

Fueling Climate Change

The Insurers Behind Brazil's Offshore Oil Expansion

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Executive Summary

The insurance industry's support for oil and gas expansion plays a key role in driving climate destruction. Using internal documents that have never before been disclosed, this brief reveals the insurance companies underwriting deep sea oil and gas operations and expansion in fragile coastal ecosystems in Brazil. Given how secretive insurers are about their project involvement and the lack of disclosure requirements, this information is rarely available for major fossil fuel projects.

Chubb, MAPFRE, and Tokio Marine, three insurers from the US, Spain, and Japan, respectively, insure the majority of Brazil's current offshore oil and gas drilling. As key insurers¹ for Brazil's national oil company Petrobras, they underwrite both exploratory and operational drilling in some of the world's most sensitive ecological sites around the Great Amazon Reef and along Brazil's coastline, threatening both global climate stability and local ecosystems and peoples. Petrobras extracts around 93% of all Brazil's oil and gas, and extracted nearly 2.8 million barrels of oil per day in September 2021.²

Chubb and Tokio Marine, along with Liberty Mutual, AXA, Fairfax, Argo, and several Brazilian insurers, were also found to provide insurance in the form of performance bonds for multinational companies involved in exploratory oil and gas operations.

It is irrational and irresponsible for insurance companies that regularly conduct climate risk evaluations to support fossil fuel expansion. Chubb CEO Evan Greenberg said as early as 2006 that "no greater problem confronts mankind than global warming," and claims that Chubb is doing its part "as a steward of the Earth." Tokio Marine calls climate change "a top-priority issue that we must address head-on." 5

AXA actually adopted an oil and gas policy in late 2021 that rules out insurance for new upstream oil greenfield exploration projects, but says it will make exceptions for oil companies with "credible transition plans." It will determine by the end of 2022 whether customers have credible plans and if they do not, will stop insuring them after a 12-month grace period. Phoenix Óleo & Gás can thus expect to receive AXA cover for exploration of new oil and gas reserves in Brazil at least until the end of 2023.

If these insurers genuinely seek to avoid climate catastrophe, they must heed the International Energy Agency's (IEA) warning that there is no room for any oil and gas supply expansion in a 1.5°C pathway. In fact, oil and gas production must decrease by 87% and 74%, respectively, over the next 30 years.⁶

Brazil – already the largest crude oil producing country in Latin America – is one of the few countries in the world still on course to expand its offshore oil operations every year



for the next five years. According to the IEA, without policy intervention, Brazil is on track to contribute 12-24% of the total rise in global oil production by 2026 compared with 2020. Brazil's production is expected to grow from 3 million barrels per day to 4.2 million.⁷

An expanded offshore oil sector in Brazil will not only exacerbate the climate crisis, but also devastate coastal Quilombola, Indigenous Peoples, artisanal fishing, and urban port communities that depend on the sea for their very survival, as well as critically endangered species. Much of Brazil's offshore oil reserves are in sensitive ecosystems, including the Great Amazon Reef, one of the world's largest coral reef systems and home to endangered manatees, dolphins, whales, and sea turtles.

Exploration and production have already had severe environmental and human impacts. As recently as 2019, an oil spill in Northeast Brazil spread over a massive area: more than 3,000 kilometers⁹ of the coast. The oil slick covered beaches and mangroves, killing coral, fish, turtles, whales, and birdlife. It decimated local economies, which depend on artisanal fishing and tourism. To date, local

communities have yet to see reparations for the catastrophic harm to their lives and the surrounding environment. Brazilian authorities.

Oil and gas projects would not take place - nor would resulting spills - if insurance companies, as society's risk managers, refused to support fossil fuel extraction. Already, the 35 insurers that have restricted coverage for coal have had a marked impact: reduced coverage, soaring premiums, and some projects struggling to get the requisite coverage to operate. Insurers can have the same impact on oil and gas, where the market is highly concentrated; 10 insurers control more than 70% of the market. 10 There is a growing business case for them to drop fossil fuels, and mounting risks that insurers will have to pay for damages caused by fossil fuels.11

Yet, as their actions in Brazil demonstrate, most insurers still support oil and gas expansion worldwide. To prevent a complete climate breakdown, insurers must urgently end all support for oil and gas expansion and phase out existing cover in line with a 1.5°C pathway.

Photo source: Ideum via Flickr

Global Impacts Of Brazil's Offshore Drilling Expansion

According to the IEA's Oil 2021 analysis,¹² Brazil is poised to become a major player on the world oil stage over the next 5 years. As of April 2021, oil extraction in Brazil already stands at approximately 3 million barrels per day¹³, but is projected to reach 4.2 million barrels per day by 2026,¹⁴ a massive increase that the planet cannot afford.

