

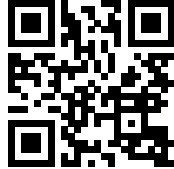


GLOBAL CLIMATE WALL

How the world's wealthiest
nations prioritise borders
over climate action

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EXECUTIVE SUMMARY

The world's wealthiest countries have chosen how they approach global climate action – by militarising their borders. As this report clearly shows, these countries – which are historically the most responsible for the climate crisis – spend more on arming their borders to keep migrants out than on tackling the crisis that forces people from their homes in the first place.

This is a global trend, but seven countries in particular – responsible for 48% of the world's historic greenhouse gas (GHG) emissions – collectively spent at least twice as much on border and immigration enforcement (more than \$33.1 billion) as on climate finance (\$14.4 billion) between 2013 and 2018.

These countries have built a 'Climate Wall' to keep out the consequences of climate change, in which the bricks come from two distinct but related dynamics: first, a failure to provide the promised climate finance that could help countries mitigate and adapt to climate change; and second, a militarised response to migration that expands border and surveillance infrastructure. This provides booming profits for a border security industry but untold suffering for refugees and migrants who make increasingly dangerous – and frequently deadly – journeys to seek safety in a climate-changed world.

KEY FINDINGS

Climate-induced migration is now a reality

- Climate change is increasingly a factor behind displacement and migration. This may be because of a particular catastrophic event, such as a hurricane or a flash flood, but also when the cumulative impacts of drought or sea-level rise, for example, gradually make an area uninhabitable and force entire communities to relocate.
- The majority of people who become displaced, whether climate-induced or not, remain in their own country, but a number will cross international borders and this is likely to increase as climate-change impacts on entire regions and ecosystems.
- Climate-induced migration takes place disproportionately in low-income countries and intersects with and accelerates with many other causes for displacement. It is shaped by the systemic injustice that creates the situations of vulnerability, violence, precarity and weak social structures that force people to leave their homes.

Rich countries spend more on militarising their borders than on providing climate finance to enable the poorest countries to help migrants

- Seven of the biggest emitters of GHGs – the United States, Germany, Japan, the United Kingdom, Canada, France and Australia – collectively spent at least twice as much on border and immigration enforcement (more than \$33.1 billion) as on climate finance (\$14.4 billion) between 2013 and 2018.¹
- Canada spent 15 times more (\$1.5 billion compared to around \$100 million); Australia 13 times more (\$2.7 billion compared to \$200 million); the US almost 11 times more (\$19.6 billion compared to \$1.8 billion); and the UK nearly two times more (\$2.7 billion compared to \$1.4 billion).

- Border spending by the seven biggest GHG emitters rose by 29% between 2013 and 2018. In the US, spending on border and immigration enforcement tripled between 2003 and 2021. In Europe, the budget for the European Union (EU) border agency, Frontex, has increased by a whopping 2763% since its founding in 2006 up to 2021.
- This militarisation of borders is partly rooted in national climate security strategies that since the early 2000s have overwhelmingly framed migrants as ‘threats’ rather than victims of injustice. The border security industry has helped promote this process through well-oiled political lobbying, leading to ever more contracts for the border industry and increasingly hostile environments for refugees and migrants.
- Climate finance could help mitigate the impacts of climate change and help countries adapt to this reality, including supporting people who need to relocate or to migrate abroad. Yet the richest countries have failed even to keep their pledges of meagre \$100 billion a year in climate finance. The latest figures from the Organisation for Economic Co-operation and Development (OECD) reported \$79.6 billion in total climate finance in 2019, but according to research published by Oxfam International, once over-reporting, and loans rather than grants are taken into account, the true volume of climate finance may be less than half of what is reported by developed countries.
- Countries with the highest historic emissions are fortifying their borders, while those with lowest are the hardest hit by population displacement. Somalia, for example, is responsible for 0.00027% of total emissions since 1850 but had more than one million people (6% of the population) displaced by a climate-related disaster in 2020.

The border security industry is profiteering from climate change

- The border security industry is already profiting from the increased spending on border and immigration enforcement and expects even more profits from anticipated instability due to climate change. A 2019 forecast by ResearchAndMarkets.com predicted that the Global Homeland Security and Public Safety Market would grow from \$431 billion in 2018 to \$606 billion in 2024, and a 5.8% annual growth rate. According to the report, one factor driving this is ‘climate warming-related natural disasters growth’.
- Top border contractors boast of the potential to increase their revenue from climate change. Raytheon says ‘demand for its military products and services as security concerns may arise as results of droughts, floods, and storm events occur as a result of climate change’. Cobham, a British company that markets surveillance systems and is one of the main contractors for Australia’s border security, says that ‘changes to countries [sic] resources and habitability could increase the need for border surveillance due to population migration’.
- As TNI has detailed in many other reports in its Border Wars series,² the border security industry lobbies and advocates for border militarisation and profits from its expansion.

The border security industry also provides security to the oil industry that is one of main contributors to the climate crisis and even sit on each other’s executive boards

- The world’s 10 largest fossil fuel firms also contract the services of the same firms that dominate border security contracts. Chevron (ranked the world’s number 2) has contracts with Cobham, G4S, Indra, Leonardo, Thales; Exxon Mobil (ranking 4) with Airbus, Damen, General Dynamics, L3Harris, Leonardo, Lockheed Martin; British Petroleum (BP) (6) with Airbus, G4S, Indra, Lockheed Martin, Palantir, Thales; and Royal Dutch Shell (7) with Airbus, Boeing, Damen, Leonardo, Lockheed Martin, Thales, G4S.

- Exxon Mobil, for example, contracted L3Harris (one of the top 14 US border contractors) to provide 'maritime domain awareness' of its drilling in the Niger delta in Nigeria, a region which has suffered tremendous population displacement due to environmental contamination. BP has contracted with Palantir, a company that controversially provides surveillance software to agencies like the US Immigration and Customs Enforcement (ICE), to develop a 'repository of all operated wells historical and real time drilling data'. Border contractor G4S has a relatively long history of protecting oil pipelines, including the Dakota Access pipeline in the US.
- The synergy between fossil fuel companies and top border security contractors is also seen by the fact that executives from each sector sit on each other's boards. At Chevron, for example, the former CEO and Chairman of Northrop Grumman, Ronald D. Sugar and Lockheed Martin's former CEO Marilyn Hewson are on its board. The Italian oil and gas company ENI has Nathalie Tocci on its board, previously a Special Advisor to EU High Representative Mogherini from 2015 to 2019, who helped draft the EU Global Strategy that led to expanding the externalisation of EU borders to third countries.

This nexus of power, wealth and collusion between fossil fuel firms and the border security industry shows how climate inaction and militarised responses to its consequences increasingly work hand in hand. Both industries profit as ever more resources are diverted towards dealing with the consequences of climate change rather than tackling its root causes. This comes at a terrible human cost. It can be seen in the rising death toll of refugees, deplorable conditions in many refugee camps and detention centres, violent pushbacks from European countries, particularly those bordering the Mediterranean, and from the US, in countless cases of unnecessary suffering and brutality. The International Organization for Migration (IOM) calculates that 41,000 migrants died between 2014 and 2020, although this is widely accepted to be a significant underestimate given that many lives are lost at sea and in remote deserts as migrants and refugees take increasingly dangerous routes to safety.

The prioritisation of militarised borders over climate finance ultimately threatens to worsen the climate crisis for humanity. Without sufficient investment to help countries mitigate and adapt to climate change, the crisis will wreak even more human devastation and uproot more lives. But, as this report concludes, government spending is a political choice, meaning that different choices are possible. Investing in climate mitigation in the poorest and most vulnerable countries can support a transition to clean energy – and, alongside deep emission cuts by the biggest polluting nations – give the world a chance to keep temperatures below 1.5°C increase since 1850, or pre-industrial levels. Supporting people forced to leave their homes with the resources and infrastructure to rebuild their lives in new locations can help them adapt to climate change and to live in dignity. Migration, if adequately supported, can be an important means of climate adaptation.

