# HOW THE FINANCE FLOWS: <br> <br> THE BANKS FUELLING <br> <br> THE BANKS FUELLING september 2023 THE CLIMATE CRISIS 

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# THINK YOU KNOW CLIMATE CHANGE? 

## THINK AGAIN

## (2) <br> THEREAREREAL THAT SOLUTORTECT CANPRESTORE ANDRESORLD. OURWORL.

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| AFD | Agence Francaise de Développement |
| :---: | :---: |
| AFOLU | Agriculture, Forestry and other Land Use |
| Agribusiness | a term to describe the multinational corporations selling the inputs and products of industrial agriculture including seeds, fertilisers, pesticides, machinery or export commodities |
| Agrochemical | chemicals used in industrial agriculture such as synthetic fertilisers or pesticides |
| Agroecology | a term to describe sustainable and socially equitable farming practices that work with nature, and rely mostly on knowledge instead of purchased chemical or seed inputs. The UN Food and Agriculture Organisation (FAO) has developed a framework of the 10 Elements of Agroecology ${ }^{1}$ |
| BECCS | Bioenergy with Carbon Capture and Storage |
| Bonds | Bonds are a form of debt, similar to an IOU, and a slightly different from when banks provide loans. Companies or governments issue bonds in units to investors such as banks to raise money, with the bonds defined at an agreed interest rate and to be repaid over an agreed of time. Banks may do the initial "underwriting" or purchasing of bonds, and may sell these on to investors. |
| CAT | Climate Action Tracker |
| ccs | Carbon Capture and Storage |
| CFS | UN Committee on World Food Security |
| CO2 | Carbon dioxide |
| Corporate Financing | The lending given by banks to a corporation's general activities including salaries, contractors, equipment, office costs etc. While several banks have, for example, committed to end specific 'project financing' for fossil fuels (see below), their policies which allow continued financing of general corporate activities mean that they effectively continue to finance fossil fuel expansion. |
| DAC | Direct Air Capture |
| EACOP | East African Crude Oil Pipeline |
| FAO | UN Food and Agriculture Organisation |
| FISP | Farm Input Subsidy Programme |
| Fossil fertilisers | Synthetic nitrogen fertilisers which are produced using fossil fuels |
| FPIC | Free, Prior and Informed Consent |
| GCF | Green Climate Fund |
| GFANZ | Glasgow Financial Alliance for Net Zero |
| GHG | Green House Gas emissions |
| IPCC | Intergovernmental Panel on Climate Change |


| IMF | International Monetary Fund |
| :---: | :---: |
| MDBs | Multilateral Development Banks |
| NCQG | New Collective Quantified Goal on climate finance under the UNFCCC |
| OCHA | UN Office for the Coordination of Humanitarian Affairs |
| ODA | Official Development Assistance |
| OECD | Organisation for Economic Cooperation and Development |
| NZBA | Net Zero Banking Alliance |
| LGBTQI+ | Lesbian, Gay, Bisexual, Transgender, Queer, Intersex + |
| LNG | Liquid Natural Gas |
| LULUCF | Land Use, Land Use Change and Forestry |
| PIF | Saudi Arabia's Public Investment Fund |
| Project Financing | The lending given by banks specifically attributed to particular projects, e.g. developing new fossil fuel activities or palm oil plantations. Several banks have announced policies to stop financing coal projects, for example. However these announcements do not cover the much larger-scale 'corporate financing' (see above), meaning that financing of harmful activities effectively continues. |
| RSPO | Roundtable on Sustainable Palm Oil |
| RTRS | Round Table on Responsible Soy Association |
| Scope 1-3 | Scope 1 emissions are the GHGs released and controlled as a result of a company's own activities, including extraction of fossil fuels, production of agrochemicals, or the driving of a fleet of vehicles; scope 2 emissions are the GHGs released as a result of the company's purchased electricity, for example for office buildings; scope 3 emissions are all other GHGs, including those that result from customers' use of a company's product further down the value chain, such as the GHGs resulting from customers' burning petrol in their cars. Several fossil fuel corporations have announced net zero targets that cover only scopes 1 and 2, but not the major source of GHGs released under scope 3. |
| STDs | Sexually Transmitted Diseases |
| SWFs | Sovereignty Wealth Funds |
| UN | United Nations |
| Underwriting | The provision of finance in the form of loans, bonds, insurance or investments, with terms based on an assessment of the risk and likelihood of repayment. |
| UNFCCC | United Nations Framework Convention on Climate Change |
| WB | World Bank |
| WHO | UN World Health Organisation |



Yet again, this year we have seen climate disasters hit countries on a scale that has not been witnessed before, with every region in the world being affected by droughts, heatwaves, wildfires, flooding and hurricanes. People are losing their lives to this catastrophe, while countless more are losing their livelihoods.

The country I live in, Uganda, has one of the fastest changing climates in the world. I've seen firsthand the devastation extreme weather can inflict on the lives of people who did very little to cause it, and this injustice is what spurs me on as a climate activist. You may have heard it time and time again, but we cannot wait any longer - the situation is desperate, and it's time to expose the biggest contributors to this crisis.

What angers me the most is the lack of action that world leaders and huge polluters are taking to halt this crisis.

Money continues to be pumped into harmful activities that threaten the existence of our planet and its people. As the IPCC's $6^{\text {th }}$ Assessment Report shows, more finance is flowing to the causes of climate change than to its solutions. How can this still be the case when the world can see the full effects of the climate crisis?

As communities in Africa, Asia and Latin America living on the front lines of the climate crisis suffer floods, droughts, cyclones and rising sea levels, the banks continue to add insult to injury by funding activities that push the same communities off their land and pollute their waters.

True climate leadership means embracing a move away from fossil fuels and other drivers of climate change, but as this vital report by ActionAid exposes, it's impossible to make this change when banks are consistently funding those causing the most damage.

This report reveals the trillions in harmful finance flowing to the Global South, fuelling the climate crisis and directly harming vulnerable communities. The report puts the destructive influence of industrial agriculture in the spotlight.

Above all, and crucially, it celebrates the climate heroines and heroes, the farmers and communities leading the way with agroecology and rooted resistance. These are the people finding solutions in the midst of despair, but they cannot hold back the tide on their own.

This report names the biggest offenders in the banking world and calls on them to see that they are destroying the planet, while harming the present and future for their children. It's time to hold financial institutions to account, and demand that they end their funding of destructive activity. The voices of the people and places most affected by the climate and environmental destruction must be heard

Vanessa Nakate is a Ugandan climate justice activist, founder of Rise Up Movement, Youth for Future Africa and the Green Schools Project, and author of "A Bigger Picture: My fight to bring a new African Voice to the Climate Crisis." She has been recognised by numerous institutions including the UN, TIME, the BBC, Jeune Afrique, YouthLead and Okay Africa as a key influential voice for youth, Africa and climate justice.


The climate has a cash flow problem.
Far more of the world's money is flowing to the causes of the climate crisis than to the solutions.
As the climate crisis escalates, fossil fuels and industrial agriculture - the two industries that are the largest contributors to climate change - continue to expand and thrive. Meanwhile, the solutions needed to address the climate crisis remain woefully underfunded.

The climate impact of burning fossil fuels is well known, but the role of industrialised agriculture in the climate crisis is less widely publicised. Agriculture is the secon;;d-largest contributor to climate change, and industrialised approaches marketed and controlled by giant agribusiness corporations are responsible for the bulk of emissions in the sector. ${ }^{2}$ These industrialised agriculture approaches drive deforestation, aggressively market agrochemicals that lead to large amounts of greenhouse gas (GHG) emissions and expand factory farming. They also undermine billions of smallholder farmers and their agroecological farming systems which could otherwise feed the world while cooling the planet. Industrial agriculture's reliance on fossil fuels to produce agrochemicals is just one way in which the two industries are deeply co-dependent.

Countries in the Global South, already disproportionately affected by the impacts of the climate crisis, are playing host to an increasing number of fossil fuel and industrial agriculture developments such as coal mines, gas wells, oil pipelines, coal-fired power plants and monoculture plantations blasted with agrochemicals such as fossil fertilisers and pesticides. These lead to conflicts over land and water, cause premature deaths, destroy ecosystems, poison rivers and lakes, and drive up the climate change impacts already devastating their communities.

Financing fossil fuels and industrial agriculture also risks locking Global South countries into building expensive and debt-dependent infrastructure that will quickly become outdated, rather than investing in sustainable opportunities for development like renewable energy and agroecology.

This report tracks financial flows from banks to fossil fuels and industrial agriculture in the 134 countries of the Global South.

Despite global banks' public declarations that they are addressing climate change, the scale of their continued fossil fuel and industrial agriculture financing is staggering.

New research by ActionAid shows that:

- Bank financing provided to the fossil fuel industry in the Global South reached an estimated US\$3.2 trillion in the seven years since the Paris Agreement on Climate Change was adopted. ${ }^{3}$
- Bank financing provided to the largest industrial agriculture companies operating in the Global South amounted to US $\$ 370$ billion over the same period.
- Since the Paris Agreement, banks have provided 20 times more financing to fossil fuels and agriculture activities in the Global South than Global North governments have provided as climate finance to countries on the front lines of the climate crisis.

This glut of unsustainable financing is being provided by many of the world's biggest banks. The largest European financiers of fossil fuels and agribusiness are HSBC, BNP Paribas, Société Générale, and Barclays. In the Americas, the three largest US banks - Citigroup, JPMorgan Chase and Bank of America - were the most enthusiastic funders of both industries. The largest Asian financiers of fossil fuels and industrial agriculture are the Industrial and Commercial Bank of China, China CITIC Bank, Bank of China and Mitsubishi UFJ Financial.

Table 1: Largest bank financiers per region of industrial agriculture and fossil fuels in the Global South 2016-2022

| Bank | TOTAL (US\$bn) | INDUSTRIAL AGRICULTURE (US\$bn) | FOSSIL FUEL <br> (US\$bn) |
| :---: | :---: | :---: | :---: |
| EUROPE |  |  |  |
| HSBC | 80.8 | $17.2$ <br> Largest European financer of fossil fuels in the Global South | 63.6 <br> Largest European financier of industrial agriculture in the Global South |
| BNP Paribas | 49.5 | 13.0 | 36.5 |
| Société Générale | 41.7 | 5.4 | 36.3 |
| Barclays | 41.1 | 11.5 | 29.6 |
| AMERICAS |  |  |  |
| Citigroup | 104.5 | 13.9 <br> Largest financer in the Americas of fossil fuels in the Global South | 90.6 |
| JPMorgan Chase | 75.4 | 14.2 | 61.2 <br> Largest financier in the Americas of industrial agriculture in the Global South |
| Bank of America | 68.2 | 14 | 54.2 |
| ASIA |  |  |  |
| Industrial and Commercial Bank of China | 154.3 | 8.1 | $146.2$ <br> Largest Asian financier of fossil fuels in the Global South |
| China CITIC Bank | 134.7 | 10.2 | 124.5 |
| Bank of China | 125.9 | 9.0 | 116.9 |
| Mitsubishi UFJ Financial | 66 | 13.2 <br> Largest Asian financier of industrial agriculture in the Global South | 79.3 |



The largest recipient of industrial agriculture financing in the Global South is Bayer, the German multinational which bought the controversial agrochemical and biotechnology company Monsanto in 2018. Bayer has received an estimated US\$20.6 billion in financing for its agribusiness operations in the Global South since 2016.

The other major industrial agriculture recipients of bank financing in the Global South include ChemChina (Syngenta), COFCO Group, Archer-Daniels-Midland (ADM) and Olam Group, which are all involved in either the sale of climate-warming agrochemicals or deforestation-driving animal feed and biofuels.

The largest recipients of fossil fuel financing in the Global South include the State Power Investment Corporation (US\$203.9 billion since 2016) and several other Chinese power companies and producers heavily invested in coal; the commodities trader Trafigura; and major oil and gas companies including Saudi Aramco, Petrobras, Eni, Exxon Mobil, BP and Shell.

The financing provided for fossil fuels and industrial agriculture in the Global South is likely to dwarf the financing provided by banks for renewable energy and agroecology over the same period. Recent research has shown that only seven percent of the financing provided by the major international banks featured in our report has gone to renewable energy in the seven years since the Paris Agreement. ${ }^{4}$ Although no equivalent dataset exists for agroecology financing, lending from 'traditional' banks accounts for only a small proportion of the financing in this sector. ${ }^{5}$

This report profiles nine of the major financiers of industrial agriculture and fossil fuel activities in the Global South. These profiles show that:

- Many of these banks have committed to reach 'net zero' emissions in their financing portfolio by 2050, but none have adequate policies in place to genuinely decarbonise their portfolio. ${ }^{6}$
- Several banks (including Barclays, BNP Paribas, HSBC and Citigroup) now have long-term targets to phase out coal lending, but continue to finance some of the largest coal power producers and mining companies in the interim. ${ }^{7}$
- Major banks are funding corporations responsible for controversial projects which are devastating local communities and ecosystems.
- None of the major banks has a policy to fully phase out oil and gas financing, even though this is required if their financing is to be consistent with a $1.5^{\circ} \mathrm{C}$ climate goal. Instead, the main recipients of bank financing are the largest oil and gas companies. ${ }^{8}$
- None of the banks surveyed by ActionAid have policies limiting the financing of industrial agriculture or favouring agroecology.
- Where agricultural commodity policies exist, these usually relate to specific sectors - palm oil and soy in particular - but are over-reliant on certification schemes that have proven ineffective.
- Policies addressing the role that beef producers play in driving deforestation (especially in the Amazon) are inadequate, or lacking altogether.
- The harms caused by the agrochemicals sector also go unaddressed by bank policies. No bank recognises or seeks to reduce the climate harm resulting from the production and application of fossilfuel based nitrogen fertilisers by industrial agriculture corporations.

Public financing has the capacity to contribute greatly to solutions to the climate change crisis but remains a big part of the problem. Governments continue to channel public funds to fossil fuels and industrial agriculture through a web of public subsidies, state-owned enterprises, state-owned banks, national wealth and pension funds, and official development assistance (ODA).

Renewable energy has the potential to far exceed projected global energy demand by 2050, and renewables are already more affordable than fossil fuels in most cases. ${ }^{9}$ However, appropriate financing is still lacking, including scaled up climate finance to help reach the goal of achieving universal energy access. ActionAid promotes a model of energy democracy that requires improved energy governance and a diversified production model based on renewables. ${ }^{10}$

A transformation of food systems is needed to address the climate crisis and meet the world's food and livelihood needs, and agroecological farming is increasingly recognised as a viable alternative to industrialised agriculture. ${ }^{11}$ But this transformation requires that governments and funders prioritise food sovereignty, moving from an extractive focus on producing commodities for export, and the overuse of agrochemicals, to an approach that centres and builds upon the contributions of smallholder farmers, and particularly women smallholder farmers. Promoting agroecology requires scaled up financial and technical support, including gender-responsive training, support for accessing markets, subsidy shifts, and investment in infrastructure, production and processing facilities.

In this urgent era of climate change, public funds must be scaled up and channelled in the public interest, to bring about equitable transitions to renewable energy and agroecology.

And the madness of the world's banks and governments continuing to finance the destruction of the planet must come to an end.

## RECOMMENDATIONS

## Banks must:

- STOP FINANCING FOSSIL FUELS: Put an immediate stop to project and corporate financing of fossil fuel expansion and all coal activities, and develop rapid exit strategies from oil and gas;
- STOP FINANCING OF DEFORESTATION AND OTHER HARMFUL INDUSTRIAL AGRICULTURE ACTIVITIES: Stop project and corporate financing of deforestation and other harmful industrial agriculture activities, and develop robust red lines to guide exit strategies;
- PROTECT RIGHTS OF COMMUNITIES: Strengthen polices against human rights abuse and deforestation, and ensure Free, Prior and Informed Consent (FPIC), robust safeguards and effective disclosure and redress mechanisms;
- WORK TO BRING EMISSIONS DOWN TO 'REAL ZERO': Set real and ambitious targets to bring financing portfolio emissions down to as close to zero as possible, without offsets, and covering the entirety of the emissions arising from their loans and underwriting, and the scope 1-3 emissions of their clients;
- STRENGTHEN TRANSPARENCY AND TOOLS FOR VERIFICATION: Enhance measures to ensure accountability of project and corporate financing, including through reporting made publicly-available on online databases on policies, practices and performance indicators in emissions targets, safeguards and human rights standards.


## Governments must: <br> - EFFECTIVELY REGULATE THE BANKING, FINANCE, FOSSIL FUEL AND INDUSTRIAL AGRICULTURE SECTORS TO STOP FOSSIL FUEL EXPANSION, INCLUDING ENSURING MANDATORY DEVELOPMENT OF CLIMATE TRANSITION PLANS CONSISTENT WITH A $1.5^{\circ} \mathrm{C}$ CLIMATE GOAL;

REDIRECT HARMFUL FOSSIL FUEL AND INDUSTRIAL AGRICULTURAL SUBSIDIES;

- SCALE UP SUPPORT AND PLANNING FOR JUST TRANSITIONS TO REAL SOLUTIONS SUCH AS RENEWABLE ENERGY AND AGROECOLOGY

[^0]
## INTRODUCTION

This report looks at the role played by major international banks in financing fossil fuels and industrial agriculture in the Global South. It also examines the current role of public financing in supporting fossil fuels and industrial agriculture, and how public finance could instead support a transition towards a more sustainable future based on renewable energy and agroecology.

In Part 1, we set out the context of the climate crisis to explain why system change is needed. We examine the climate impacts of fossil fuels and industrial agriculture, as well as their broader effects on the environment, gender equity and social justice.

Part 2 looks at financial flows to industrial agriculture and fossil fuels that are harming the planet, and evidence that finance flows for fossil fuels are still far greater than those for climate adaptation and mitigation. Private financial flows can take various forms - including bond and shareholdings by asset managers, pension funds and insurance companies. For the purposes of this report, however, we focus on bank financing, in the form of loans and underwriting. We find that bank financing for the fossil fuel industry in the 134 countries of the Global South reached an estimated US $\$ 3.2$ trillion dollars since 2016 when the Paris Agreement on Climate Change was adopted. Bank financing to the largest industrial agriculture companies operating in the Global South amounted to US\$370 billion over the same period.

Part 3 of the report examines how public finds are currently harming the public interest. We survey the financing offered to industrial agriculture and fossil fuels by state-owned banks and enterprises, development finance, public investment funds, and public subsidies.

Real and sustainable solutions to address global energy and food requirements already exist, which we examine in Part 4.

In the final section of this report, we set out several recommendations on how banks and governments can support a just transition from funding the world's destruction, to financing its hope for survival.

## PART 1. CLIMATE CRISIS AND THE NEED FOR SYSTEM CHANGE

## CLIMATE CRISIS HITTING COMMUNITIES

Climate change is bringing hunger, poverty, terror and grief to millions of people. But the responsibility for climate change is not shared evenly. The responsibility lies mainly in the industrialised Global North countries, and corporations based in the Global North continue to play a disproportionate role in fossil fuel exploitation and expansion. This report focuses on one part of this picture: the role played by global banks in financing fossil fuels and industrial agriculture in the Global South.

Despite not being responsible for most of the pollution leading to climate change, vulnerable communities in the Global South are experiencing its most severe impacts.

Within the last year, climate disasters have taken on a new scale and fury. Europe and North America have experienced recent and shocking heatwaves, fires and floods, with hundreds of temperature records broken on land and in the oceans. Nonetheless, the impacts of climate change continue to be far more severe in Africa, Asia and Latin America. Malawi and Mozambique have faced the terrifying effects of Cyclone Freddy, the longest-lasting cyclone on record. Five seasons without rainfall have left severe drought and unprecedented hunger across Eastern Africa. Devastating floods in Pakistan put one third of the country underwater.

The increasing intensity and frequency of climate disasters provide a hint of the climate chaos that is to come as our planet continues to heat up, and disrupted weather patterns become more extreme.

The Intergovernmental Panel on Climate Change (IPCC) has gathered overwhelming evidence of worsening climate change across the globe, with the worst impacts felt by communities in the Global South, including more frequent and extreme weather events such as heat waves and droughts, floods and tropical cyclones, as well as slow onset impacts like desertification, land degradation and the loss of coastal wetlands. ${ }^{12}$ Previous research by ActionAid has found that even if current climate targets are met by the world's governments, by 2050 more than 60 million people in South Asia alone are likely to be displaced by the impacts of rising sea levels, water stress, crop yield reductions, ecosystem loss and drought. ${ }^{13}$

As United Nations Secretary General António Guterres has stated, "half of humanity is now in the danger zone,"14 and "the era of global warming has ended; the era of global boiling has arrived." ${ }^{15}$

Food systems like farms and fisheries are highly sensitive to changing weather patterns and soaring temperatures. The worsening extremes of climate change undermine food sovereignty and water security, and have already damaged the health and livelihoods of many millions of people, with the most vulnerable people disproportionately affected. ${ }^{16}$ This has particularly adverse effects on gender and social equity. ${ }^{17}$ Women and people marginalised by their race, class, ethnicity, sexuality, Indigenous identity, age, disability, income, migrant status and geographical location are subjected to greater inequality as they are often excluded from social protections, and experience greater vulnerability to climate change impacts. ${ }^{18}$

As appalling as the situation currently is, these effects are likely to become far worse in the future. That is why we need urgent action, including policies to stop pollution and to stop financing polluters. As we set out later in this report, this must include policies and regulations to rapidly reduce bank financing for fossil fuels and industrial agriculture, as well as support for a feminist and just transition towards agroecology and renewable energy for all.

