

Who pays the price? The cost of HSBC's climate damages

Annexes

Annex 1: Financial flows and emissions methodology

This section details the methodology used for the financial research and the calculation of emissions.

1.1 Financial flow research

This section details the methodology used for the financial research.

1.1.1 Scope of companies

This research focused on HSBC's financing for fossil fuel companies and forest-risk companies. The selection of fossil companies is based on those covered by Banking on Climate Chaos (BOCC) and Investing in Climate Chaos (IICC). The selection of forest-risk companies is based on those covered by Forests & Finance.

Banking on Climate Chaos (BOCC)

BOCC is a dataset of financing provided by banks in the form of loans and issuance underwriting services to companies engaged in fossil fuels. The selection of companies is based on globally recognized lists of fossil fuel companies – Global Coal Exit List (GCEL) and

Global Oil & Gas Exit List (GOGEL) - which are developed and maintained by urgewald. BOCC is developed by a group of partners including Rainforest Action Network, Profundo, Reclaim Finance, and urgewald.

Investing in Climate Chaos (IICC)

IICC is a dataset of investments in bonds and shares issued by companies engaged in fossil fuels in April/May 2024. The selection of companies is based on globally recognized lists of fossil fuel companies – GCEL and GOGEL. IICC is developed by a group of partners including urgewald, Profundo and Reclaim Finance.

Forests & Finance

The Forests & Finance database provides data on credit and investment flows going towards the 300 most important producers and traders of the six commodities which are responsible for most tropical deforestation: beef, palm oil, pulp & paper, rubber, soy and timber (forest-risk commodities).

These flows were identified using commercial financing databases, company reports and other company publications, filings in company registers, media reports and analyst reports. The Banco Nacional de Desenvolvimento Econômico e Social (BNDES - the Brazilian Development Bank) Transparency portal and Brazil's Central Bank portal were used to identify additional financial flows to forest-risk companies in Brazil.

1.1.2 Data collection

Data on loans and underwriting services provided by HSBC to companies engaged in fossil fuels was extracted from the 2024 edition of BOCC. The dataset covers the period from January 2016 to December 2023.

HSBC's investments in bonds and shares of companies engaged in fossil fuels were extracted from the 2024 edition of IICC. The dataset is up to date as of Q1 2024.

HSBC's loans and underwriting services to and investments in bonds and shares of companies active in forest-risk activities were extracted from the Forests & Finance dataset. The dataset is up to date as of September 2024.

1.1.3 Data sources

As mentioned in Section 1.1.2, HSBC's credit to and investment in fossil fuels and forest-risk commodities was extracted from existing datasets. These three datasets used different dataset sources based on the scope of the research:

Banking on Climate Chaos (BOCC)

BOCC was developed using financial databases Refinitiv and Bloomberg and project finance databases IJGlobal.

Investing in Climate Chaos (IICC)

IICC was developed using financial databases Refinitiv and Bloomberg, as well as fund

disclosures and SEC filings for a selection of pension and sovereign wealth funds.

Forests & Finance

Financial Databases Bloomberg, Refinitiv, TradeFinanceAnalytics, and IJGlobal, company reports (annual, interim, quarterly) and other company publications, company register filings, as well as media and analyst reports were used to identify corporate loans and underwriting facilities provided to the selected companies. Investments in bonds and shares of the selected companies were identified through Refinitiv, EMAXX, Bloomberg, as well as fund disclosures and SEC filings for a selection of pension and sovereign wealth funds at the most recently available filing date. The BNDES Transparency portal and Brazil's Central Bank portal were used to identify additional financial flows to forest-risk companies in Brazil.

1.1.4 Types of finance

This section describes the types of finance included in the research. Financial institutions can invest in companies through a number of modalities. Financial institutions can provide credit to a company. This includes providing loans and the underwriting of share and bond issuances. Financial institutions can also invest in the equity and debt of a company by holding shares and bonds. This section outlines the different types of financing, how they were researched and the implications for the study.

Corporate loans

The easiest way to obtain debt is to borrow money. In most cases, money is borrowed from commercial banks. Loans can be either short-term or long-term in nature. Short-term loans (including trade credits, current accounts, leasing agreements, et cetera) have a maturity of less than a year. They are mostly used as working capital for day-to-day operations. Short-term debts are often provided by a single commercial

bank, which does not ask for substantial guarantees from the company.

A long-term loan has a maturity of at least one year, but generally of three to ten years. Long-term corporate loans are in particular useful to finance expansion plans, which only generate rewards after some period of time. The proceeds of corporate loans can be used for all activities of the company. Often long-term loans are extended by a loan syndicate, which is a group of banks brought together by one or more arranging banks. The loan syndicate will only undersign the loan agreement if the company can provide certain guarantees that interest and repayments on the loan will be fulfilled.

- **Project finance**

One specific form of corporate loan is project finance. This is a loan that is earmarked for a specific project.

- **General corporate purposes / working capital**

Often a company will receive a loan for general corporate purposes or for working capital. On occasion while the use of proceeds is reported as general corporate purposes, it is in fact earmarked for a certain project. This is difficult to ascertain.

Share issuances

Issuing shares on the stock exchange gives a company the opportunity to increase its equity by attracting a large number of new shareholders or increase the equity from its existing shareholders.

When a company offers its shares on the stock exchange for the first time, this is called an Initial Public Offering (IPO). When a company's shares are already traded on the stock exchange, this is called a secondary offering of additional shares.

To arrange an IPO or a secondary offering, a company needs the assistance of one or more (investment) banks, which will promote the shares

and find shareholders. The role of investment banks in this process therefore is very important.

The role of the investment bank is temporary. The investment bank purchases the shares initially and then promotes the shares and finds shareholders. When all issued shares that the financial institution has underwritten are sold, they are no longer included in the balance sheet or the portfolio of the financial institution. However, the assistance provided by financial institutions to companies in share issuances is crucial. They provide the company with access to capital markets, and provide a guarantee that shares will be bought at a pre-determined minimum price.

