



ASSESSMENT OF ADNOC'S CLIMATE STRATEGY

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INTRODUCTION

In 2023, Abu Dhabi National Oil Company (ADNOC) ranked as the 10th biggest oil and gas producer and 5th biggest oil and gas upstream developer worldwide. The company is the 27th biggest liquified natural gas (LNG) export terminal developer.¹

As one of the main National Oil Companies (NOC) and one of the largest greenhouse gas (GHG) emitters globally, ADNOC is among the few companies in the world whose climate strategy (or lack thereof) in the coming years will have a determining impact on our collective ability to limit global temperature rise to 1.5°C. In 2023, the company pledged to achieve carbon neutrality across its scope 1 and scope 2 operations by 2045 or sooner.²

ADNOC's investors and other financial stakeholders have both a key interest and a crucial responsibility to ensure the company swiftly aligns with a 1.5°C pathway.

The key findings of this briefing are:

- ADNOC does not provide sufficient information on its decarbonization plan to allow investors and other financial stakeholders to correctly assess its capacity to align with a 1.5°C pathway. Insufficient information is given on the company's emissions, capital expenditure (CAPEX) plan, its 2030 production volumes, as well as on the reference scenario it uses to establish its climate plan.

- Taking into account ADNOC's oil and gas production from currently producing fields, plus its fields under development and field evaluation, the company's production in 2030 will be 20% higher than the level required to align with the International Energy Agency's (IEA) Net Zero Emissions by 2050 Scenario (NZE).
- ADNOC is the company that has the highest absolute short-term expansion overshooting the NZE worldwide. Fields under development and field evaluation with Final Investment Decision (FID) obtained beyond the end of 2021 contain more than 8,343 million barrels of oil equivalent (mmboe).
- ADNOC is primarily an oil-focused company, oil representing 98% of its current fossil production. ADNOC plans to

increase its crude oil production capacity by 25% between 2020 and 2027.

- ADNOC plans to develop new liquefaction and regasification terminals in the coming years, and to increase its gas production by 2030.
- ADNOC's low carbon investments amounts to 10% of its 2023-27 overall CAPEX plan.
- Renewable energy will represent in 2030 less than 7% of its energy mix.
- ADNOC has pledged mitigation targets for 2030 on scopes 1 and 2 only. As the group does not disclose any scope 3 target nor exhaustively reports its current emissions, it is not possible to project ADNOC's GHG emissions trajectory.