The United Nations Environment Programme (UNEP)'s 2020 Production Gap Report noted Brazil's plans to expand oil production by up to 70% in the next ten years – making it second only to Argentina in this global ranking of climate laggards.¹⁵

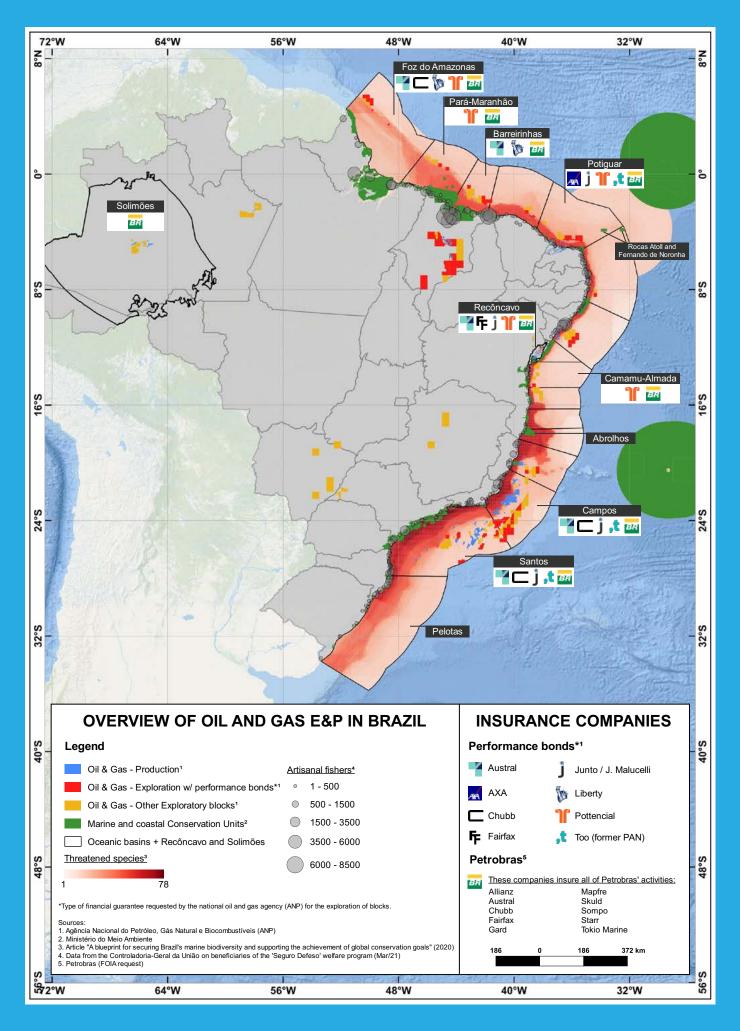
Brazil has set its sights on becoming one of the top five offshore crude oil exporting countries globally by 2030,¹⁶ and is one of few countries still on course to expand its offshore oil supply over the next five years,¹⁷ in direct contradiction to the scientific consensus that oil and gas expansion must end. Brazil's national oil operator Petrobras alone – backed by insurers such as Chubb, MAPFRE, and Tokio Marine – has the fifth largest oil and gas expansion plans of any oil and gas company in the world¹⁸ and is expected to extract 3.3 million barrels a day by 2024.¹⁹

New crude oil projects slated to begin in the next five years are largely from 'presalt' sediments, and as such make up the majority of Brazil's 12 billion barrels of proven oil reserves (and 337 billion m³ of gas reserves). These 'pre-salt' zones are located approximately 6000 meters below sea level²¹, primarily in the Santos and Campos Basins, but also in areas that surround the Great Amazon Reef – all of which encompass sensitive marine ecosystems. (See *Map*)

The Brazilian National Agency of Petroleum, Natural Gas, and Biofuels (ANP) claims that ultra deep-sea oil provides "fantastic geological potential" with a "low carbon footprint."²² In reality, the extremely risky extraction of these deep offshore oil and gas reserves – out-of-mind and out-of-sight from urban centers – is ultra-resource intensive and has an onerous greenhouse gas footprint.²³ It also requires onshore infrastructure that severely impacts local communities and fragile ecosystems,²⁴ all of which sets the country on a pathway diametrically opposed to the energy transition the planet needs.

Brazil's planned offshore oil and gas expansion is occuring in the context of the current Brazilian national government's wider climate denialism and ruthless extractivism spanning from the depths of the sea to the interior of the Amazon rainforest. Deforestation soared 22% in 2021, reaching its highest level since 2006.²⁵





Social and Environmental Impacts in Brazil

An expanded offshore oil sector in Brazil will have devastating impacts not only on the global climate, but also the communities who depend on coastal areas for their very survival, as well as on critically endangered species.