Bond issuances

Issuing bonds can best be described as cutting a large loan into small pieces, and selling each piece separately. Bonds are issued on a large scale by governments, but also by corporations. Like shares, bonds are traded on the stock exchange. To issue bonds, a company needs the assistance of one or more (investment) banks which underwrite a certain amount of the bonds. Underwriting is in effect buying with the intention of selling to investors. Still, in case the investment bank fails to sell all bonds it has underwritten, it will end up owning the bonds.

(Managing) shareholdings

Banks can, through the funds they are managing, buy shares of a certain company making them part-owners of the company. This gives the bank a direct influence on the company's strategy. The magnitude of this influence depends on the size of the shareholding.

As financial institutions actively decide in which sectors and companies to invest, and are able to influence the company's business strategy, this research will investigate the shareholdings of financial institutions of the selected companies. Shareholdings are only relevant for stock listed companies. Not all companies in the study

are listed on a stock exchange. The company selection has tried to take this into account by including the major companies in the relevant sectors. However, some ownership forms may dominate in certain sectors under analysis. Additionally, some ownership forms are more prominent in some countries.

Shareholdings have a number of peculiarities that have implications for the research strategy. Firstly, shares can be bought and sold on the stock exchange from one moment to the next. Financial databases keep track of shareholdings through snapshots, or filings. This means that when a particular shareholding is recorded in the financial database, the actual holding, or a portion of it, might have been sold, or more shares purchased. Secondly, share prices vary from one moment to the next.

(Managing) investments in bonds

Banks can also buy bonds of a certain company. The main difference between owning shares and bonds is that owner of a bond is not a co-owner of the issuing company; the owner is a creditor of the company. The buyer of each bond is entitled to repayment after a certain number of years, and to a certain interest during each of these years.

1.1.5 Calculated elements

The financial data used in this report includes a number of calculated elements:

Financial institution financing contributions

Financial databases often record loans and issuance underwriting when these are provided by a syndicate of financial institutions. Company reports and publications, company register filings, and the media will also provide information on loans provided bilaterally, i.e. between one bank and the company in question. The level of detail per deal often varies. Some sources may omit the maturity date or term of the loan, the use of proceeds, or even the exact issue date.

Financial databases often do not report on the proportions of a given deal that can be attributed to the participants in deal. In such instances, this research calculated an estimated contribution based on the rules of thumb described below.

• Loans & underwriting services

Individual bank contributions to syndicated loans and underwriting (bond & share issuance underwriting) were recorded to the largest extent possible where these details were included in financial database, or company or media publications.

In many cases, the total value of a loan or issuance is known, as well as the number of banks that participate in this loan or issuance. However, often the amount that each individual bank commits to the loan or issuance has to be estimated.

In the first instance, this research attempted to calculate each individual bank's commitment on the basis of the fee they received as a proportion of the total fees received by all financial institutions. This proportion (e.g. Bank A received 10% of all fees) was then applied to the known total deal value (e.g. 10% x US\$ 10 million = US\$ 1 million for Bank A).

Where deal fee data was missing or incomplete, this research used the bookratio. The bookratio (see formula below) is used to determine the spread over bookrunners (the financial institutions leading the deal) and other managers.

Bookratio:

number of participants - number of bookrunners

number of participants - number of bookrunners

Table 1: Commitment to assigned bookrunner groups

Bookratio	Loans	Issuances
< 1/3	No differentiation*	No differentiation*
> 1/3	75%	75%
> 1/3	60%	75%
> 1.5	40%	75%
> 3.0	< 40%**	< 75%

* No differentiation between bookrunners and participants. Deal value is attributed equally among all participants.

** In case of deals with a bookratio of more than 3.0, we use a formula which gradually lowers the commitment assigned to the bookrunners as the bookratio increases. The formula used for this:

$$\frac{1}{\sqrt{\text{bookratio}}}$$

1.443375673

The number in the denominator is used to let the formula start at 40% in case of a bookratio of 3.0.

As the bookratio increases the formula will go down from 40%. In case of issuances the number in the denominator is 0.769800358.

• Shareholding

The number and values of shares held by financial institutions are reported in financial databases, they were not subject to adjustment.

• Bondholding

The number and values of bonds held by financial institutions are reported in financial databases, they were not subject to adjustment.

Segment adjusters

The Forests & Finance data includes segment adjusters. Segment adjusters are an estimated percentage of a company's operations in a specific activity, in order to estimate how much financing is directed towards this activity.

• Sources

Segment adjusters were developed using the segment reporting in annual reports to the fullest extent possible, complemented by further information from company publications and websites and estimations where necessary.

• Calculation

Segment adjusters were developed for all companies and every year for which financing was identified. Where no data could be identified

for one or multiple years, the segment adjuster from the most recent previous year was applied.

Where financing was identified at the subsidiary level, this research identified the segment activities using company publications. Where financing was identified for a financing vehicle, the group level adjuster was applied.

The following financial indicators were used in order of preference: segment capital expenditures / additions to non-current assets, segment liabilities, segment assets, segment revenues, and segment profit/loss.

• Example

This sub-section illustrates how a segment adjuster is developed for a company and applied to identified financing.

In July 2012, Rimbunan Hijau Group subsidiary Jaya Tiasa Holdings issued shares worth US\$104 million which were underwritten by CIMB Group and RHB Banking. CIMB underwrote US\$78 million, while RHB Banking underwrote US\$26 million.

Jaya Tiasa has four reportable operating segments: Logs Trading; Manufacturing; Oil Palm, and; Others. The timber adjusters

is based on Logs Trading and Manufacturing segments, as the latter is purely focused on wood products. The palm oil adjuster is based on the Oil Palm segment. Details for the segment additions to non-current assets / capital expenditures were available and thus used. Using these segment definitions and figures, 77% of Jaya Tiasa's capital expenditures were in palm oil in 2012, while 23% were in timber.