Treating migration positively requires a change of direction and greatly increased climate finance, good public policy and international cooperation, but most importantly it is the only morally just path to support those suffering a crisis they played no part in creating.

INTRODUCTION

The floodwaters had still not receded in the Guatemalan town of Campur in the wake of Hurricane Eta when Byron headed³ north to the United States. After intensifying over warm Caribbean waters, when Eta made landfall on 3 November 2020, it was a category four monster – the second-highest classification of a hurricane’s intensity – bringing fierce winds and heavy rain. The resulting deluge left Campur with only its church steeple visible above the water. When the flooding finally receded in January 2021, it revealed the extent of the devastation: homes, livelihoods, and crops had been destroyed. Byron was among the 600 families who lost everything.



*Photo of flooding in Guatemala after Hurricane Eta.
Credit: N.Sampson/European Union 2020,(CC BY-ND 2.0)*

Byron, however, didn't wait for the floodwaters to recede. He made a decision to leave instantaneously. Along with a number of the 339,000 Guatemalans displaced due to natural catastrophes in 2020, Byron would face the walls, armed agents, and surveillance systems deployed by the US, which would start 258 km away at the heavily enforced border with Mexico.

This gives a picture of what could be called the global climate wall. The US is responsible for 30.1% of the world's greenhouse gas (GHG) emissions since 1850. Historically, it is by far the world's greatest emitter, which contributed to global heating. Guatemala, like most of the world's poorest countries, has been responsible for a mere 0.026% of GHG emissions. Indeed, the 33 countries of Latin America combined produced only 5% of total emissions, six times less than the US but with twice the population.

As US climate scientist Chris Castro said, Central America is 'ground zero'⁴ for the impact of global heating impact on the Americas. 'It's a paradigm of the wet gets wetter, the dry gets drier, the rich get richer, the poor get poorer. Everything gets more extreme.' The US government cannot claim ignorance of the links between environmental catastrophe and displacement within and migration from Central America, whether caused by flooding or drought. In September 2018, after a year of severe drought in the region, US Customs and Border Protection (CBP) commissioner Kevin McAleenan told the press that 'Food insecurity, not violence, seems to be a key push factor informing the decision to travel from Guatemala, where we have seen the largest growth in migration flow this year'.⁵ By the end of 2018, according to the World Food Programme (WFP), more than 2.2 million⁶ suffered hunger throughout Central America's dry corridors – an ever-widening swathe of land populated by subsistence farmers and where rain has become less reliable.

Then came 2020. At the end of a year dominated by the COVID-19 pandemic came two back-to-back category four hurricanes. By January 2021, the WFP calculated that those experiencing hunger nearly quadrupled from 2018 at 8 million, and 15% of people surveyed⁷ were making concrete plans to migrate north, twice the 2016 level. In 2020, in Honduras alone almost a million people were displaced because of climate-related causes. This was only only a glimpse of what was happening worldwide with 30.7 million⁸ people displaced by such events, three times more than those displaced by conflict or war in the same year.

However, as this report shows, the largest historic GHG emitters are also the world's top border enforcers. Besides the US, countries such as Australia, Canada, Germany and the UK, as well as the European Union (EU) and its 27 member states, are constructing walls, deploying armed agents, erecting sophisticated and expensive surveillance technologies and biometric systems, and unmanned aerial systems, often in collaboration with a burgeoning global border industry. Globally, 63 border walls have been built,⁹ with new ones announced, up from six when the Berlin Wall fell and South African apartheid was dismantled in 1989. This wall-building has accelerated since 9/11, and particularly since 2010.

In 2003 a Pentagon-commissioned report warned¹⁰ that in a worst-case climate scenario the US would need to erect 'defensive fortresses' to stop 'unwanted starving migrants' from countries like Guatemala and Haiti. The 'fortresses' are not just proposed by Washington, they are prevalent across the world and led and financed by the world's largest emitters.

It seems that there is no limit to spending on national borders and immigration enforcement. US spending on militarising its southern border and detention and deportation of immigrants has nearly tripled since 2003 from \$9.2 billion to \$25 billion today. Yet the world's richest countries have failed to meet even their inadequate promises of climate finance to tackle the impacts of climate change in the world's poorest countries. The ratio of US border spending to climate financing, for example, is 11 to 1, based on the annual average between 2013 and 2018.

We are living in a world in which walls, border patrols, Black Hawk helicopters, unmanned aerial systems, motion sensors, and infrared cameras are placed between the world's highest emitters and the lowest ones, between the environmentally relatively secure and the environmentally exposed.

This expanding global border regime is increasingly built by private industry. This fuels a lucrative border security industrial complex. Many of the same companies that the US, the EU and Australia have contracted to fortify their borders and detention systems also have been hired by fossil fuel companies in order to protect oil pipelines and other parts of the industry. The company G4S, for example, not only has contracts with the CBP to provide armed and armoured transport for migrants arrested near the US–Mexico border, but also provides protection services to Royal Dutch Shell, the seventh largest corporate emitter of GHGs worldwide.

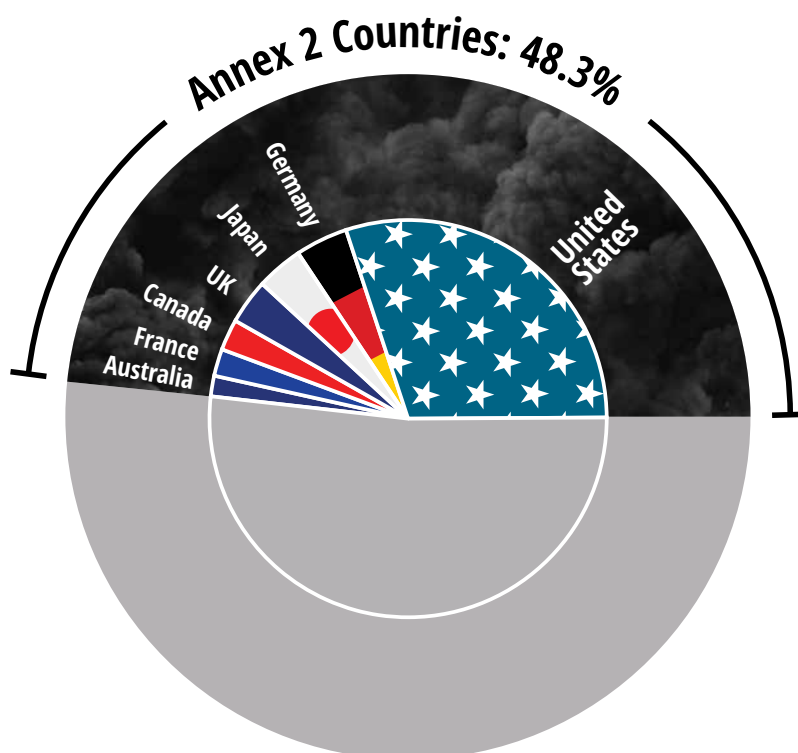
Rhetorically, political leaders from the world's highest emitting countries are aware that the poor bear the burden of suffering. US Secretary of State Anthony Blinken, for example, says he knows that the 'consequences are falling disproportionately on vulnerable and low-income populations. And they're worsening conditions and human suffering in places already afflicted by conflict, high levels of violence, instability'.¹¹ With such awareness, one might assume that US national budgets reflect the will to alleviate the suffering Blinken describes. Instead, the United States – and many of the other high-emitting countries – pour increasing money into border and immigration enforcement.

At the end of the day, budgets speak much louder than rhetoric. In this status quo, Byron and tens of thousands of people from Guatemala and beyond will face the armed guards and gates of the United States, as thousands of others face the rough Mediterranean waters around Fortress Europe.

RESPONSIBILITY FOR THE CLIMATE CRISIS

The world's ten largest historic emitters are responsible for 72 percent of total greenhouse gas emissions in the world dating back to 1850. In order these countries are the United States, China, Russia, Germany, Japan, the United Kingdom, Canada, France, Australia, and Brazil. Seven of these countries bear particular responsibility according to UN accords because of their wealth and levels of development. They are categorised as Annex 2 countries¹² and are United States, Germany, Japan, the United Kingdom, Canada, France and Australia and collectively are responsible for 48.3% of historic emissions.

