345	217	339	258	8,224	-37%
13	**Bank Central Asia** (Indonesia)	409	280	499	1,313	774	1,359	364	622	2,435	108	8,163	496%
14	**BNP Paribas** (France)	150	512	3,237	1,100	232	1,015	426	413	252	98	7,437	68%
15	**Mitsubishi UFJ Financial** (Japan)	448	870	1,129	658	795	1,385	629	390	844	224	7,373	88%
16	**Bank Rakyat Indonesia** (Indonesia)	1,109	481	274	1,524	534	1,538	314	268	823	5	6,871	-26%
17	**Sistema de Cooperativas de Crédito (Sicoob)** (Brazil)	432	477	498	488	477	628	871	1,099	917	814	6,701	112%
18	**Malayan Banking** (Malaysia)	1,717	586	905	578	90	738	952	408	431	253	6,656	-75%
19	**Bank Negara Indonesia** (Indonesia)	957	351	534	807	530	383	324	657	1,193	135	5,872	25%
20	**SMBC Group** (Japan)	423	477	942	965	376	1,263	370	247	574	171	5,809	36%
21	**Bank of America** (United States)	399	1,003	640	1,079	246	884	307	232	329	85	5,204	-17%
22	**CIMB Group** (Malaysia)	401	261	377	753	907	502	938	391	305	116	4,950	-24%
23	**Scotiabank** (Canada)	24	482	534	1,575	267	498	199	454	194	142	4,369	717%
24	**Oversea-Chinese Banking Corporation** (Singapore)	555	364	508	647	977	845	53	193	180		4,323	-68%
25	**HSBC** (United States)	668	779	403	560	144	562	460	226	138	136	4,076	-79%
26	**Citigroup** (United States)	407	584	499	394	829	430	212	232	292	45	3,923	-28%
27	**CITIC** (China)	341	66	479	262	683	786	389	343	418	32	3,798	22%
28	**Bank of China** (China)	575	104	254	238	525	733	419	260	344	225	3,677	-40%
29	**Industrial and Commercial Bank of China** (China)	528	185	367	490	435	401	235	364	402	166	3,574	-24%
30	**Safra Group** (Brazil)	229	346	274	244	159	284	526	897	173	187	3,319	-24%

RECOMMENDATIONS

At a decisive moment for the future of global financial governance, we call on policymakers, governments, and companies, including financial institutions, to commit to meaningful actions that genuinely protect and restore our natural world.

RECOMMENDATIONS FOR POLICYMAKERS

Fundamental financial sector transformation is critical for the achievement of the Paris Agreement and Global Biodiversity Framework goals. Governments should update their National Biodiversity Strategy and Action Plans (NBSAPs) to strengthen financial-sector regulations to support central banks, financial regulators and supervisors to include biodiversity and human rights criteria as core to their mandate. After reviewing financial regulations[7] relevant to tropical biodiversity loss in five important jurisdictions for forest-risk commodity financing: Brazil, China, the European Union, Indonesia and the United States, Forests & Finance puts forward these summary recommendations that are applicable to all countries, grouped by type of regulation:

Risk Management and Financial Stability: Financial institutions should be required to integrate biodiversity and human rights risks and impacts into their risk management processes at the corporate group level of their clients. They must develop transition plans with specific targets and hold board members accountable for risk management. Regulators should mandate higher capital reserves for high-risk activities. System-wide stress tests should also include biodiversity considerations.

Financial Market Functioning: Regulations should mandate regular disclosure of investment and loan portfolios, including exposure to biodiversity risks and impacts, with verifiable proof required for biodiversity-related claims. Financial products should be labelled based on their genuine sustainability impacts, and investment funds with harmful biodiversity impacts should be phased out.

Monetary Policy: Central banks should prioritize bonds from issuers making concrete and verifiable positive contributions to biodiversity and human rights in any quantitative easing programs and collateral frameworks. They should assess and address the contribution of their own investment portfolios to biodiversity and human rights impacts. They should also offer reduced interest rates to financial institutions investing in genuinely sustainable and socially just activities.

Money Laundering and Financial Crime: Biodiversity risks should be incorporated into due diligence and Know Your Customer processes. The financing of companies should be prohibited if they and their suppliers are not able to demonstrate clear adherence to all legal requirements in the areas where they operate. Financial institutions should be held accountable for crimes connected to the corporate groups that they finance, including those impacting biodiversity and human rights, and should be liable for remedy.

Corporate Disclosure: Annual public reporting on biodiversity and human rights risks and impacts should be required for companies under the common control of all medium and large corporations. This should include detailed, verifiable data on biodiversity and rights impacts, including geolocation data. All companies should be required to publish annual profit and loss statements and provide details on their funding sources and (legality of) their assets.

Stimulating Sustainable Activities: Expand taxonomies to include biodiversity, social and human rights criteria and include categories for inherently harmful sectors. Financial institutions should be required to align their portfolios accordingly. Create robust, transparent and verifiable criteria for finance that incentivises community-led sustainable land use and restoration.

Human Rights and Environmental Protection: Develop due diligence obligations for the financial sector to prevent the financing of embedded deforestation, forest degradation and human rights violations. Establish independent grievance and accountability mechanisms for affected communities and third parties to bring complaints against financial institutions.

Strengthening Institutions: Financial regulators to develop in-house expertise on biodiversity and human rights and establish inclusive stakeholder platforms to consult with Indigenous Peoples, civil society and other experts. Outcome-focused financial regulations that align with the objectives of the GBF and shift the economy away from harmful activities must be supported by a robust sanctions regime. These should include stringent penalties for non-compliance and mandatory obligations to fund mitigation and remedy efforts for affected communities and ecosystems.

PHOTO: Marizilda Cruppe / Greenpeace

ENDNOTES

1 https://gfr.wri.org/latest-analysis-deforestation-trends

2 https://www.theguardian.com/environment/2025/aug/27/deforestation-has-killed-half-a-million-people-in-past-20-years-study-finds

3 https://forestsandfinance.org/finreg-assessment-summary-2024

4 https://forestsandfinance.org/bank-policies/

5 https://www.banktrack.org/company/sinar_mas

6 https://www.banktrack.org/company/suzano

7 https://forestsandfinance.org/publications/bobc-2024-regulate-finance/

Voluntary approaches have failed. Despite better data, improved disclosure, and enhanced risk frameworks, **major financial institutions are still banking on biodiversity collapse.**

FORESTS & FINANCE

PHOTO: Leonard Spencer / iStock

PUBLICATION DATE: November, 2025