Therefore, US\$80 million of the US\$104 share issuance was attributed to palm oil, with the remaining US\$24 million attributed to timber. At the individual financial institution level, US\$60 million of CIMB's US\$78 million contribution was attributed to palm oil, while US\$18 million was attributed to timber. For RHB Banking US\$20 million was attributed to palm oil, while US\$6 million was attributed to timber.

Geographic adjusters

The Forests & Finance data includes geographic adjusters. Several of the selected companies are active in more than one geography. To account for this, geographic adjusters were developed for all companies and every year for which financing was identified. A similar approach for calculating geographic adjusters was used as with segment adjusters.

Where financing was identified at the subsidiary level, this research identified the location of its activities using company publications. Where financing was identified for a financing vehicle, the group level adjuster was applied.

• Sources

Geographic adjusters were developed using the segment, geographic and general reporting in annual reports to the fullest extent possible, complemented by further information from company publications and websites and estimations where necessary. Geographic adjusters were applied to segment adjusters.

• Calculation

The following financial indicators were used

in order of preference: geographic capital expenditures / additions to non-current assets, geographic liabilities, geographic assets, geographic revenues, and geographic profit/loss.

The combined segment and geographic adjusters were applied to each identified financial relationship identified.

Global South adjusters

For the fossil fuel companies HSBC provided loans & underwriting services to, or invested in the bonds and shares, this research calculated the proportion of business activities attributable to the Global South. The methodology was similar to that described above.

For companies headquartered in the Global South, the adjuster was set at 100%. For non-Global South companies, Global South adjusters were developed using the segment, geographic and general reporting in annual reports to the fullest extent possible, complemented by further information from company publications and websites and estimations where necessary. Geographic adjusters were applied to segment adjusters. The following financial indicators were used in order of preference: geographic capital expenditures / additions to non-current assets, geographic liabilities, geographic assets, geographic revenues, and geographic profit/loss.

Global South adjusters were calculated for the most recent year for which data was available. The adjusters were applied to the financing data, and to the financed and facilitated emissions data.

1.1.6 Data limitations

The financial research is subject to a number of limitations:

Loans

Information from the financial databases used primarily includes syndicated lending, i.e. two or more financial institutions providing a loan to one company together. The financial databases do

not have data on bilateral lending, i.e. direct loans between one bank and one company.

Bilateral lending was researched using company reports, company registries, and media archives, among others. However, these sources still have data gaps. Many companies do not disclose their bankers, or not in sufficient detail to include in the analysis. This is the result of different requirements in different jurisdictions, and whether or not the company is listed on the stock exchange.

Bond & shareholdings

The financial databases collect data on bond and shareholdings from fund filings, company reports and stock exchanges. As a result, generally the coverage of bond and shareholding data is more complete for asset managers, and the asset management arms of insurance companies and banking groups.

Other financial institutions, such as pension funds and insurance companies that do not offer asset management activities, are not required to publish their investment portfolios. Those that do publish their portfolios, aren't always covered by the financial databases.

Profundo maintains a database of pension fund portfolio disclosures. These are updated at least once a year.

For all bond and shareholdings, actual positions are constantly changing. Bond and shareholders identified during the course of this research may have sold their position, or in other ways changed the composition of their portfolio.

1.2 Financed and facilitated emissions

This section details the methodology used to estimate HSBC's financed and facilitated emissions through its financial relationships with companies engaged in fossil fuels and forest-risk commodities.

This section is organized as follows: Sub-section 1.2.1 presents the methodology used to calculate the attribution factor for financial institutions (i.e., what proportion of company emissions are attributable to a specific financial institution); Sub-section 1.2.2 outlines the data sources used for emissions data; and Sub-section 1.2.3 details the limitations of the financed and facilitated emissions estimation methodology.

1.2.1 Attribution methodology

This research used the Partnership for Carbon Accounting Financial (PCAF) methodology to calculate financed and facilitated emissions. PCAF was developed and is used by financial institutions around the world to measure and disclose their financed emissions, i.e. the emissions financed by their loans and investments (HSBC is a signatory to PCAF).

Scope 3 emissions are corporate value chain emissions. For the financial sector, the GHG Protocol (GHGP) classifies the Scope 3 corporate value chain emissions as Category 15 investment activities.

Financed emissions

Financed emissions are those generated from loans, and from investments in bonds and shares.

To calculate the emissions attributable to a financial relationship with a borrower or issuer, PCAF suggests the calculation of an attribution factor, i.e., a factor with which to calculate the proportion of emissions generated by a specific company that can be attributed to a given financial institution based on the value and nature of the financial relationship.¹ The denominator used in the formulas of this calculation varies slightly between types of companies. For listed companies, enterprise value (EV) is used based on market capitalization + total borrowings + minority interest, i.e., enterprise value including cash (EVIC). For non-listed companies, the denominator is equity + total borrowings + minority interest.

Attribution factor calculation for listed companies:

$$\text{Attribution factor} = \frac{\text{Outstanding amount}}{\text{Enterprise value including cash (EVIC)}}$$

Attribution factor calculation for non-listed companies:

$$\text{Attribution factor} = \frac{\text{Outstanding amount}}{\text{Total equity+debt}}$$

PCAF states that using EVIC helps to avoid issues with negative enterprise values due to the inclusion of cash (not deducting cash as in the regular enterprise value definition) as well as issues with attributing more than 100% of a company’s emissions to financial institutions.

This attribution factor is then multiplied by the emissions of the borrower or issuer to estimate attributable emissions financed by a given financial institution through its financial relationship with the company.

For example, Bank A has US\$ 1 million loans outstanding to Company B on 31 December 2022. At year-end 2022, Company B has an EVIC of US\$ 100 million (US\$ 25 million equity + US\$ 75 million debt). Therefore, the attribution factor is 1%. The emissions of Company B are: Scope 1 at 100 metric tons CO2e, Scope 2 at 300 metric tons CO2e, and Scope 3 at 1,000 metric tons CO2e. Bank A has 1% attributable financed emissions of each Scope: Scope 1 are 1 metric ton CO2e, Scope 2 are 3 metric tons CO2e, and Scope 3 are 10 metric tons CO2e. This would total 14 metric tons CO2e financed emissions through the bank’s relationship with this specific borrower/issuer.