Figure 1: Historic emission per country (%)



Source: Climate Equity Reference Calculator (<https://calculator.climateequityreference.org/>)

These countries bear responsibility because they have produced the vast majority of emissions that have created the climate crisis, developed and grew their economies using fossil fuels, and have the economic capacity to pay for the costs to mitigate and adapt to climate change.¹³ By contrast, the poorest countries have produced almost no emissions, and yet face the worse impacts of climate change without the capacity or infrastructure to mitigate or adapt and with the ongoing challenge of eradicating poverty.

As a report by the non-government organisation (NGO) CARE explains, 'Despite the fact that the poorest 50% of the world's population is responsible for just 7% of global emissions, developing countries will face 75-80% of the costs of climate change'.¹⁴ The fact that the world's industrialised countries have already emitted enough to take the planet very close to the global target of keeping the increase in global temperature since 1850 below 1.5°C, global heating means there is only a slim chance to transform economies and energy systems. This shrinking 'carbon budget'¹⁵ – the amount of carbon the world can emit without dangerous temperature rises – adds urgency as further delays will increase the cost of climate change for the poorest countries.

The unjust burden the climate crisis puts on low-income countries is recognised under the 1992 UN Framework for Climate Change (UNFCCC), through a principle known as Common but Differentiated Responsibilities and respective capabilities (CBDR)(Article 4).¹⁶ This has been part of both the Kyoto Protocol (1997)¹⁷ and the Paris Agreement (2015).¹⁸ The CBDR principle recognises that each country has a responsibility to reduce GHG emissions, but the responsibility must be differentiated in accordance with its social and economic conditions because not all countries contributed equally. In other words, the rich polluting countries have a responsibility to both reduce their emissions proportionally more than poorer countries as well as to provide the finance to poor countries so they can leapfrog development based on fossil fuels, build a renewable energy economy and adapt to the impacts of climate change.

An important side note is that China is an outlier among the top 10 historic emitters. It is now the largest single GHG emitter, but its emissions are much more recent and remain in per capita terms well below that of the US. In addition, many of its emissions are tied up in exports to the richest countries.¹⁹ China is also still classified as a developing country. China eliminated extreme poverty only in 2020 and the government argues that it has the right to follow the fossil-fuel path other industrialised nations used to develop. Even so, its rapid economic rise, its growing financial capacity and the reality of a shrinking carbon budget, means it has a growing responsibility and capacity to do much more, even if it does not have the same historic responsibility as the other industrialised nations.

Despite this, there have been consistent attempts by the rich industrialised countries to water down the CBDR principle at every climate conference. In 2010 at Doha, the most powerful industrialised countries broke with the commitment to binding emission-reduction targets in favour of voluntary declarations of intent, known as Nationally Determined Contributions, which even as promises consistently fail to match the global goals of keeping global temperature increases to below 1.5°C.²⁰ As we will see below, despite promises in Copenhagen (2009) to provide a meagre \$100 billion in international climate finance, they have failed to do this as well. Similarly, attempts by the poorest nations to establish liability and compensation for damages caused by climate change, known as a Loss and Damage mechanism, have also met with stubborn resistance by the richest countries.

Many social movements have also stressed that an approach based on equity and justice means that the rich countries owe a 'climate debt'²¹ to the world's low-income countries. The rich countries' disproportionate impact in causing the climate crisis means that providing climate finance should be viewed as repaying their ecological debt, rather of generosity. As Lidy Nacpil of Jubilee South notes, 'What we need is not something we should be begging for but something that is owed to us, because we are dealing with a crisis not of our making. Climate debt is not a matter of charity'.²²

A working group on climate debt at the World Peoples' Conference on Climate Change and Mother Earth Rights in 2010 argued that this means the richest countries need 'to acknowledge their historic and current responsibilities for the causes and adverse effects of climate change, and to honor their climate debts to developing countries' through financial compensation, radical emissions reductions, technology transfer, and economic transformation to 'restore the balance, integrity and harmony of the Earth and its climate system'. The working group also said rich countries 'must assume their responsibilities to [climate-impacted migrants], by eliminating their restrictive migration policies and offering climate migrants homes and lives with dignity in their countries'.²³

CLIMATE FINANCE

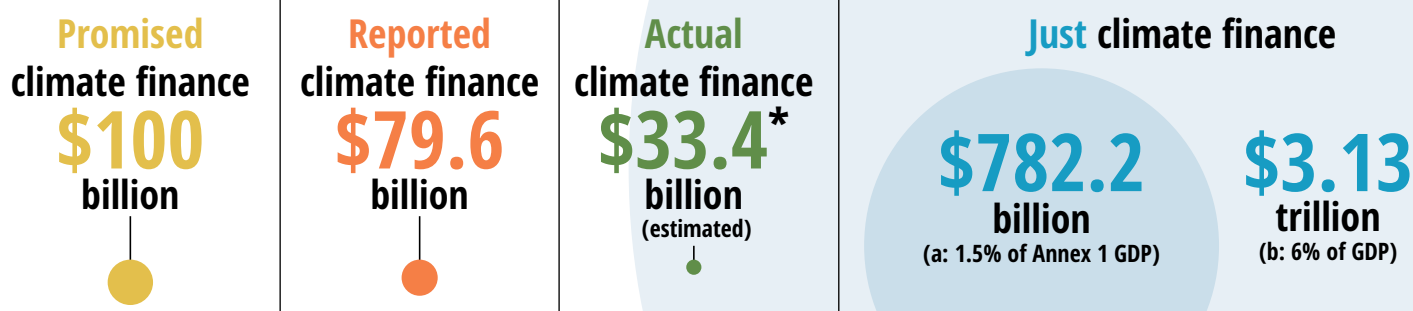
In 2009, at the UN Climate Change Conference in Copenhagen, the richest countries committed to mobilise \$100 billion a year in climate finance by 2020 for developing countries,²⁴ whose demand for a clear commitment on climate finance was pivotal in the negotiations. They insisted that the high-emitting countries, known in UN terms as Annex 1 countries, had a duty to act on their existing commitment under the 1992 UN Climate Change Convention (UNCCC) to both cut their own emissions and support developing countries facing the impacts of climate change through funding and technology transfer. In the run-up the climate talks in Paris in 2015, the previously pledged \$100 billion a year was extended to 2025 with a promise that before that date a new climate finance goal would be agreed.

The amount promised is far below what many climate and development experts believe poorer countries will need to mitigate and adapt to climate change and much less than developing countries demanded. The G77 group within the UN (which represents most low- and middle-income countries) called for an annual financial transfer equivalent to at least 1.5% of Annex 1 countries²⁵ gross domestic product (GDP) by 2020, which would amount to \$782.2 billion a year in 2020. Other nations, such as Bolivia in 2010, called for up to 6%, equivalent to \$3.13 trillion. This may sound a lot but given the world's nations, mainly its richest, dedicated almost \$2 trillion to military spending in 2020²⁶ and \$15 trillion on COVID-19 fiscal recovery plans,²⁷ it is affordable. It is also imperative. As the International Energy Agency (IEA) noted, an additional \$36 trillion of investment in clean energy – or an average of \$1 trillion more per year – is needed through to 2050 just to finance a green energy transition, and this will require global coordinated efforts and finance.²⁸ Meanwhile, as the impacts of climate change worsen, the cost of adaptation has grown vastly.