## BOX 1: THE DISPROPORTIONAL IMPACTS OF CLIMATE CHANGE ON WOMEN AND GIRLS

Across the Global South nearly half of the agricultural workforce are women, and in sub-Saharan Africa the proportion is far greater. ${ }^{19}$ This means women's livelihoods and food security are particularly vulnerable to the effects of climate change.

Women and children are 14 times more likely to die from climate disasters as men, ${ }^{20}$ and the greater the gender and economic inequality, the greater the disparity between men and women's chances of survival. ${ }^{21} 80 \%$ of people displaced by climate disasters are women. ${ }^{22}$ When water sources dry up, women and girls must walk further to fetch water. When crop failure impacts on family income, women are more likely to skip meals than men. Girls are pulled out of schooling before their brothers either to save on school fees or so they can be sent to fetch water, setting them on an unequal path for life. They may be married off at an early age by parents who can no longer afford to feed them, depriving them of schooling and exposing them to gender based violence. When climate change leaves families hungry, women report higher incidences of domestic violence. ${ }^{23}$

Many factors increase women's exposure to the effects of climate change. These include discriminatory patriarchal norms and gender-blind or gender-biased policies that place an unequal burden of care on women while reducing their access to land, markets, finance, public services, agricultural extension services and climate information. ${ }^{24}$ Women farmers are therefore less able to invest in resilience, while earning less for their efforts than male farmers. Patriarchal norms in which men hold more power, privilege and property rights also often result in the exclusion of women and girls from participating in local decision-making processes and humanitarian responses. In 2018, only 54\% of crisis contexts were found to have held at least one consultation with local women's organisations in the planning of their humanitarian response strategies. ${ }^{25}$

Another factor making women more vulnerable is accelerating migration from rural to urban locations. It is common for men of working age, particularly young men, to migrate from rural areas in search of employment. This trend is leaving many communities across Africa, Asia and Latin America with few men, driving the feminisation of agriculture and further increasing the multiple burdens on women. ${ }^{26}$ Women report increased exhaustion, poverty and hunger. In some communities, women report that the absence of their husbands means that that they are at greater risk of harassment and sexual and violent assault outside of their homes. ${ }^{27}$ Hunger and poverty has forced some women into transactional sex work in order to feed their families, exposing them to violence and HIV. ${ }^{28}$ Meanwhile, young women in South Asia who are also driven to migration are more likely to experience trafficking and exploitation. ${ }^{29}$

## CYCLONE FREDDY ASIYA'S STORY

CycloneFreddy, which hit Malawi, Mozambique, Zimbabwe and Madagascar in February and March 2023, was the longest-lasting cyclone ever recorded at 38 days. Cyclone Freddy was exceptionally intense and, unusually, crossed back-and-forth over the channel between Mozambique and Madagascar twice, rapidly intensifying several times. The cyclone brought catastrophic damage to the region. Malawi and Mozambique were hit particularly hard.

Mozambique experienced widespread flooding from a year's worth of rainfall over four weeks, and wind speeds of up to 215 km per hour. 1.1 million people were affected by flooding, and 15,000 people became stranded when they moved to higher ground for protection. 391,000 hectares of cropland were damaged. After the storm passed, hunger, lack of access to fresh water, cholera
 and loss of homes and livelihoods continued to cause hardship in a country that is still in recovery from the devastation of the twin Cyclones Idai and Kenneth in 2019. In April 2023, health authorities reported 28,958 cases of cholera in 10 provinces of the country, with 129 deaths.

Malawi, however, was the country hit hardest by Cyclone Freddy. Once reaching Malawi, the cyclone became near-stationary, bringing heavy and incessant rains over an extended period, which caused unprecedented flooding. According to reports from the ActionAid humanitarian team, based on official government and OCHA data, 2,267,458 people have been affected, of whom 659,278,000 have been displaced. The cyclone caused 279 deaths and 2,178 injuries, with 537 people still reported missing. The floods washed away homes, roads, infrastructure, crops and livestock, and inundated 320,000 hectares of land including 117,000 of cropland. Striking just before the harvest was due, Cyclone Freddy has devastated livelihoods and food security. ActionAid is in the region providing cash transfers, distributing food and sensitising communities on protection and prevention of gender-based violence.

ASIYA NGALANDE is a $\mathbf{2 8}$-year-old mother and farmer from Nkhulambe Village in Malawi.
"On that night, I woke up and checked outside. What I saw was a river flowing [where there was none before]. I started waking people up, telling them to evacuate their homes because it was not safe.
"I sent four of my children to my grandmother's house because her roof was covered with iron sheets, and mine was grass thatched. But her house collapsed on them. All four children that were in the house were washed away. As I speak, all the children are gone, they were swept away from that house. I was able to save two of my children, my mother and myself.
"We haven't been able to recover the bodies of the children. We have even gone as far as Mozambique to look for them, but we have not found them.
"Our clothes are gone, blankets, maize, rice, together with the children, are all gone.
"There is now a river outside of our house where there was none before. We are scared of the rains. We get scared every time it starts raining, and we wonder, is it not enough? Hasn't it taken enough lives already? Does it want to kill us all?"

## HORN OF AFRICA DROUGHT - HALIMO'S STORY

In the Horn of Africa - which includes parts of Somalia, Ethiopia and Kenya - the rains have failed for five successive seasons in a row. The region is in the middle of its worst drought for at least 40 years, exacerbated by higher than usual temperatures. Rivers and water sources are dry. Croplands soils are parched. Grasslands for grazing pasture have turned to dust. Over 9 million livestock have died across the region.

More than 16.2 million people cannot access enough water for drinking, cooking and cleaning. More than one person in every nine is currently at risk of starvation. In Somalia, the situation is especially serious. More than $40 \%$ of the population of Somalia face acute food insecurity, and nearly $55 \%$ of Somali children are acutely malnourished. ${ }^{30}$

A study by the World Weather Attribution Group has now confirmed that this drought is a consequence of climate change, and planetary warming due to rising greenhouse gas emissions. ${ }^{31}$

Halimo Ahmed Yusuf is from Ceel-Dheere, Somaliland. She is a pregnant 45 -year-old mother of nine. A pastoralist whose livelihood comes from selling milk and meat, Halimo lost nearly all her livestock in the drought.
"Drought affected us on many sides - whether it is the livestock or the production of a business. I used to own 25 cows and now 20 of them are dead. We have no farms or other sources of income. We are pastoralists and drought took the lives of our livestock. We don't have any other production."

HALIMO is forced to spend her days searching far and wide for water for her family.
"We don't have access to water and water tanks are sometimes in far away locations. It can take me five hours to get water, and sometimes it happens that I don't get any. [The lack of water] affects [the children] and there is no food for them. Thirst is a problem too. Our babies cry because of it."


## THINK YOU KNOW CLIMATE CHANGE?

THINK AGAIN

## CLIMATE IMPACTS FROM FOSSIL FUELS AND INDUSTRIAL AGRICULTURE

The climate science clearly shows that our window of opportunity for keeping global warming under the key threshold of $1.5^{\circ} \mathrm{C}$ is closing fast. Global emissions need to reach zero by 2050 if we are to have even a $50 \%$ chance of keeping under $1.5^{\circ} \mathrm{C}$. Meeting that goal requires rapid action now to ensure that emissions fall to almost half of their 2010 level by 2030. ${ }^{32}$ Current pledges made by the world's governments, however, add up to barely any reductions in annual global emissions, and we are far off track from the GHG cuts needed to keep under the $1.5^{\circ} \mathrm{C}$ warming threshold. As the UN Secretary General has stressed, this "spells catastrophe" and "will destroy any chance of keeping 1.5 alive." ${ }^{33}$

2030 Emissions gaps


Fossil fuels are by far the largest contributor to climate change, accounting for over $75 \%$ of global greenhouse gas emissions. ${ }^{35}$ The potential emissions from the coal, oil and gas fields already in production would push emissions way above $1.5^{\circ} \mathrm{C} .{ }^{36}$ Developing any new fossil fuel extraction projects, or building new fossil fuel infrastructure such as new pipelines, liquid natural gas (LNG) terminals, refineries or coal, gas or oil-fired power plants, is incompatible with the Paris Agreement and the $1.5^{\circ} \mathrm{C}$ climate goal. ${ }^{37}$
"Fossil fuels are a dead end - for our planet, for humanity, and yes, for economies.... A prompt, well-managed transition to renewables is the only pathway to energy security, universal access and the green jobs our world needs. "38

Industrial agriculture, and the unsustainable food system that it supplies, is also a major source of greenhouse gas emissions. The IPCC reports that Agriculture, Forestry and Other Land Use (AFOLU) sector accounts for $13-21 \%$ of greenhouse gas emissions globally. ${ }^{39}$ There are four main emissions sources: carbon dioxide emissions from land use change, including deforestation to make way for agriculture; the production and application of synthetic nitrogen fertilisers ('fossil fertilisers') and agrochemicals; livestock emissions from enteric fermentation and manure; and methane emissions from rice paddies. ${ }^{40}$

The factors identified by the IPCC as the main sources of increased agricultural emissions are characteristic of developments driven by industrialised agriculture. Industrialised agriculture is typified by large-scale plantations; widespread application of agrochemical fertilisers, pesticides and herbicides; hybrid or genetically
modified seeds sold by corporations which need to be purchased anew each year; mechanised farming; monocultures of single crop varieties covering hundreds of hectares; and commodity crops destined for export. Corporations known as 'agribusinesses' control and profit from almost every step of the process.

This model of agriculture is linked to aggressive historic and ongoing rates of deforestation and biodiversity destruction. For example, the main drivers of deforestation in the Amazon and Cerrado (a vast area of tropical savannah in Brazil) are the production of beef, and soy, which is primarily used as animal feed for factory farming. ${ }^{41}$

Synthetic nitrogen fertiliser production requires the burning and feedstock of massive amounts of fossil fuels, usually fossil gas. ${ }^{42}$ When applied to soils, these 'fossil fertilisers' can cause stable organic matter, including mycorrhizal fungi which provide plant nutrients and stabilise carbon, to decompose, generating emissions by turning stored soil carbon into atmospheric carbon dioxide. ${ }^{43}$ The application of synthetic fertilisers onto soils is shown to lead to high emissions of nitrous oxide (N2O), a greenhouse gas that is so harmful to the climate that it causes 310 times the warming effect of carbon dioxide. According to the IPCC, global nitrogen fertiliser use increased by 41\% between 1990 and 2019, corresponding with increased nitrous oxide emissions and climate impacts. ${ }^{44}$

In contrast to industrialised agriculture, agroecological and organic farming approaches are typified by smallholdings, using local and natural materials to provide soil fertility and build up soil carbon and mycorrhizae, and diverse cropping systems which produce food largely destined to feed local communities and markets. These approaches use little to no fossil fertilisers. ${ }^{45}$

The IPCC also notes that the growth in the global livestock population is driving up methane emissions. ${ }^{46}$ Much of this has been through the expansion of 'factory farming' approaches where thousands of animals are kept in enclosed conditions, fed with imported soy and maize, and dosed with high levels of antibiotics. The methane emissions of the five largest meat corporations and ten of the largest dairy corporations account for just over $11 \%$ of the world's livestock-related methane. ${ }^{47}$ This gives each of these companies a greenhouse gas emissions footprint equivalent to oil companies.

The impacts of industrial agriculture are not limited to the direct emissions from agriculture itself. Industrial agriculture is one end of a food chain that concentrates the production, distribution, processing, and sale of food in the hands of a few powerful corporations. Research on the broader climate impact of the global food system estimates that it contributes around 30 per cent of the world's greenhouse gas emissions, with the transport of ingredients and food products accounting for nearly one-fifth of this total. ${ }^{48}$ Industrialised agriculture is at the heart of this problem, since it is a system built around long supply chains rather than sourcing sustainable food locally.

Industrialised agriculture is the cornerstone of a food system that is characterised by high levels of food waste, and consumption patterns that have increased demand for animal-sourced and processed food. Shifting to healthier diets and reducing food waste are critical objectives if we are to shift to a more sustainable food system. ${ }^{49}$

It is also relevant to note that there is a growing co-dependency between industrial agriculture and fossil fuel corporations, which goes beyond the use of fossil fuels in synthetic nitrogen fertiliser production. As the world's energy and transport sectors are increasingly required to shift away from fossil fuel dependency, fossil fuel corporations are seeking to expand key markets such as agrochemical and plastic production, to absorb and justify their continued extraction and sales. ${ }^{50,51}$ Furthermore, fossil industries are now promoting hydrogen as a clean-sounding energy alternative, using technologies already developed by the fertiliser industry to advance Carbon Capture and Storiage. ${ }^{52}$ Producing hydrogen is highly energy intensive, however, and fossil fuel industry claims that they could produce it "cleanly" by capturing and storing carbon dioxide do not stack up. It has been shown that associated methane emissions resulting from this process are higher than the equivalent greenhouse gas emissions produced by some existing fossil fuel uses. ${ }^{53}$

## BOX 2:

INDUSTRIAL AGRICULTURE - THE SECOND BIGGEST SOURCE OF GLOBAL GHGS

Agriculture-more specifically industrial agriculture-is the second largest source of greenhouse gas (GHG) emissions globally.

The top five emitting sectors according to the IPCC are industry (34\%); agriculture, forestry and other land use (AFOLU) (22\%); buildings (16\%); transport (15\%); and energy supply (12\%).54

Carbon dioxide, methane ( CH 4 ), and nitrous oxide ( N 2 O ) make up the GHG emissions from the agriculture sector. Industrial agriculture contributes substantially to the total emissions from the sector, in particular through the use of synthetic nitrogen fertilizers, deforestation, and intensive livestock production. In addition, emissions from the production and transportation of fertilizers (accounted for by the IPCC in the 'industry' sector) must be added to AFOLU sector emissions to capture the entire scope of industrial agriculture-related emissions.

Taken together, the full supply chain emissions of synthetic nitrogen fertilizer; deforestation linked to industrial commodity production, including cattle; and intensive livestock production make up the majority of agriculture-related emissions and lead to the conclusion that industrial agriculture is the second largest source of GHG emissions.

SYNTHETIC NITROGEN FERTILIZER. The amount of GHG emissions from production of synthetic nitrogen fertilizers is significant. "The synthesis of ammonia, from which all synthetic fertilizers are produced, accounts alone for about $0.8 \%$ of the global GHG emissions and two percent of global energy." ${ }^{35}$ Total emissions across the N fertilizer supply chain from manufacturing to soil application was estimated at "1.13 Gt carbon dioxidee in 2018, representing 10.6\% of agricultural emissions and 2.1\% of global GHG emissions." ${ }^{56}$

DEFORESTATION. Gross emissions from deforestation have doubled in the last decade and continue to rise. ${ }^{57}$ The most important driver of deforestation is global demand for agricultural commodities. Industrial commodity production is therefore the largest contributor to ag-related GHG emissions from deforestation. "[J]ust seven agricultural commodities - cattle, oil palm, soy, cocoa, rubber, coffee, and plantation wood fiber-accounted for $26 \%$ of global tree cover loss from 2001 to 2015," which was $57 \%$ of agriculture-related tree cover loss. ${ }^{58}$ "In tropical America, much of the lands replacing forest are large-scale commodity agriculture operations, including rangelands for beef, and croplands for oilseeds and cereals." ${ }^{59}$

INTENSIVE LIVESTOCK PRODUCTION. Livestock are the main source of agricultural emissions, with cattle as the most GHG intensive of any livestock from manure and enteric fermentation. Intensive cattle production contributes methane, nitrous oxide and carbon dioxide emissions. Livestock are responsible for $66 \%$ of agricultural methane emissions. Intensively managed pastureland, while only one quarter of global grazing lands, contributed $86 \%$ of the net global nitrous oxide emissions from grasslands. ${ }^{60}$ Cattle farming remains a major driver of deforestation, a larger driver than any other commodity, with forests cut down both for pasturelands and for growing feed crops. ${ }^{61}$

## CYCLONE FREDDY - LOVENESS' STORY

Loveness Chiwaya Chaponda is the director of Chigwiranzo Women Movement, a local partner organisation of ActionAid in Malawi.
"When Cyclone Freddy hit the first time, the second time, and the third time, we were inside our homes. The floods came at night whilst we were asleep. It sounded like a moving vehicle or a maize mill.
"At first it was just water flowing. This was followed by more water, but mixed with mud. This caused a lot of people in this area to be swept away by the floods. As I am speaking, this area you see is not what it used to be. It is an area that used to have houses. But due to the floods all the houses are gone. These floods brought this sand that you see, these rocks that you see, and the trees.
"This disaster has taken a lot of lives. And it has affected us because we have lost crops and housing. There were also business people here, who had small and medium size businesses, which used to create jobs. Those business people have lost their money and goods. There was also a hospital in this area. That hospital has also been swept away. As I speak, we do not have nurses and doctors.
"Right now we are very scared of diseases, especially cholera, because we are drinking untreated water. Cholera is a deadly disease. In the camps we are not eating clean food, we are just eating because we are hungry and food is scarce, so we are just eating anything. Even toilets are gone. When someone wants to ease themselves, there is no toilet. So everyone will just be easing themselves anywhere.
"We are scared of hunger. Everything is gone. People have nothing. No blankets, no food, no cooking utensils.
"It may be difficult to rebuild because the area is destroyed, even the soil. The way it is now it will be hard to produce food. This area had fertile land where we were able to harvest and feed our families. Now all the crops are gone, the ground is full of sand. Malnutrition will affect our kids."


## FOSSIL FUELS: GENDERED, SOCIAL, ENVIRONMENTAL AND HEALTH IMPACTS

The extraction and use of oil, gas and coal has well-known impacts on health and the environment alongside the damage they cause to the climate. Coal mining removes huge amounts of top soil (and sometimes whole mountaintops) leading to erosion and loss of habitats, while mine wastes cause significant water pollution. ${ }^{62}$ The burning of coal emits toxic and carcinogenic substances further polluting our air, water and land. ${ }^{63}$ The effects of air pollution from coal-fired power plants are estimated to kill up to 115,000 people annually in India, and over 360,000 annually in China. ${ }^{64}$

Extracting oil and gas causes significant water, air and soil pollution, not least through the huge quantities of waste generated by their extraction and refinement. ${ }^{65}$ The production and use of oil and gas also consumes large volumes of water - several billion cubic metres per year - which is then polluted with hydrocarbon residues, salts and heavy metals. ${ }^{66}$

Air pollution from oil extraction, gas flaring, refineries and petrochemical plants has significant health impacts, including increased risk of asthma, cancer and birth defects. ${ }^{67}$ From Cox's Bazar in Bangladesh to Cancer Alley in Louisiana, USA, poor and marginalised communities are most affected by these polluters, since extractive projects, petrochemicals and other heavy industries are disproportionately sited and developed where poor communities live. ${ }^{68}$ In Ogoniland in southeast Nigeria, for example, oil pollution has accumulated for decades, with reports of severe contamination of land and underground water, including dangerous concentrations of benzene in community drinking water. ${ }^{69}$

Fossil fuel extraction sites are also sites where gender-based violence and femicide is concentrated. ${ }^{70}$ In particular, temporary settlements for fossil fuel workers, known as 'man camps', are associated with increases in sexual assaults. ${ }^{71}$ On her visit to South Africa, for example, the UN Special Rapporteur on violence against women found that women working in the mining industry are exposed to extremely high levels of sexual and physical violence. ${ }^{72}$ The Minerals Council of South Africa, the mining industry employers' organisation, has also acknowledged a "crisis of gender-based violence and harassment" in the sector. ${ }^{73}$

The fossil fuel sector is also "riddled with economic gender inequality". ${ }^{74}$ The sector has one of the lowest proportions of female employees of any economic sector, with very few women in managerial positions and wages for female employees almost $20 \%$ lower than their male counterparts on average.