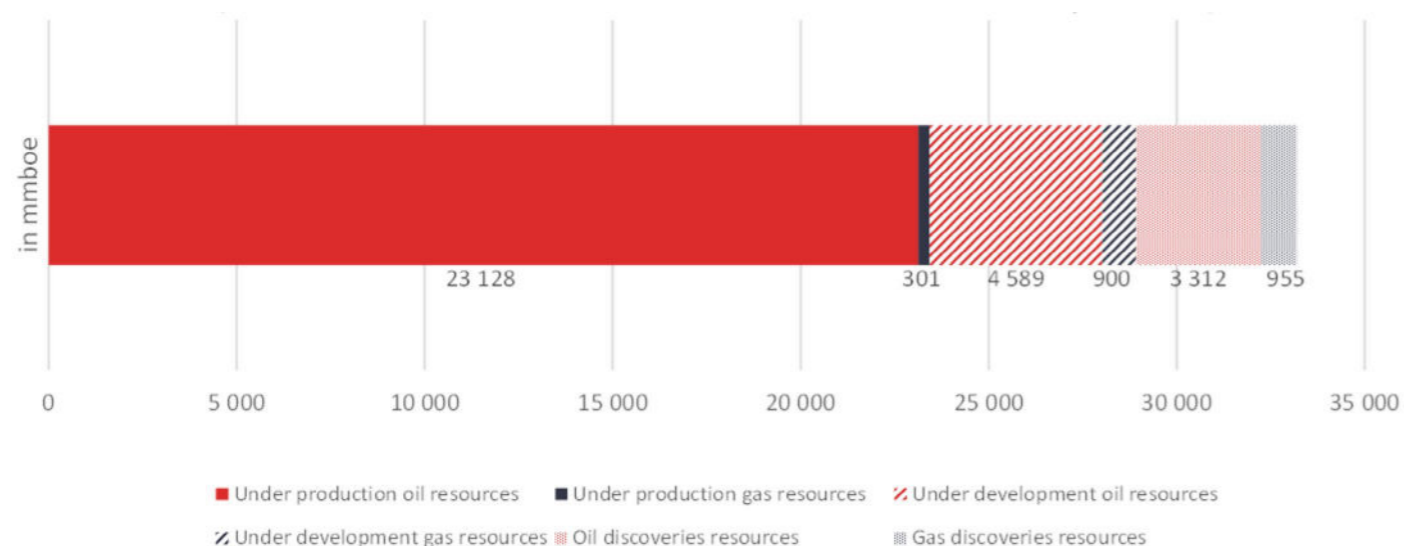
1. ADNOC IN A NUTSHELL TODAY

ADNOC is the state-owned oil company of the United Arab Emirates (UAE). ADNOC is active in diverse activities including upstream, LNG, refining, trading, downstream, and renewables. Activities are operated through different subsidiaries or entities, each one having a different capital structure. Some listed entities, such as ADNOC Drilling, ADNOC Gas, ADNOC Logistics and ADNOC Distribution, publish reportings and investor presentations. However, other entities are fully owned by ADNOC or owned along with other oil and gas companies, such as ADNOC Onshore, ADNOC Sour Gas, Al Yasat Petroleum and Al Dhafra Petroleum. ADNOC also has minority

interests in the renewable company Abu Dhabi Future Energy Company PJSC (Masdar). As the parent company ADNOC is private and capital structure vary from one subsidiary to another, we have very limited access to exhaustive and consolidated financial information, and we lack details on ADNOC's climate strategy.

ADNOC accounts for 1.9% of global oil and gas production and 3.9 % of short-term expansion plans.³ Considering expansion overshooting the IEA pathway,⁴ ADNOC has the highest absolute overshoot of any company in the world with 8,343 mmboe of resources from fields under development or under evaluation with a FID beyond 2021.

ADNOC's oil and gas resources
(based on current resources in million barrels of oil equivalent)



Source: Rystad Energy, accessed in August 2023

As of August 1, 2023:⁵

- ADNOC had 23,429 mmboe of resources under production, including 23,128 million barrels (mmbbl) of oil and 301 mmboe of fossil gas. This represents the equivalent of 26.8 years of production at 2022 levels.
- ADNOC had 5,489 mmboe of resources under development or field evaluation, including 4,589 mmbbl of oil and 900 mmboe of fossil gas. This represents 6.3 years of production at 2022 levels.
- ADNOC holds 4,267 mmboe of oil and fossil gas discoveries, including 3,312 mmbbl of oil and 955 mmboe of fossil gas. This represents 4.9 years of production at 2022 levels.

In 2022, ADNOC extracted 853 mmbbl of oil and 21 mmboe of fossil gas. Beyond exploration and production, ADNOC is also active in other segments such as midstream, oil refining and trading, renewable and gas power generation, hydrogen, and retail.

ADNOC's renewables portfolio is composed mainly of solar energy and wind through its minority interest in Abu Dhabi Future Energy Company PJSC (Masdar). Masdar has more than 20 GW of gross renewable generation capacity in operation and is 24% owned by ADNOC, alongside with the Emirati international energy and water company TAQA (43%) and the UAE's public investment company Mubadala (33%).⁶

2. TRANSPARENCY OF ADNOC'S CLIMATE PLAN

The adoption and publication of sufficiently detailed targets and indicators are a prerequisite for assessing how a company's transition plan aligns with a 1.5°C trajectory.

ADNOC publishes a climate plan and indicators with detailed climate targets.⁷

However, while ADNOC provides information about its scope 1 and 2 decarbonization targets, it does not include scope 3 decarbonization targets. As a private company, ADNOC does not report in detail its financial statements to correctly assess its capacity to align with a 1.5°C pathway. The information given does

not allow financial institutions to understand the company's trajectory for GHG emissions and its production model through to 2030, or the risks associated with financial exposure to the company.

For example, ADNOC does not disclose its 2030 forecasted oil and gas production, or its investments specifically dedicated to sustainable renewable energy. This type of information is key to identifying the company's planned energy transition strategy, and therefore the credibility of its emissions reduction goals.

The table below summarizes the level of disclosure by ADNOC on a few key transition indicators. It does not provide a comprehensive assessment of the transparency and completeness of ADNOC's climate plan, but rather focuses on the basic indicators that should be the foundation of any oil and gas major's plan.