Yet the richest countries have fallen far short of their promises every year since 2009. The latest figures produced by the Organisation for Economic Co-operation and Development (OECD) show that its member countries provided only around \$80 billion in climate finance in 2019,²⁹ and their 2020 commitments offered only an additional \$1.6 billion.³⁰

Moreover, NGOs such as Oxfam International that track the financial commitments have noted that up to 80% of the finance comes in the form of loans rather than grants. This adds to recipient countries' debt burdens. Similarly, with only 25% of all climate finance going to help countries adapt to climate change, so called 'climate finance' only partly assists countries to deal with the worsening impacts of climate change.³¹

Table 1: Climate finance: what's promised, what's delivered and what's needed



Source: Climate finance – OECD (2021) and Oxfam International (2017–2018), GDP figures – World Bank (2021)
 *Estimate of 2019 figure based on Oxfam International's 2017 and 2018 reports³²

Oxfam International has rightly called the use of loans ‘an overlooked scandal’. ‘The world’s poorest countries, many of [which] are already grappling with unsustainable debts, should not be forced to take out loans to respond to a climate crisis not of their making.’ In addition, when CARE investigated 112 so-called ‘climate finance’ projects funded over the 2013–2017 period in six African countries, it found evidence that only 58% of reported finance was actually going directly towards climate mitigation or adaptation (\$3.8 of a reported \$6.2 billion).³³ All sorts of aid, whether or not they are climate-related, are reported as climate finance, giving the impression that the donor countries are meeting their promises when they are not.

In general, climate finance remains untransparent, over-reported and with little evidence that it is reaching the countries that need it the most or local communities at the frontlines of climate change impacts.³⁴ Indeed at times, so-called climate finance actually ends up perversely funding projects that deepen the climate crisis. In 2017–18, for example, Japan reported over \$700m in climate finance for a Matarbari coal-fired power project in Bangladesh on the ludicrous grounds that it wasn’t as bad as another coal-fired power plant.³⁵

Furthermore, this failure to deliver climate finance does not even address the issue of loss and damage which developing countries have long fought to put on the agenda, to pay compensation for the immense damages caused by climate change. Although a Loss and Damage mechanism was established at the UN climate talks in Warsaw in 2013,³⁶ the richest countries have refused to even consider any financial reparations. Yet increasingly, the poorest countries are facing immense costs for dealing with and reconstructing after extreme weather. As Oxfam has noted, the damage Mozambique suffered as a result of Cyclone Idai in 2019 amounted to around half the country’s national budget. Yet a UN humanitarian appeal only reached half of its funding target and the IMF refused to provide debt relief, ruling that the cyclone was not damaging enough. In the end the country was forced to take on an IMF loan of \$118m to begin rebuilding, adding to its existing debt crisis.³⁷

In conclusion, the evidence shows that the world’s richest countries have shown no signs of accepting responsibility for the crisis. It also appears that they have no desire to invest in the mitigation that would minimise climate change, or provide adaptation and loss and damage financing to assist countries to deal with its consequences including forced displacement and migration. This is a self-defeating strategy, even on the self-interested terms of the richest countries as it accelerates the processes of instability and climate-induced migration that they raise alarms about.

CLIMATE FINANCE COMPARED TO BORDER SPENDING

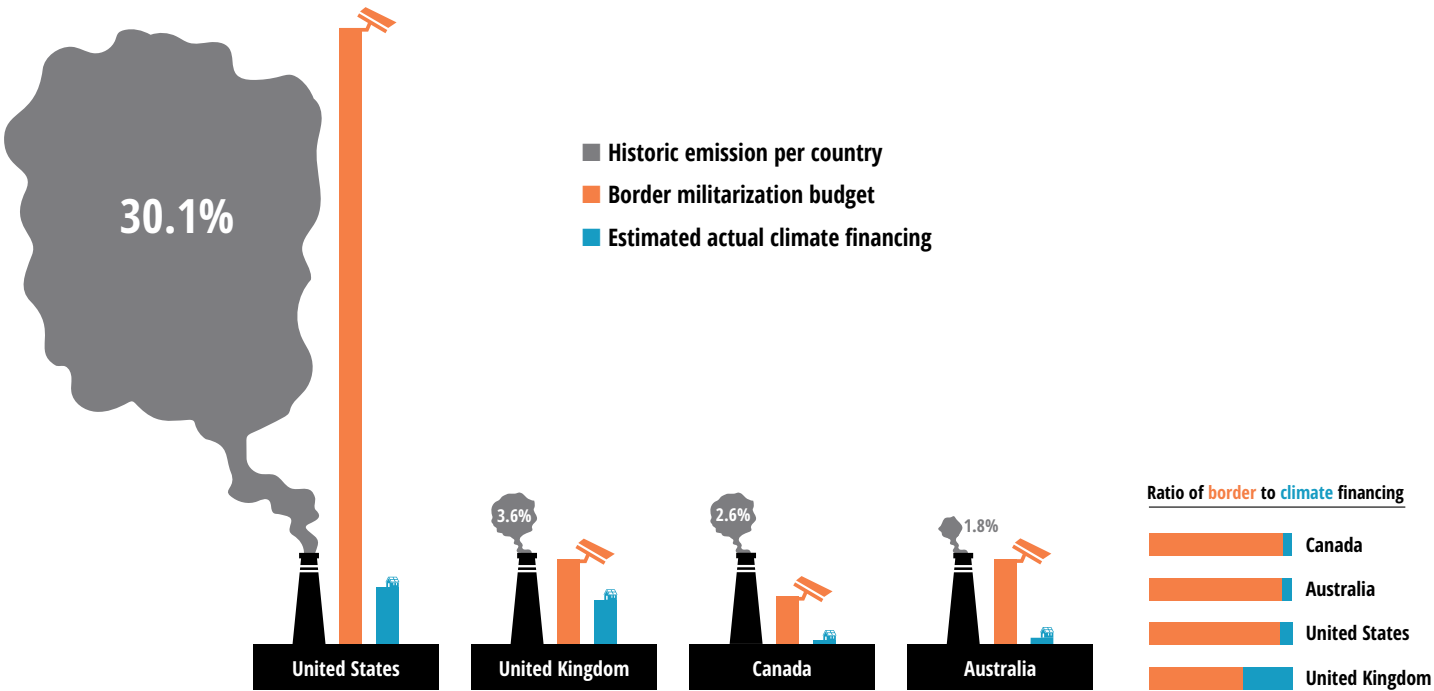
Given the failure of the richest countries to provide sufficient climate finance, it is useful to compare their spending on climate finance with their budgets for border and immigration enforcement. In other words, to compare the willingness of the richest countries to invest in stopping worsening climate change with their financial response to some of its consequences.

To do this, we calculated the top 10 historic GHG emitters from 1850 to the present using the Climate Equity Reference Calculator, designed to examine national fair shares while addressing climate change and the reduction of GHG emissions.³⁸

Then we totalled the average yearly contribution to climate financing from these high-emitting countries between 2013 and 2018 and compared it to budget for border and immigration enforcement over the same period.

Table 2: Top 10 historic emitters compared with border spending, per year average 2013–2018 (in US\$)

	Historic emissions since 1850	Border militarisation budget	Reported climate financing	Estimated actual climate financing	Ratio border to climate financing
United States	30.1%	\$19.6 billion	\$4.1	\$1.8 billion	10.9:1
China	15.5%	-	-	-	-
Russia	6.9%	-	-	-	-
Germany	4.3%	\$3.4 billion	\$7.1 billion	\$4.4 billion	0.8:1
Japan	3.8%	\$2.2 billion	\$11.6 billion	\$4.9 billion	0.4:1
United Kingdom	3.6%	\$2.7 billion	\$4.0 billion	\$1.4 billion	1.9:1
Canada	2.6%	\$1.5 billion	\$0.3 billion	\$0.1 billion	15.0:1
France	2.1%	\$1.0 billion	\$4.4 billion	\$1.6 billion	0.6:1
Australia	1.8%	\$2.7 billion	\$0.6 billion	\$0.2 billion	13.5:1
Brazil	1.8%	-	-	-	-
Annex 2 country total	48.3%	\$33.1 billion	\$32.1 billion	\$14.4 billion	2.3:1
Overall total	72.5%	\$33.1 billion	\$32.1 billion	\$14.4 billion	2.3:1
EU 28 ³⁹	18.1%	\$0.8 billion			