Women experience disproportionate health impacts from the air, water and soil pollution caused by fossil fuels. For example, exposure to air pollutants released when fossil fuels are burnt have been linked to breast cancer and ovarian diseases. ${ }^{75}$ Flaring at refineries and petrochemicals facilities has been linked with increased risk of preterm births, as well as respiratory, cardiovascular, nervous system problems in surrounding communities. ${ }^{76}$ Food production is at the core of the unpaid care and domestic work that disproportionately falls to women in rural areas, and the impacts of pollution on land, water and livestock are devastating, affecting them and their families' health and food security. ${ }^{77}$

ActionAid South Africa's 2017 report Living Next to the Mine found that women living in mining-affected communities in South Africa are forced to cope with food insecurity, an increased burden of unpaid care and domestic work, chronic health problems and terminal illness from environmental pollution, and increased levels of HIV infections. ${ }^{78}$

## Industrial agriculture: Gendered, social, environmental and health impacts

Despite its promises, the industrialised food system is still failing to feed the world properly. A shocking 2.4 billion people did not have access to sufficient, safe or nutritious food in $2022 .{ }^{79} \mathrm{~A}$ full $11.7 \%$ of the global population faced severe insecurity that same year. The Covid-19 pandemic has increased global hunger by as much as 150 million people. Even without the impact of the pandemic, however, the current global food
system would still leave more than one in four people food insecure around the world. Many of the people who are going hungry under this system are themselves food producers, and women farmers are particularly at risk. ${ }^{80}$ This exposes the faulty logic of the industrial agriculture system, based on the exploitation of nature and cheap labour, including women's unpaid work.

The costs of inputs associated with industrialised farming approaches - namely seeds, fossil fertilisers, herbicides and other pesticides - eat into farmers' take-home incomes, and many face shrinking returns and growing debt. National data from India found that over 17,000 farmers died by suicide between 2018 and 2020, in part due to the high price of agricultural inputs, the increasing costs of cultivation, and deepening debt. ${ }^{81}$

Rising global fuel prices since 2022 had an immediate effect on fertiliser prices. ${ }^{82}$ Agricultural policies in many countries have encouraged dependence on fertiliser use, making farming communities particularly vulnerable to these effects. In some developing countries, fertiliser subsidies make up a large proportion of the national agriculture budget. Zambia, for example, spent $26 \%$ of its agriculture budget on its Farm Input Subsidy Programme (FISP) in 2019 to subsidise chemical fertilisers, pesticides and seeds. Zambia spent 30\% of its agriculture budget on subsidising industrial agriculture inputs, while Malawi spent over $75 \%$ of the Ministry of Agriculture's central budget on fertiliser purchases in its 2022/23 budget. ${ }^{83}$ This puts huge burden on national budgets, meaning that funds are then no longer available for supporting sustainable or resilient agricultural and food systems. ${ }^{84}$ Participatory research by ActionAid and allies has found that decisions made about the distribution of FISPs are not transparent and marginalise small-scale farmers, women and youth. ${ }^{85}$

Under the dominant model of industrial agriculture, making a profit is only possible for many farmers if done on a large scale. For small and even medium-sized farms, the industrialised farming economy can be an extremely challenging place to survive. The logic that dominates industrial agriculture and policies is often 'get big or get out', rewarding farming approaches that harm the climate, undercut other farmers and erode communities. ${ }^{86}$ Expansion of large-scale farming as a result of industrialised agriculture approaches means, inevitably, that smallholder farmers' lands are being swallowed up by growing plantations.

In the Global South, the concentration of land into fewer hands often takes place through land grabs, ${ }^{87}$ enabled by insecure land tenure. ${ }^{88}$ Often farming communities growing food on traditional territories find that their communal land tenure rights are swept away or deemed non-existent in the face of agribusiness developments. ${ }^{89}$ Women farmers in particular can face legal, economic or cultural barriers to access and control over land. As a result, women own less than 20\% of the world's land, even though they represent half of the farmers in Southeast Asia and sub-Saharan Africa. ${ }^{90}$ They are particularly vulnerable to the grabbing of the marginal lands on which they rely for agriculture and grazing.

Much of the expansion of soybean farming in Brazil, Argentina and Paraguay over the last decades has taken place through aggressive, sometimes deadly, land grabs. ${ }^{91}$ In these countries, hundreds of thousands of small-scale farmers have been forced off the land to make way for vast plantations of genetically modified soybeans, with chemicals and machinery replacing farmworkers. ${ }^{92}$

When smallholder farmers are forced off their land, they all too often end up working as poorly paid labourers on the plantations that have taken over their former farms - reproducing some of the exploitation and unequal power dynamics that began with colonialism. ${ }^{93}$ Worker exploitation and low wages are extremely prevalent across the agriculture industry, in all parts of the world.

The heavy use of agrochemicals such as pesticides and fertilisers can also present health threats to workers, particularly where oversight is minimal. About 385 million cases of pesticide poisoning occur worldwide every year, with people in the Global South working in rural areas particularly affected. ${ }^{94}$ The same agrochemicals are also driving biodiversity loss, putting severe pressure on ecosystems, and driving land degradation. ${ }^{95}$ $70 \%$ of the global pesticide market is controlled by just four agribusiness corporations, all from the Global North. Their business strategy is focused on expanding into Global South markets where pesticides are less strictly regulated. ${ }^{96}$

## DEFORESTATION AND DISPLACEMENT FOR BUNGE IN BRAZIL

Bunge is a global agribusiness headquartered in the USA, involved in trading grain, fertiliser, and soybeans. It is one of the major players exporting soy from Brazil to European markets. ActionAid's data analysis shows that Bunge has received an estimated US $\$ 13.5$ billion in loans and underwriting for its activities in the Global South since 2016. Its largest financiers are the Farm Credit Services Commercial Finance Group (US\$1.4 billion), SMBC Group (US\$1.4 billion), Citigroup (US\$860 million), ING Group (US\$770 million) and JPMorgan Chase (US\$730 million).

Bunge's responsibility for driving deforestation has been repeatedly highlighted. For example, a report by Chain Reaction Research found that in 2020 the corporation purchased soybeans from farms responsible for more than 100 square kilometres of deforestation - an area twice the size of Manhattan - in Brazil's Cerrado region. ${ }^{97}$

The Cerrado is one of Brazil's largest and most precious ecosystems. It hosts the headwaters to much of Latin America's watersheds and is home to a huge diversity of animal and plant species. Its plants penetrate deep underground and act as a vast natural carbon sink, one that is crucial for the health of the whole planet.

The aggressive and often violent expansion of large-scale industrialised soybean farming in the Cerrado, for harvests destined for Bunge's shipments, are driving devastating deforestation, and displacing Indigenous, quilombo (Afro-Brazilian farmers) and smallholder communities from the land. A study in April 2022 by Rede Social and Friends of the Earth found that sophisticated methods of land grabbing are used by agribusiness plantations, from falsification of land titles combined with aggressive spreading of fires, threats of violence, to deforestation to drive farmers and Indigenous Peoples off their land parcels in the Matopiba region in the state of Piauí. ${ }^{98}$ Vast and silent soybean monocultures stretching for thousands of kilometres now replace the once vibrant forest ecosystems.

Speaking anonymously for reasons of safety, a community member in Southern Piauí says "They burn [the forest] so that they can destroy the Cerrado vegetatation and replace it with soy. The fire destroys all the flora and the trees that provide food, and causes damage to our streams. Burning destroys the soil and everything dies."99

Another community member adds "They do ariel spraying on the soybeans. When the plane turns around, the poison falls on our production and burns our corns, beans, rice, broad beans. Pesticides dry everything, toast everything, and are very dangerous." ${ }^{100}$

Almost all the soybeans grown in Southwestern Piauí are destined for Bunge silos. ${ }^{101}$ Bunge has previously claimed that they do not purchase from illegally deforested areas in the Cerrado, and that any deforestation for their soybeans has taken place legally. This may indeed be true, as under the previous government of Jair Bolsonaro, laws were passed that permitted deforestation in the Cerrado. But, legal or not, the impacts on communities and the climate are deeply destructive. Following international exposure, the corporation has now declared a target of a deforestation-free supply chain by 2025 . This shows the value of scrutiny and campaigning on influencing corporations' policies. However, Bunge's own monitoring in 2022 found that it was still failing to track the sustainability of $36 \%$ of its soybean purchases in the Cerrado. ${ }^{102}$


## "THE OIL HAS DAMAGED EVERYTHING" - SHELL'S LEGACY IN THE NIGER DELTA

Shell is one of the world's largest privately owned oil companies, and its operations in the Global South have received an estimated US\$37.6 billion in financing since 2016. The major banks behind this financing are headed by BNP Paribas (US\$3.9 billion), Barclays (US\$3.8 billion), Morgan Stanley (US\$3.8 billion), JPMorgan Chase (US\$3.1 billion) and HSBC (US\$2.8 billion)

For decades, the oil extraction operations of Shell have been devastating communities in Nigeria's Niger Delta. Oil spills and gas flaring have decimated fish populations, resulting in the loss of countless fishing livelihoods and a sharp rise in hunger for local people.

MARTHA ONISURU is a fisherwoman in the area. Her anger is palpable.
"Before the arrival of Shell, when we cast our nets there was always a surplus of fish, and we would have problems taking all the fish home. Now that Shell has arrived, and they started burning their fire and spilling oil everywhere, since they came here, we cannot catch fish.
"We are dying of hunger.
"Even the water in our taps now has oil in it since Shell came. Water that is meant for consumption is now contaminated. Whenever we drink from the water, we always come down with stomach ache.
"The oil has damaged everything."


## DEBUNKING THE DEVELOPMENT MYTHS OF FOSSIL FUELS AND INDUSTRIAL AGRICULTURE

One of the most common rationales used to justify the expansion of fossil fuels and industrialised agriculture in the Global South is that these sectors provide development benefits to lower income nations and are necessary for meeting the food, energy and livelihood needs of citizens. These assumptions do not bear close scrutiny.

Approximately half of Africa's population still lacks access to electricity, a fact that has been used as justification for new large-scale fossil fuel developments across the continent. ${ }^{103}$ However, most of the coal, oil and gas that is currently targeted for expansion in Africa and many developing countries is either destined for export or intended for use by industrial sectors. These expansion projects rarely meet the immediate energy needs of citizens living in poverty and without access to electricity. ${ }^{104}$

Much of the time, industrial agriculture and the fossil fuel industry do not, in fact, address domestic energy poverty or food insecurity, or even provide livelihoods or public revenue. They are not designed to do so they are simply the options that are easiest to commodify and export. Rather than designing food and energy policies to meet people's real needs, many countries structure these sectors to prioritise exports.

Economies structured around exports of fossil fuel and industrial agriculture commodities are the legacy of colonialism. The traditional tools of colonialism have been swapped for national debt and neoliberal economic policies enforced by institutions such as the IMF and World Bank.

All too often, Global South countries are required to earn foreign currency to pay back external debts to the World Bank, the IMF and private banks. This creates pressure to increase exports in fossil fuel and industrialised agriculture cash crops, contributing to the deforestation and rising GHGs that cause the climate crisis. ${ }^{105}$ It doesn't end there. Countries must often take on additional loans to cover the investment in new infrastructure, creating a vicious cycle of debt and demands. $60 \%$ of the most climate vulnerable countries are already spending so much on debt servicing that they are likely to cut spending on public services, making it impossible to make urgently-needed investments in climate action. ${ }^{106}$ Meanwhile, available data indicates that $93 \%$ of the countries most vulnerable to the climate crisis are in debt distress, or at significant risk of debt distress. ${ }^{107}$ In many cases, the original loan amount has already been paid back, but successive currency devaluations, rising interest rates, fluctuating commodity prices and the destructive impacts of climate change, have kept the debt repayment finish line perpetually out of reach. Debt cancellation could free many countries to decide on approaches that truly meet the food, energy, economic and climate needs of their people - and to move away from the focus on export commodities that harm local communities and exacerbate the climate crisis.

International corporations produce, control and profit from the lion's share of fossil fuel and agricultural cash crop commodities. Meanwhile, the expansion of new fossil fuel reserves is often accompanied by tax incentives, subsidies or tax holidays. Once this infrastructure is operational international fossil fuel companies often export a large share of the profits through transfer pricing to tax havens. In this way, there are many cases where national governments do not receive significant tax income from fossil fuel development, and little trickles back to the communities most in need of energy, food security and public funding.

These realities have ensured that dramatically more money flows from the Global South to the Global North in terms of profits, debt repayments, tax avoidance etc, than flows from North to South in the form of aid or direct investment, with the net flow South to North being at least US\$2 trillion per year. ${ }^{108}$

Energy systems based on fossil fuels are heavily centralised, requiring massive investments in infrastructure for extraction, transport, conversion into power, and energy distribution. Fossil-fuelled energy systems have failed to provide electricity to many rural regions in Africa, Asia and Latin America. Nigeria, one of the
largest oil and gas producers in Africa, is failing to provide electricity to $43 \%$ of its population. ${ }^{109}$ Many rural communities either lie too far from the literal and figurative centres of power to be provided with electricity, or they may see the pipelines and transmission cables passing through their regions without stopping to share the benefits. Either way, fossil fuel development is often done in the name of marginalised communities who were never intended to benefit.

The war in Ukraine is now leading to a new European rush for African gas. ${ }^{110}$ Even though the continent is being pressured to exploit its fossil fuel reserves for export to Europe, this is once again being camouflaged with a contradictory and false fig-leaf narrative of meeting Africa's energy needs. ${ }^{111}$

Communities are often told that fossil fuels will bring jobs and economic opportunities. However fossil fuels are more likely to harm communities' economic prospects than to improve them. Jobs in fossil fuels are almost always far fewer than promised, and the majority of positions on offer to people with lower literacy levels are low-paid, dangerous and often temporary. ${ }^{112}$ Meanwhile, the livelihoods, homes, health and ecosystems of local, Indigenous, farming and fishing communities are harmed by land grabs, pollution and competition for water. In contrast, every dollar invested in renewable energy has been found to create two to five times more jobs than fossil fuels. ${ }^{113}$

Short-sighted expansion of fossil fuels will lock countries in the Global South into this pathway for decades, however. Burning fossil fuels harms climate-vulnerable countries' own chances of survival in a warming world. And with future climate policies potentially leading to a phase-out or prohibition of future fossil extraction, developing countries will be left with hundreds of billions of dollars' worth of unusable 'stranded assets', while still obliged to pay back debt for many decades into the future for the building of now-irrelevant infrastructure. ${ }^{114}$ Over the next 20 years, the fossil fuel industry is likely to devalue by between US\$13 and US $\$ 17$ trillion, according to a recent study. ${ }^{115}$ There is even a risk that developing countries which have invested in these stranded assets will then hold back from demanding stronger climate action on fossil fuels from the rich countries most responsible for causing the climate crisis, thus further harming their own longterm interests.

Similarly, claims that industrial agriculture expansion will address countries' food insecurity gaps are clearly untrue when those products are destined for export. Much of the global agricultural commodity market is likely to end up as animal feed (soybeans, maize) or biofuels (soybeans, maize, sugar and palm oil) rather than to feed people. Meanwhile, millions of smallholder farmers, women in rural areas and Indigenous communities have been outcompeted or violently forced off their land by the aggressive expansion of largescale plantations. ${ }^{116}$

As laid out in more detail later in this report (see Solutions), renewable energy and agroecological farming approaches are the best ways to address the world's energy and food requirements in an era of climate change and biodiversity collapse. The world's financial systems must be restructured to support these urgently-needed approaches.

## PART 2 THE MONEY FLOW: HOW FINANCIAL FLOWS ARE HARMING THE PLANET

## THE BANKS THAT ARE FINANCING THE CLIMATE CRISIS

As the climate crisis continues to escalate, the global financial system continues to pump billions of dollars into fossil fuels and industrial agriculture - the two largest contributors to climate change. Financial flows take various forms, including investments in company bonds and shareholdings by pension funds, insurance companies, university endowments and asset managers. For the purposes of this report, however, we will focus on the banking sector.

Banks are at the heart of financing fossil fuels and industrial agriculture. The global scale of fossil fuel financing has already been tracked by a coalition of civil society organisations that puts together the annual Banking on Climate Chaos report, while other research has sought to track investments in bonds and shareholdings, or the role of the private equity sector, as well as the role of banks in financing deforestation. ${ }^{117}$

ActionAid's new findings analyse the extent of bank lending and underwriting to fossil fuels and industrial agriculture, with a specific focus on the Global South.' Wherever this financing takes place, it is driving climate change. In this report, we analyse financial flows from the banking sector to the 134 countries of the Global South, shedding light on how they are harming frontline communities and pushing the planet to the brink.

[^1]
## INDUSTRIAL AGRICULTURE

ActionAid's analysis of banking activities reveals that in the seven years since the Paris Agreement, the world's leading financial institutions have provided US\$369.2 billion in bank financing (loans and underwriting) to big industrial agribusiness corporations operating in the Global South. This averages out at about US\$53 billion per year, although the annual figures fluctuate.

In comparison, the real value of financial supportii for all climate action provided from countries in the Global North to the Global South has been estimated to be around US\$21 to US $\$ 24.5$ billion in 2020. ${ }^{118}$ This means that since the Paris Agreement was signed, banks have provided twice as much financing to industrial agriculture corporations operating in the Global South, than Global North governments have provide as climate finance to countries on the front lines of the climate crisis.


The major banks financing agribusiness in the Global South are headquartered in the United States, Europe, China and Japan. HSBC is the largest agribusiness bank, providing US\$17.2 billion in financing between 2016 and 2022. It is followed in the rankings by JPMorgan Chase (US\$14.2 billion), Bank of America (US\$14 billion), Citigroup (US\$13.9 billion) and Mitsubishi UFJ (US\$13.2 billion).

Table 1: Agribusiness clients in the Global South

| Bank |  | Billions USD <br> $2016-2022$ to <br> the top 5 clients |
| :--- | :--- | :--- |
| HSBC | Bayer, Cargill, ChemChina, Olam Group, WH Group | 12.7 |
| Bank of America | ADM, Bayer, Cargill, ChemChina, WH Group | 11.4 |
| JPMorgan Chase | ADM, Bayer, Bunge, Cargill, Olam Group | 11.1 |
| Citigroup | ADM, Bayer, Bunge, Cargill, Olam | 10.3 |
| China Merchants <br> Bank | ChemChina, COFCO Group, Muyuan Foodstuff, New Hope Group, Wilmar <br> International | 10 |
| CITIC | ChemChina, COFCO Group, Muyuan Foodstuff, New Hope Group, Sinochem <br> International | 10 |
| MUFJ | ADM, Bayer, ChemChina, Olam, UPL - United Phosphorous | 9.7 |
| Barclays | ADM, Bayer, Cargill, JBS, WH Group | 8.4 |
| BNP Paribas | ADM, Bayer, Cargill, ChemChina, Olam | 8.4 |
| Credit Suisse | ADM, Bayer, ChemChina, Olam, UPL - United Phosphorous | 7.5 |
| Bank of China | ChemChina, COFCO, New Hope Group, WH Group, Bolloré | 7.4 |

[^2]Our data analysis shows that in the Global South, the largest recipients of agribusiness financing from these banks are Bayer (US\$20.6 billion), ChemChina (US\$18.8 billion), followed by COFCO Group, Cargill and ADM, all of which are involved in the sale of agrochemicals, animal feed, biofuels or commodities.

## FOSSIL FUELS

Since the Paris Agreement there has been a staggering \$3.23 trillion dollars in bank financing to fossil fuel operations in the Global South. This includes close to US\$870 billion in loans and US\$2.4 billion in underwriting.

To give a sense of scale, this averages out at around US\$460 billion annually. This means that banks have provided 18 times more financing to fossil fuel activities in the Global South, than Global North governments have provided as climate finance to countries on the front lines of the climate crisis.ii


The top banks funding fossil fuels in the Global South are Industrial and Commercial Bank of China (US\$146 billion since 2016), China CITIC Bank (\$124 billion), Bank of China (US\$116 billion), Citigroup (US\$90.6 billion) and China Construction Bank (US\$87 billion). JPMorgan Chase (US\$61.2 billion) and Bank of America (US\$54.2 billion) follow Citi as the largest banks from the Americas financing fossil fuels in the Global South. HSBC (US\$63.6 billion), BNP Paribas (US\$36.5 billion) and Société Générale (US\$36.3 billion) head the list of European financiers of fossil fuels in the Global South.

[^3]Table 3: Fossil fuel clients in the Global South

| Bank |  | Top 5 Clients |
| :--- | :--- | :--- | \(\left.\begin{array}{c}Billions USD <br>

2016-2022 to <br>
the top 5 clients\end{array}\right]\)

The largest recipients of fossil fuel financing from these banks are State Power Investment Corp (China) (US\$204 billion), State Grid Corporation of China (US\$167 billion), China Huaneng Group (US\$111 billion), Trafigura Group (US\$103 billion) and Saudi Aramco (US\$91 billion).