Assessment of the transparency of ADNOC's climate plan

Does ADNOC publish detailed information about the following indicators up to 2030?	Yes - No Partially	Comment
Absolute and relative GHG emissions reduction targets covering scope 1, 2 and 3.	No	<ul style="list-style-type: none"> ADNOC publishes 2030 carbon intensity targets on scope 1 and 2 only. ADNOC published 2030 methane targets only on its operated assets
Contribution to emissions reduction targets of carbon capture and storage (CCS) along the company's value chain.	Yes	<ul style="list-style-type: none"> ADNOC publishes 2030 CCS targets.
Contribution to emissions reduction targets of offsets, and offsetting approaches. ⁸	No	<ul style="list-style-type: none"> ADNOC publishes 2030 offset target in terms of mangrove seedlings and not in terms of avoided emissions.
CAPEX breakdown by activity, and by production maintenance and growth.	No	<ul style="list-style-type: none"> ADNOC discloses its 2023 to 2027 forecasted CAPEX with its "low-carbon solutions and new energies". CAPEX. Financial consolidation method is not clearly defined in its CAPEX plan. ADNOC include fossil-based energy in its low carbon division.
2030 targeted energy mix and production volumes.	No	<ul style="list-style-type: none"> ADNOC does not report its 2030 oil and gas production and 2030 future energy mix. ADNOC communicates on Masdar's gross renewable capacity by 2030 only.
Reference scenario used to define climate targets. ⁹	No	<ul style="list-style-type: none"> ADNOC relies on UAE' Net Zero by 2050 initiative defined by the Emirati state.

Source: ADNOC 2022 and 2023 presentations, Advancing towards net zero updates, company website

3. QUALITY OF ADNOC'S CLIMATE PLAN

a. Oil and gas trajectory

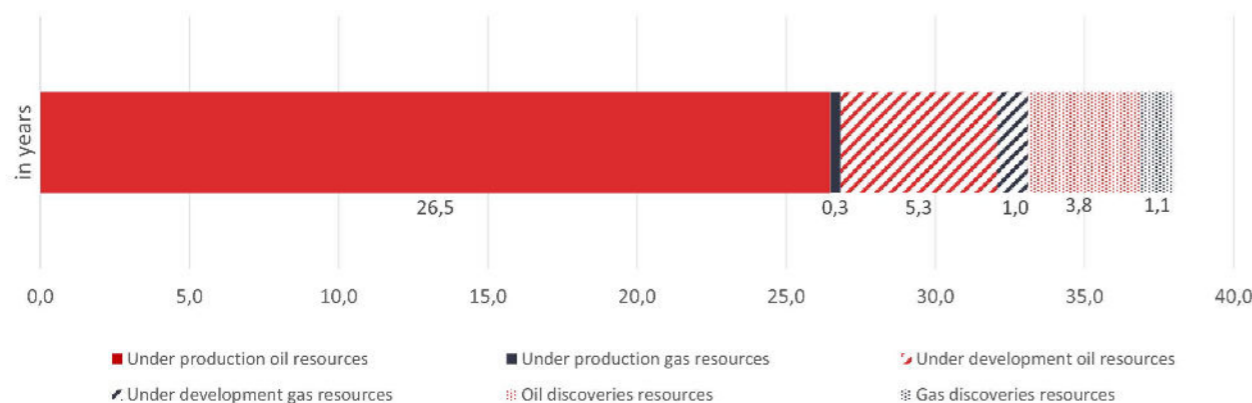
In May 2021, the IEA published its Net Zero Emissions by 2050 Scenario (NZE) which provides a pathway to meet global energy needs while having a 50% chance of keeping global temperature increases below 1.5°C.¹⁰ It was used as the reference scenario in the World Energy Outlook (WEO) 2021 and was updated in the WEO 2023 published in October 2023.¹¹ It projects a reduction in oil and gas production by 2030 compared to 2021 levels of 20.9% and 17.9%, respectively,¹² and an end to the development of new oil and gas production projects and LNG terminals.