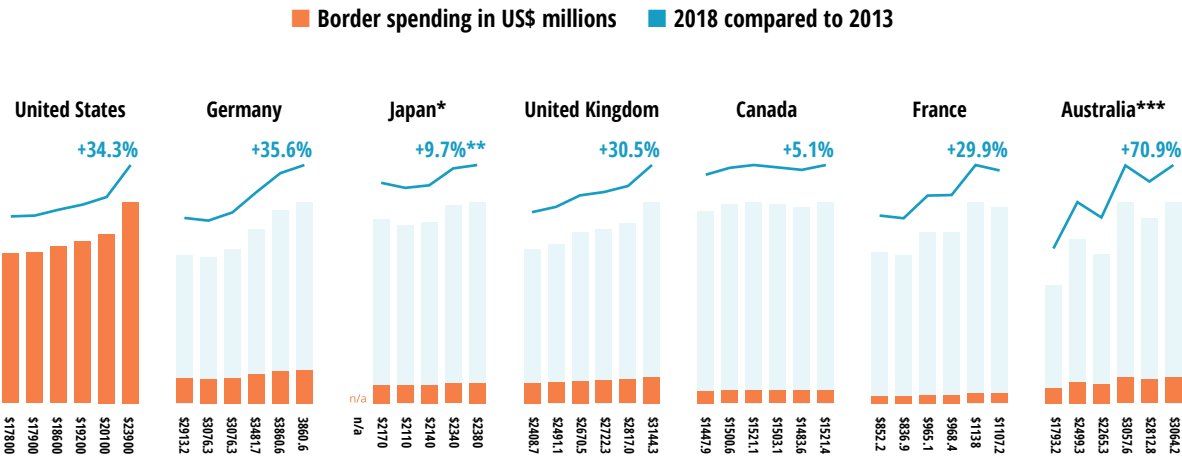
Sources: UNFCCC (2020), Oxfam International (2016, 2018, 2020); See annex A for details on methodology

Since it is difficult to find information on border and immigration enforcement from China, Russia and Brazil – which are not ‘annex 2’ countries,⁴⁰ with only Russia obligated to contribute to the \$100 billion 2020 goal – we focus on the remaining seven countries.⁴¹

Table 2 shows reported and actual spending on climate finance, using Oxfam International figures that account for the aforementioned over-reporting.⁴² The actual climate finance of \$14.4 billion given by seven of the world’s highest emitters is an estimate, probably on the high side, and is based on bilateral and multilateral spending from each country and deducing an annual average.⁴³ The same was done for border and immigration enforcement.

The estimates suggest that the combined annual border and immigration enforcement spending of the seven countries averages \$33.1 billion, 2.3 times more than climate financing. Four of the countries have border and immigration enforcement budgets that are higher than their climate financing budgets (see Table 2). They are led by Canada, which on average spends 15 times more on border and immigration enforcement than on climate financing, followed by Australia, which dedicates 13.5 times more money on border enforcement. The US, which in absolute terms spends far more on borders than any other nation (\$19.6 billion), designated only \$1.8 billion on average to climate financing, giving it a ratio of almost 11:1. The UK spends almost double (1.9), while France (6:1), Germany (8:1), and Japan (5:1) spent more on climate financing. According to CARE, Japan is the country that most systematically over-reports its climate finance.

Table 3: Recorded border spending by wealthy historic emitters 2013–2018



Sources: Multiple government agencies.
See Annex A. * estimates | ** 2018 compared to 2014 | *** fiscal years 2012–13 to 2017–18

As Table 3 shows, border spending by the wealthiest countries grew rapidly between 2013 and 2018, and by 29.1% collectively. Australia’s budget in particular soared by 70.9% in that six-year period. Significant growth in border spending has been a global trend since the early 2000s. US border and migration spending tripled between 2003 and 2021 from \$9.2 billion to \$26 billion, after creating its sprawling Department of Homeland Security (DHS) in the wake of the 9/11 attacks of 2001.⁴⁴ Frontex, the EU’s border agency, has seen its budget increased by an incredible 2,763% from €5.2 million in 2005 to €460 million in 2020, with €5.6 billion reserved for the agency from 2021 to 2027.⁴⁵

The true disparities between government spending on border and immigration enforcement and on climate finance is likely wider than these estimates, as the scope of the research and the lack of transparent data limits a full count. Expenditure on border and immigration controls is tied up in many budgets and agencies that could not be assessed. For the US, for example, we combined the budgets of Customs and Border Protection (CBP) and Immigration and Customs Enforcement (ICE), but left out the Coast Guard, and various programmes managed by the Department of Defense and the Department of State that finance border-related issues, including externalisation programmes across the world as these were harder to extrapolate from published figures. German and French budgets would also be higher if all their border externalisation funding were included, an EU priority.⁴⁶

Along these lines, the Frontex budget was also left out, although the EU as a whole (at that time 28 countries⁴⁷), is responsible for 18% of the historic emissions. To include Frontex, for example, adds another annual \$437 million to the total for border enforcement, on top of EU member states' bilateral expenditure.

What all this amounts to is that every time a refugee or migrant tries to cross the US–Mexico border or US-funded border controls elsewhere, such as the Mexican border with Guatemala, or tries to cross into the EU from countries such as Afghanistan, Liberia, Senegal, Sudan or Syria – countries least responsible for climate change – they are confronted with the walls and guns of the countries with the largest historic emissions. The world's top emitters are failing to provide necessary climate finance, yet seem to have limitless budgets for borders and immigration enforcement. In a world in which there is a proportionately far larger migrant population than in recent history, with more displacement on the horizon, the 'climate adaptation' plan for high-income, high-emitting countries appears to be to invest in a punitive, carceral enforcement system for displaced people rather than dedicating funds to assist low-income, low-emitting countries to mitigate and adapt to climate change.

While this report focuses on seven countries, the same dynamic is seen around the world. As stated earlier, total of 63 border walls have been built in the last 50 years, most of them since 2000.⁴⁸ Several EU member states have recently announced new ones in the wake of the Taliban takeover in Afghanistan and growing tensions between the EU and Belarus. Israel has the largest number of walls (six), followed by Morocco, Iran, and India (three each), and South Africa, Saudi Arabia, United Arab Emirates (UAE), Jordan, Turkey, Turkmenistan, Kazakhstan, Hungary, and Lithuania, all with two. India's border walls cover 6,540 km, largely along the climate-ravaged country of Bangladesh (4.4 million displacements in 2020, while its historic emissions account for 0.015% of the total). Most of the world's top wall-builders have received assistance from the EU or US externalisation programmes (or both, in the cases of Jordan, Morocco and Turkey).

Figure 2: Border walls built between 1968 and 2015



Source: TNI/Centre Delas/StopWapenhandel (2020) *A Walled World – Towards a Global Apartheid*
<https://www.tni.org/en/walledworld>


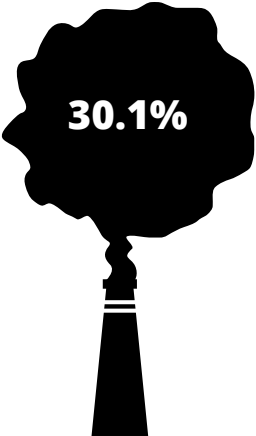
Border walls are only one example of border militarisation, which also includes many billions of dollars spent on surveillance technology and tens of thousands of armed border guards. It is also accompanied by a massive rise in deportations and detention. The Global Detention Project has identified approximately 2,250 detention centres worldwide (a number that is in constant flux), many of which cluster in and around the high-emitting countries – the US, the EU and some of its member states, and Australia.⁴⁹ Detention is also externalised to contain and stop migrants – including climate-related migrants – from reaching Europe.⁵⁰


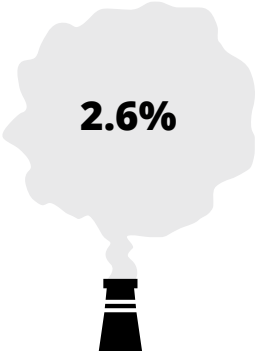
In 2017, Michael Gerrard, the director of the Sabin Center for Climate Change Law at Columbia University in New York, wrote in an opinion piece for *The Washington Post*, that '[r]ather than leaving vast numbers of victims of a warmer world stranded, without any place allowing them in, industrialized countries ought to pledge to take on a share of the displaced population equal to how much each nation has historically contributed to emissions of the greenhouse gases that are causing this crisis'.⁵¹


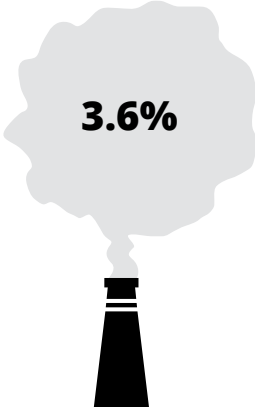
According to the Climate Equity Calculator, the US is currently the source of 30% of GHG emissions; the EU, 18%; China, 16%; Japan, 4%; Canada, 3%; and Australia, 2%. If climate-related migrants were admitted in the same proportion, for every 100 million the US would take in 30 million, the EU, 18 million, and so on. The calculations show that precisely the opposite is happening: the countries with moral obligations to facilitate and assist climate-related migration are instead much more focused on militarising their borders and criminalising and deporting those who cross them.