Six of the largest recipient of fossil fuel financing in the Global South are Chinese power companies, which have a high proportion of coal-fired power station in their energy mix; three are oil and gas majors (Saudi Aramco, Petrobras and Sinopec); and Trafigura is one of the largest oil and gas traders globally.

Overall, when these figures are combined, ActionAid's research finds that since the Paris Agreement, banks have provided 20 times more financing to fossil fuels and industrial agriculture activities in the Global South than Global North governments have provided as climate finance to countries on the front lines of the climate crisis.


## CHINA

The largest share of financing is provided by Chinese banks and goes to Chinese companies because China has the biggest economy of those surveyed, and by a considerable margin. China's nominal GDP (US\$19.37 trillion), a figure that calculates the market value of all goods and services from a country each year, is over five times higher than that of India, the next largest global south country in nominal GDP terms, and over seven times higher than the nominal GDP of the whole of Africa.

The vast majority of China's financing is likely used domestically. Out of US\$1.79 trillion in fossil fuel financing originating in China since 2016, an estimated US\$1.72 trillion went to companies that are headquartered within China. Most of this financing is likely used domestically, although there is no data on the extent to which these corporations are funding activities in other parts of the Global South. In our industrial agriculture dataset, Chinese banks provided US\$75 billion in total financing, of which US\$64 billion went to clients headquartered in China.

The share of overall financing is also, in part, a product of what is counted. Chinese banks dominate the list of fossil fuel and agribusiness financiers in the Global South when both loans and underwriting are taken into account, but fall behind some of the major Japanese, US and European banks when only loan financing is considered.

Another reason that Chinese banks dominate the list of fossil fuel financing in the Global South is their support for electricity generation companies, many of whom deal in coal-fired power generation. China is by far the largest builder of new coal-fired power plants, with the generating capacity of plants under construction now six times higher than that of newly constructed coal plants in the rest of the world combined. ${ }^{119}$ This rate of construction risks contributing greatly to the world overshooting its $1.5^{\circ} \mathrm{C}$ carbon budget, unless China
rapidly reconsiders its approach, extending President Xi Jinping's 2021 pledge at the UN General Assembly to "not build new coal-fired power plants abroad" to cover its own domestic market, which would have to be accompanied by accelerated investment in renewable energy and efficiency measures. ${ }^{120}$

However, it should also be noted that the manufacturing of export products is a major demand on China's energy use, and that customers in Global North countries are in fact the ultimate consumers of much of the energy embodied in these manufactured goods produced using fossil fuel energy. ${ }^{121}$

China already leads the world in many of the areas that contribute to an energy transition - including the largest volume of installed wind and solar power, the largest investments in energy storage batteries, and investments in efficient transmission lines and energy storage batteries. ${ }^{122}$ China achieving a domestic shift should be part of a global effort, recognising different countries' historic responsibility for climate change and their respective capabilities to contribute to climate action. We should be wary of efforts to divert blame onto China for a climate crisis that has been greatly accelerated by fossil fuel exploitation and agribusiness in industrialised countries in the global North, and by these countries' extractive and exploitative relationships with the Global South.

## INTERNATIONAL AND NATIONAL BANKS

Chinese companies mostly rely on Chinese financing, and the same is largely true of Japanese banks and companies. However, the major multinational fossil fuel and agribusiness companies - which are most of the lead operators in the Global South outside of China - often source financing from banks headquartered in the US and Europe. These institutions are bankrolling some of the most destructive fossil fuel and agribusiness projects in the world. Domestic and international pressure from citizens' organisations and activists is needed to push them away from these activities, or to make governments and international institutions pass regulations that rule out these activities.

In this report, we profile nine major international banks financing fossil fuels and agribusiness: Barclays, BNP Paribas and HSBC (headquartered in Europe), Bank of America, Citi and JPMorgan Chase (headquartered in USA, and the largest in the Americas), and ICBC, Mitsubishi and China CITIC Bank (headquartered in Asia). We focus on these banks to examine a cross-section of the policies that already exist, and are lacking, in relation to fossil fuel and agribusiness investments. These profiles also show how decisions endorsed in board rooms in London and New York have severe consequences for the lives and livelihoods of people in fields, forests and cities from Brazil to Indonesia and Mozambique.

Most of the banks we profile were chosen because they are the largest financiers of fossil fuels and industrial agriculture in the Global South (as shown in Table 1) in their regions. Barclays (the fourth largest European financier of fossil fuels and industrial agriculture combined in the Global South is featured because it is a major financier of industrial agriculture, as well as some of the companies most aggressively expanding fossil fuels. Mitsubishi UFJ (MUFG) is also one of the Asian banks profiled here, despite not being in the top three by financing size. MUFG is a key private financier of controversial activities that are subject to local and international campaigns and resistance, including the Cirebon 2 coal-fired power plant project in Indonesia. MUFG is also the world's largest provider of loan financing to the fossil fuel and industrial agriculture sectors.

Although this report focuses mostly on the largest banks and financial flows, we are conscious that this does not tell the full story. The Dutch banking sector, while not the world's largest, nevertheless plays a disproportionate role in financing agribusiness in the Global South - with Rabobank providing US\$10 billion in financing for the largest agribusiness companies in the Global South since 2016, and ING Group a further US\$7.8 billion.


## NET ZERO IS NOT ZERO

In recent years, many governments and non-state actors have championed 'Net Zero' targets as a signal of commitment to climate action. Many banks covered in this report have joined the Glasgow Financial Alliance for Net Zero (GFANZ) and/or the Net Zero Banking Alliance (NZBA), and several have declared targets of net zero emissions by 2050.

However even though it may sound similar, the phrase 'net zero emissions' does not mean 'zero emissions'. There are growing concerns that the term is being used to provide a veneer of climate credibility to business-as-usual pollution. ${ }^{123}$

Most net zero targets involve vague plans with long timelines that allow emissions to continue rising, often for decades. ${ }^{124}$ Many rely on the false assumption that their emissions can be neutralised by carbon offsets (usually tree plantations that are likely to drive harmful land grabs in the Global South), ${ }^{125}$ or that new
technologies - which are unproven at scale, and which may also themselves cause harm - will be able to remove carbon dioxide from the atmosphere in the future. ${ }^{126}$

In response to growing concerns about the integrity of net zero pledges, UN Secretary General António Guterres set up the UN High Level Expert Group (HLEG) on the Net Zero Emissions Commitments of Non-State Entities. In its investigations, the HLEG noted that net zero pledges are indeed being used for greenwashing, and that dishonest accounting is being used to circumvent deep decarbonisation. In its recommendations published in 2022, the HLEG found that non-state actors cannot claim to be net zero while continuing to build or invest in new fossil fuel supplies, or buy cheap carbon offset credits as an alternative to cutting their own emissions across their value chain. ${ }^{127}$

Recent research by Reclaim Finance, however, finds that 56 of the biggest banks in NZBA have nonetheless continued to provide hundreds of billions of dollars to the world's major fossil fuel expanders in the form of loans and underwriting, and that only a handful of GFANZ members have adopted policies that meaningfully restrict finance to new fossil fuel projects and companies developing new fossil supply projects. ${ }^{128}$

Indeed, as our profiles of the largest financers or fossil fuels and industrial agriculture highlight, numerous banks have joined GFANZ or NZBA, or declared net zero by 2050 targets while continuing to fund the fossil fuel expansion that is incompatible with a climate-safe world.

## BANK PROFILES

## EUROPE

## IIII BARCLAYS

Barclays is the fifth largest bank in Europe but is Europe's leading financier of fossil fuels globally. ${ }^{\text {iv, }}{ }^{129}$ Barclays is headquartered in the UK and operates in over 40 countries. Barclays claims that it will become a 'net zero bank' by 2050 but its plans allow it to continue with significant fossil fuel financing, as well as providing funds to some of the "biggest and baddest meat companies in the world". ${ }^{130}$

## Agribusiness financing

Our new analysis of the data shows that Barclays provided US\$11.5 billion in agribusiness financing in the Global South between 2016 and 2022, making it the third largest European financier and the seventh largest overall. Its top agribusiness clients are Archer-Daniels-Midland (ADM, US\$4.2 billion), Bayer (incorporating Monsanto), Cargill, WH Group and JBS.

## Fossil fuel financing

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Barclays provided US\$29.6 billion in fossil fuel financing to the Global South between 2016 and 2022, making it the sixth largest European financier and the $30^{\text {th }}$ largest overall.

In global terms, Barclays is the largest European fossil fuel financier and the seventh largest overall, providing US $\$ 190.6$ billion in financing to fossil fuel companies between 2016 and 2022. ${ }^{131}$ Barclays is also the largest European (and fifth largest global) financier of fossil fuel expansion in Africa. ${ }^{132}$

Barclays' top fossil fuel clients in the Global South are ExxonMobil (US\$4.2 billion), Shell, BP, Power Finance Corporation and TotalEnergies.

[^4]
## Policies

Barclays' coal policy states that it will phase out financing to all clients engaged in thermal coal mining by 2035, but at present it continues to finance coal expansion. ${ }^{133}$ The bank's oil and gas policy excludes financing for companies that are mainly involved in oil sands extraction but makes no binding commitments on when Barclays will reduce or stop financing oil and gas expansion. ${ }^{134}$

Barclays has an agricultural commodities and forestry policy that requires palm oil and soy producers to undertake a process of "enhanced due diligence", including obtaining the Free, Prior and Informed Consent (FPIC) of Indigenous Peoples, and obtaining certification (Roundtable on Sustainable Palm Oil (RSPO), Roundtable on Sustainable Soy (RTSS) or equivalent). ${ }^{135}$ However, there is considerable evidence that these schemes have not adequately protected the rights of communities and have legitimised habitat degradation and the use of recently deforested land, enabling "destructive businesses to continue operating as usual". ${ }^{136}$ Barclays' new deforestation policy says that it will not finance producers who process beef from areas of the Amazon cleared or converted since 2008, but the bank will rely on self-reporting to judge these claims, and it remains unclear to what extent it will be mandatory for clients to monitor deforestation risks. ${ }^{137}$ In this sector, as our data confirms, Barclays is a major funder of companies implicated in deforestation and human rights abuses such as ADM, Cargill and JBS.

## Controversies

Barclays is the largest funder of TotalEnergies in the Global South, providing US\$2.1 billion since 2016. The French oil and gas giant is behind several controversial projects, including the East Africa Crude Oil Pipeline (EACOP). ${ }^{138}$ It is also leading development of Mozambique LNG, which has displaced hundreds of families without adequate compensation. ${ }^{139}$

On the agribusiness side, our data also reveals that Barclays is the largest international financier (US\$900 million since 2016) of JBS, a Brazilian company that is world's biggest meatpacking company, and a key supplier to fast-food companies such as McDonald's and Burger King, as well as retail giants such as Carrefour, Asda and Walmart. JBS is a huge emitter of greenhouse gas emissions, and multiple investigations have documented the company's links to illegal deforestation, land grabbing, slave labour and money laundering in Brazil. ${ }^{140}$

Barclays is also the second largest financier of ADM (US\$4.2 billion), which has been accused of fuelling land conflicts in Brazil and Indonesia (see Bank of America Controversies below). ${ }^{141}$

## IIII BNP PARIBAS

BNP Paribas is Europe's second largest bank and the $9^{\text {th }}$ largest globally. ${ }^{142}$ It is headquartered in France and operates in 65 countries. BNP Paribas is a founder member of the Net Zero Banking Alliance and has pledged to achieve "carbon neutrality" by 2050. ${ }^{143}$ However, its emissions reduction targets do not stop the bank from directly and indirectly supporting fossil fuel expansion, or financing agribusiness companies linked to deforestation. ${ }^{144}$ BNP Paribas is currently facing a lawsuit in France for its continued role in bankrolling climate chaos. ${ }^{145}$

## Agribusiness financing

ActionAid's new data reveals that BNP Paribas provided US\$13 billion in agribusiness financing in the Global South between 2016 and 2022, making it the second largest European financier and the sixth largest overall. Its top agribusiness clients are Cargill (US\$3 billion), Bayer, Olam Group, ChemChina, and ADM.

## Fossil fuel financing

BNP Paribas provided US\$36.5 billion in fossil fuel financing in the Global South between 2016 and 2022, making it the second largest European financier and the $24^{\text {th }}$ largest globally. With BNP Paribas's investments in fossil fuels in the Global North included, it is the seventh largest fossil fuel financier globally. ${ }^{146}$ BNP Paribas' top clients expanding fossil fuels in the Global South are Saudi Aramco (US\$5.2 billion), Shell, Eni, Petrobras and BP.

## Policies

BNP Paribas has excluded direct financing for all new coal projects and has set targets of exiting the coal sector by 2030 (EU/OECD) and 2040 (rest of the world), although its exclusions are not yet applicable at group-level, meaning that it may continue financing of coal by some large conglomerates. ${ }^{147}$ BNP Paribas has also announced a policy of reducing outstanding oil extraction and production financing by $80 \%$ and gas financing by $30 \%$ by 2030, as well as stating that it will not fund fossil fuel expansion at "new oil and gas fields." ${ }^{148}$ However, this commitment applies to specific projects only, whereas most of BNP Paribas's oil and gas financing is provided to companies as a whole. The bank will also no longer underwrite bond deals if the proceeds are intended to be used for fossil-fuel expansion. ${ }^{149}$ However, BNP Paribas still has no overall plan to phase out oil and gas financing.

BNP has relatively extensive policies on agriculture, which include labour and human rights clauses, and requirements that clients obtain the Free, Prior and Informed Consent (FPIC) of Indigenous Peoples and local communities, do not engage in land grabbing practices, and offer a grievance mechanism where local communities' concerns can be raised. ${ }^{150}$ However, BNP Paribas's financing of major agribusiness companies accused of deforestation and human rights abuses suggests that these policies are falling short of their stated objectives.

## Controversies

BNP Paribas is the largest financier (US\$3.9 billion) of Shell's oil and gas extraction in the Global South, including the company's activities in the Niger Delta, where Shell has been found responsible for decades of pollution and human rights abuses. ${ }^{151}$ Shell is the major international partner in the Bonny Island LNG Terminal, Nigeria, which is currently being expanded. The LNG Terminal has displaced Indigenous communities without adequate compensation and negatively impacted their livelihoods, while its expansion means that additional land will be cleared. ${ }^{152}$ The expansion will cause deforestation and could cause further air and water pollution in an area that is already one of the most polluted in the world because of the oil industry's activities. ${ }^{153}$

BNP Paribas is the largest financier (US\$3 billion) of Cargill's activities in the Global South. Cargill is Brazil's second largest soy exporter and has been repeatedly linked with deforestation in the Amazon and Cerrado in Brazil, and has been accused of trading soy produced on conflicted territories. ${ }^{154}$

BNP Paribas is also facing a legal challenge for its provision of financial services to Marfrig, a major Brazilian meat producer. The bank underwrites several bonds issued by Marfrig, which has been implicated in illegal deforestation, Indigenous land rights violations, and slave labour. ${ }^{155}$

## IIII HSBC

HSBC is Europe's largest bank and the eighth largest globally. ${ }^{156}$ It is headquartered in the UK and has offices in 62 countries and territories. The bank derives most of its profits from Asia, and its current strategy is based on increasing investment in China, South-East Asia and India. ${ }^{157}$ HSBC has stated that it will achieve "net zero" emissions in its financing portfolio by 2050. However, this goal is undermined by its lack of any policy commitments to end fossil fuel financing and the extent of its support for unsustainable agribusiness practices.

## Agribusiness financing

HSBC provided US\$17.2 billion in agribusiness financing in the Global South between 2016 and 2022, making it the largest overall financier of these activities. Its top agribusiness clients are Olam Group (US\$4.4 billion), ChemChina, Bayer, Cargill and WH Group.

## Fossil fuel financing

HSBC provided US\$63.5 billion in fossil fuel financing in the Global South between 2016 and 2022, making it the largest European financier and the $17^{\text {th }}$ largest overall. Its top clients are Saudi Aramco (US\$6.3 billion), Petrobras (Brazil), Exxon Mobil, the State Grid Corporation of China, and QatarEnergy.

## Policies

According to HSBC's Energy Policy, the bank will no longer finance projects to develop new oil and gas fields. However, this commitment does not extend to corporate financing - i.e., the corporation's general activities. Continued corporate financing means that HSBC can still effectively finance much of the activity including salaries, contractors, equipment, etc involved in the development of new oil and gas fields. HSBC also requires fossil fuel clients to develop transition plans, although no deadline is attached to this. ${ }^{158}$ The bank's Thermal Coal Phase Out policy excludes financing new coal mines and coal power plants (except with Carbon Capture and Storage (CCS)), although various loopholes that allow continued general corporate financing to fossil fuel corporations mean that this does not yet apply to all coal developers. ${ }^{159}$ In addition, HSBC has not yet set out a strategy for the overall phase-out of fossil fuel financing.

HSBC has an agricultural commodities policy that states it will only finance palm oil producers that obtain certification (Roundtable on Sustainable Palm Oil or equivalent), and which also sets out certification and due diligence requirements for the financing of soy, cattle ranching and rubberwood (HSBC 2017). Although this is one of the most extensive policy frameworks amongst major banks, HSBC's continued extensive financing of beef sourced from the Amazon and Cerrado in Brazil raises concerns about whether its policies to avoid deforestation are being effectively implemented. ${ }^{160}$

HSBC's human rights policy framework does not require that its clients follow the principles of Free, Prior and Informed Consent (FPIC). ${ }^{161}$ In addition, analysis by BankTrack found that implementation of its human rights policy falls short of what is set out on paper, with considerable room for improvement on due diligence, reporting, remedy and response tracking. ${ }^{162}$

## Controversies

HSBC is the largest financier of Olam Group, providing US $\$ 4.4$ billion in corporate loans and underwriting to the company between 2016 and 2022. There are particular concerns regarding the company's industrial oil palm developments in Gabon, which will involve clear-felling of secondary forest and could have significant impacts on local livelihoods. ${ }^{163}$

HSBC also provides significant financing to Marfrig (US\$861 million) and Minerva foods (US\$581 million), two of the largest beef processing companies operating in Brazil, whose supply chains are strongly linked to deforestation in the Brazilian Amazon and the Cerrado biome. ${ }^{164}$

On the fossil fuels side, HSBC has provided US\$135 million in debt financing to the Offshore Cape Three Points project in Ghana, which has already displaced Indigenous communities, decreased food and livelihood resources for local fisherpeople, and resulted in air pollution and seawater degradation. ${ }^{165}$ The project is run by Eni (which has the majority stake), Vitol, and the Ghana National Petroleum Corporation. Local communities have also reported that the project has led to "an increase in teenage pregnancies, sexually transmitted diseases (STDs), sex work and sexual abuse", while local women report being excluded from consultation processes. ${ }^{166}$

HSBC is also the second largest financier of Saudi Aramco, the world's largest corporate carbon dioxide emitter (see Citi Controversies below).


#### Abstract

AMERICAS

\section*{IIII BANK OF AMERICA}

Bank of America is the second largest bank in the Americas and the sixth largest globally. ${ }^{167}$ It is headquartered in the USA and has a presence in over 35 countries. In 2021, Bank of America announced "a commitment to achieve net zero emissions across our financing activities, operations and supply chain before 2050". ${ }^{168}$ However, Bank of America continues to offer billions in financing to fossil fuel and agribusiness companies, and lacks effective policy goals that would lead it to exit this financing.


## Agribusiness financing

Bank of America provided US\$14 billion in agribusiness financing in the Global South between 2016 and 2022, making it the second largest US financier and the third biggest globally. Its top agribusiness clients operating in the Global South are ADM (US\$4.2 billion), Cargill, Bayer, WH Group and ChemChina.

## Fossil fuel financing

Bank of America provided US\$54 billion in fossil fuel financing in the Global South between 2016 and 2022, making it the third largest US financier and the 20th largest overall.

Bank of America is also the fourth largest fossil fuel financier globally, including support for companies in the Global North, providing fossil fuel companies with US\$281.2 billion in financing between 2016 and 2022. ${ }^{169}$ Bank of America's top clients expanding fossil fuels in the Global South are Exxon Mobil (US\$6.8 billion), Petrobras, BP, Occidental Petroleum and Sasol.