According to the Global Oil and Gas Exit List (GOGEL),¹³ ADNOC is the 5th top global oil and gas upstream developer. 92.7% of its expansion plans did not obtain their FID before 2022 and are therefore overshooting the IEA's NZE. ADNOC is the company with

the highest absolute volume of resources from fields under development or under evaluation that are not aligned with the IEA NZE scenario. Over its 8,998 mmboe expansion plans, 8,343 mmboe are from fields that got their FID beyond 2021. ADNOC is focusing its production on conventional oil rather than gas: in 2022, oil represented 98% of its fossil production.

Despite the disrupted energy environment caused by the invasion of Ukraine, the need to halt oil and gas expansion as soon as possible remains a key feature of the NZE. The May 2021 NZE projected a halt to the development of new oil and gas fields for which FID was not approved by January 1st, 2022. The updated WEO 2023 version of the NZE also highlights the need to end the development of new LNG terminals beyond those approved by January 1st, 2023, which is significant when considering ADNOC's LNG capacity plans.

ADNOC's oil and gas resources
(based on current resources and 2022 level of production)



Source: Rystad Energy, accessed in August 2023

“ I am also calling on CEOs of all oil and gas companies to be part of the solution. They should present credible, comprehensive and detailed transition plans in line with the recommendations of my High-Level Expert Group on net-zero pledges.

These plans must clearly detail actual emission cuts for 2025 and 2030, and efforts to change business models to phase out fossil fuels and scale up renewable energy.”

**Antonio Guterres,
Secretary-General of the United Nations,
March 2023**

ADNOC'S PRODUCTION TRAJECTORY

- Oil production from fields sanctioned under the IEA NZE scenario
- Gas production from fields sanctioned under the IEA NZE scenario
- / Oil production from fields unsanctioned under the IEA NZE scenario
- / Gas production from fields unsanctioned under the IEA NZE scenario
- Production trajectory aligned with the IEA NZE scenario
- ⋯ Company capacity plans based on oil target assuming constant gas



Source: Rystad Energy on oil and gas production and expansion, accessed in August 2023; ADNOC press release and presentations on company capacity targets

The completion of some projects that can swiftly enter production and operate for a limited time only – mainly shale oil and gas projects – is not expressly forbidden in the WEO version of the NZE. However, the IEA notably stresses that the invasion of Ukraine cannot justify a “new wave of oil and gas infrastructure”, and that any new oil and gas fields will make it “even more challenging” to meet carbon neutrality targets and “creates the clear risk that [the 1.5°C] target moves out of reach”. Concretely, any such project will require even greater reduction efforts in other sectors and activities.

The IPCC also highlights the risks associated with the development of any new fossil fuel projects.¹⁴ This concurs with a large and growing body of scientific evidence showing the need to immediately end fossil fuel development and a growing consensus on this in net-zero policy discussions.¹⁵

Oil and gas production should decrease by 20.9% and 17.9%, respectively,¹⁶ during this decade according to the NZE. However, without developing any new oil and gas fields and by only extracting resources that

are already under production, ADNOC has enough resources to produce the equivalent of 17.7 years of oil and gas production at its elevated 2022 level. ADNOC’s resources under development and field evaluation will provide the equivalent of another 4.1 years of production at its 2022 production level. Additionally, if the company exploits all its oil and gas discoveries, it will have enough resources to produce the equivalent of a further 3.2 years of production at its 2022 level.

In the IEA’s NZE, the rate of oil and gas production declines due to the combination of the natural depletion of existing oil and gas fields and the absence of new fields to fill the gap. This decline happens even though the NZE relies on material levels of negative emissions, including through the deployment of technologies unproven at scale, and would be much faster without such a reliance. Other prominent 1.5°C scenarios with no or low overshoot also show oil and gas production declining by 2030. These include the One Earth Climate Model (OECM),¹⁷ the Network for Greening the Financial System’s (NGFS) net zero climate scenarios,¹⁸ and the IPCC 1.5°C

with no or low overshoot scenarios filtered to limit to reasonable volumes the reliance on negative emissions (CCS, NBS, etc.).¹⁹

The following chart compares ADNOC’s planned oil and gas capacity level in 2030 with NZE alignment (the company plans to increase its oil capacity by 25% by 2027 from 4 to 5 million barrels per day²⁰ and to increase its gas capacity to 11 billion cubic feet).²¹ The level is an aggregate of both its producing fields and its fields under development with a FID obtained before 2022.²² The chart also indicates the level achieved from fields under production as well as those under development and under field evaluation. To produce at full capacity, ADNOC will have to increase its oil and gas production beyond its current short-term expansion plans. This means that ADNOC will have to develop part of its discoveries and/or buy new fields.