Brazil's offshore oil reserves are located around some of the world's largest coral reefs, mangrove estuaries, seagrass beds, and marine sand dune zones. These are home to critically endangered and threatened species of manatees, dolphins, whales, and sea turtles and are the site of critical bird, lobster, and fish breeding zones.²⁶

Significantly, proposed new expansion areas are located in and around the Great Amazon Reef System, one of the world's largest coral reef ecosystems, stretching over 1,000 kilometers from the mouth of the Amazon River to the Caribbean.²⁷ (See *Map*) The environmental risks associated with deep sea oil and gas exploration are multifold. Oil spills can damage ecosystems beyond repair, and can result not only from drilling but also toxic waste discharge, storage, and transport.28 Deep seismic exploration is devastating for marine mammals, fish, and fragile ecosystems, with the sonic booms alone disrupting many ocean species' migration and communication.29

The concentration of the offshore oil industry along the Atlantic coastline of Brazil also has immediate impacts on the fishing communities, Quilombolas, Indigenous Peoples, and marginalized urban poor living along the shorelines, including in industrial port zones. Quilombola populations – Afro-Brazilian descendants of escaped slave populations – have long struggled for recognition of their land rights, with many of

their lands still not legally recognized.³⁰ They now must also contend with the destruction of the resources they rely on because of oil drilling. In October 2021, in the lead up to COP26 and coinciding with an open bidding process for new oil and gas blocks, local people's organizations denounced the industry for contaminating the land, air, and water, violating their rights to healthy, safe working and living conditions. They held coordinated protest actions in coastal areas ("zonas de sacrifício") affected by the oil industry.³¹

Over the years, local communities have faced the impacts of oil and gas processing terminals; ports and shipyards; associated transport and storage infrastructure; dredging of shoreline areas; seismic drilling and blasting; and serious spills and leakages.32 They have mounted decades long mobilizations to push back against this imposed 'petro-dependency.'33 But the proposed expansion of Brazil's offshore drilling operations will make the situation immeasurably worse, threatening the livelihoods of families dependent on fishing, as well as ancestral territories and heritage sites. With it will also come an increased chance of another catastrophic spill.34 This situation is compounded by the impacts of the climate crisis, including coastal erosion, sea level rise, and extreme weather. And all of it is made possible by the insurance companies supporting these operations.

Who's Insuring Offshore **Drilling in Brazil?**

Using never before disclosed internal documents, this brief reveals that three major global insurers - Chubb, MAPFRE, and Tokio Marine - provide key insurance contracts covering the majority of Brazil's offshore oil and gas drilling. Their support enables operational and exploratory drilling for Brazil's national oil company Petrobras in areas surrounding the Great Amazon Reef and along the sensitive ecosystems of Brazil's coastline.

Tokio Marine (40%) and Chubb (60%) insure Petrobras' general civil liability; Chubb (50%), MAPFRE (40%), and Tokio Marine (10%) insure transport; together, Gard P&I Ltd. and Skuld UK P&I insure marine protection and indemnity; and the Brazilian company Austral Seguradora insures production and exploration related risks to goods and equipment (100%).

As Brazil's national oil and gas company, Petrobras produces around 93% of all Brazil's oil and gas,35 and is therefore responsible for the vast majority of associated climate, environmental, and social impacts.

Insurers cover Petrobras' exploratory operations in extremely sensitive coastal areas, including the Foz do Amazonas Basin, which encompasses a large area of the Great Amazon Reef and is home to local fishermen whose livelihoods depend on the sea.

extension, those of its insurers. The impacts on both communities and marine life in areas where Petrobras is already drilling along Brazil's coastline - described in the above section – will worsen if operations expand. Expansion planned in ultra-deep waters brings with it a risk of further spills, chronic contamination from oil tankers, and expansive land installations that threaten local livelihoods.38 Petrobras even plans to expand in areas that have already faced



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severe impacts, such as the site of the massive 2019 spill in Northeast Brazil.39

International companies British Petroleum and Total are transferring their concessions in Foz do Amazonas to Petrobras,³⁶ reportedly as a consequence of the lack of forthcoming approvals for drilling being granted by Brazil's environmental regulatory body - which is speculated to be the result of vocal concerns raised by civil society and academics.³⁷ This means that an even more extensive zone of oil and gas extraction in the Amazon Basin is now in the hands of Petrobras – and by

Foz do Amazonas is currently untouched.

Freedom of information requests also uncovered undisclosed insurance records that reveal which insurers are providing performance bonds for multinational companies involved in exploratory operations in offshore oil and gas operations spanning the coastline of Brazil. During the exploratory phase, oil and gas companies are required to give the Brazilian government a financial guarantee that they will do a minimal level of exploration. One of the ways to do this is through a performance bond⁴⁰ provided by an insurance company.