## Policies

Bank of America's oil and gas policy only limits financial support for projects in the Arctic. It sets no limits on financing the sector and no targets on when it would phase out oil and gas financing altogether. ${ }^{170}$ Its coal sector policy only sets a target for phasing out financing to some thermal coal mining companies, but the threshold for inclusion in this policy ( $25 \%$ of company revenue) means many of the largest mining companies would be exempt. Bank of America doesn't exclude or plan to phase-out financing to any coal power companies. ${ }^{171}$

Bank of America sets Roundtable on Sustainable Palm Oil (RSPO) certification as a minimum requirement for clients in this sector but sets no other restrictions in relation to agricultural commodities. ${ }^{172}$ The bank has an enhanced due diligence process for transactions that may raise human rights concerns, and requires the Free, Prior and Informed Consent of Indigenous Peoples for transactions where the majority use of proceeds could negatively impact their territories. ${ }^{173}$ However, Bank of America performs poorly in terms of reporting and responding when human rights complaints are raised. ${ }^{174}$

## Controversies

Bank of America is the largest financier of BP's activities in the Global South, with loans and underwriting worth US $\$ 4.3$ billion since 2016. BP is currently developing the Greater Tortue Ahmeyum Project, Africa's deepest offshore oil extraction scheme, off the coast of Mauritania and Senegal. If fully exploited, these reserves would release around 2.2 billion tons of carbon dioxide into the atmosphere, blowing a large hole in our remaining carbon budget to limit global warming to a vital $1.5^{\circ} \mathrm{C}$. The project could do significant harm to water birds and the marine ecosystem, including damage to the world's largest cold-water reef, with scientists warning of a "potential ecological disaster". ${ }^{175}$ The creation of an exclusion zone around the project has prevented fisherpeople from working in the area, depriving them of their livelihoods, and local people are "being driven to desperation". ${ }^{176}$

Bank of America is the leading financier of Sasol, an energy and chemicals company based in South Africa. Sasol's Secunda coal liquefaction plant is the world's largest single source of carbon dioxide emissions, exceeding the individual totals of more than 100 countries. ${ }^{177}$ Secunda's toxic air pollution has negatively impacted local communities for decades, with experts estimating that it has contributed to hundreds of premature deaths. ${ }^{178}$ An ongoing legal case based sparked by whistleblower evidence accuses Sasol unlawfully dumping hazardous chemicals from the Secunda plant into the Vaal River. ${ }^{179}$

Bank of America is also the joint largest financier (with Citi) of Exxon Mobil's activities in the Global South, providing it with US\$6.8 billion in loans and bond underwriting since 2016 (see Citi Controversies below).

Bank of America is the largest financier of Bayer's activities in the Global South, providing an estimated US $\$ 2.6$ billion in loans and underwriting to the company's agribusiness activities since 2016. Bayer is the world's largest seed company, controlling close to a quarter (23\%) of the global market. ${ }^{180}$ Many of its products are genetically modified or bioengineered, with Bayer demanding that buyers sign agreements prohibiting them from saving seeds to exchange or resow in following years, threatening food sovereignty the world over. ${ }^{181}$

Bayer is also the world's second largest producer of agrochemicals, having bought controversial agrochemical and biotechnology company Monsanto in 2018. Bayer has drawn protests in Argentina and Brazil for continuing to sell pesticides that are already banned in the European Union. ${ }^{182}$ Some of these pesticides contain active ingredients that have been proven to cause cancer, among other severe health risks. ${ }^{183}$ They also have the potential to cause widespread destruction of natural ecosystems, including killing bees, fish and other wildlife. ${ }^{184}$ It has been confirmed that Bayer sells products with ingredients banned in the EU in Brazil, India, Mexico and South Africa. ${ }^{185}$

Bank of America is also the top financier of Archer-Daniels-Midland's (ADM)'s activities in the Global South, providing US\$4.2 billion in loans and underwriting since 2016. ADM, which is the world's largest grain trader, has been accused of fuelling land conflicts in Brazil's Cerrado by trading with producers allegedly involved in land conflicts. ${ }^{186}$ ADM also failed to ensure that hundreds of Indonesian palm oil mills that it sources palm oil from in Indonesia are free from abuse against land and environmental defenders. ${ }^{187}$

## IIII CITIGROUP

Citigroup is the third largest bank in the Americas and the eleventh biggest globally. ${ }^{188}$ It is headquartered in the USA and claims to do business in over 160 countries. Citigroup CEO Jane Fraser has stated that the bank is "developing our path to net zero emissions by 2050... building on our sustainability track record of more than two decades." Since this track record includes being the second largest global financier of fossil fuels, and Citigroup lacks adequate policies to phase out harmful agribusiness and fossil fuel financing, there is reason to doubt whether Citigroup will achieve its climate goal.

## Agribusiness financing

Citigroup provided US\$13.9 billion in agribusiness financing in the Global South between 2016 and 2022, making it the third largest US financier and the fourth largest globally. Its top agribusiness clients for activities in the Global South are ADM (US\$4 billion), Bayer, Cargill, Olam Group and Bunge.

## Fossil fuel financing

Citigroup provided US\$90.6 billion in fossil fuel financing in the Global South between 2016 and 2022, making it the largest US financier and the fourth largest overall. It is also the second largest fossil fuel financier globally, providing fossil fuel companies with US\$332.9 billion in financing between 2016 and 2022. ${ }^{189}$ Citigroup's top clients expanding fossil fuels in the Global South are Saudi Aramco (US $\$ 8.7$ billion), Petrobras, Exxon Mobil, Sumitomo Corporation and QatarEnergy.

## Policies

Citigroup's policy on oil and gas excludes only project-related financing for exploration in the Arctic, but makes no explicit commitment to stop financing other oil and gas production. ${ }^{190}$ Citigroup will phase out financing for coal power generation by 2040 (or 2030 in OECD countries), and no longer provides project financing for new coal mines. ${ }^{191}$ However, these policies contain loopholes, with eligibility rules meaning that Citigroup continues to fund some of the largest coal mining conglomerates. ${ }^{192}$

Citigroup claims to review agribusiness clients for "supply chain deforestation risks and commitments to strong environmental and social policies, sustainability certifications and/or supply chain traceability programs". ${ }^{193}$ Citigroup's policy states that it applies enhanced due diligence measures to clients engaged in the beef industry and soy production in Brazil and other biodiverse ecoregions of South America, and it requires clients engaged in palm oil production to be members of the RSPO. ${ }^{194}$ Citigroup also claims that it will apply enhanced due diligence when transactions potentially impact on Indigenous areas, although concerns about the bank's lending to oil companies operating in the Amazon have led local farmers, environmental and human rights groups to question how this is implemented. ${ }^{195}$ Citigroup expects project sponsors to have sought the Free Prior and Informed Consent (FPIC) when Indigenous Peoples may be "significantly" affected, but this appears not to apply to all bank transactions (project-specific financing represents around five percent of overall bank transactions). ${ }^{196}$

Citigroup has an extensive range of human rights policies (from due diligence to reporting, remedy and response tracking) but its continued financing of fossil fuel and agribusiness firms implicated in human rights abuses and land conflicts suggests there remains considerable room for improvement. ${ }^{197}$

## Controversies

Citigroup is the largest international financier of Saudi Aramco, the world's biggest oil company, which is the world's largest corporate carbon dioxide emitter and is estimated to be responsible for over four percent of the world's greenhouse gas emissions since 1995. ${ }^{198}$ Aramco operates over 100 oil and gas fields but continues to explore for new sites and plans on opening new production sites. Saudi Aramco is the company with the most aggressive oil and gas expansion plans globally, and has no long-term emission reduction plans or roadmap. ${ }^{199}$ Exploiting all of Aramco's reserves would burn through nearly a third of the world's $1.5^{\circ} \mathrm{C}$ carbon budget. ${ }^{200}$ Saudi Aramco is $98 \%$ owned by the Kingdom of Saudi Arabia, which scores 8/100 on Global Freedom Status. ${ }^{201}$ Violations of human rights in the country include arbitrary detention, imprisonment and executions of human rights and women's rights activists, journalists and critics. ${ }^{202}$

Citigroup is the joint largest financier (with Bank of America) of Exxon Mobil's activities in the Global South, providing US\$6.8 billion in financing since 2016. Exxon is the world's largest non-state-owned oil and gas company. It has a long history of funding climate denial and seeking to weaken and delay climate policy, and continues to lag behind other oil majors in refusing to set out meaningful climate plans. ${ }^{203}$ Exxon continues to significantly expand its oil and gas production capacity. ${ }^{204}$

Exxon (alongside Eni) is leading the development of Romuva LNG in Mozambique, which has reportedly displaced hundreds of families without adequate compensation. ${ }^{205}$ A US $\$ 19$ billion Exxon-led LNG project in Papua New Guinea is also reported to have displaced local communities without adequate compensation. ${ }^{206}$

Citigroup is also the joint largest international financier of QatarEnergy (see JPMorgan Chase Controversies below).

## IIII JPMORGAN CHASE

JPMorgan Chase is the largest bank in the Americas and the fifth largest globally. ${ }^{207}$ It is headquartered in the USA and operates in over 60 countries. JPMorgan Chase is a member of the Net Zero banking Alliance, meaning it pledges to align its lending and investment portfolios with net-zero emissions by 2050, as well
as the Glasgow Financial Alliance for Net Zero (GFANZ). However, the bank threatened to leave GFANZ if it recommended targets for phasing out coal, oil and gas financing. ${ }^{208}$ JPMorgan Chase is consistently the largest global financier of fossil fuels. ${ }^{209}$

## Agribusiness financing

JPMorgan Chase provided US\$14.2 billion in agribusiness financing in the Global South between 2016 and 2022, making it the largest US financier and the second biggest globally. Its top agribusiness clients are ADM (US\$2.8 billion), Cargill, Bayer, Olam Group and Bunge.

## Fossil fuel financing

JPMorgan Chase provided US\$61.2 billion in fossil fuel financing in the Global South between 2016 and 2022, making it the second largest US financier and the eighteenth largest overall. JPMorgan Chase is the largest fossil fuel financier globally, providing fossil fuel companies with US\$433.2 billion in financing between 2016 and $2022 .{ }^{210}$ It is also the second largest provider of fossil fuel finance in Africa. ${ }^{211}$ JPMorgan Chase's top clients expanding fossil fuels in the global south are Exxon Mobil (US\$6.2 billion), Saudi Aramco, Petrobras, QatarEnergy and Shell.

## Policies

JPMorgan Chase's environmental and social policy excludes project financing of oil and gas exploration in the Arctic, but has no policy to phase out financing for oil and gas more generally. ${ }^{212}$ JPMorgan Chase has pledged to phase out financing for coal mining by 2024, but this commitment only applies to companies generating over half of their revenues from coal mining, exempting many of the largest actors. ${ }^{213}$ No policies are in place to phase out financing of coal power generation.

JPMorgan Chase requires clients who grow, process or trade soy (produced outside of the US) and palm oil to have RTRS and RSPO certification respectively, but the bank sets no further policy requirements relating to agribusiness. ${ }^{214}$ JPMorgan Chase requires Free, Prior and Informed Consent where the proceeds of transactions have the potential to impact Indigenous Peoples. ${ }^{215}$ However, the bank has a poor track record for reporting human rights violations and is rated a "laggard" in this area by Banktrack. ${ }^{216}$

## Controversies

JPMorgan Chase is the joint leading financier (with Citi) of QatarEnergy, providing it with US\$4.4 billion in loans and underwriting since 2016. QatarEnergy is currently developing the world's largest LNG project, a huge "carbon bomb" that would lead to substantial increased greenhouse gas emissions and air pollution. ${ }^{217}$

JPMorgan Chase is also a major funder of Saudi Aramco (US\$5.1 billion since 2016) and played a leading role in the company's first stock market listing, which raised over US\$29 billion and valued Aramco at close to US\$1.9 trillion. ${ }^{218}$ (see Citi Controversies above).

On the agribusiness side, JPMorgan Chase is the second largest financier (US\$2.8 billion since 2016) of Cargill, which has been linked with deforestation in the Amazon and Cerrado in Brazil. ${ }^{219}$ (see BNP Paribas Controversies above).

## ASIA

## IIII INDUSTRIAL \& COMMERCIAL BANK OF CHINA (ICBC)

The Industrial \& Commercial Bank of China (ICBC) is the world's largest bank. ${ }^{220}$ It is headquartered in China and operates in 47 countries and regions. ICBC also owns a 20\% stake in South Africa's Standard Bank
(Africa's largest bank by assets). ICBC is majority owned (67\%) by the Chinese government. ${ }^{221}$ In this regard, it should be working to achieve China's stated goal of net-zero emission by 2060, yet it has no meaningful policies or targets in place to achieve this goal. ${ }^{222}$

## Agribusiness financing

ICBC provided US\$8 billion in agribusiness financing in the global south between 2016 and 2022, making it the sixth largest Asian financier and the fourteenth largest globally. Its top agribusiness clients are COFCO Group (US\$5.2 billion), ChemChina, New Hope Group, WH Group and Olam Group.

## Fossil fuel financing

ICBC provided US\$146.2 billion in fossil fuel financing in the Global South between 2016 and 2022, making it the largest financier overall. ICBC's top clients expanding fossil fuels in the Global South are the State Grid Corporation of China (US\$32.8 billion), State Power Investment Corp., China Southern Power Grid, China Huadian Corporation and China Huaneng Group.

## Policies

ICBC has adopted no policies or targets aimed at reducing financing for coal mining, coal-fired power generation, or the oil and gas sectors. ${ }^{223}$

ICBC has no specific policy relating to clients who trade agricultural commodities, and a 2021 investigation into the agribusiness portfolios of ICBC and other major Chinese banks found that they "have done little or no due diligence to ensure their money is not fuelling environmental and social damage". ${ }^{224}$

ICBC does not have "any policy or statement addressing human rights", and does not require clients to ensure the Free, Prior and Informed Consent of Indigenous Peoples. ${ }^{225}$ Along with other major Chinese banks, ICBC has a "dismal" rate of responding to allegations of human rights abuses tied to its financing. ${ }^{226}$

However, ICBC is required by the China Banking and Insurance Regulatory Commission (CBIRC) to follow Green Finance Guidelines for the Banking and Insurance Industry, revised in 2022. ${ }^{227}$ These require that Chinese banks "ultimately achieve carbon neutrality in their portfolio", promote "green finance", and "formulate environmental, social and governance risk assessment standards for clients" (although they do not have to make these public).

CBIRC also states that banks' overseas financing as part of the Belt and Road initiative should be aligned with China's 2022 "Guidelines for Ecological Environmental Protection of Foreign Investment Cooperation and Construction Projects."228 These include recommendations that financiers develop an exclusion list of ineligible projects, require clients to use an Environmental and Social Management System, and provide accessible grievance redress mechanisms to allow people and NGOs to report environmental and social issues in project development.

## Controversies

ICBC is one of five Chinese banks lending US\$2 billion for the construction of the 1980 MW Vietnam
Vinh Tan 3 Coal Power Project, which would emit over 11 million tonnes of carbon dioxide every year. Local communities already report that toxic ash and other air pollutants have caused chronic illness, and the discharge of cooling water threatens the marine ecosystem and the livelihoods of families dependent on fishing. ${ }^{229}$

ICBC is also a lead financier of coal power stations that are being contested by local communities in Indonesia, Turkey and Pakistan, despite a 2021 pledge by President Xi Jinping that China would stop funding coal plants abroad. ${ }^{230}$

ICBC is the largest financier of Sinopec (US\$5.2 billion since 2016) and PetroChina (US\$3.5 billion since 2016), as well as the second largest financier of China National Petroleum Corporation (CNPC, the parent
company of PetroChina; US\$4.5billion since 2016). Sinopec and PetroChina/CNPC are the second and third largest oil and gas companies in the world by revenue. ${ }^{231}$ These companies are the leading players developing production in Xinjiang province, where China's largest oilfield is based. The Chinese government operates internment camps detaining thousands of Uyghur people close to the oil companies' production sites, and has been accused of crimes against humanity against this population. ${ }^{232}$ This raises fears that forced labour is being used in the oil and gas sector, although the Chinese government prevents independent research to verify this. ${ }^{233}$

ICBC is also one of three key financial advisors for the controversial East Africa Crude Oil Pipeline (another is Standard Bank, which ICBC also partly owns). ${ }^{234}$

On the agriculture side, ICBC is the largest financier of COFCO Group, providing US\$5.2 billion in financing since 2016 to China's largest agricultural processing and trading company. COFCO has been found to use palm oil suppliers that have been suspended by Unilever (another major supplier) for non-compliance with its sourcing policy, indicating that it uses palm oil that contributes to deforestation. ${ }^{235} \mathrm{COFCO}$ has also been accused of sourcing soy from suppliers contributing to deforestation in Brazil. ${ }^{236}$

## IIII CHINA CITIC BANK

China CITIC Bank is China's seventh biggest bank and the $29^{\text {th }}$ largest globally. ${ }^{237}$ It is a division of CITIC Group Corporation, China's biggest state-run conglomerate, and is majority-owned by the Chinese government. As a state-owned enterprise, China CITIC Bank should be working to achieve the Chinese government's goal of net-zero emissions by 2060, but it has not announced policies or targets to meet this goal.

## Agribusiness financing

China CITIC Bank provided US\$10.2 billion in agribusiness financing in the Global South between 2016 and 2022, making it the third largest Asian financier and the ninth largest globally. Its top agribusiness clients are ChemChina (US\$5.6 billion), COFCO Group, Muyuan Foodstuff, New Hope Group and Sinochem International.

## Fossil fuel financing

China CITIC Bank provided US\$124.5 billion in fossil fuel financing in the Global South between 2016 and 2022, making it the second Asian financier and the second largest overall.

China CITIC Bank's top clients expanding fossil fuels in the Global South are Jinneng Group (US\$8 billion), State Power Investment Corp, CITIC Ltd, China Southern Power Grid Co and China Huaneng Group. Jinneng Group is a coal mining, trading and coal power generation company, while the others are all electricity generation and distribution companies with a significant share of coal in their energy mix.

## Policies

China CITIC Bank has no formal policies or targets to reduce or phase out its financing for coal mining, coal-fired power generation, or the oil and gas sectors. ${ }^{238}$

The bank also has no specific policy relating to agricultural commodities and received a 0 (out of 10) rating in a Forest \& Finance coalition assessment of policies related to forest-risk sectors (beef, soy, palm oil, pulp and paper, rubber and timber). ${ }^{239}$

In addition, China CITIC Bank has no public human rights policy or statements, and does not require clients to ensure the Free, Prior and Informed Consent of Indigenous Peoples and local communities. ${ }^{240}$

However, China CITIC Bank is required to follow banking regulations of green finance and foreign investment (see ICBC policies above), which include developing Environmental, Social and Governance (ESG) risk assessment standards for clients, and additional ESG standards and exclusions for international projects. ${ }^{241}$

## Controversies

China CITIC Bank is the largest financier of ChemChina's agribusiness activities in the Global South, providing them with an estimated US\$5.6 billion in loans and underwriting since 2016. ChemChina is the world's largest agrochemical company, having bought Syngenta in 2018 and merged with SinoChem in 2021. It is also the third largest seller of seeds. ${ }^{242}$

ChemChina accounts for a quarter of the global pesticide market, mostly via Syngenta, which now incorporates the agrochemical divisions of SinoChem and Adama (another producer recently purchased by ChemChina). ${ }^{243}$ Close to $40 \%$ of Syngenta's total pesticide turnover is estimated to comprise of "highly hazardous pesticides." ${ }^{244}$

These hazardous pesticides include Gramoxone, whose active ingredient paraquat has been dubbed "the world's deadliest weedkiller" (Unearthed 2021). As little as a tablespoonful of Gramoxone can be fatal. ${ }^{245}$ Gramoxone is banned in China, Switzerland (where Syngenta is headquartered), the UK (where it is produced) and the whole of the EU, but the company continues to export it for use across the Global South. Syngenta continues to sell the product in deadly concentrations despite being aware of the risks for decades, including a link between long-term exposure and Parkinson's disease. ${ }^{246}$ A 2016 investigation, for example, found Gramoxone being used on plantations in Indonesia and the Philippines with almost no protective measures, endangering the lives of workers, and similar concerns have been registered regarding the product's use in Punjab, India. ${ }^{247}$

Syngenta's highly hazardous chemicals sales also include neonicotinoids, which were permanently banned from outdoor use in the European Union in 2018. Brazil is the main market for these chemicals, which a study by the FAO and WHO found to be causing "large-scale adverse effects on bees and other beneficial insects. ${ }^{.248}$ Brazil is also the key export market for Profenofos, another Syngenta insecticide that is banned in Switzerland. Syngenta's product has been found to have polluted water drunk by millions of people in Brazil, endangering their health and the environment. ${ }^{249}$

China CITIC Bank's largest fossil fuel client is Jinneng Group (US\$8 billion in underwriting since 2016). Jinneng Group is China's second largest coal producer, as well as having interests in coal trading, coal power generation, transmission, and distribution. Despite China's stated climate goals, Jinneng Group plans to increase coal production and has plans to build five new coal plants with a total 10 GW capacity during the current 2021-2025 Five-Year Plan. ${ }^{250}$ In 2021, the company also broke coal production limits, digging up $400 \%$ more coal in one mine than permitted. ${ }^{251}$

## IIII MITSUBISHI UFJ

Mitsubishi UFJ Group (MUFG) is Asia's fifth largest bank and the seventh largest globally. ${ }^{252}$ It is headquartered in Japan and has operations in more than 50 countries. MUFG "aims to achieve net zero greenhouse gas (GHG) emissions across its finance portfolio by $2050 .{ }^{2}{ }^{253}$ However, MUFG remains one of the world's largest fossil fuel financiers (US\$219.6 billion globally since 2016) and lacks robust policies to reduce its significant support for the oil, gas and palm oil sectors.