The PCAF methodology currently requires financial institutions only to report on the financed

Scope 1 and 2 emissions of the companies with which they have financial relationships. However, while PCAF currently only requires the reporting of Scope 3 emissions attributable to companies engaged in energy (oil & gas) and mining, this analysis reports on Scope 3 emissions attributable to all sectors.

For Scope 3 emissions, PCAF is following a phased-in approach where reporting of Scope 3 emissions from companies in certain sectors is required in 2021 (oil & gas, and mining), with additional sectors in 2024 (transportation, construction, buildings, materials, and industrial activities) and all sectors in 2026. Where Scope 3 financed emissions of companies are reported, these are reported separately. This separate reporting allows for the reporting of these figures, while acknowledging the potential of double counting issues with Scope 1 and Scope 2 emissions of financial institutions’ other borrowers and investees.

Facilitated emissions

PCAF recognizes that financial institutions also contribute to emissions through their capital markets activities — bond and share issuance underwriting services. They have, therefore, developed a methodology for these facilitated emissions.²

Similar to the financed emissions methodology, an attribution factor is calculated. However, in contrast to financed emissions, the facilitated emissions methodology includes a weighting of 33% as the role of facilitating capital markets activities is considered different from that of a lender or investor.

Attribution factor calculation for listed companies:

$$\text{Attribution factor} = \frac{\text{Facilitated amount}}{\text{Enterprise value including cash (EVIC)}} \times \text{weighting factor of 33\%}$$

Attribution factor calculation for non-listed companies:

$$\text{Attribution factor} = \frac{\text{Facilitated amount}}{\text{Total equity+debt}} \times \text{weighting factor of } 33\%$$

The PCAF facilitated emissions methodology allows financial institutions to also report on their facilitated emissions additionally without the weighting factor.

It is important to note that facilitated emissions should generally be reported separately from financed emissions to avoid double counting.

EVIC data

Financial relationships between HSBC and fossil fuel companies were identified for 1,438 companies. For all these companies, EVIC figures were calculated, identified, or estimated at the subsidiary level where possible, or the corporate group level where not.

EVIC data was retrieved from Refinitiv where available, or from company publications where EVIC figures were not available in Refinitiv. For 311 companies, no EVIC figures could be identified. These companies are, therefore, excluded from financed and facilitated emissions analyses.

1.2.2 Emissions data

Emissions data used for the financed and facilitated emissions analyses was retrieved from Refinitiv and includes company self-reported emissions data.

This research retrieved the identifiers (such as Organization PermlDs) used by Refinitiv for the borrowers and issuers identified with relationships to HSBC. The identifiers were then used to retrieve scope 1-3 emissions of the borrowers and issuers captured by the research from Refinitiv. Refinitiv primarily gathers emissions data from company publications. Additionally, Refinitiv

uses its own methodology to estimate emissions per company (Scope 1-3) when reported values are not available.

Refinitiv states that it uses three models in order of preference to estimate emissions values where these are not reported: CO2 model, Energy model, and Median model.³

- The CO2 model uses emissions data for the company for the previous year(s), adjusting for changes in revenue and number of employees, to estimate the emissions for the current year.
- When it is not possible to apply the CO2 model, the Energy model is used. The Energy model uses energy consumed (or energy produced for electric utility companies), adjusted for number of employees and revenue, compared with sector peers based on 8-, 6-, 4- or 2-digit The Refinitiv Business Classification (TRBC) codes. Selection of TRBC level depends on number of available energy consumption ratios per relevant level. If there is an insufficient number of energy consumption level ratios at the 8-digit level, then the 6-digit level is used. If there is an insufficient number of energy consumption level ratios at the 6-digit level, then the 4-digit level is used. And so on.
- When it is not possible to apply the Energy model, the Median model is used. The Median model is similar to the Energy model as it bases its estimations on sector peers. Firstly, the CO2 emissions per employee are calculated for all industry peers based on 8-, 6-, 4- or 2-digit TRBC codes. Selection of TRBC level depends on number of available energy consumption ratios per relevant level. The median of all these companies is then applied to the company for which CO2 emissions are missing. The same process is then carried out for CO2 emissions per revenue, i.e., CO2 emissions per dollar revenue are calculated for all industry peers on the basis of 8-, 6-, 4- or 2-digit TRBC codes. The median of all these companies is then applied to the company for which CO2 emissions are missing.

The average of these two figures – estimated CO2 emissions for total employees and estimated CO2 emissions for total revenues – is then taken as the estimated CO2 emissions for the company in question.⁴

Where there was no emissions data available from Refinitiv, Profundo used the Median model approach described above based on the available data in Refinitiv. Profundo calculated the CO2 emissions per employee and per euro revenue ratios calculated for all companies for which there was data available in the dataset built using Refinitiv data. These ratios were then applied to companies for which emissions data was missing at the TRBC 8 or 6 levels – industry or industry group – depending on the number of available ratios. If there were 10 or more ratios then TRBC 8-digit level was used, otherwise the 6-digit level was used. The 4 and 2 levels – business sector and economic sector – were not used as these are considered far too broad to make reasonably accurate estimations of CO2 emissions at the company level.