PROFILES OF SELECTED HIGH-EMISSION COUNTRIES

NORTH AMERICA

UNITED STATES		
Historic Emissions 	Border militarization budget per year (2013-2018)	\$19.6 billion (i.e. combined budgets of CBP and ICE)
	Border & immigration enforcement	The money finances an array of surveillance technology such as drones, facial recognition, and sophisticated surveillance towers, 700 miles (1,126 km) of physical wall and its maintenance, armed border and immigration enforcement agents, and a detention and deportation system.
	Border externalisation⁵²	The US funds border security and control in and deploys personnel to Mexico (Merida Initiative) and several other countries in Latin America and the Caribbean, including Guatemala, ⁵³ Honduras, ⁵⁴ and the Dominican Republic. ⁵⁵ It has also funded border projects worldwide including in Jordan, ⁵⁶ Kenya, ⁵⁷ and the Philippines ⁵⁸ among many others.
	Average annual climate financing 2013–2018	\$1.1 billion (approximately)


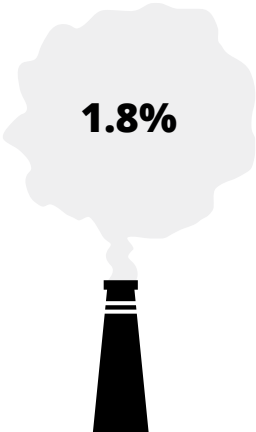
CANADA		
Historic Emissions 	Border militarization budget per year (2013-2018)	\$1.9 billion (Canada Border Services Agency)
	Border & immigration enforcement	Created in 2003, CBSA enforces immigration, runs detention centres ⁵⁹ in Laval (Québec) and Toronto and Surrey British Columbia (Canada). In 2020, there were 8,825 immigration detainees. ⁶⁰ Border officials are equipped with pepper spray, handcuffs, batons, and Beretta PX4 pistols. Canada uses high-tech unmanned aerial systems and biometrics on its border.
	Border externalisation	Not directly. Canada funds some border security and control in other countries, for example IOM's 'Immigration and Border Management' programme in Niger. ⁶¹
	Average annual climate financing 2013–2018	\$149 million (approximately)


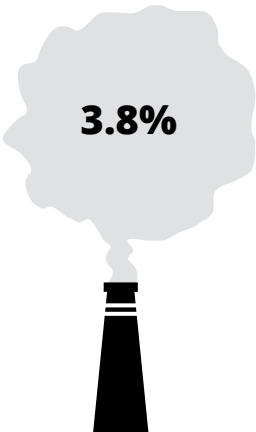
UNITED KINGDOM		
Historic Emissions 	Border militarization budget per year (2013-2018)	\$2.7 billion through its Border Force, Immigration Enforcement, UK Visas and Immigration
	Border & immigration enforcement	Border Force responsible for 'frontline' operations at all rail, sea, and air ports in the UK with an extensive wall built in Port of Calais (France). The force also patrols the British coastlines. The force has wide-ranging powers of search, seizure, and arrest. The UK's detention system is one of Europe's largest. Approximately 30,000 are detained each year in private 'immigration removal centres'. ⁶²
	Border externalisation	Funding border security and control (partly via IOM and ICMPD projects) in and cooperation with, Egypt, Ethiopia, Kenya, South Sudan, Sudan and other countries. Sends personnel to Sierra Leone and Tunisia to train border security authorities and is seeking to set up offshore asylum processing centres. ⁶³
	Average annual climate financing 2013-2018	\$977 million (approximately)

GERMANY		
Historic Emissions 	Border militarization budget per year (2013-2018)	\$3.3 billion via the Bundespolizei (Federal Police)
	Border & immigration enforcement	German Federal Police patrol a 30 km zone inland from its approximately 3,831 km land borders, and a 50 km zone along its 888 km sea borders along the North Sea and the Baltic Sea. ⁶⁴ They carry out border checks at many airports and harbours and deploy removal measures. Germany detains on average 3,000 migrants a year. ⁶⁵ Although Germany received among the highest number of asylum seekers in the EU, it also apprehends and expels many non-citizens annually: 25,140 people were ordered to leave in 2019. ⁶⁶
	Border externalisation	Germany funds border security and control in many countries around Europe. Donated border security equipment to Benin, Chad, Gambia, Lebanon, Mauritania, Niger, Nigeria, Tunisia and Turkmenistan, while it also fosters intensive cooperation with the Egyptian police.
	Average annual climate financing 2013-2018	\$4.1 billion (approximately)

FRANCE		
Historic Emissions 	Border militarization budget per year (2013-2018)	\$761.5 million (Direction Centrale de la) Police Aux Frontières
	Border & immigration enforcement	The French border police is tasked with controlling France's many borders. Works alongside the UK Border Force with controls in Calais, a major ferry port in northern France, and the Channel Tunnel Rail Link. Has a sub-directorate that manages cross-border international affairs with Frontex. France has one of Europe's oldest and most extensive immigration detention systems. ⁶⁷ Detains nearly 50,000 people a year. ⁶⁸
	Border externalisation	Funding border security and control in, and cooperation with, many countries outside Europe, including Burkina Faso, Chad, Egypt, Libya, Mali and Mauritania. Civipol, the consulting and service company of the Ministry of the Interior (owned jointly with large French arms companies) undertakes many border security and control projects in African countries, often with EU or EU member states' funding.
	Average annual climate financing 2013-2018	\$1.4 billion (approximately)

ASIA PACIFIC

AUSTRALIA		
Historic Emissions 	Border militarization budget per year (2013-2018)	\$3.1 billion
	Border & immigration enforcement	The budget includes border enforcement, compliance, detention, and status resolution, border management, offshore and onshore detention, and includes widespread use of surveillance systems and biometrics. According to the Global Detention Project, Australia has 'the most restrictive immigration control regime in the world' with its mandatory detention measures, offshore detention regime, and detention externalisation. ⁶⁹ All of the third countries' detention facilities are run by private contractors. There are roughly 15,000 detained a year.
	Border externalisation	Runs notorious offshore detention system, with centres in Nauru (and previously Papua New Guinea (PNG)) and funds border security in several Asian and Pacific countries, including Indonesia ⁷⁰ and Papua New Guinea.
	Average annual climate financing 2013–2018	\$502 million (approximately)

JAPAN		
Historic Emissions 	Border militarization budget per year (2013-2018)	\$2.1 billion combined Immigration Services Agency (formerly Immigration Bureau) and Coast Guard.
	Border & immigration enforcement	Japan's Coast Guard, with more than 13,000 personnel, is tasked with patrolling the country's coastlines. In 2017, the Coast Guard budget reached a record 210 billion yen (\$1.8 billion), adding eight new ships and 200 additional law enforcement officials. ⁷¹ There are five large surveillance ships and three research vessels as part of the 14-ship fleet. In addition, Japan has acquired long-range 'jet aircraft with sophisticated surveillance systems to enhance monitoring capabilities'. Much of the rise is in response to tensions with China regarding the Senkaku islands. ⁷² In 2019, Japan had 22,624 immigration detainees.
	Border externalisation	Not directly but Japan annually donates tens of millions of dollars to IOM for programmes and projects in Africa, Asia, Europe and the Middle East, including to 'stabilize regions by building the capacity of various governments in humanitarian border management'. ⁷³
	Average annual climate financing 2013–2018	\$4.7 billion* (approximately) <i>*According to CARE, Japan is a country that most over-reports its climate finance.⁷⁴</i>

CLIMATE-DISPLACED COUNTRY PROFILES

While countries with the highest historic emissions are fortifying their borders, those with lowest emissions are the hardest hit with displacement. The Internal Displacement Monitoring Centre (IDMC), which the UN General Assembly called the ‘definitive source’ for data and analysis on internal displacement, helps provide a picture of how climate change is already shaping migration patterns in many countries.