## Agribusiness financing

MUFG provided US $\$ 13.2$ billion in agribusiness financing in the Global South between 2016 and 2022, making it the largest Asian financier and the fifth largest globally. Its top industrial agriculture clients are ChemChina (US\$3.4 billion), Olam Group, Bayer, ADM and UPL.

## Fossil fuel financing

MUFG provided US\$66 billion in fossil fuel financing in the Global South between 2016 and 2022, making it the $14^{\text {th }}$ largest Asian financier and the 15th largest overall.

MUFG's top clients expanding fossil fuels in the Global South are Vitol Holding II (US\$5.4 billion), Sumitomo Corporation, Trafigura Group, Saudi Aramco, and JX Nippon Oil \& Gas Exploration Corporation.

## Policies

MUFG has stated that it will no longer finance new thermal coal mines and new coal power plants, and that it will phase out coal power project financing by $2040 .{ }^{254}$ However, this policy has many exceptions and leaves the bank free to continue providing corporate financing to coal developers. MUFG has not provided any commitments to stop financing oil and gas expansion and has not set a timeline for phasing out financing to oil and gas companies.

MUFG's only explicit agricultural commodities policy relates to the palm oil sector, where it "encourages" (but does not require) clients to be members of the Roundtable on Sustainable Palm Oil (RSPO). MUFG also has a forestry policy stating that clients seeking "financing for large-scale industrial farm development" (10,000 ha or more) are "urged" (but not required) to respect the Free, Prior, and Informed Consent (FPIC) of Indigenous Peoples and to formulate sustainable environmental and human rights policies, such as No Deforestation, No Peat, and No Exploitation (NDPE). ${ }^{255}$ However, MUFG excludes its Indonesian subsidiary Bank Danamon from these policies, despite it being an important source of palm oil financing. ${ }^{256}$

MUFG has no overall FPIC requirement for its clients, and its human rights framework is restricted to a statement of "respect" for international standards such as the UN Guiding Principles on Business and Human Rights. ${ }^{257}$

## Controversies

MUFG is one of the main financiers of the Cirebon 2 coal-fired power plant project in Indonesia. The Cirebon 2 project would emit around 2.3 million tonnes of carbon dioxide per year, cause countless premature deaths from air pollution, and pollute water in a region that already experiences increased droughts due to climate change. ${ }^{258}$ The project threatens to further damage coastal livelihoods already impacted by Cirebon 1, a coal-fired power plant on an adjacent site which began operation in 2012. ${ }^{259}$

MUFG is a major source of financing for the palm oil sector in Southeast Asia, both directly and through its subsidiary Bank Danamon, which is Indonesia's sixth largest bank.

MUFG is the largest financier of Sinar Mas (US\$665 million since 2016), a palm oil producer that has been implicated in deforestation in Indonesia and Liberia through its Asian Pulp \& Paper and Golden AgriResources subsidiaries. ${ }^{260}$ The company's operations include "a litany of land rights, labor rights violations and the criminalization of local dissenting communities", according to the Rainforest Action Network and Indonesian environmental groups. ${ }^{261}$

MUFG is also a major financier of Salim Group's palm oil operations (US\$ 307 million loans since 2016), including its Indofood subsidiary. ${ }^{262}$ Indofood's palm oil plantations had their RSPO certification removed over labour rights violations, but MUFG continues to fund the company even as other international banks have ended their financial relationship with it.

MUFG is also the second largest financier of the agribusiness interests of ChemChina (see China CITIC Bank Controversies above).

# PART 3. HOW PUBLIC FUNDS ARE HARMING PUBLIC INTEREST 

As we have seen in the section above, the world's largest banks are some of the leading financiers of the fossil fuel industry and big industrial agribusiness that are driving climate change, and they continue to profit from pollution.

The public sector could and should be different. In principle, public finance should serve the public good, which includes protecting the environment, developing a strong social safety net and respecting human rights. In practice, however, the picture is often very different. Public finance can end up servicing the interests of elites, and the injection of fossil fuel wealth into state treasuries tends to exacerbate inequality, increase corruption and damage efforts to develop a healthy and diverse economy (see Fossil fuels: Development impacts and inequality above).

In this section, we look at the main forms of public financing that promote agribusiness and fossil fuel financing. In the subsequent sections on solutions and recommendations we canvass a series of alternatives and measures that could contribute to a feminist just transition towards sustainable renewable energy and agroecology.

## STATE SUBSIDIES AND DIRECT BUDGET SUPPORT

Public sector budgets provide core support for agriculture and fossil fuels in many countries, including input subsidies for fertilisers, and consumer and producer subsidies for fossil fuels. It is widely acknowledged
that these subsidies are inefficient and harm the environment, so should be redirected in the public good. Yet this requires careful planning and a participatory approach involving farmers and communities (in the case of agriculture) and all citizens (for fossil fuel consumer subsidies). As noted in the Conclusions and recommendations section below, subsidy reform requires specific measures to mitigate short-term impacts for vulnerable groups including smallholder farmers, many of whom are women, as well as Indigenous peoples and local communities. ${ }^{263}$

## Agricultural subsidies

Agriculture budgets are often dominated by subsidy systems that encourage more industrial agriculture. Globally, agricultural producer subsidies amount to almost US\$540 billion a year. Many of these subsidies are tied to the production of specific commodities, often leading to the overuse of agrochemicals and the promotion of monocultures, while agroecology is generally overlooked. ${ }^{264}$

In Zimbabwe, for example, while the government's National Agriculture Policy Framework offers explicit support for agroecology at policy level, its budget allocations do not yet reflect this. Only $1.27 \%$ of the 2021 budget allocated to the Ministry of Lands, Water and Rural Settlement could be considered as supportive of agroecology. ${ }^{265}$

In Malawi, most of the agriculture budget is allocated to conventional agriculture, with subsidies accounting for most of this. In the 2022/23 budget, fertiliser purchases accounted for over 75\% of the Malawian Ministry of Agriculture's central budget ( 97.5 billion MK, US $\$ 94$ million). ${ }^{266}$ However, the continued depreciation of the Malawian Kwacha against the US dollar, coupled with high global fertiliser prices, means that the government cannot deliver to the planned number of farmers at the planned price. ${ }^{267}$ The continued dependency on fertiliser subsidies contradicts Malawi's long-term goals. ${ }^{268}$

By contrast, Malawi's resilient livelihoods and agricultural systems program, under which agroecology approaches are supported, accounts for just one percent of the central agriculture budget (1.4 billion AK, US\$1.3 million). ${ }^{269}$ Agroecology fares slightly better at the level of specific projects, however, with 17\% of projects (49 billion MK, US\$47 million) incorporating some agroecological components. ${ }^{270}$

A similar story can be told across sub-Saharan Africa, where input subsidies represent, on average, the largest share of public budgets allocated to agriculture. ${ }^{271}$ Yet the effectiveness of input subsidies, particularly to fossil fertilisers, has been widely questioned. These are often poorly targeted, inefficiently distributed, distort market prices by suppliers artificially inflating prices, and damage the environment and human health. ${ }^{272}$ Moreover, an over-emphasis on input subsidies comes at the expense of investments in irrigation, environmental preservation and social safety net programmes. This remains an issue in Malawi too, despite reforms to the country's Farm Input Subsidy Programme since 2015/2016. ${ }^{273}$

## Fossil fuel subsidies

Fossil fuel subsidies were worth over US\$1 trillion in 2022, with high energy prices driving them to record levels despite global commitments such as the Glasgow Climate Pact promising to phase out "inefficient fossil fuel subsidies." ${ }^{274}$

The need to reform fossil fuel subsidies is clear: the world needs to quickly move away from fossil fuels to have any chance of avoiding catastrophic climate change. Subsidising fossil fuels is also economically inefficient and puts a massive fiscal burden on government budgets, and worsens inequality, air pollution and climate change. Yet numerous types of fossil fuel subsidy persist, including: favourable trade tariffs; price controls (and regulations allowing fossil fuels to be sold below market prices); tax breaks for consumers or producers; payments made directly to fossil fuel producers; payments made to end users; risk transfer instruments
such as loan guarantees; and energy-related services provided by governments. ${ }^{275}$ Consumption fossil fuel subsidies account for $86 \%$ of the total. ${ }^{276}$

Cutting consumer subsidies, such as price limits that keep diesel or gasoline affordable, is essential but needs to be handled with care. People with low incomes spend a larger share of their income on energy than the rich, so changes that disproportionately affect poor communities must be avoided. When Ecuador's government tried to remove diesel and gasoline subsidies in late 2019, the result was a political insurgency that swept the country. Similar attempts to remove subsidies in India, Indonesia, Egypt and Jordan over the past 15 years have also been faced with mass protests and riots. ${ }^{277}$

This is not an argument against cutting fossil fuel subsidies, but it does make abundantly clear that such a policy requires a framework that shields and compensates low- and middle-income households from adverse effects, as well as communicating the benefits clearly. ${ }^{278}$ Such measures are likely to include redirecting a proportion of the subsidies into cash transfer payments for lower income households or, as happened in Ghana and Indonesia, redirecting some of the subsidies towards an increase in spending on education, as well as health care and other forms of social protection. ${ }^{279}$

Consumer subsidy shifts should be embedded in a wider process of reforming tariffs to reduce energy costs for the lowest income households, boosting investment in renewable energy and encouraging energy access. For example, in India a proportion of consumption subsidies have been redirected into providing support for clean cooking subsidies aimed at women living below the poverty line. ${ }^{280}$ On aggregate, public finance in India has also shifted from support for petroleum products to subsidising renewable energy and electricity transmission and distribution, although the implementation leaves room for improvement. ${ }^{281}$ Even redirecting a relatively small share of the huge subsidies for fossil fuels to renewable energy, with the rest distributed for social welfare to help people with low incomes, could help pay for a "clean energy revolution." ${ }^{282}$

## STATE-OWNED ENTERPRISES

Many of the world's largest fossil fuel companies are state-owned, including several profiled in the Controversies sections above: Saudi Aramco, QatarEnergy, Sinopec and CNPC/PetroChina. These companies tend to generate funds for state budgets (or Sovereign Wealth Funds) rather than receiving financial support, although they are backed by explicit and implicit forms of state assistance, including "price support, preferential financing rates and low return expectations, implicit or explicit state guarantees, grants, in-kind subsidies, privileged access to information, regulator exemptions, preferential treatment of public procurement, commercial diplomacy support and other forms of support". ${ }^{283}$

National oil and gas companies' investment in expanded production risks pumping up to US\$400 billion into projects that will of necessity become worthless ('stranded assets') if the world is to keep to a carbon budget that is less than $2^{\circ} \mathrm{C}$ carbon budget (this figure would be billions higher to meet a target of $1.5^{\circ} \mathrm{C}$ )..$^{84}$ This scenario is already starting to play out in the coal sector, where companies that had previously been significant contributors to central and state government revenues now require state bailouts, and public support for coal has extended the life of a number of economically unviable assets. ${ }^{285}$

## PUBLIC INVESTMENT: SOVEREIGN WEALTH FUNDS, PUBLIC PENSION AND INSURANCE FUNDS

In several countries, a proportion of the revenues from oil and gas exploitation are paid into a Sovereign Wealth Fund (SWF), a state-owned entity intended to invest foreign currency reserves on a commercial
basis. SWFs, which manage over US\$11 trillion in assets worldwide, could be a powerful force supporting a climate transition, since they have the potential to invest in long- term measures that their more commercial counterparts find unattractive. In practice, however, SWFs tend to be managed according to the same market norms that were devised by short-term, for-profit investors.

SWFs are major investors in agribusiness and fossil fuel companies. Norway's Pension Fund Global (US\$1.4 trillion in assets under management) is the world's largest. In 2015, the Norwegian Parliament made the unanimous decision to ban the Pension Fund Global from investing in coal. However, it continues to have more than US\$9 billion (89,1 billion NOK) invested in the industry. ${ }^{286}$ This includes investments in companies with close links to the controversial Vũng Áng 2 and Cirebon 2 coal-fired power plants (see Development finance and development assistance below).

The Pension Fund Global also has a system of conduct-based exclusions that have seen the exclusion of some agribusiness companies, such as Marfrig, for causing "severe environmental damage". ${ }^{287}$ However, it continues to hold significant stakes in leading agribusinesses including Merck (US\$2.7 billion) and Bayer (US\$1.4 billlon) (see Bank of America Controversies above), as well as several major oil and gas companies - including Shell (US\$6.1 billion), Exxon Mobil (US\$5.1 billion) and TotalEnergies (US\$4.5 billion). ${ }^{288}$

Temasek, a US\$500 billion fund that is one of two SWFs in Singapore, has environmental and social guidelines that are considerably weaker than those of the Pension Fund Global. It is the majority shareholder in Olam Group, holding a $51 \%$ stake in the company that is worth an estimated US\$2.6 billion. ${ }^{289}$ Olam Group has been accused of deforestation in the development of its palm oil plantations in Gabon (see HSBC Controversies above).

Although one of the stated aims of many SWFs is the diversification of the economy, this is far from guaranteed. Notably, Saudi Arabia's US\$620 billion Public Investment Fund (PIF) retains major investments in Saudi Aramco, the state-owned oil company, holding US\$90 billion in shares (around 4\% of Aramco) via a subsidiary, in addition to the $90 \%$ of the company that is in public hands. ${ }^{290}$

Publicly-owned pension and insurance funds are also amongst the major investors in fossil fuels and agribusiness, including those based in the Global South.

These examples show that, while public investment has the capacity to act in the public good, it does not generally do so.

## STATE-OWNED BANKS

State-owned banks are a further significant source of public investment. In several cases, these banks were established to advance development goals set by governments, and continue to have a public purpose mandate. Such institutions should be well placed to respond to the climate crisis, and to do so while upholding high social and environmental standards. In practice, however, they are failing people and the planet in many of the same ways as private banks.

State-owned banks can take various forms, including national development banks and green investment banks, which fall outside the scope of this study. They can also operate as commercial banks, as is the case for the two Chinese banks featured in the profiles section of this report (ICBC, China CITIC Bank). In the case of ICBC, the Chinese government owns a majority stake (67\%), while China CITIC Bank is a sub-division of CITIC Group corporation, a state-run conglomerate that is also majority-owned by the Chinese government.

The Bank for Investment and Development of Vietnam (BIDV) is a public bank in Vietnam (81\% state ownership) and is the country's largest bank by assets. ${ }^{291}$ The bank has identified "green banking" as a priority, but has not set any targets for exiting fossil fuel or agribusiness investments, and has no specific human rights policy or measures for sensitive agribusiness sectors.

BIDV is the largest financier (US\$433 million since 2016) of Hoang Anh Gia Lai (HAGL), an agribusiness company with "a disastrous record of land grabbing and deforestation." ${ }^{292}$ HAGL stands accused of illegally clearing land in Ratanakiri, Cambodia that was earmarked for local Indigenous communities. ${ }^{293}$

## DEVELOPMENT FINANCE AND OFFICIAL DEVELOPMENT ASSISTANCE

International public financing can take the form of official development assistance (ODA), which is typically through grants, and development finance, which provides loans or other financial instruments, often with the aim of facilitating private sector investment. This financing can be channelled through multilateral institutions like the World Bank or the Green Climate Fund, which fall outside of the scope of this report, or bilateral institutions established by developed countries, such as the US Development Finance Corporation or Agence Française de Développement (AFD).

ODA and development finance are generally framed as assistance provided by richer countries in the Global North to their less well-off counterparts in the Global South, but other motives are also at play. Development finance often benefits multinational corporations based in the Global North, and bilateral financing is sometimes explicitly tied to the trade objectives of Northern countries seeking to export technologies, equipment and services. Even when this link is less explicit, development finance tends to support a development model that undermines climate solutions in Southern countries.

This is most notably the case in the field of agriculture, where international financing has prioritised support for industrial agriculture and marginalised agroecological approaches. ${ }^{294}$

An analysis of Dutch ODA, for example, found that its rationale of "aid for trade" hindered agroecology and resulted in objectives centred on market access and productivity - objectives that often went together with "monocultural cash crops and mechanization". ${ }^{295}$ By contrast, only 4\% of projects promoted "agroecosystem transformations, such as recycling, resilience, synergies, and biodiversity."296 A study of UK ODA between 2010 and 2018 found that agroecological projects accounted for less than 5\% of agricultural aid, and less than $0.5 \%$ of the overall aid budget. ${ }^{297}$ Danish ODA shows a similar pattern, with only $1.4 \%$ of the bilateral finance allocated for agriculture by Danida promoting agroecological transformational change, compared to $55 \%$ of its funding directed towards business-as-usual industrial agriculture. ${ }^{298}$

Analysis shows that even after countries party to the UN adopted the Paris Agreement in 2015, their aid money could still be going to support fossil fuels. In Australia for example, 19\% of ODA in 2020 went to multilateral development banks (MDBs) such as the World Bank, Asian Development Bank (ADB), and the Asian Infrastructure Investment Bank (AlIB). ${ }^{299}$ Australia is the fifth largest shareholder in the ADB, the sixth largest for the AIIB, and holds up to $2 \%$ of total shareholdings in the World Bank. ${ }^{300}$ After the Paris Agreement, between 2016 and 2021, the World Bank, ADB, and AllB provided over US $\$ 23.84$ billion to fossil fuel development projects, with gas development projects representing more than $60 \%$ of investments from each MDB. ${ }^{301}$ Based on its shareholding, Australia's 'share' of this fossil fuel financing is US \$601 million over the same period. ${ }^{302}$ General contributions to the MDBs go to core funding, so each donor's responsibility for fossil fuel investment should be based on their share of the MDB.

The overall balance of ODA and development finance for energy-related projects is changing, with 39 countries now committed to ending "new direct public support for the international unabated fossil fuel energy sector.", ${ }^{303}$ However billions in ODA and development finance are still being directed towards fossil fuels, with Japan and South Korea amongst the major financiers.

Japan Bank for International Cooperation (JBIC) is a development finance institution with a mandate to promote economic cooperation between Japan and other countries, including through export credit loans that support the finance of Japanese equipment and technology. JBIC is one of the main financier backers of the Vũng Áng 2 coal-fired power station in Vietnam, approving a loan of US\$636 million for the project. ${ }^{304}$ The Vũng Áng project is highly controversial. Local communities have protested Vũng Áng 1, the already-completed first phase of the coal power complex, due to air pollution from coal trucks, as well as concerns that air pollution could cause cancer and other respiratory diseases. Researchers estimate that "the cumulative impacts of the Vũng Áng 2 plant during its planned operational life could lead to more than 1800 deaths." ${ }^{305}$ Vũng Áng 2 would be a massive 'carbon bomb' too, with annual carbon dioxide emissions of 2.85 million tonnes per year.

JBIC provided a US\$2.1 billion loan for the building of the 2000 MW Central Java Power Project, as well as political risk guarantees covering an overall US $\$ 3.4$ billion package of lending involving a number of Japanese and Singaporean banks. ${ }^{306}$ The Batang coal-fired power station was completed in 2022 against a backdrop of considerable environmental and human rights concerns, including the intimidation of local residents to force their displacement. ${ }^{307}$ The plant will emit an estimated 10.8 million tonnes of carbon dioxide per year, with air pollution from the plant estimated to cause up to 30,000 premature deaths over the course of its operation, as well as destroying fertile agricultural land and polluting local coastal areas that provide the livelihoods for over 10,000 fisherpeople. ${ }^{308}$

JBIC is also providing US\$731 million in project finance for the expansion of the Cirebon Coal-fired Power Plant in Indonesia (see Mitsubishi UFJ Controversies above).. ${ }^{309}$

Although JBIC has now stated that it will fund no more coal projects, it has taken no steps to withdraw from those that it is currently financing, and it has not set a target for withdrawal from coal and gas.

[^5]
## BANGLADESH - MATARBARI COAL POWERED PLANTS

Matarbari is a small offshore island in the Southeastern Bangladesh. It is densely populated, with 100,000 people living on 27 km 2 ( 6,670 acres) of land. Identified by government as an area to be targeted for economic development, the Coal Power Generation Company Bangladesh Ltd forcibly acquired 1,608 acres of land in 2014, and subsequently acquired a further 1,212 acres to build a new coal-fired power plant under 'Phase 1'. Plans for a 'Phase 2' were later announced, including an additional three coal fired power plans. The forced large-scale land acquisition - equivalent to more than 40\% of the island's area - has directly or indirectly affected the thousands of people living there.