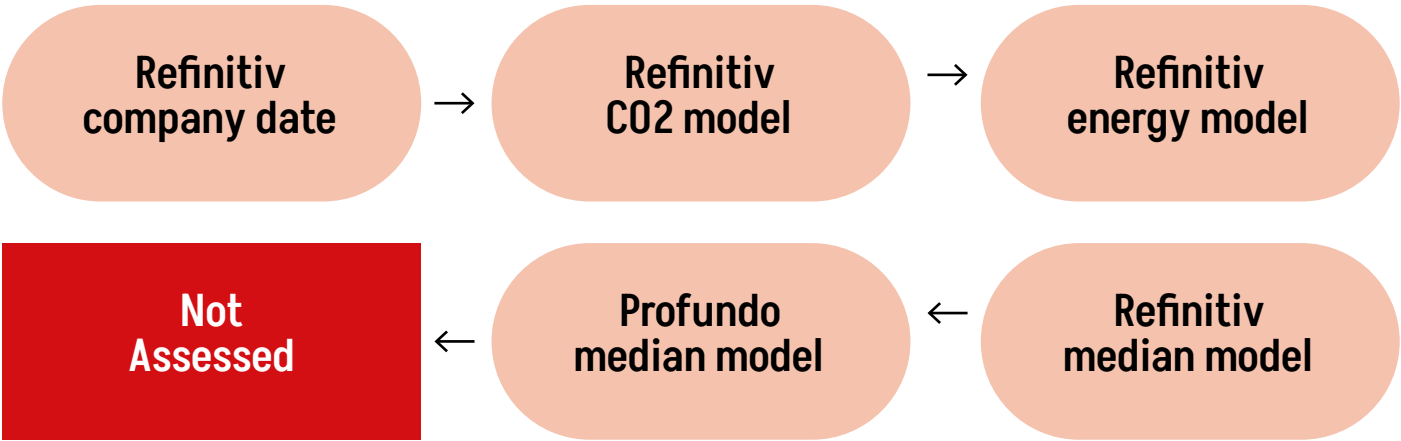
In cases where there was insufficient data to estimate the missing emissions, financed and facilitated emissions were not assessed.

1.2.3 Limitations

The sections above have already indicated a few limitations of the research methodology. Most prevalent among them is the issue that some data points necessary to calculate attribution factors (EVIC) and/or emissions were not available for each borrower/issuer. In some cases, the EVIC data or the components of the EVIC data used to calculate the attribution factor generated unreasonably high attribution factors (i.e. above 20%, or even over 100%). These factors were then adjusted where there were sufficient data indicators to do so or excluded from the analysis.

The actual financed and facilitated emissions are likely higher than could be identified, however, the figures should be considered as indicative within the context of data paucity.

Figure 1: Emissions data estimation methodology



Source: Refinitiv (2019, January), *Thomson Reuters ESG Carbon Data and Estimate Models*, p. 2-3, Profundo

HSBC's own emission reporting versus Profundo's estimates

This section compares HSBC's own reporting and the Profundo-calculated emissions on the two sectors that are in focus: fossil fuels and industrial agriculture.

As HSBC's investor emissions are only for 2023, the total CO₂e emissions calculated by Profundo for 2021-2023 of 356.8 million tons underestimates the total emissions.

Table 8 shows that in 2021-2023, 20.4% of emissions were generated by financing in the Global South, and 4.0% came from industrial agriculture. Furthermore, 80.3% of emissions were from Scope 3, compared to HSBC's own reporting which estimates that only 68.3% of emissions are Scope 3.

Table 8 emphasises that the big difference is in the Scope 3 emissions. In Scope 3, the 49.8 million tons calculated by HSBC are only 17.3% of the emissions calculated by Profundo. Total emissions from the two sectors reported by HSBC are only 20.4% of Profundo's calculations, and this difference might be due to several factors:

1. HSBC's reporting misses 2023 data for credit as well as investments.
2. No data on the Global South emissions and the industrial agriculture emissions is available.
3. HSBC does not report scope 3 emissions of all sectors.
4. HSBC does not report emissions in midstream and downstream companies.
5. HSBC might consider some companies not to be fossil fuel companies while they are active in fossil fuels.ⁱ

Table 8: Comparison of Profundo estimates and HSBC reporting

	Profundo estimate (mln ton CO ₂ e)	% (Profundo est)	HSBC reporting (mln ton CO ₂ e)	% (HSBC reporting)
Scope 1 & 2	>70.3	19.7%	>23.1	31.7%
Scope 3	>286.6	80.3%	>49.8	68.3%
Total	>356.9	100.0%	>72.9	100.0%
of which Global South	>72.9	20.4%	NA	NA
of which industrial agriculture	>14.1	4.0%	NA	NA

Source: Profundo

ⁱ Profundo used the Global Company Exit List, Global Oil & Gas Exit List, and Bloomberg Industry Classification, which led to the inclusion of companies which, in the first instance, are not classified as fossil fuel companies.

Annex 2: Table of complaints made against Cargill

Category	Description	Location	Affected Peoples/ Communities	Source
Infrastructure and logistics	The installation of Cargill's Cargo Transshipment Station (ETC) in Santarém has been criticised by civil society organisations and local communities for not consulting traditional peoples beforehand and for its impacts on artisanal fishing areas, archaeological sites and coastal ecosystems. The case has led to public civil actions by the Federal Public Prosecutor's Office and court rulings demanding the submission of environmental impact studies. A police investigation was also launched into possible irregularities in the environmental study contracted. Direct impacts include artisanal fishing areas and the loss of Vera Paz Beach; indirect impacts include an increase in soya monocultures, deforestation and contamination by pesticides. In response, Cargill claims that its operations are in compliance with current legislation.	Santarém (PA),	Munduruku and Apiaká People, Quilombolas, Artisanal Fishermen and Family Farmers and Extractivists	<u>Land of Rights</u>
Infrastructure and logistics	The installation of Cargill's Cargo Transshipment Station (ETC) in Miritituba, Itaituba (PA), has been criticised by civil society organisations and local communities, especially for the lack of prior, free and informed consultation with traditional peoples and for weaknesses pointed out in the environmental impact studies. The complaints mention indirect impacts such as the increase in soya monocultures, deforestation and disorderly urban growth. In response, Cargill claims that its operations are in compliance with current legislation.	Itaituba (PA)	Munduruku people	<u>Land of Rights</u>