Chubb and Tokio Marine, along with Liberty Mutual, AXA, Fairfax, Argo, and several Brazilian insurers, were found to provide such securities. Non-Brazilian insurance companies tied to specific basins and oil companies include the following. It is worth noting that

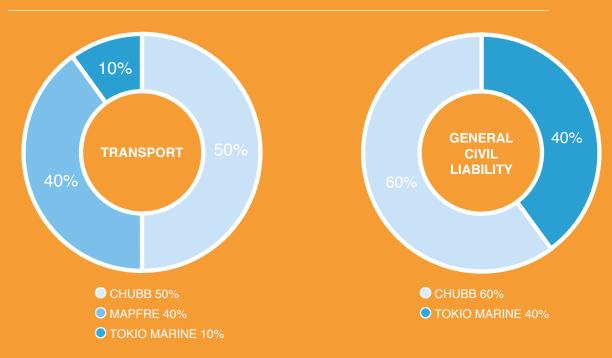
Petrobras – and therefore Chubb, Tokio Marine, and MAPFRE – are active in all of these basins:

Foz do Amazonas: Liberty Mutual and Chubb provide performance bonds for BP Energy. Foz do Amazonas represents a massive region of the Great Amazon Reef System with no ongoing oil extraction operations to date.

Potiguar: AXA provides insurance for Phoenix Óleo & Gás. Potiguar is adjacent to the Amazon Reef area and overlaps with several marine conservation zones, including the Fernando de Noronha Marine National Park and the Rocas Atoll – the first established national marine protection zone and habitat to the largest species of whale on the planet, the blue whale.

Campos: Chubb provides performance bonds for **BP Energy.** Campos is home to 70 endangered species – including the

THREE MAJOR GLOBAL INSURERS PROVIDE KEY INSURANCE CONTRACTS COVERING THE MAJORITY OF BRAZIL'S OFFSHORE OIL AND GAS DRILLING



toninha dolphin, blue whale, leatherback sea turtle, and the great white shark⁴¹ – and is projected to become the source of 80% of Brazil's oil by 2026.

Santos: Chubb and Liberty Mutual provide performance bonds for BP Energy. Although Santos is the site of the majority of current oil and gas operations in the country (approximately 70% as of mid-2021), it also spans several protected marine zones and is home to high concentrations of endangered and at risk species and coastal communities heavily impacted by toxic waste discharged by the industry.⁴²

Barreirinhas: **Liberty Mutual** provides performance bonds for **BP Energy**. Located

at the eastern edge of the Great Amazon Reef, an oil accident in Barreirinhas risks contaminating the entire reef ecosystem due to the prevailing ocean currents,⁴³ and around 30% of all artisanal fishermen in coastal communities are in or near this basin

In addition to the active insurers mentioned above, international insurers AIG, Allianz, Generali, Mitsui Sumitomo (part of MS&AD), Sompo, Starr, Swiss Re, XL (part of AXA) and Zurich are registered with the Superintendence of Private Insurance under Brazil's Ministry of Finance to offer insurance for exploratory and ongoing operations if their management decides to do so.

Unfortunately, information on who is insuring offshore drilling in Brazil will be much more difficult to access in the future because of recent regulatory changes (See Box).

BOX 1:

Shrouded In Secrecy: How Insurance Companies Hide Project Information

Given the industry's secretive nature, information on who is insuring major oil and gas projects is very rarely available. This lack of transparency makes it difficult to hold insurance companies responsible for their role in the climate crisis.

The findings presented in this report were accessed through freedom of information requests, but due to regulatory changes, it may be the last time this information is available.

Like in other countries, oil and gas companies operating in Brazil are not required to disclose the insurers covering their projects and operations to the government,⁴⁴ and insurance companies are not required to disclose their customers. An April 2021 regulatory change means that insurers offering support for large-scale risks, including in the oil and gas sector, are no longer required to file records of their contracts with the Ministry of the Economy's Superintendency of Private Insurance (SUSEP). This change means that this information will likely no longer be on file with the government, and therefore not accessible through freedom of information requests.⁴⁵

The lack of information about insurance contracts means that the shareholders do not know to what extent insurance companies are involved in risky and controversial projects. The interested public meanwhile does not know how risky projects are being insured and cannot hold insurance companies to account for them.

Insurers are Missing in Action on Oil and Gas

Insurers, as society's risk managers, have a responsibility to honor the Paris Agreement, and ensure we avoid a complete planetary climate breakdown. And they have a key role in transitioning toward a low-carbon global economy by aligning all of their business activities with a 1.5°C target. Most fossil fuel expansion cannot be financed, built, or operated without insurance.

Since the Insure Our Future campaign launched in 2017, at least 35 companies have ended or limited coverage for coal projects, representing more than half the global reinsurance market. The industry's withdrawal from coal is having a tangible impact and is part of a growing flight of capital from fossil fuels. Coal developers face soaring premiums and controversial projects struggle to obtain cover at all.