The corporation's main financer, Japanese aid agency JICA, has been closely involved in the planning from the start, having conducted an Environmental Impact Assessment, and a project feasibility study. JICA has already provided a US\$2.8 billion in loans towards the construction of the Matarbari Power Plant. ${ }^{310}$ The plant's electricity cost will be excessively high, far exceeding the cost of renewable energy alternatives, and could saddle Bangladesh with significant public debt. ${ }^{311}$

The 2,820 hectares of land acquired for the coal power plant is used by the communities for their livelihood and food security, especially for salt production and fish and shrimp farming. 20,000 landowners, salt, shrimp and crab farmers, traders and labourers have lost their incomes as a result of losing the land on which they earned their livings, and 45 families were evicted from their homes. The development has affected housing, access to clean water, health facilities, education and food for people on the island. ${ }^{312}$

The area is already highly vulnerable to flooding, and the new coal power plant developments have exacerbated the situation by dislodging sediment, silting up the Kohelia river and clogging up drainage canals. As a result, flooding events have increased. A severe flooding event in 2018 inundated 22 out of 31 villages on the island, affecting more than 10,000 people. At least two children drowned during the flooding, and two infants died in childbirth as their mothers could not access medical facilities. At least 300 families were displaced, and there has been an overall increase in poverty as a result, with roads, schools and clinics closed, and compromised latrine facilities causing health issues.

Since 2017, in alliance with Japanese and Bangladeshi NGOs including ActionAid, the community has been organising to demand compensation for their lost land, and to oppose new developments, particularly the power plants under the Phase 2 plans. Organising themselves into community groups, activities have included human chains, roadblocks, courtyard meetings memorandums to the water development board, a seminar with government and non-government actors, and press conferences. Evidence has been gathered and presented to JICA and the Japanese government, and spotlighted in Japanese media. After years of civil society advocacy, JICA and the Coal Power Generation Company held a series of meetings with the community, promising compensation and change. This compensation was slow to arrive.

Finally in 2022, in a major win for the community, and thanks to public pressure and a shift in Japanese national policy, JICA cancelled its investment in Matarbari Phase 2. SMBC, a major Japanese commercial bank, also distanced itself from the project to avoid further reputational damage, and other private banks have avoided it for the same reason. As a result, Phase 2 of the proposed coal project was cancelled. ${ }^{313}$ This achievement is an inspiring example of what organising and solidarity can achieve. However, the Matarbari Phase 1 coal power plants are now almost complete, and are scheduled to be in commission by the end of 2023 or early 2024. The community faces a polluted future and escalating climate impacts.


## PART 4. SCALING UP SOLUTIONS FOR FOOD, ENERGY AND THE CLIMATE

We are often told that fossil fuels and industrial agriculture are necessary to address food insecurity and energy poverty in the Global South. But these claims do not stand up to scrutiny.

Fossil fuels and industrial agriculture are not, in fact, designed to meet the food, energy, livelihood and development needs of Global South communities. They are simply the most commodifiable and exportable options. By their nature they enrich corporations and elites, and their export is designed to prioritise earning dollars for the repayment of external debt - at the cost of the wellbeing of communities, ecosystems and the climate. Even if we were not facing a global climate crisis, it would still be in the Global South's best interests to move away from economies based on extractive export-oriented commodities of fossil fuels and industrial agriculture. The need to avert the climate crisis simply brings this agenda into sharper and more immediate focus.

The challenge that we face is to meet the world's food, energy and development needs while also addressing the climate crisis.

Real solutions are needed. These solutions must address food, energy and livelihood priorities, and they must be equitable, and work for the climate, nature and people - particularly women and marginalised communities. These approaches must be designed so that communities and countries in the Global South can retain sovereignty over their own food and energy resources.

The good news is that these solutions already exist.

## RENEWABLE ENERGY

Renewable energy - particularly solar, wind and micro-hydro - can and must be scaled up to replace fossil fuels and address energy poverty, while avoiding the climate-devastating emissions associated with fossil fuels.

Ensuring access to energy is crucial to breaking out of poverty. Reliable access to energy can open up livelihood opportunities, including by saving time that would otherwise be spent sourcing fuel. Access to energy increases opportunities for education and studying. With access to energy, women and farming communities have more opportunities for processing and value addition of their produce, meaning that they can earn more income. Access to energy can also help to cut down on food loss and waste, which in turn improve food security and reduce emissions. ${ }^{314}$

Energy access can even support climate resilience, for example by saving trees that are crucial for ecosystems and livelihoods from being cut down and burnt into charcoal for cooking.

Renewable energy technologies available today are already sufficient to achieve 100\% renewable energy. ${ }^{315}$ Renewable energy also has the potential to far exceed projected global energy demand by 2050, helping to keep global warming below $1.5^{\circ} \mathrm{C} .{ }^{316}$ [see graphic] Meanwhile, the Southern hemisphere is particularly wellplaced to harness renewable energy, as abundant sunshine means that relatively little land is required for solar power to meet energy needs. ${ }^{317}$ (ref: https://carbontracker.org/reports/the-skys-the-limit-solar-wind/)


THE WORLD HAS SIGNIFICANTLY MORE RENEWABLE ENERGY POTENTIAL THAN IS NEEDED TO PROVIDE 100\% ENERGY ACCESS GLOBALLY BY 2050

(IMAGE from: Teske, S. \& Niklas, S. "Fossil Fuel Exit Strategy" (2021) https://indd.adobe.com/view/e0092323-3e91-4e5c-95e0-098ee42f9dd1)

The IPCC $6^{\text {th }}$ Assessment Report makes clear that shifting away from fossil fuels and scaling up renewable energy must be at the very heart of our planetary strategy to avoid climate breakdown. ${ }^{318}$

Fortunately, renewable energy by its very nature lends itself to a democratic approach that meets communities' needs. Unlike the highly centralised and necessarily large-scale infrastructure associated with fossil fuels, energy from the sun, wind and water can instead be harnessed virtually everywhere - there is no need for it to be centralised or large-scale. Rooftop solar panels, small-scale wind farms and micro-hydro generators mean that energy can be generated, controlled, used and potentially sold by communities, cooperatives even individual households. Public buildings such as schools, hospitals and universities can also become producers of energy.

Control and ownership over electricity in the hands of households, small and medium-size enterprises, communities and public institutions, in a mosaic of connected or island mini-grids, has profound and exciting implications. When energy is used close to where it is generated, the significant energy loss associated with transmitting electricity over long distances is dramatically reduced. Even more importantly, however, diversified production means that energy can be delivered as a common good, in contrast to the profit priorities of fossil fuel corporations. This "energy democracy" revolution is a step that can and must take place alongside the renewable energy revolution. ${ }^{319}$

Before roll-out of these technologies, we need social programmes to ensure the inclusive participation, education, training and empowerment of communities. Communities must be able to effectively participate in, shape, control and sustain this energy revolution.

By reducing over-consumption elsewhere, improving energy efficiency, and scaling up recycling and efficiency use of the materials needed for renewables ${ }^{320}$ it is not only feasible, but necessary to reach the goal of universal energy access with renewable energy, while simultaneously addressing the global climate crisis. Furthermore, to be able to assert control over their own renewable energy resources, Global South countries can and must centre the manufacturing of renewable energy technologies in their own industrial and regional policies, to end dependencies on manufactured imports from the Global North, and shift away from being treated as the global economy's source of cheap raw materials. ${ }^{321}$

In most cases, renewables are already more affordable than fossil fuels. Of the world's renewable energy that recently went online, $62 \%$ cost less than the cheapest fossil fuel option. ${ }^{322}$ And the cost of renewable energy will continue to fall, rendering fossil fuels obsolete.

Not only is the renewable energy revolution possible, it is already happening. In 2021, over $80 \%$ of Kenya's electricity production came from renewables, and the country has committed to achieving 100\% renewable energy by 2030. ${ }^{323}$ Rolling out renewable energy has enabled Kenya to dramatically increase energy access provision, from $28 \%$ to $71 \%$ of its population, in the years between 2013 and 2020. ${ }^{324}$ In the meantime, Costa Rica is already producing $98 \%$ of its electricity using renewable energy sources, and has done for several years. ${ }^{325}$

Scaled up climate finance from wealthy countries, combined with redeployed domestic revenues, will be key to the Global South leapfrogging the era of dirty fossil fuels, and leading the world in the roll-out of the energy systems of the future.

As demand for renewable energy grows, principles and governance systems are also needed to keep developments aligned with human rights and climate goals. These principles should exclude approaches that are likely to cause harm to people, climate and ecosystems such as large-scale bioenergy, liquid biofuels, nuclear power, large-scale hydropower, or the siting of wind and solar energy in areas that conflict with local communities' rights.

## AGROECOLOGY

A transformation of agriculture and food systems is also needed to address the climate crisis and meet the world's food and livelihood needs. As with the energy transition, new technical approaches must go hand-inhand with a shift away from prioritising the use of land for export commodities such as animal feed, biofuels or sugar, and towards food sovereignty.

Agroecological farming approaches are increasingly recognised as key technical interventions that are needed to feed the world in an era of climate change, and which also bring multiple social and ecological benefits. Institutions and reports including the IPCC's 6 th Assessment Report, ${ }^{326}$ the IPCC Special Report on Climate Change and Land, ${ }^{327}$ and the UN Food and Agriculture Organisation (FAO) Committee on World Food Security (CFS) ${ }^{328}$ see agroecology as a necessary step in preventing the climate crisis.

In contrast to industrialised agriculture in which expensive agrochemicals and seeds sold by agribusiness corporations cause harm to soils, biodiversity and the climate, agroecological farming approaches work with nature instead of against it. Relying on knowledge instead of purchased inputs, farmers can use the nutrients in natural local materials, the natural behaviour of plants, birds and insects, the biological functions of beneficial microbes, and a huge diversity of crops, seed varieties and livestock breeds that have been bred and adapted to many different purposes.

Agroecological techniques swap fossil-fuel dependent nitrogen fertilisers for nutrient-rich compost and manure, or planting leguminous crops such as beans and clover to naturally return nitrates to the soil. Covering soils with mulches such as straw or cut grass helps to supress weeds, reduce water evaporation from soils and ultimately improve soil structure. These approaches also encourage networks of beneficial mycorrhizae fungi to spread throughout the soil, converting organic material into nutrients and transporting these nutrients to crop roots in powerful symbiosis.

In place of chemical pesticide use, pests can be minimised by intercropping different types of crops, herbs and aromatic flowers, applying botanical mixtures derived from plants such as neem or pyrethrum, and by creating healthy ecosystems so that predator insects and birds can thrive and feed on pests. ${ }^{329}$

Agroecological approaches can be applied to food systems anywhere in the world. ${ }^{\text {vi }}$ They can produce impressive results for farmers, and these are particularly noticeable when climate impacts strike. Millions of farmers are now finding that their soils' improved water-carrying capacity and fertility confer vital resilience to the escalating effects of climate change, without compromising yields. ${ }^{330}$ Agroecological approaches mean that farmers are more likely to gain a harvest in spite of erratic and changing weather patterns such as failed rains, flooding, and pest attacks. ${ }^{331}$

Meanwhile, by avoiding the need to burn fossil fuels to produce synthetic nitrogen fertilisers, and the emissions and soil loss when fertilisers are applied, agroecological approaches are an important mitigation strategy for the food sector. ${ }^{332}$

A common assumption made by advocates of industrial agriculture is that chemical, mechanised and largescale approaches in which a single crop variety is grown over many - perhaps even hundreds or thousands - of hectares is more "efficient" and therefore more effective for addressing food security. This is untrue. Rich, naturally healthy soils can lead to abundant yields. Meanwhile, different crops grown side-by-side can provide each other with nutrient and pest management benefits, and can be harvested steadily over the course of the year instead of all at once, thus reducing food loss and waste and improving income stability.

In fact, several studies have shown that $70 \%$ of the world's population is fed by food grown on small farms, largely using agroecological approaches and diversified cropping systems, even though these farms only use about a quarter of the world's agricultural land. ${ }^{333}$ In recent years, this number has been subject to debate, with new studies claiming that smallholder farmers produce $30-35 \%$ of the world's food. ${ }^{334}$ Even this number demonstrates the efficiency of smallholder farming, given that smallholders only use $25 \%$ of the world's agricultural land. A closer look, however, shows that these newer studies employ different questions, methodologies and assumptions about what counts as food. The earlier studies, especially those undertaken, checked and confirmed by ETC Group in subsequent editions, focus on who is being fed by the crops produced, and demonstrate that $70 \%$ of the world's people rely on the peasant food web rather than a long industrial food chain. Meanwhile, one of the latter studies simply calculated calories produced by farms smaller than 2 hectares, not taking account of waste, which can be significant in industrialised food systems with long food chains, and different levels of consumption. Another controversial study looked only at land use as a proxy for food production, even including non-food crop production such as animal feed and biofuels in their calculations. ${ }^{335}$ Even though the latter studies aimed to disprove the importance of smallholder farming in feeding the world, in fact their methodological choices ended up confirming the point.

A common question is whether agroecology can also deliver food security for growing urban populations. The short answer is yes, particularly if policies provide greater support to food distribution streams, territorial markets and cooperatives to enable farmers to connect with urban consumers in their regions. Urban

[^6]agriculture is already estimated to provide $15-20 \%$ of global food, and has historically scaled up in times of crisis such as war, blockades or trade embargoes. ${ }^{336}$ Research suggests that the productivity of existing urban agriculture systems can be greatly improved by the application of agroecological principles which encourage synergies, efficiency, optimisation and recycling of scarce resources (including land) to great effect. ${ }^{337}$

Not only is agriculture the basis of our planet's food security, agriculture is also the world's largest employer. 2.5 billon people draw their livelihoods mostly from agriculture - more than one person in every four on planet Earth. ${ }^{338}$ Nearly half of the world's people live in households dependent on agricultural and food systems. ${ }^{339}$

Agriculture's role in protecting and prioritising livelihoods is therefore almost as important as its role in delivering food and nutrition. Agroecological farming systems are suited to the needs of smallholder farmers who do not usually have the deep pockets or access to finance to invest in expensive agribusiness inputs. This is especially true for women farmers, who account for nearly half of the farming population in Eastern and Southeast Asia and sub-Saharan Africa. ${ }^{340}$

Agroecological and smallholder farming systems mean that 100 hectares may host farms and provide incomes for 20, even 50 families. This contrasts sharply with large-scale industrial agriculture plantations which use chemicals and machinery - and increasingly, digitalisation - to replace human knowledge, skills and employment, which contribute to rural-urban migration and joblessness. A large-scale plantation on 100, or even 1,000 hectares of land will likely provide income to only one family, and a handful of poorlypaid labourers. By scaling up support, investment and protection for resilient agroecological and smallholder farming, governments can offer employment and livelihood opportunities for today's young people as well as future generations. Considering that agriculture currently employs a quarter of the world's population, this is vital to slow rural-urban migration and prevent a future jobs crisis for young people.

As José Graziano da Silva, former Director-General of the FAO (2012-2019) said, agroecology seeks to "redefine food systems as cultural systems, with people at the centre of the system, in contrast to the current industrial model with its focus on yield maximation at all costs[...]lt is now possible to say that we have a viable alternative pathway for agricultural development."341

A number of national and sub-national governments are already convinced that their future depends on shifting to agroecological farming practices. The small Indian state of Sikkim went 100\% organic in 2016, substituting chemical fertilisers and pesticides for agroecological alternatives. The state claims that these policies have already benefited 66,000 farmers, and its proven success won the state the FAO's Future Policy Award gold prize in 2018. ${ }^{342}$ While the government of Bhutan did not meet its ambitious goal of becoming $100 \%$ organic by 2020, more than $80 \%$ of Bhutanese farms are using organic or agroecological practices and avoiding the use of synthetic agrochemicals. ${ }^{343}$

The recent example of Sri Lanka, however, is a clear illustration of the dangers of making ambitious declarations and strict policies without first putting in place the means to achieve these goals. In 2021 the government declared a sudden ban on agrochemicals without any support or provision of training on agroecological techniques, or a transition period to build up natural soil fertility. This shocked the nation and led to significant yield losses at a time when the country was already struggling with the Covid-19 pandemic and other economic challenges. The rationale for Sri Lanka's overnight policy was later suspected to be the country's national debt burden and struggle to pay for imported chemical fertilisers. ${ }^{344}$

Amidst the current crisis in rising fuel and fertiliser prices as a result of the war in Ukraine, many governments are struggling to sustain subsidies for synthetic nitrogen fertilisers. Scaling up training and support for agroecology can save millions of dollars, while helping to secure farmers' livelihoods, food security and resilience.

In order to bring about a much-needed shift to agroecology and food sovereignty, Global South governments must scale up gender-responsive extension services to provide training and capacity building in agroecology, making sure women smallholder farmers are not left out. This is a vital first step to ensure that farmers particularly women farmers - have the necessary skills, resources, soil fertility and access to seed diversity to make the shift. It is important that farmers are not simply ordered to convert to agroecology, or their access to fertilisers withdrawn, without first ensuring that they have everything necessary to make agroecology a success. There is an urgent need to rebuild and scale up the public financing of such agricultural extension services, recognising this as a public service.

Training and investment in local processing and value addition, for example, can contribute to reducing food loss and waste, and help farmers retain a greater share of their own income. Further investment and support to help farmers develop and identify new routes to markets for their produce is also needed so that food production can successfully and easily connect with consumers, and livelihoods are secured.

The shift to agroecology and food sovereignty must be accompanied by a policy reprioritisation away from export commodity crops which generate little economic and food security for Global South communities. They must shift towards diversified cropping systems that better meet food security needs, reduce deforestation pressure, and support the livelihoods and economies of Global South communities.

## FEMINIST JUST TRANSITIONS

Transitions to scale up climate solutions can be complex, affecting a diverse range of stakeholders. Major efforts are therefore needed to avoid unintended harm, to protect the rights of people at risk from losing out from these transitions in energy and food systems, and to ensure that these changes are made with
Feminist Just Transition principles in mind.

The term 'Just Transition' does not only describe what the new food and energy systems will look like, but also how the transition should be carried out. Remembering the challenges and opportunities faced and brought by women, feminist just transitions must follow the following four principles of just transition, defined by ActionAid as: ${ }^{345}$

- Addressing and not exacerbating inequalities
- Transforming systems to work for people, nature and the climate
- Ensuring inclusiveness and participation
- Developing comprehensive plans and policy frameworks.

Deep inequality already exists across the world's food, energy and economic systems. Women experience higher rates of exploitation, risky working conditions and low incomes. Policy makers systematically ignore marginalised women's perspectives. Corporations own a disproportionate amount of land and wealth, causing rising hunger and vulnerability across the food, agriculture, energy and extractive sectors. Economies fail to value unpaid care work - the caring, cooking, growing food and fetching water - that is almost always carried out by women. Cultural expectations that women will do unpaid care work often holds them back from earning more income, and often leaves them exhausted and with no time for leisure.

Workers, women and communities must be given opportunities for a better future. However, communities living a precarious existence may not have the necessary skills or resources to take advantage of the opportunities that a shift can bring, and may find themselves in an even worse situation than before. ${ }^{346}$

Shifting to farming systems that are better for the climate and work with nature must also avoid creating new risks for workers and farmers. The use of labour to replace agrochemicals could enhance employment
opportunities, but could also increase the intensity of labour and physical demands of work. Transitions in agriculture must therefore take account of the risk to workers and ensure farm owners' and plantation owners' ability to pay fair wages and ensure decent working conditions.

Shifts to renewable energy and agroecological approaches must avoid clumsy and harmful top-down policy impositions that place unfair and disproportionate burdens on the people who are least able to bear them. Lessons must be learned, for example, from the Gilets Jaunes (Yellow Vest) protests against regressive carbon taxes in France in 2018, which disproportionally affected low-paid workers' ability to travel to work, and provoked massive protests across the country. Similarly, Sri Lanka's overnight ban on synthetic fertilisers in 2021 predictably yielded crop failure.

These lessons show that to successfully bring about feminist just transitions, communities must be provided with opportunities to participate in decision-making, spaces to organise, positive livelihood alternatives and meaningful support, social protection and training.

Successful climate transitions must also address power inequalities in food and energy systems. They must give marginalised communities - particularly women - a seat at the table, and value every type of work. Different stakeholders have different skillsets, ways of communicating their lives, levels of literacy, and access to decision makers. Not everyone will be ready with a PowerPoint presentation and lobby document! Women and marginalised community members will often face cultural barriers to speaking up, even though they have very specific and valuable insights into the realities they face around climate change, agriculture, mining, community dynamics and care responsibilities. Inclusive planning processes, centred on women's empowerment, knowledge, participation and leadership, are essential. These inclusive processes must give rise to comprehensive plans and policy frameworks which provide the necessary training, support, and policies to ensure that everyone can participate fully in the transition, and not be left behind.