Category	Description	Location	Affected Peoples/ Communities	Source
Infrastructure and logistics	<p>The expansion of the port terminal operated by Cargill at the Port of Santos, in Guarujá (SP), has been criticised by the traditional community of Sítio Conceiçãozinha and civil society organisations. The works, which include the expansion of the sea berths, are said to be responsible for negative impacts on fishing mobility, a potential increase in water and air pollution, as well as restrictions on access to the sea, directly affecting the livelihoods of local fishermen. In February 2023, representatives of the community, along with organisations such as the Conceiçãozinha Fishermen's Union (Unipesc), the Central de Movimentos Populares (CMP) and the Association for Combating Pollutants (ACPO), filed a representation with the Special Action Group for the Defence of the Environment (Gaema) of the São Paulo Public Prosecutor's Office, requesting an investigation into the environmental licensing conditions for the project. In response, Gaema set up a civil enquiry to investigate the regularity of the environmental licences and the holding of prior public consultations. In response, Cargill claims that its operations are in compliance with current legislation.</p>	Guarujá (SP)	Traditional fishing community of Sítio Conceiçãozinha	CUT Carta Capital MST Brasil de Fato FioCruz Conflict Map

Category	Description	Location	Affected Peoples/ Communities	Source
Infrastructure and logistics	<p>The Ferrogrão (EF-170) project, which envisages the construction of a 933 km railway between Sinop (MT) and the port of Miritituba (PA), has been criticised by civil society organisations and local communities. The main concerns relate to the lack of prior, free and informed consultation with the indigenous and traditional communities affected, as provided for in ILO Convention 169 , and the potential socio-environmental impacts, such as deforestation and degradation of protected areas.</p> <p>In March 2021, the Federal Supreme Court (STF) suspended the project by means of a precautionary measure in Direct Action for Unconstitutionality (ADI) 6553, questioning the legality of removing part of the Jamanxim National Park to make the railway route possible.</p> <p>In addition, the Federal Public Prosecutor's Office (MPF) filed public civil actions and representations with the Federal Court of Auditors (TCU), pointing out flaws in the environmental impact studies and the lack of consultation with the affected communities. In March 2024, a People's Tribunal, made up of representatives of indigenous peoples, quilombolas and riverine communities, symbolically condemned the Ferrogrão project, highlighting the socio-environmental risks and impacts associated with its implementation. Cargill, along with other major trading companies in the sector, was symbolically condemned as a supporter of the project, aimed at facilitating the flow of grain through the logistics corridor. Although the company claims that it is not part of the consortium responsible for building Ferrogrão, it was one of those responsible for hiring the consultancy that drew up the initial study of the railway in 2016.</p>	Pará and Mato Grosso	16 indigenous lands and 104 rural settlements will be affected by the railway's synergistic and cumulative impacts	Reporter Brasil Ferrogrão People's Court judgement Gazeta do Povo Brasil de Fato

Category	Description	Location	Affected Peoples/Communities	Source
Soya expansion and deforestation	In May 2023, the environmental organisation ClientEarth filed a complaint with the United States National Contact Point of the Organisation for Economic Co-operation and Development (OECD) against Cargill, alleging failures in the company's environmental and human rights due diligence processes in its soy operations in Brazil. The complaint highlights that Cargill does not carry out adequate monitoring of the soya it buys, processes and sells, especially in relation to soya from the Cerrado, the Amazon and the Atlantic Forest, which contributes to deforestation and violations of the rights of indigenous communities, Afro-Brazilians and other traditional populations. ClientEarth calls on Cargill to adopt effective and transparent due diligence policies and procedures, in line with the OECD guidelines for multinational companies. In response, Cargill claims to be "diligently aligning sourcing and production processes with EUDR (European Union Deforestation Regulation) requirements so that when the regulation comes into force, referenced supply chains will be compliant when exporting to Europe."	Cerrado, Amazon and Atlantic Rainforest	Indigenous peoples and traditional communities	<u>Client Earth</u>

Category	Description	Location	Affected Peoples/ Communities	Source
Slave and Child Labour	In a ruling handed down on 18 September 2023, the 39th Labour Court of Salvador ordered Cargill to pay R\$600,000 for collective moral damages, to be earmarked for child protection projects. The decision stems from a Public Civil Action filed by the Labour Prosecutor's Office (MPT), based on inspections that, since 2010, have identified workers - including children - in conditions analogous to slavery on cocoa farms in Bahia and Pará. The ruling also imposes social control obligations on the company in the production chain, such as formalising contractual clauses and preventative actions. In response, Cargill states that it does not tolerate human rights violations and that it takes measures to suspend suppliers involved in irregularities.	Bahia and Pará (Medicilândia)	Rural workers and children	Carta Capital Sinait Brazil Reporter The company's response to the complaint Legal Route
Exposure of the chain to labour rights violations	In November 2020, Repórter Brasil published the 6th edition of the Monitor newsletter, highlighting that the three main cocoa processing industries in Brazil - Barry Callebaut, Cargill and Olam - are exposed to labour rights violations, including cases of labour analogous to slavery, in their supply chains, especially in Bahia. The investigation revealed that between 2005 and 2019, at least 148 workers were rescued in degrading conditions on cocoa farms, often operating under partnership contracts that mask precarious labour relations. The presence of middlemen in the production chain makes traceability and effective monitoring of labour conditions difficult.	Bahia	Rural workers	Reporter Brasil Full Cocoa Chain Monitor report (English version) Company response

Category	Description	Location	Affected Peoples/ Communities	Source
Abuse of power and anti-labour practices	In 2017, the Union of Workers in the Food and Related Industries of Três Lagoas and Brasilândia (MS) filed a collective labour action against Cargill Agrícola S.A., registered under number 0025756-05.2017.5.24.0071, with the 39th Labour Court of Três Lagoas. The lawsuit alleges that the company unilaterally implemented a shift rotation system and a bank of hours, contrary to the collective agreement signed with the workers. According to the union, these practices had been rejected in an assembly and resulted in the withdrawal of labour rights.	Três Lagoas and Brasilândia (MS)	Processing plant workers	MST CUT JusBrasil
Buying Soya from Embargoed Areas	Investigations revealed that Cargill bought soya from properties with a history of illegal deforestation in the Cerrado and the Amazon, going against environmental commitments made by the company. In 2022, Repórter Brasil identified that the multinational bought grain from areas embargoed for environmental offences, highlighting flaws in the supply chain's traceability mechanisms. In response, Cargill says it blocks suppliers if violations are found.	Tocantins and Mato Grosso	No information	Reporter Brasil The company's response to the complaint