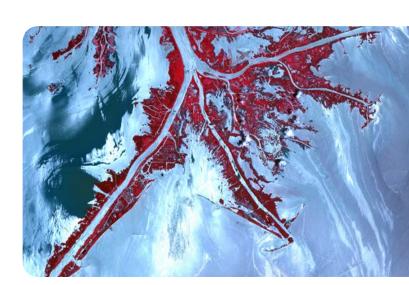
Insurers can have the same impact on oil and gas, where the market is highly concentrated: only 10 insurers cover 70% of oil and gas worldwide, with US insurers having the largest market share. 46 Yet very few insurers have adopted restrictions on conventional oil and gas insurance: only AXA, Zurich, Generali, KBC, and Suncorp have policies on new oil and gas, and AXA and Zurich's policies do not rule out most oil and gas expansion. 47

AXA's new policy rules out insurance for new upstream oil greenfield exploration projects but will make exceptions for oil companies which have what it deems "credible transition plans." In response to an inquiry from the

Insurers must urgently end support for all oil and gas expansion and phase out existing cover in line with preventing a rise in global temperature.

Insure Our Future campaign, AXA clarified that it would determine by the end of 2022 whether customers had credible transition plans and if they did not, would stop insuring them after a 12-month grace period. Phoenix Óleo & Gás can thus expect to receive AXA cover for its exploration of new oil and gas reserves in protected areas off the coast of Brazil at least until the end of 2023.

Overall, the insurance industry is still missing in action when it comes to ending coverage for new oil and gas projects, as demonstrated by their involvement with Petrobras and its massive expansion plans for Brazil. Given the climate crisis, insurers must urgently end support for all oil and gas expansion and phase out existing cover in line with preventing a rise in global temperature above 1.5°C.48



Satellite image of oil leaked from the BP Deepwater Horizon oil spill in the Mississippi River Delta.

All of the international insurance companies involved in Brazil's exploratory and existing operations claim to care about the climate crisis, but their willingness to underwrite the rampant expansion of oil and gas production in countries like Brazil demonstrates that insurance companies are talking the talk while failing to walk the walk. Insurance company's own statements reveal their hypocrisy:

Chubb	"Chubb recognizes the reality of climate change and the substantial impact of human activity on our planet. Making the transition to a low-carbon economy involves planning and action by policymakers, investors, businesses and citizens alike. The policy we are implementing today reflects Chubb's commitment to do our part as a steward of the Earth." – Chubb CEO Evan Greenberg ⁴⁹
Liberty Mutual	"Being in the insurance industry, we have long understood the risk the climate crisis poses to our planet. We see the impact of climate change firsthand and how extreme weather events are affecting our policyholders around the world." - Liberty Mutual Chief Sustainability Officer Francis Hyatt, Liberty Mutual's 2020 Environmental, Social and Governance (ESG) Review (published 2021) ⁵⁰
AXA	"Our mindset must evolve faster than climate change, and our response must be in line with the scale of the risks ahead. AXA takes on the challenge Most "below 2°C" scenarios are based on a rapid and radical shift in the energy supply and demand picture. On the supply side, scenarios are based on a decrease in fossil fuels, with coal, oil and even gas being phased out." — AXA's 2021 Climate report: the decisive decade ⁵¹
ARGO	"[As a member] we endeavor to adhere to the ClimateWise Principles, which guide members' contributions to the transition to a low-carbon, climate-resilient economy." — Argo's Website ⁵²
Fairfax	"We are here for the long term and are fully committed to protecting our world's environment upon which we and the generations to follow depend." - Fairfax Environmental, Social and Governance (ESG) Report 2020 ⁵³
Tokio Marine	"Climate change is a top-priority issue that we must address head-on." — Tokio Marine's Website ⁵⁴
MAPFRE	"Group commitment to carbon neutrality by 2030." — MAPFE's Website ⁵⁵
Gard	"Climate change remains high on the global agenda, but the consensus is that the world is not moving fast enough to slow its development." — Gard Chief Executive Rolf Thore Roppestad ⁵⁶
Skuld	"We are acutely aware of climate challenges and the imperative to pursue sustainable development Skuld integrates climate change measures in strategy, decision making and investment practices." – Skuld Sustainability Report 2020/2021 ⁵⁷

Recommendations

This brief demonstrates these companies' involvement in environmentally devastating operations – and expansion – in Brazil. Chubb, Liberty Mutual, and MAPFRE are all among the top eight oil and gas insurers in the world, and Axa, Fairfax and Tokio Marine are in the top 15. It is time for all of them to live up to their rhetoric and stop supporting the oil and gas expansion the planet cannot afford.