In 2030, with oil and gas from currently producing fields, plus fields under development and under evaluation, ADNOC’s production level will be 20% higher than the NZE.

At full capacity, 2030 production for oil and gas will be 168% above NZE alignment.

ADNOC has not committed to stop developing new oil and gas projects beyond those already in development and could review its production targets either up or down. Consequently, the level of upstream production indicated in the chart could be conservative and lower than ADNOC’s own forecasts. ADNOC owns 4,267 mmbob of discovered hydrocarbon resources that have not yet entered the field evaluation or development stage.

b. LNG expansion plans

Historically, ADNOC has been an oil producer, with a limited level of gas extracted. Recently, the company strategy shifted with gas becoming more present. Gas represents 1.3% of its resources under production, 16.4% of its resources under development and under evaluation, and 22.4% of its resources from discovered assets.

ADNOC'S NET LIQUEFACTION CAPACITIES

- Operational
- Planned
- Net capacities sanctioned under the NZE and APS



Source: Enerdata LNG database accessed in July 2023 for operational terminals and Global Oil and Gas Exit List 2023 for under construction and planned terminals

ADNOC gas strategy relies on LNG with existing LNG export and import terminals as well as construction plans of new LNG export and import terminals.

1. ADNOC already operates Das Island export terminal, that represents for ADNOC 4 million tons per annum (Mtpa) net liquefaction capacity. ADNOC also operates Jebel Ali import terminal, that represents for ADNOC 10 million tons per annum (Mtpa) net regasification capacity. Both existing export and import terminals are located in the UAE.
2. ADNOC plans to construct the export terminal Ruwais LNG located in the UAE. The terminal would be operational in 2027 and would add net liquefaction capacities of 9.6 Mtpa to ADNOC portfolio.²³
3. ADNOC is also a minority shareholder of the planned Floating Storage and Regasification Unit (FSRU) VTTI located in the Netherlands. The terminal would be operational in 2024 and would add a net capacity of 0,7 Mtpa to ADNOC portfolio.

4. Beyond its ownership in LNG terminals, ADNOC will also be the operator of two regasification terminals in India, the under construction Karaikal terminal and the planned AG&P terminal. Combined, these terminals would have a capacity of 6 Mtpa.²⁴

Under the NZE, gas demand by 2050 is met with all LNG terminals that obtained their FID before the end of 2022. Under the APS, gas demand is met with operational and under construction facilities. In either case, no new LNG terminal plans are necessary to meet the demand. With its current plans, none of ADNOC's LNG expansion plans are aligned neither with the NZE nor the APS.

c. Cash flow allocation

The future energy mix of a company is determined by its current investment strategy. In the NZE, total energy investment needs to more than double by 2030, with a shift from high-carbon energy to clean alternatives. Investment in clean energy, end-use and

efficiency more than triple in the NZE, and ten dollars must be spent on clean energy, end-use and efficiency for each dollar spent on fossil fuels by 2030.²⁵

ADNOC is a private company, with some listed subsidiaries, and therefore does not publish consolidated financial statements on its investment plans and distribution. From 2023 to 2027, ADNOC's cash CAPEX guidance reaches US\$150 billion in total.²⁶ US\$15 billion per year is dedicated to its "low carbon solutions and new energies", which covers renewable energy as well as green and blue hydrogen and ammonia.

The company does not communicate details on its 2030 energy mix and communicates on the gross renewable capacity of Masdar, a company 24% owned by ADNOC. Masdar installed renewable capacities are mostly solar and wind power, with at least 20 GW of gross capacity installed and under construction today and 100 GW planned by 2030.²⁷ As ADNOC detains 24% of Masdar and does not communicate on other renewable capacity, we can evaluate ADNOC renewable capacity of less than 5 GW today and 24 GW by 2030.

With ADNOC's 2030 oil and gas production from its operating, under development and under evaluation fields, and Masdar's renewable capacity targets, the maximum renewables share of ADNOC's energy supply mix in 2030 would remain under 7%.