Category	Description	Location	Affected Peoples/ Communities	Source
Buying soya from areas linked to illegal land grabbing and deforestation	The Cachoeira do Estrondo Condominium, located in Formosa do Rio Preto (BA), is an agricultural conglomerate that occupies more than 300,000 hectares in the Brazilian Cerrado. Made up of several companies, the enterprise is accused of land grabbing, illegal deforestation and violations of the rights of traditional geraizeiras communities. Greenpeace reports have documented cases of violence, forced evictions and the destruction of community property associated with the condominium's activities. The investigation reveals that Cargill purchased soya from areas linked to the Estrondo Condominium, even in the face of reports of socio-environmental irregularities. In response, the company claims that its operations comply with the law and that it has control mechanisms in place to prevent the purchase of products from embargoed areas.	Formosa do Rio Preto (BA)	Traditional Communities of Geraizeros	Reporter Brasil Greenpeace Cargill's response to a Reporter Brasil report with data from the report Greenpeace
Buying Soya from Embargoed Areas	According to a report by Repórter Brasil published in April 2023, between 2019 and 2022 Cargill bought soya from properties that had areas embargoed for illegal deforestation and unauthorised burning. The report points out that even with the legal ban on production in these areas, signs of cultivation were identified. The material also reports that the producers were fined by the Mato Grosso State Environment Secretariat and that the case is under investigation by the Public Prosecutor's Office. In response, Cargill says it blocks suppliers if violations are found.	Cláudia (MT)	No information	Brazil Reporter The company's response to the complaint

Category	Description	Location	Affected Peoples/ Communities	Source
Buying soya from areas overlapping with indigenous lands	According to an investigation published by De Olho nos Ruralistas in May 2022, Cargill acquired soya from leased areas that are part of territory claimed as traditional by the Guarani Kaiowá. The report points out that these lands have been in dispute since 1999 and have already been the scene of episodes of violence against the region's indigenous peoples. The soya grown in the area would be commercialised through local tenants. In response, Cargill says it blocks suppliers if violations are found.	Juti (MS)	Guarani Kaiowá people	<u>Keeping an eye on the ruralists</u>
Buying soya from deforested areas	According to a report by Repórter Brasil published in January 2022, Cargill bought soya beans from a property in Mato Grosso that had cleared approximately 800 hectares of forest between 2013 and 2015. This acquisition took place despite the company being a signatory of the Soy Moratorium, an agreement that prohibits the purchase of soya grown in areas deforested after 2008 in the Amazon biome. In response, Cargill says it blocks suppliers if violations are found.	São José do Xingú (MT)	No information	<u>Reporter Brasil</u>
Buying soya from conflict areas land and violence	According to the Permanent Peoples Tribunal (PPT), traditional communities have been affected by practices such as land grabbing, illegal deforestation and pesticide contamination, attributed to the Agricultural Project Campos Lindos and the actions of companies such as Cargill. The TPP recognised these actions as forms of ecocide and cultural genocide, holding both the Brazilian state and the companies involved responsible. In response, Cargill says it blocks suppliers if violations are found.	Campos Lindos (TO)	Serra do Centro Traditional Territory, made up of the communities of Passagem de Areia, Raposa, Ribeirão D'Antas, Sítio, Primavera, Gado Velhaco, Vereda Bonita and Taboca	<u>Campaign in Defence of the Cerrado</u>

Category	Description	Location	Affected Peoples/ Communities	Source
Buying soya from areas overlapping with indigenous lands	According to a report published by the observatory De Olho nos Ruralistas in October 2020, Cargill bought soya from rural producers whose farms would be overlapping the territory claimed by indigenous people. The indigenous land has been awaiting demarcation by FUNAI since 2008. The report says that between 2018 and 2019, all soya producers in Santarém, Belterra and Mojuí dos Campos were authorised to supply grain to Cargill - which includes approximately 235 families in Santarém, with average properties of 300 hectares. The company's operations in the region, especially after the installation of the bulk port in 2003, are pointed out as a factor that has stimulated the migration of farmers, the intensification of land use and pressure on traditional territories. In response, the company says it does not source grain from regulated indigenous lands and will block suppliers if violations are found.	Santarém (PA)	Munduruku people	<u>Keeping an eye on the Ruralistas</u> <u>The company's response to the complaint</u>
Shared responsibility in the crime of ecocide-genocide in the Brazilian Cerrado	Cargill, along with other agribusiness companies, is singled out by the Cerrado Tribunal as co-responsible for the environmental and cultural destruction in the Cerrado, characterised by large-scale deforestation, loss of biodiversity and irreversible impacts on the ways of life of indigenous peoples, quilombolas and traditional communities. These practices result in the violation of territorial rights and the extinction of cultural and social practices rooted in the biome. In response, Cargill did not provide a link to a specific document, but says it has "announced an accelerated timeline to eliminate deforestation and land conversion from our direct and indirect supply chains for locally sourced row crops (soybean, corn, wheat and cotton) in Brazil, Argentina and Uruguay by 2025."	Cerrado Biome	No specification	<u>Campaign in defence of the Cerrado</u>