The Insure Our Future network is calling on insurance companies to:

- 1. Immediately cease insuring new and expanded coal, oil, and gas projects.
- **2. Immediately cease insuring coal companies**, unless they have a coal exit plan that commits to close all coal-related assets by 2030 in EU/OECD countries and by 2040 globally.
 - 3. Phase out, in line with a 1.5°C pathway, insurance for oil and gas companies.
 - 4. Divest all assets, including assets managed for third parties, from coal, oil, and gas companies that are not aligned with a 1.5°C pathway. Any company that is building new coal, oil, or gas expansion projects is not aligned with 1.5°C.
- **5.** Bring stewardship activities, membership of trade associations and public positions as a shareholder and corporate citizen in line with a 1.5°C pathway in a transparent way.
 - 6. Establish robust due diligence and verification mechanisms to ensure clients fully respect and observe all human rights, including the right to Free, Prior and Informed Consent (FPIC) as articulated in the UN Declaration on the Rights of Indigenous Peoples.



It is time for all insurance companies to live up to their rhetoric and stop supporting the oil and gas expansion the planet cannot afford. **With respect to offshore drilling in Brazil**, we join our voices with the "Nem Um Poço a Mais" ("Not one more [oil] well") movement of coastal communities and other allied civil society groups across Brazil currently mobilizing against petro-dependence and the offshore oil sector.

Their key demands are as follows:

- Oil must be left underground/undersea.
- There must not be one more oil well or refinery built.
- Reparations must be made for the loss and damage already inflicted by oil spills and slicks.
- Their rights to livelihood, health, land, and water must be respected.



Endnotes

- Tokio Marine (40%) and Chubb (60%) cover Petrobras' general civil liability; Chubb (50%), MAP-FRE (40%), and Tokio Marine (10%) cover transport; Gard and Skuld cover marine protection and indemnity; and the Brazilian company Austral Seguradora covers production and exploration related risks to goods and equipment. The multi-year commitments of Tokio Marine, Chubb, and MAPFRE to support Petrobras' oil and gas extraction, and that of Austral, is also confirmed in an online posting from October 2019 by Brazil's National Federation of Private Insurance and Reinsurance Brokers, Capitalization, Private Pension, Insurance and Reinsurance Brokerage Companies. See: "Petrobras contrata seguro de US\$ 170 bilhões." Tokio Marine and MAPRE also visibly offer their oil and gas insurance on their companies' Brazilian websites. See for example: SEGURO RISCOS DE PETRÓLE, Tokio Marine, accessed 26 November 2021; and Cobertura Básica Restrita Nº 13 PARA TRANSPORTE DE ÓLEO (PETRÓLEO) A GRANEL (EMBARQUES AQUAVIÁRIOS E TERRESTRES, MAPFRE, accessed 26 November 2021
- 2 <u>Boletim da Produção de Petróleo e Gás Natural</u>, The Brazilian National Agency of Petroleum, Natural Gas, and Biofuel (ANP), 31 October 2021
- 3 Ace Limited Annual Report 2006, ACE Limited
- 4 <u>Citing Climate Change, Chubb Will Limit Insuring, Investing in Coal Plants, Insurance Journal, 1</u> July 2019
- 5 Tokio Marine: Our Climate Strategy, Tokio Marine, accessed 19 November 2021
- 6 Oil 2021: Analysis and forecast to 2026, International Energy Agency (IEA)
- 7 Oil 2021: Analysis and forecast to 2026, International Energy Agency (IEA)
- 8 Andrews, Nathan, et al., Oil, fisheries and coastal communities: A review of impacts on the environment, livelihoods, space and governance, Energy Research & Social Science, Volume 75, May 2021
- 9 O que se sabe até agora sobre o derramamento de óleo no Nordeste, WWF, 12 November 2019
- HTF Market Intelligence Consulting Private Limited, Global Property Insurance in the Oil and Gas Sector Market, 2018
- 11 <u>The 2021 Scorecard on Insurance, Fossil Fuels & Climate Change, Insure Our Future, November 2021</u>
- 12 Oil 2021: Analysis and forecast to 2026, International Energy Agency (IEA)
- 13 The E&P sector in Brazil, The Brazilian National Agency of Petroleum, Natural Gas, and Biofuel (ANP), Presentation by Director-General Rodolfo Saboia, 22 June 2021
- 14 Oil 2021: Analysis and forecast to 2026, International Energy Agency (IEA)
- 15 The Production Gap Report: 2020 Special Report, SEI, IISD, ODI, E3G, and UNEP
- 16 <u>The E&P sector in Brazil</u>, The Brazilian National Agency of Petroleum, Natural Gas, and Biofuel (ANP), Presentation by Director-General Rodolfo Saboia, 22 June 2021
- 17 Oil 2021: Analysis and forecast to 2026, International Energy Agency (IEA)
- 18 Global Oil & Gas Exit List, Urgewald
- 19 Oil 2021: Analysis and forecast to 2026, International Energy Agency (IEA)
- 20 <u>The E&P sector in Brazil</u>, The Brazilian National Agency of Petroleum, Natural Gas, and Biofuel (ANP), Presentation by Director-General Rodolfo Saboia, 22 June 2021