ADNOC produces 0.3 million tons of low

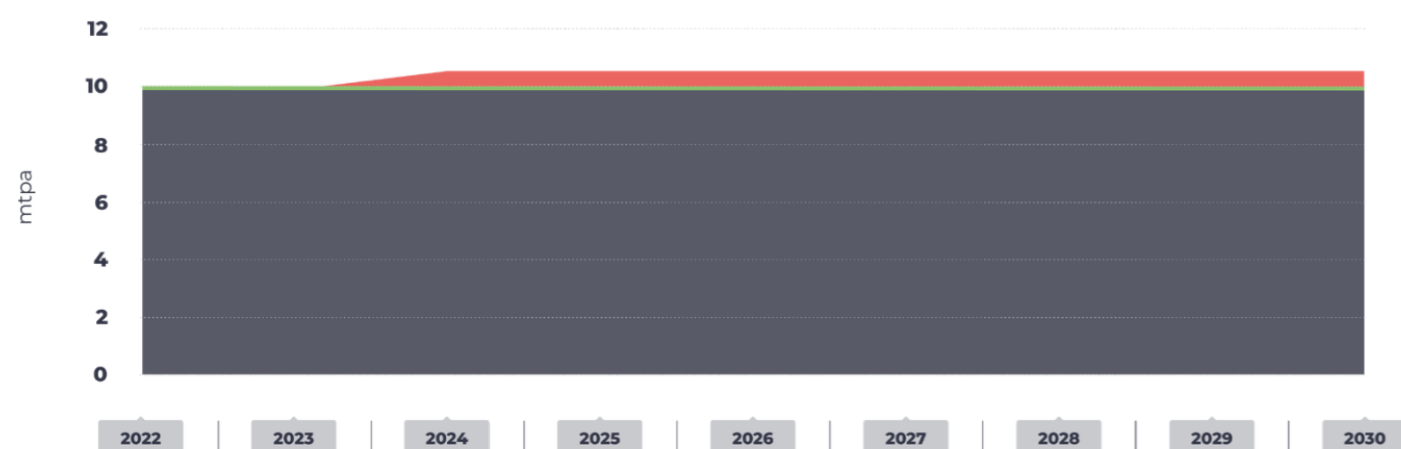
carbon hydrogen and plans to produce directly 1 Mtpa of blue ammonia by 2025 from its facility in Ruwais located in the UAE. Masdar plans to produce 1 million tons of green hydrogen in 2030. A minority shareholder of Masdar, ADNOC's green hydrogen net production would reach 240,000 tons through Masdar.

d. Decarbonization targets and emissions trajectory

ADNOC pledged mitigation targets for 2030 compared to its 2021 levels, measured in intensity terms, and including scope 1 and 2 only.²⁸ ADNOC does not disclose its energy supply evolution, while it plans to increase its oil capacity by 2027 and its gas production by 2030. Moreover, ADNOC does not disclose report scope 3 emissions and does not indicate any scope 3 target. Therefore, it is not possible to project ADNOC emission trajectory.

ADNOC relies on CCS and will capture 10 Mtpa in 2030.²⁹ As highlighted by the IPCC, however, CCS in the energy sector still has limitations to overcome before it can be scaled up, which means it comes with limited potential and prohibitive costs. Too high reliance on these types of mitigation approaches represents a material risk factor for ADNOC's ability to reach its decarbonization targets.³⁰ Without publicly quantifying the compensated GHG emissions through NBS, offset are part of its climate strategy with an objective of 10 million mangroves seedlings by 2030.³¹

ADNOC'S NET REGASIFICATION CAPACITIES



Source: Enerdata LNG database accessed in July 2023 for operational terminals and Global Oil and Gas Exit List 2023 for under construction and planned terminals

ADNOC's pledged mitigation targets

Base year	Target year	Reduction target	Net target	Geographical scope	Emission scope	Emission Type
2021	2030	-25%	Yes	World	1 & 2	Intensity

Source: ADNOC Advancing towards net zero

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ASSESSMENT OF ADNOC'S CLIMATE STRATEGY

Reclaim Finance is an NGO affiliated with Friends of the Earth France. It was founded in 2020 and is 100% dedicated to issues linking finance with social and climate justice. In the context of the climate emergency and biodiversity losses, one of Reclaim Finance's priorities is to accelerate the decarbonization of financial flows. Reclaim Finance exposes the climate impacts of financial players, denounces the most harmful practices and puts its expertise at the service of public authorities and financial stakeholders who desire to bend existing practices to ecological imperatives.

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