For example, while Somalia is responsible for 0.00027%⁷⁵ of total historic emissions since 1850, more than one million people were displaced by disaster in 2020 due to a combination of locusts destroying crops, and floods, phenomena almost certainly made worse by climate change.⁷⁶

Bangladesh, according to the IDMC, is one of the ‘world’s most disaster-prone countries’⁷⁷ due to cyclones, storms, floods, again super-charged by climate change, yet it is only responsible for 0.015% of historic emissions – only slightly above Honduras at 0.012%. In both countries, if any of those climate-displaced people wish to cross an international frontier, they will face either the wall (described above) that India has erected on the border with Bangladesh or gauntlet of armed border patrols, checkpoints, surveillance if a Honduran heads north through Guatemala and Mexico to the US. Table 4 looks at different countries and regions that have had very low historic emissions, yet high numbers of displacement. It is not a comprehensive list, but offers a glimpse of the general trends and differences between rich, high-emitting countries that are building and extending their borders and the rest of the world.

Table 4: Historic GHG emissions and internal disaster displacement in low-emitting countries


Region/country	Historic Emissions since 1850	Disaster-related Displacements in 2020 (IDMC numbers)
Latin America and the Caribbean	5.8%	4.5 million
Middle East and North Africa	5.6%	
Pacific Asia	4.4%	East Asia and Pacific: 12.1 million
Sub-Saharan Africa	1.1%	4.3 million
El Salvador	0.015%	17,000
Honduras	0.012%	937,000
Guatemala	0.026%	339,000
Haiti	0.0017%	13,000
Bangladesh	0.015%	4.4 million
Somalia	0.00027%	1 million
Tunisia	0.041%	10,000

Source: Climate Equity Reference calculator (<https://calculator.climateequityreference.org/>) and IDMC (<https://www.internal-displacement.org>), 2021


Globally, climate-related displacement was particularly significant in 2020.⁷⁸ Tropical cyclones, monsoons, and floods hit areas home to millions of people in East and South Asia and the Pacific. Unusually intense and prolonged rainy seasons in sub-Saharan Africa – Burkina Faso, Cameroon, Democratic Republic of the Congo (DRC), Mali, Nigeria and South Sudan – prompted nearly 4.3 million people to be displaced. In Central America, nearly one million people were displaced in Honduras alone, as a decade of unreliable rain and drought collided with back-to-back hurricanes.


SELECTED LOW-EMITTING COUNTRY PROFILES

ASIA


BANGLADESH		
Historic Emissions 0.015% ⁷⁹	Disaster-related displacements in 2020	4.4 million ⁸⁰ In 2020, displacement has been related to the extended monsoon season, causing excess water and flooding, including from Cyclone Amphan. ⁸¹ In the long term, impacts in Bangladesh include sea-level rise, cyclones, drought, erosion, landslides, flooding, and salinisation. ⁸² According to the Global Climate Index, Bangladesh is in the top 10 countries most affected by climate-related catastrophes between 2000 and 2019. ⁸³
	Nearest border wall	India has an approximately 4,096 km wall along its border with Bangladesh. ⁸⁴ The US CBP has an attaché in New Delhi charged with coordinating border programmes with the Indian government, including immigration enforcement. ⁸⁵


CENTRAL AMERICA AND THE CARIBBEAN

HAITI		
Historic Emissions 0.0017% ⁸⁶	Disaster-related displacements in 2020	13,000 ⁸⁷ There have been increased catastrophic weather events, such as cyclones, floods, droughts, and landslides. ⁸⁸ According to the Global Climate Risk Index 2021, Haiti, Myanmar ('the most walled country in Asia'), ⁸⁹ and Puerto Rico are the countries most affected by extreme weather-related disasters between 2000 and 2019. ⁹⁰
	Nearest border wall	Border with the Dominican Republic increasingly strengthened with US assistance. ⁹¹ Through the 'third US border' in the Caribbean, Coast Guard cutters can go right up to Haitian shores to interdict migrants. ⁹²

HONDURAS		
Historic Emissions 0.012% ⁹³	Disaster-related displacements in 2020	937,000 ⁹⁴ In 2020, a combination of hurricanes and drought caused mass displacement. These hurricanes, tropical storms, floods, droughts, landslides are all increasing in frequency and intensity, ⁹⁵ as they are elsewhere in Central America, such as Guatemala (0.026% of historic emissions, 339,000 people displaced in 2020).
	Nearest border wall	Although it is some distance from the country's own borders, many refugees heading North face increasing danger and violence at the Mexico–Guatemala border, which has been strengthened with immigration agents, police, military, and National Guard since around 2010, ⁹⁶ with considerable US financing through the Merida Initiative. ⁹⁷

AFRICA

SOMALIA		
Historic Emissions 0.00027% ⁹⁸	Disaster-related displacements in 2020	1 million Climate-related displacement in 2020 was caused by locust invasions destroying crops, and floods. There has also been an increase in periods of drought, extreme flooding, and cyclones. ⁹⁹
	Nearest border wall	Along the Kenya–Somali border, Kenya began building a 700-km wall in 2016, which was suspended, then resumed in 2020. ¹⁰⁰ Since 2000, the US has helped Kenya strengthen its border apparatus and has a CBP attaché in Nairobi. The EU has also prioritised Somalia and neighbouring countries for externalising its borders, including financial support and training. ¹⁰¹

TUNISIA		
Historic Emissions 0.041% ¹⁰²	Disaster-related displacements in 2020	10,000 ¹⁰³ Floods were the cause of much of the 2020 displacement ¹⁰⁴ in Tunisia, and also historically. ¹⁰⁵ The country is also vulnerable to droughts, wildfires, ¹⁰⁶ heat waves, ¹⁰⁷ and sea-level rise.
	Nearest border wall	European borders in the Mediterranean (see case study), and land borders with Libya and Algeria, all of which have received funding and training from the EU and member states. ¹⁰⁸

MIGRATION IN A TIME OF CLIMATE CRISIS

Globally, environmental conditions are changing rapidly, in some cases irrevocably. There are regions that are becoming more difficult to live in, and others are on the verge of being uninhabitable. There will be more heat waves, more drought (in some places), and more precipitation (in others), sea levels will keep rising, and extreme 'once a century' sea-level events will happen far more frequently. These are some of the findings of 234 authors from 66 countries who assembled the latest conclusions on climate science for the Intergovernmental Panel on Climate Change (IPCC), using global and regional climate simulations, paleo-climatology, and observations to form the 'most updated physical understanding of the climate system and climate change'.¹⁰⁹ The report confirms that the planet has warmed by 1.1°C since 1850, and is anticipated to reach 1.5°C in 20 years, '[u]nless there are immediate, rapid and large-scale reductions in greenhouse gas emissions'. Put simply, there are and there will be places that are no longer habitable because of climate change.