Category	Description	Location	Affected Peoples/ Communities	Source
Buying soya from areas with land conflicts	A Global Witness investigation shows that global companies such as ADM, Bunge and Cargill buy soya from producers associated with land conflicts, where communities face death threats, intimidation and the destruction of community property. These practices intensify violence in the countryside and violate the rights of traditional populations, who are fighting to preserve their territories and ways of life. In response, the company says it does not source grain from regulated indigenous lands and will block suppliers if violations are found.	Correntina (BA)	Bottom and pasture community Capão Modesto	Global Witness
Cases that potentially link Cargill to deforestation	Recent studies have revealed a significant connection between Cargill's operations and areas of deforestation on several farms near its warehouses, located in strategic regions for the supply of soya and cotton. Considering a radius of 100 kilometres around these warehouses, the data indicates deforestation associated with the Fazenda Tapera Grande property (834 in 2019; 224 hectares in 2023). In response, Cargill did not provide a link to a specific document, but says it has "announced an accelerated timeline to eliminate deforestation and land conversion from our direct and indirect supply chains for locally sourced row crops (soybean, corn, wheat and cotton) in Brazil, Argentina and Uruguay by 2025."	Correntina (BA)	No specification	Burninglegacy Based on Aidenvironment research

Category	Description	Location	Affected Peoples/ Communities	Source
Cases that potentially link Cargill to deforestation	Recent studies have revealed a significant connection between Cargill's operations and areas of deforestation on several farms close to its warehouses, located in strategic regions for the supply of soya and cotton. Considering a radius of 100 kilometres around these warehouses, the data indicates deforestation associated with the property Fazenda Palmeira - SLC (4,677 hectares in 2020; 13 hectares in 2023). In response, Cargill did not provide a link to a specific document, but says it has "announced an accelerated timeline to eliminate deforestation and land conversion from our direct and indirect supply chains for locally sourced row crops (soybean, corn, wheat and cotton) in Brazil, Argentina and Uruguay by 2025."	Tasso Fragoso (MA)	No specification	<u>Burninglegacy</u> <u>Based on Aidenvironment research</u>
Cases that potentially link Cargill to deforestation	Recent studies have revealed a significant connection between Cargill's operations and areas of deforestation on several farms near its warehouses, located in strategic regions for the supply of soya and cotton. Considering a radius of 100 kilometres around these warehouses, the data indicates deforestation associated with the Fazenda Rubi property (1,976 hectares in 2021; 6 hectares in 2023). In response, Cargill did not provide a link to a specific document, but says it has "announced an accelerated timeline to eliminate deforestation and land conversion from our direct and indirect supply chains for locally sourced row crops (soybean, corn, wheat and cotton) in Brazil, Argentina and Uruguay by 2025."	Santa Filomena (PI)	No specification	<u>Burninglegacy</u> <u>Based on Aidenvironment research</u>

Category	Description	Location	Affected Peoples/ Communities	Source
Cases that potentially link Cargill to deforestation	Recent studies have revealed a significant connection between Cargill's operations and areas of deforestation on several farms close to its warehouses, located in strategic regions for the supply of soya and cotton. Considering a radius of 100 kilometres around these warehouses, the data indicates deforestation associated with the Fazenda Tapera Grande property (937 hectares in 2023). In response, Cargill did not provide a link to a specific document, but says it has "announced an accelerated timeline to eliminate deforestation and land conversion from our direct and indirect supply chains for locally sourced row crops (soybean, corn, wheat and cotton) in Brazil, Argentina and Uruguay by 2025."	Correntina (BA)	No specification	Burninglegacy Based on Aidenvironment research
Cases that potentially link Cargill to deforestation	Recent studies have revealed a significant connection between Cargill's operations and areas of deforestation on several farms close to its warehouses, located in strategic regions for the supply of soya and cotton. Considering a radius of 100 kilometres around these warehouses, the data indicates deforestation associated with the Fazenda Emaflor property (2,364 hectares). In response, Cargill did not provide a link to a specific document, but says it has "announced an accelerated timeline to eliminate deforestation and land conversion from our direct and indirect supply chains for locally sourced row crops (soybean, corn, wheat and cotton) in Brazil, Argentina and Uruguay by 2025."	Baixa Grande do Ribero(PI)	No specification	Burninglegacy Based on Aidenvironment research

Category	Description	Location	Affected Peoples/ Communities	Source
Cases that potentially link Cargill to deforestation	Recent studies have revealed a significant connection between Cargill's operations and areas of deforestation on several farms close to its warehouses, located in strategic regions for the supply of soya and cotton. Considering a radius of 100 kilometres around these warehouses, the data indicates deforestation associated with the Fazenda Independencia property (869 hectares). In response, Cargill did not provide a link to a specific document, but says it has "announced an accelerated timeline to eliminate deforestation and land conversion from our direct and indirect supply chains for locally sourced row crops (soybean, corn, wheat and cotton) in Brazil, Argentina and Uruguay by 2025."	Santa Cruz do Xingu	No specification	<u>Burninglegacy</u> <u>Based on Aidenvironment research</u>
Cases that potentially link Cargill to deforestation	Recent studies have revealed a significant connection between Cargill's operations and areas of deforestation on several farms close to its warehouses, located in strategic regions for the supply of soya and cotton. Considering a radius of 100 kilometres around these warehouses, the data indicates deforestation associated with the Fazenda Novale property (5,379 hectares). In response, Cargill did not provide a link to a specific document, but says it has "announced an accelerated timeline to eliminate deforestation and land conversion from our direct and indirect supply chains for locally sourced row crops (soybean, corn, wheat and cotton) in Brazil, Argentina and Uruguay by 2025."	Santa Rita de Cassia (BA)	No specification	<u>Burninglegacy</u> <u>Based on Aidenvironment research</u>

Category	Description	Location	Affected Peoples/ Communities	Source
Cases that potentially link Cargill to deforestation	Recent research has revealed a significant connection between Cargill's operations and areas of deforestation on several farms close to its warehouses, located in strategic soya supply regions. Considering a 50 kilometre radius around these warehouses, the data indicates deforestation associated with the Mata Verde and Vale do Urso farms, among others described in the study. In response, Cargill did not provide a link to a specific document, but says it has "announced an accelerated timeline to eliminate deforestation and land conversion from our direct and indirect supply chains for locally sourced row crops (soybean, corn, wheat and cotton) in Brazil, Argentina and Uruguay by 2025."	Cláudia (MT), Barreiras (BA)	No specification	Mighty Earth

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