## FINANCING THE TRANSITION

Strategies to scale up agroecology and renewable energy rely on a major scaling up and redirecting
of finance, particularly public finance. National and international finance policies, and the international community all have a key role to deliver on these urgent transitions.
As a first low-hanging fruit, Global North countries and Multilateral Development Banks (MDBs) must finally agree to unconditional debt cancellation so that Global South governments can be freed from the burdens of debt repayment that bind them to economies based on extractive commodity exports to repay unjust external debt. ${ }^{347}$ Debt-free, Global South governments can finance their own climate transitions and make rational decisions in their citizens' interests, for example by scaling up agroecology and renewable energy. ${ }^{348}$

In addition, wealthy governments in the Global North who have done the most to cause the climate crisis, must rapidly increase their climate finance grants. They must first deliver on the overdue UN climate finance target of US $\$ 100$ billion per year by 2020, in the form of grants. Under the UN Framework Convention on Climate Change (UNFCCC) rich countries must also agree to and deliver on a New Collective Quantified Goal (NCQG) on finance in proportion to the scale of need. This is likely to be several trillion dollars a year. Climate finance provided under the NCQG must also be in the form of grants, not loans.

Tax justice policies in the Global South and North also have potential to raise significant amounts of finance through policies that address tax avoidance, ensure progressive taxation, and put fair tax obligations on wealthy tax corporations and individuals. Recent research by ActionAid and Oxfam has found that a tax of $50-90 \%$ on the 2021-22 windfall profits of 722 mega-corporations could generate US $\$ 1$ trillion, which could be used to tackle poverty and climate change. ${ }^{349}$ Of these, 45 energy corporations made on average US $\$ 237$ billion a year in windfall profits in 2021 and 2022. The largest fossil fuel and industrial agriculture
companies avoid paying taxes in the Global South, depriving governments of urgently needed revenue for public services and for responding to the climate crisis.

Global tax reforms could be transformative, and momentum behind these is growing. Research by Oxfam has also found that US\$1.7 trillion a year could be raised through wealth taxes of just 5\% on the world's multi-millionaires and billionaires. ${ }^{350}$ Meanwhile, the US Congressional Budget Office has estimated that a Financial Transactions Tax fixed at $0.1 \%$ could raise US\$777 billion in revenue over 10 years. ${ }^{351}$ In November 2022 the UN General Assembly agreed to setup a new UN Tax Body to replace the OECD's 60 year role in setting global tax rules. This new UN body must have a clear mandate to develop new global tax rules that are informed by and seek to positively act on the climate crisis. Rather than just taxing to reduce emissions, tax rules should be designed to redistribute resources to those countries that are least responsible for, but most affected by, the climate crisis.

## Adaptation

- Soils packed with organic matter are spongy, retain water, and slow to dry out. In times of reduced rainfall and higher temperatures, water is available to crops for longer, extending growing times and increasing yield.
- Improving soils and adding trees significantly reduce the risk and impact of flooding in times of heavy rainfall.
- Increased crop and seed diversity spreads risk, reducing chances of total crop failure following drought, flood, pests or disease.


## Mitigation:

- Significantly reduces fossil fuel carbon dioxide by avoiding production of synthetic nitrogen fertilisers.
- Avoids degrading soil carbon to atmospheric carbon dioxide through the application of synthetic nitrogen fertilisers.
- Soils act as carbon sinks.
- Trees and multiple crop layers in agroforestry act as additional carbon sinks.
- Avoids biodiversity loss, including deforestation pressure caused by aggressive expansion of plantations incentivised by industrial and mechanised agriculture e.g., soya in Latin America and palm oil in South East Asia.


## Economic benefits:

- Farmers can retain more of their income when not purchasing agribusiness inputs, and are less squeezed by the corporate sector.
- Benefits smallholders, especially smallholder women farmers who may not have large incomes or access to finance.
- Provides a counter to the concentration of land and wealth facilitated by corporate agribusiness, in which millions of smallholder farmers are forced out of farming by tight margins or aggressive land expansions.
- More smallholder farmers are retained around a community, which strengthens local economies and services.
- Re-allocating government budgets currently spent on subsidising synthetic fertilisers can free up millions of dollars to provide support for adaptation, training, extension services based on agroecological approaches.
- Improved local water, biodiversity and environment, including from reduced fertiliser runoff.
- Health benefits for farmers, local communities and consumers through avoidance of pesticides and fertilisers, and more nutritious food.


## AGROECOLOGY IN MUKOTO, ZIMBABWE

Farmers in Zimbabwe have noticed with concern how their climate has changed over the last years. Rains are erratic. Drought has become common. And conventional farming is increasingly unreliable in the face of unpredictable weather patterns.

12 years ago, Mrs Katsande and her husband began to use agroecological techniques on their plot of land in Mukoto, Mashonaland East. They grow finger millet, peanuts, beans and maize.
"We have been practicing agroecology techniques such as mulching, which conserves moisture in the soil for longer periods," she says.

As a result, her land is resilient to climate change, and her crops are thriving. Even though the region has faced droughts, her harvests have not failed, and she has never faced hunger.
"We have a small piece of land, but we still manage to make a livelihood."


## AGROECOLOGY IN NEPAL

Sabitri Gurung (52) lives in Shankharapur Municipality 2, Kathmandu, Nepal. Sabitri and her family grow a diverse range of crops including rice, maize, millet and vegetables using agroecological practices such as applying cattle manure, urine and plant mulch to the soil. As a result, Sabitri and her family have not been affected by rising fertiliser and food prices caused by the war in Ukraine.
"We can make good money from this approach. Not only does agroecological farming have health benefits, but it is also environmentally friendly and can resist drought better in comparison to pesticide-based farming. Since it requires no use of chemical pesticides or fertilisers, we need less investment and less labour."


## PART 5

The world's biggest banks are providing trillions of dollars in financing to fossil fuel and industrial agriculture corporations - the main contributors to climate change - while governments use public funds to support their expansion.

This report shows that much of this financing is being channelled by international banks to fund fossil fuel and industrial agriculture activities in the Global South, the same regions that are experiencing the most severe impacts of the climate crisis.

The emissions unleashed by these activities are heating up the planet and causing the floods, droughts, cyclones and rising sea levels that are pushing marginalised communities into deepening poverty, hunger and danger.

These same fossil fuel and industrial agriculture activities are driving land grabs that marginalise women, Indigenous peoples and rural communities, causing deforestation, harming biodiversity and marine ecosystems, and polluting water, air and soils.

The continued investment and expansion of these activities at current rates is set to steer the world past the Paris Agreement's threshold goal of limiting average global warming to $1.5^{\circ} \mathrm{C}$, and trigger escalating climate breakdown.

Fossil fuel and industrial agribusiness expansion are often justified under the banner of 'development'. But the reality is that they are harming communities more than benefiting them. Renewable energy and agroecological farming practices are far better positioned to address energy, food security, livelihood and development needs in the face of the climate crisis, and can help to meet the Paris Agreement's $1.5^{\circ} \mathrm{C}$ target instead of blasting through it.

They say that money makes the world go round. But with the climate crisis reversing progress in addressing poverty, hunger and human rights abuses, far too much money is making the world go backwards.

This money is our money. Banks use the money in our accounts as the reserves from which they provide loans to fossil fuel and agribusiness corporations. Meanwhile, our governments are using our taxes to directly support and subsidise the same actors.

It is time to reroute the money flow. Banks and governments need to stop financing the destruction of the planet.

## KEY

## RECOMMENDATIONS

## Banks:

STOP FINANCING FOSSIL FUELS: Banks must immediately end lending and underwriting for corporations involved in fossil fuel expansion. This must include project financing and general corporate financing, and be broadly applicable across whole corporate groups. ${ }^{352}$ Banks should also develop plans to fully phase out all fossil fuel financing, since it is incompatible with a $1.5^{\circ} \mathrm{C}$ climate goal. This should include an immediate end to coal financing, and oil and gas expansion, alongside a rapid exit strategy from all oil and gas.

## STOP FINANCING DEFORESTATION AND OTHER HARMFUL AGRIBUSINESS ACTIVITIES:

Banks must end lending and underwriting to industrial agribusiness corporations proven to be driving deforestation and land grabs. This must include general corporate financing and project financing, and be applied to the whole corporate group. They must also improve their standards for agricultural commodities such as palm oil and soy, through enhanced due diligence and supply chain checks, and alignment with the EU's deforestation-free value chain legislation. Red lines on industrial agribusiness financing must be developed, taking into account climate impacts, risks of deforestation, chemical and health impacts, human rights and labour abuses, biodiversity erosion, and corporate concentration.

PROTECT RIGHTS OF COMMUNITIES: Banks must take responsibility for preventing harm against indigenous peoples, local communities, human rights defenders, women and LGBTQ|A+ people, and frontline communities. They must require bank personnel, business partners and their bank's clients and investees to implement robust policies and measures to protect against human rights abuses and land grabs. Banks must also ensure that the Free, Prior and Informed Consent (FPIC) of Indigenous peoples and local communities applies to all relevant transactions (not just project financing); secure the participation of local communities including women in planning processes; routinely conduct gender assessments as part of financing decisions; apply robust environmental and social safeguards; apply enhanced due diligence procedures for protect against human rights abuses; adopt zerotolerance policies on sexual and gender-based violence; and implement adequate disclosure and redress mechanisms.

WORK TO BRING EMISSIONS DOWN TO REAL ZERO: Banks and their clients, as well as banking alliances such as the Glasgow Alliance for Net Zero and the Net Zero Banking Alliance must conform with real and ambitious commitments to bring about a just transition, to bring down emissions to as close to zero as possible. Climate targets must: set out concrete pathways to reduce emissions in line with $1.5^{\circ} \mathrm{C}$ with no overshoot; fully cover scopes 1,2 and 3 emissions arising from a bank's loans and underwriting, as well as the scope 1-3 emissions of their clients; have ambitious interim targets every five years; and exclude the use of carbon offset credits, tree plantations and speculative and unproven carbon removal technologies such as Carbon Capture and Storage (CCS), Bioenergy with Carbon Capture and Storage (BECCS), and Direct Air Capture (DAC) from carbon accounting towards climate targets.

STRENGTHEN TRANSPARENCY AND TOOLS FOR VERIFICATION: Banks must adopt enhanced transparency and accountability measures for existing and proposed project and corporate public financing. They should provide improved public reporting on policies, practices and performance indicators in emissions targets and financed emissions by sector, including Agriculture, Forestry and Land Use (AFOLU), gender-responsive safeguards, and internationally-recognised human rights standards for Indigenous Peoples' rights. Databases must be publicly available and online, and participatory councils for verification to enable civil society monitoring should be set up.

## Governments:

## EFFECTIVELY REGULATE THE BANKING, FINANCE, FOSSIL FUEL AND INDUSTRIAL

AGRICULTURE SECTORS: National and regional governments must regulate the banking and finance sectors to stop the financing of fossil fuel expansion. Climate transition plans consistent with a $1.5^{\circ} \mathrm{C}$ climate goal should be mandatory for banks. These should exclude unproven carbon removals technologies, tree plantations, and carbon offsets; cover scope 1, 2 and 3 of the banks and their clients' emissions; and set five year targets, including sector-specific and time-bound measures for the phase out of financing for harmful industrial agriculture and fossil fuels. Regulation should set minimum standards for human rights, social and environmental frameworks, including enhanced due diligence procedures in sensitive sectors; meaningful gender-inclusive stakeholder processes; an FPIC requirement to ensure that Indigenous peoples and local communities are adequately consulted; and complaint procedures that include formal grievance mechanisms. National policies must regulate and equitably phase out the fossil fuel and industrial agriculture sectors to ensure alignment with a $1.5^{\circ} \mathrm{C}$ goal

## STOP SUPPORTING AND SUSBSIDISING HARMFUL FOSSIL FUEL AND INDUSTRIAL

 AGRICULTURE ACTIVITIES: Governments must halt fossil fuel expansion and deforestation, and strengthen regulation of harmful industrial agriculture activities. Public financing and investment - whether provided through subsidies, ODA, development finance, state-owned banks or public investment funds such as pension, insurance or Sovereign Wealth Funds - must exclude fossil fuel expansion and activities that result in deforestation, and be subject to high environmental and social standards. Phasing out of financing and subsidies for fossil fuels, fossil fertilisers and harmful industrialised agriculture activities must be undertaken through progressive and carefully sequenced processes that avoid harming lower and middle-income households, and which ensure access to better alternatives.
## SGALE UP SUPPORT AND PLANNING FOR JUST TRANSITIONS TO REAL SOLUTIONS:

Governments must develop ambitious climate transition plans consistent with the $1.5^{\circ} \mathrm{C}$ climate goal, based on just transitions that address inequality and include workers, communities and women in planning, while providing them with the necessary support to enable change. State-owned enterprises should develop transition plans to move away from fossil fuels and harmful industrial agriculture, with five-year interim targets. Public finance must be deployed in a progressive manner to accelerate this shift, by shifting subsidies away from fossil fuels and fossil fertilisers, and redeploying resources to scale up renewable energy access, agroecology, gender-responsive agricultural extension services, adaptation, food sovereignty, health, education, public transport and social protection.

FINANCE THE TRANSITION: National tax policies and regulations, and international bodies including a new UN Tax Body, can mobilise significant resources to finance climate action through tax justice policies that address tax avoidance and illicit financial flows, ensure ambitious and progressive tax reforms, and put fair tax obligations on wealthy corporations and individuals. Governments in the Global North must significantly scale up climate finance contribution in the form of grants to Global South countries, to finance adaptation and mitigation, and address loss and damage. In addition, Northern governments and international financial institutions must cancel the external debts of climate-vulnerable Global South governments who are being pushed to scale up industrial agribusiness and fossil fuel exports, in order to earn foreign currency to repay the debt.

## ANNEX: SUMMARY OF METHODOLOGY

ActionAid's new analysis, seen for the first time in this report, uses the following methodology:

## Sector and company selection

In order to focus on the agricultural sectors and value chains that have the greatest social and environmental impacts in the Global South, ten market segments were chosen: agrochemicals, seeds, animal feed \& nutrition, animal pharma, meat production, palm oil, rubber, soybeans, sugar cane and commodity traders. The 45 top companies active in these markets were identified.

The selection of fossil fuel companies, and the underlying data, draws on the recent Throwing Fuel on the Fire report, produced by Reclaim Finance. ${ }^{353}$ This includes 368 coal companies, 91 upstream oil and gas companies, and 77 midstream companies (e.g. developing oil and gas pipelines and LNG terminals). This resulted in 493 fossil fuel companies (at group level) to be examined, of which 354 received financing that falls within the geographical scope and time period of our research.

## Types of finance

Financial institutions can invest in companies in a number of ways. In this report, we have focused on the core banking activities of providing credit to companies through providing loans, and underwriting share and bond issuances. The scope of this research for credit activities was from January 2016 to September 2022.

Loan financing takes various forms, the simplest of which is borrowing money from commercial banks. The loans counted in this report include short-term lending (mostly for working capital, financing the day-today operations of companies) and longer-term corporate loans, which are often linked to expansion plans. Project finance, which is lending earmarked for a specific project, is also included in this report. It should be noted that project finance only accounts for a small percentage of total financing. Banking on Climate Chaos, which uses a global dataset that overlaps with the one used here, found that project-specific financing accounts for on average only about 4\% of total finance annually. ${ }^{354}$

The second type of bank financing included in this report is share and bond underwriting. Shares give investors a stake in the ownership of a company. Bonds, like loans, are a form of debt, but instead of borrowing from a bank the company issues the debt directly - a bit like an IOU, with the company promising to pay back the face value and periodic interest payments over an agreed period of time. When new bonds or shares are issued, investment banks play a key role in setting the price and assume (for a fee) the risk of bringing these products to market. This process is called "underwriting" and involves the banks initially buying up the newly issued shares and bonds and then selling them on to investors.

Investment banks arrange the sale of shares, which give investors a stake in the ownership of a company. The bank's role is temporary - once it has sold all of the shares that it has underwritten, these are no longer included on its balance sheet. However, the assistance provided by banks (or other financial institutions) in issuing shares and bonds is crucial, providing market access without which the sale of new shares or bonds could not happen.

## Geographical scope

This report tracks financing for fossil fuels and industrial agriculture in the "Global South", which we have defined as comprising the 134 countries that make up the Group of 77 and China coalition at the United Nations. ${ }^{355}$

As many of the companies tracked in this report operate globally, geographic adjusters were applied to estimate the percentage of a company's operations in the Global South. In the case of oil and gas companies, these were calculated using data on reserves. In the case of industrial agriculture, no geographic
adjusters were calculated for the companies engaged primarily in the upstream production of agricultural products (meat production, palm oil, rubber, soybeans, sugar cane) since the company selections included mostly companies based in the Global South. However, geographic adjusters were calculated for companies engaged in the following sectors:

- Agrochemicals
- Animal pharma
- Seeds
- Commodity traders

As these companies are all engaged in agriculture production inputs or trade, the estimated geographic adjuster was based on the proportion of the global value of agricultural production in 2021 generated by the Global South based on FAOStat data. This was estimated to be $71 \%$.

## Sectors

A number of industrial agriculture companies are active in multiple sectors. To control for this, "segment adjusters" were calculated by Profundo so that the estimated financial flows to these companies only apply to the industrial agriculture share of their business.

In the case of industrial agriculture, segment adjusters were calculated for companies engaged in the following sectors:

- Animal pharma
- Agrochemicals
- Rubber
- Seeds

To the fullest extent possible, these segment adjusters use the segment reporting in annual reports, complemented by further information from company publications and websites and estimations where necessary.

No segment adjusters were applied to companies engaged primarily in the upstream production of agricultural products (meat production, palm oil, soybeans, sugar cane) or to agricultural commodity traders.

No segment adjusters were applied to the fossil fuel companies as these are primarily engaged in the fossil fuels.

## Data sources, estimates and analysis

The underlying data on which this report is based was received from financial databases Bloomberg, Refinitiv, IJGlobal and TradeFinanceAnalytics. It was then analysed by ActionAid and Profundo. Where several banks jointly issue credit (syndicated loans) or act together to provide underwriting services, estimates have been made regarding each individual bank's commitments.

Further methodology details can be found online at:
https://actionaid.org/publications/2023/methodology-how-finance-flows

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[^0]:    - FINANCE JUST TRANSITIONS THROUGH SCALED UP CLIMATE FINANCE, TAX JUSTICE AND DEBT RELIEF.

[^1]:    i. The focus here is loans and underwriting (or share and bond issuances), but these are not the only forms of financing that banks undertake. Many of the major banks also offer asset management services (ownership of bonds and shares), which fall outside of the scope of this report.

[^2]:    ii. These figures are based on Oxfam's 2023 Shadow Climate Finance report. Its methodology defines the 'real value' of climate finance by calculating specific Climate Specific Net Assistance (CSNA). This is determined by a) ensuring that financing reported as only of 'significant' (rather than 'principal') climate relevance under the Rio Markers is calculated at an appropriate level ( 30 to $50 \%$ of project volume) so that the mitigation or adaptation value of such activities is not overstated; and b) valuing grant-based climate finance at $100 \%$, and concessional loans at a relevant grant-equivalent percentage of the amount provided. In this methodology, non-concessional loans are not counted as climate finance. For more information, please see Annex 2 of Oxfam's 2023 report: https://policy-practice.oxfam.org/resources/climate-finance-shadow-report-2023-621500

[^3]:    iii. As above, the climate finance figures are based on Oxfam's 2023 Shadow Climate Finance report.

[^4]:    iv. When we describe the relative size of banks this measurement is according to their total assets. See SP Global (2023) "The world's 100 largest banks 2023", S\&P Global Market Intelligence, 26 April, https://www.spglobal.com/marketintelligence/en/news-insights/research/the-world-s-100-largest-banks-2023 ; Rainforest Action Network et al. (2023), pp.10-11.

[^5]:    v. However, the applicability only to end finance to "unabated" fossil fuel energy represents a loophole, given the frequent use of this term to cover for continued fossil fuel investment, with emissions "abated" for example through the use of still-unproven carbon capture and storage technologies. The pledge also has a mixed record to date, see Oil Change International (2023b) Promise Breakers: Assessing the impact of compliance with the Glasgow statement commitment to end international public finance for fossil fuels, https://priceofoil.org/content/uploads/2023/03/PROMISEBREAKERS.pdf

[^6]:    vi. To guide the transition to sustainable food systems, and to deliver the full range of ecological, socioeconomic and climate benefits, the UN's FAO have developed a useful framework called 'The 10 Elements of Agroecology'. These are: Diversity; Co-creating and sharing of knowledge; Synergies; Efficiency; Recycling; Resilience; Human and social values; Culture and food traditions; Responsible governance; and Circular and solidarity economy.