- 21 <u>Brazilian Pre-Salt Oil</u>, Global Energy Monitor, 2021; Husseini, Talal, <u>Tracing the history of exploration in the Brazilian pre-salt oil region</u>, Offshore Technology, 4 October 2018
- 22 <u>The E&P sector in Brazil</u>, The Brazilian National Agency of Petroleum, Natural Gas, and Biofuel (ANP), Presentation by Director-General Rodolfo Saboia, 22 June 2021
- 23 Mein, T.F.; Gimenes, A.L.V.; Dias, E.M.; Rebello Pinho Dias Scoton, M.L.; Udaeta, M.E.M. Environmental Vulnerability in Pre-Salt Oil and Gas Operations, Energies, Volume 14, 30 January 2021; Brazilian Pre-Salt Oil, Global Energy Monitor, 2021; Watts, Jonathan, Brazil's troubled waters, The Guardian, 25 June 2015
- 24 See for example, the explanation of community concerns outlined by local social movements: DIGA NÃO À 17ª RODADA DA ANP: BASTA DE EXPLORAÇÃO PETROLEIRA. LUGAR DE PETRÓLEO É NO SUBSOLO!, CAMPANHA ANTIPETROLEIRA "NEM UM POÇO A MAIS!", October 2021
- 25 Spring, Jake and Boadle, Anthony, <u>Brazil's Amazon deforestation surges to 15-year high, under-cutting government pledge</u>, Reuters, 18 November 2021
- Miloslavich, Patricia et al., Marine Biodiversity in the Atlantic and Pacific Coasts of South America: Knowledge and Gaps, Plos, 31 January 2011; Magris, Rafael A. et al., A blueprint for securing Brazil's marine biodiversity and supporting the achievement of global conservation goals, Diversity and Distributions, Volume 27, 01 November 2020; Phillips, Dom, Oil spill threatens vast areas of mangroves and coral reefs in Brazil, 7 November 2019; Andreoni, Manuela, Oil exploration threatens Brazil's Abrolhos marine park, Dialogo Chino, 24 June 2019; Amazon reef is huge and under threat from Total oil drilling, DW, 18 April 2018; Lammey, Mark, Total strikes deal to transfer Brazil basin blocks to Petrobras, Energy Voice, 28 September 2020
- 27 Though oil and gas extraction is currently concentrated in areas surrounding the Amazonas region, particularly in the Santos and Campos Basins, the zones closest to the Amazon Basin are seen as a new frontier for the sector. Fick, Jeff, Petrobras to drill in Foz do Amazonas, eyeing Guyana and Suriname successes, 06 August 2021; Moura, Rodrigo L. et al., An extensive reef system at the Amazon River mouth, Science Advances, 22 April 2016
- 28 <u>Oil Spill Pollution Causes</u>, Environmental Pollution Centers Website, accessed 23 November 2021
- 29 Mein, T.F.; Gimenes, A.L.V.; Dias, E.M.; Rebello Pinho Dias Scoton, M.L.; Udaeta, M.E.M. Environmental Vulnerability in Pre-Salt Oil and Gas Operations, Energies, Volume 14, 30 January 2021; Robbins, Jim, Oceans Are Getting Louder, Posing Potential Threats to Marine Life, NYT, 22 January 2019
- 30 Farfán-Santos, Elizabeth, "Chapter Four. Black Rights: Documentation, Proof, and Authenticity", Black Bodies, Black Rights: The Politics of Quilombolismo in Contemporary Brazil; Gross, Anne Sophie, INSIDE THE LAND RIGHTS STRUGGLE FOR THE DESCENDANTS OF RUNAWAY SLAVES IN BRAZIL, Pacific Standard, 29 October 2018; For an up to date review of the situation and current context facing Quilombola Peoples across Brazil, an online platform has been set up: Quilombo Observatory
- 31 <u>DIGA NÃO À 17ª RODADA DA ANP: BASTA DE EXPLORAÇÃO PETROLEIRA. LUGAR DE PETRÓLEO É NO SUBSOLO!</u>, CAMPANHA ANTIPETROLEIRA "NEM UM POÇO A MAIS!" October 2021
- 32 Uchôa, Victor, 'Ninguém quer o que pescamos': o drama dos pescadores com o petróleo no litoral da Bahia, BBC, 23 October 2019; Gasallak Maria Al., The loss of fishing territories in coastal areas: the case of seabob-shrimp small-scale fisheries in São Paulo, Brazil, Maritime Studies, Volume 15, 2016

- 33 See for example, explanations provided by the <u>Nem Um Poco a Mais</u> movement in their quarterly news bulletins in <u>May</u> and <u>November</u> 2021
- 34 Cordes, Erik E. et al., <u>Environmental Impacts of the Deep-Water Oil and Gas Industry: A Review to Guide Management Strategies</u>, Front Environ. Sci, 16 September 2016; <u>Oil spills</u>, National Oceanic and Atmospheric Administration Website, accessed 23 November 2021; Mein, T.F.; Gimenes, A.L.V.; Dias, E.M.; Rebello Pinho Dias Scoton, M.L.; Udaeta, M.E.M. <u>Environmental Vulnerability in Pre-Salt Oil and Gas Operations</u>, Energies, Volume 14, 30 January 2021
- 35 <u>Boletim da Produção de Petróleo e Gás Natural</u>, The Brazilian National Agency of Petroleum, Natural Gas, and Biofuel (ANP)
- 36 Kulovic, Nermina, <u>Petrobras to take over BP's stakes in 6 blocks off Brazil</u>, Offshore Energy, 6 April 2021.
- Petrobras assumes BP's stakes in six Foz do Amazonas blocks, S&P Global, 6 April 2021; Kulovic, Nermina, Petrobras to take over BP's stakes in 6 blocks off Brazil, Offshore Energy, 6 April 2021.
- 38 Mein, T.F.; Gimenes, A.L.V.; Dias, E.M.; Rebello Pinho Dias Scoton, M.L.; Udaeta, M.E.M. Environmental Vulnerability in Pre-Salt Oil and Gas Operations, Energies, Volume 14, 30 January 2021; Oil exploration threatens Brazil's Abrolhos marine park, Dialogo Chino, 24 June 2019; Amazon reef is huge and under threat from Total oil drilling, DW, 18 April 2018; Lammey, Mark, Total strikes deal to transfer Brazil basin blocks to Petrobras, Energy Voice, 28 September 2020; For recent news coverage about the severe risks of deep sea extraction, see for example: Watts, Jonathan, Race to the bottom: the disastrous, blindfolded rush to mine the deep sea, The Guardian, 27 September 2021
- 39 O que se sabe até agora sobre o derramamento de óleo no Nordeste, WWF, 12 November 2019
- 40 <u>Tender Protocol Exploration Blocks Award Of The Concession Agreements For Exploration And Production Of Oil And Gas, 17th <u>Bidding Round</u>, National Agency Of Petroleum, Natural Gas, And Biofuels (ANP), Section 9.1.2, "Financial guarantee of the minimum exploration program," page 74, 27 July 2021</u>
- 41 Information on Brazil's endangered species in the different basins is published by the Ministry of the Environment's Chico Mendes Institute for Biodiversity Conservation. "Red Book", volumes and action plans updated as of 2018, accessed 30 November 2021
- 42 <u>Environmental Vulnerability in Pre-Salt Oil and Gas Operations</u>, Energies, Volume 14, 30 January 2021
- 43 Prevailing currents along the coastline are those of the South Equatorial/Guiana, flowing northwest. Climate and Maritime Currents, Brazilian Institute for Geography and Statistics, accessed 29 November 2021. Specific modelling of the risks of an oil spill in the Barreirinhas Basin, including mapping of its potential spread in the areas surrounding the reef, are provided for example in the Environmental Impact Statement submitted to the Brazilian government by BG E&P (Royal Dutch Shell) for several exploratory blocks submitted as early as 2015 (accessed 30 November 2021), and in a similar impact assessment conducted for BP also for one exploratory block in Barreirinhas in 2016 (accessed 30 November 2021).
- This regulation came into effect in 2001, during one of the first rounds of open bidding for oil and gas reserves initiated by Brazilian authorities.
- 45 RESOLUÇÃO CNSP Nº 407, DE 29 DE MARÇO DE 2021, Brazilian government
- 46 Time for the Insurance Industry to unfriend Oil and Gas, Insure Our Future, June 2020
- 47 <u>The 2021 Scorecard on Insurance, Fossil Fuels & Climate Change,</u> Insure Our Future, November 2021
- 48 Net Zero by 2050: A Roadmap for the Global Energy Sector, International Energy Agency (IEA)
- 49 <u>Citing Climate Change, Chubb Will Limit Insuring, Investing in Coal Plants, Insurance Journal, 01</u> July 2019

- 50 <u>2020 Environmental, Social and Governance Review, Liberty Mutual</u>
- 51 <u>2021 Climate report: the decisive decade</u>, AXA Group
- 52 <u>Climate Change Vulnerability</u>, Argo Group, accessed 19 November 2021
- 53 Environmental, Social and Governance (ESG) Report 2020, Fairfax
- 54 <u>Tokio Marine: Our Climate Strategy</u>, Tokio Marine, accessed 19 November 2021
- 55 <u>Climate Change</u>, MAPFRE, accessed 29 November 2021
- 56 <u>Insurers Have Role to Play in How Shipping Handles Climate Impact,</u> Cambiaso Risso Group, 8 November 2021
- 57 Sustainability Report 2020/2021, Skuld
- 58 Not one more well, November 2021





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Using internal documents that have never before been disclosed, this brief reveals the insurance companies underwriting deep sea oil and gas operations and expansion in fragile coastal ecosystems in Brazil.

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