According to the seminal paper 'Future of the human climate niche',¹¹⁰ published in the prestigious *Proceedings of the Academy of Sciences of the United States of America (PNAS)*, whose data is used by the US National Oceanic and Atmospheric Administration (NOAA, the government climate and weather agency), by 2070 one to three billion people are projected to live outside climate conditions that have sustained human life for 6,000 years. This climate 'niche' ranges from -11°C and 15°C, a temperature range that also supports agriculture and livestock.¹¹¹ The authors' analysis shows that in a 'business as usual' climate scenario, one third of the planet that is currently inhabited, the mean annual temperature will rise to an unbearable 29°C. As Abraham Lustgarten put it, in a report for a special investigative exposé for the *New York Times* and ProPublica titled 'The great climate migration' right now 1% of the earth's surface is a 'barely liveable hot zone. By 2070 that could go up to 19%'.¹¹²

All of this is further compounded if sea-level rise is considered. The 2021 IPCC report contained the direst sea-level projections ever made by the conservative-minded international body – a rise of between 0.5 and 1 metre by 2100. In the last 20 years the population living in 'high risk' coastal areas – which are experiencing chronic tidal flooding and storm surges connected with sea-level rise – has increased from 160 million to 260 million.¹¹³ This climate-induced displacement and migration is already happening, and projected to get worse.

'Although the exact number of people that will be on the move by mid-century is uncertain', state Koko Warner et al. in their 2009 report *In Search of Shelter: Mapping the Effects of Climate Change on Human Migration and Displacement*, one of the first to empirically research the connections between climate and migration, 'the scope and scale could vastly exceed anything that has occurred before'.¹¹⁴ If there is no change in mitigation and adaptation efforts, they also warned in 2009 – the same year that the richest countries promised to contribute \$100 billion for climate financing by 2020 – the ensuing displacement and migration will be 'staggering' and 'surpass any historic antecedent'. Just over a decade later, there is mounting evidence that their warnings were neither unfounded nor followed.

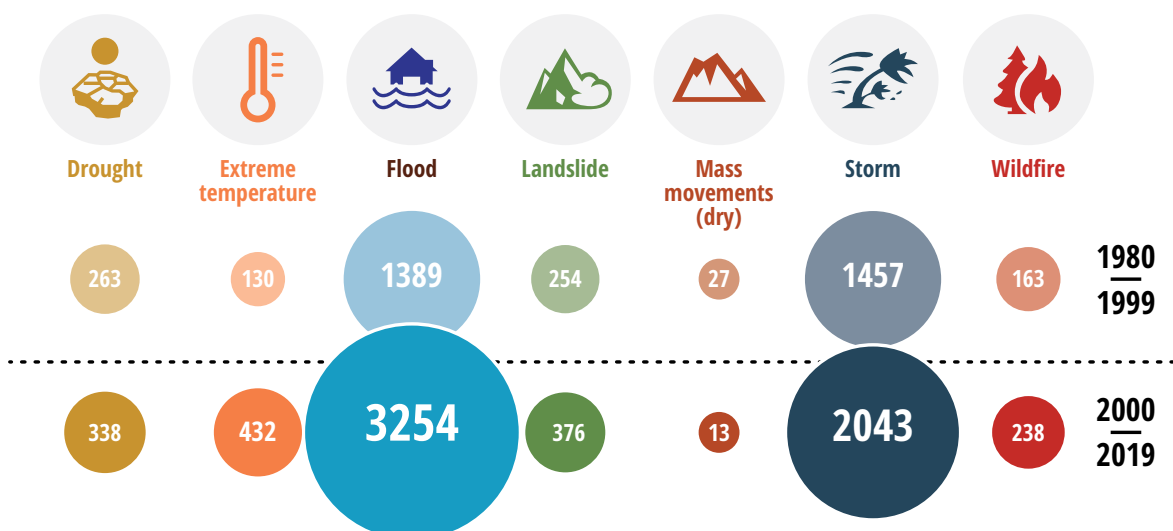
In 2020, a total of 30.7 million people were internally displaced due to catastrophic events, many of them climate-related, influenced, or fuelled, according to the IDMC,¹¹⁵ three times more than those displaced by conflict and war in the same year. Since 2008, there has been an average of 24.5 million persons displaced each year, approximately 67,000 a day. As the IDMC writes, 'Disaster displacement is a global reality and an everyday occurrence'. When discussing climate change in their assessments, the Centre asserts that 'increasing number of cases around the world that...confirm displacement is rising' and will have an 'increasing impact in the world'.¹¹⁶ It notes distinct emerging patterns of climate-related disaster and displacement. These include rapid-onset crises, such as extreme weather events, and the more permanently damaging slow-onset crises caused by desertification and sea-level rise. The IDMC's work also shows that there is now an established global pattern, namely that most people displaced by environment- or climate-related or other causes remain in their own country.

'Rapid-onset' disasters such as hurricanes, cyclones and floods – that come fast and then recede, leaving in their wake often massive internal displacement – have increased in frequency and intensity, according to the Centre for Research on the Epidemiology of Disasters (CRED), in a report that focuses 'primarily on the staggering rise in climate-related disasters of the last twenty years'.¹¹⁷ Figure 3 shows the dramatic rise in disasters, particularly climate-related catastrophic events such as floods, storms and wildfires. Often in these cases, people will stay close and try to salvage their homes and livelihoods.



Flooding in Cap-Haitien, Haiti in 2014 led to thousands becoming homeless. Credit: Logan Abassi/UN photo (CC BY-NC-ND 2.0)

Figure 3: Total climate-related disaster events 1980–1999 and 2000–2019



Adapted graphic to highlight climate related disasters. Source of original graphic: UNDRR/CRED (2020) Human cost of disasters – an overview of the last 20 years, p7

The impact of these catastrophic events and trends have hit countries unequally. Researchers analysed CRED's figures between 1980 and 2011, and determined that around 66% of all related deaths occurred in the world's 48 poorest countries, home to 12% of the global population.¹¹⁸ People of these countries are five times more likely to die from a climate-related catastrophe than people in the rest of the world.

Another pattern of displacement comes from slow-onset disasters including desertification, glacial retreat, increasing temperatures, land and forest degradation, loss of biodiversity, ocean acidification, and sea-level rise. The UK government's Office for Science makes the point in its report 'Migration and Global Environmental Change' that gradual environmental degradation will 'ultimately cause migration in the longer term'.¹¹⁹ These trends will leave currently inhabited or cultivated regions uninhabitable, with unusable soil or groundwater sources. According to the IDMC, slow-onset disasters 'can also increase the risk of extreme weather events, such as drought, tsunamis, floods or storms, that can also lead to displacement' and that their 'compounding and cascading impacts,' can also 'eventually force people to leave their home'.¹²⁰

The IDMC stresses while a slow-onset disaster would be a primary climate-induced reason for people leaving permanently, it is hard to identify and monitor internal displacement caused by climate change. This is corroborated by a review of scholarly debate about climate-induced migration that recognises, as summed up in *The Secure and the Dispossessed: How the Military and Corporations are Shaping a Climate-Changed World*, published by the Transnational Institute, 'that crediting climate change as a primary causal factor of migration is difficult, if not impossible, due to the prevalence of other contributing factors'.¹²¹ Displacement is multi-causal, the result of multiple systemic factors, increasingly including climate change. The IDMC continue, 'As slow-onset disasters unfold, their impacts and outcomes are not only shaped by the hazards themselves. They are largely determined by people's vulnerability and the effectiveness of investments in disaster risk reduction, climate change adaptation and sustainable development'.¹²² Such investments, for many poorer countries, are hampered by those most responsible for climate change not honouring even their promises of meagre financial assistance. Into this context come the specific

'triggers of displacement', for which the stage is set by 'socioeconomic and governance factors' – for instance, the loss of land, livelihoods, or access to food and water.

The US sociologist Christian Parenti argues that different crises – ecological, but also political, economic, and social – need to be understood not separately but as a 'catastrophic convergence',¹²³ which that is causing mass displacement for various context-specific reasons. He points to the way IMF-imposed structural adjustment in heavily indebted countries undermined and drastically weakened social systems and how Cold War counter-insurgency fuelled violence and conflict whose consequences are still being felt. For example, if a country provided subsidies¹²⁴ for small farmers and a guaranteed price for their crops, as was the case in Mexico before joining NAFTA, it would be easier to withstand a bad harvest due to drought. However, economic structural adjustment eliminated such programmes for farmers, ultimately leaving them much more exposed. Climate change exacerbates these precarious pre-existing social conditions and wreaks particular havoc within structures of systemic injustice.

In this sense, migration and displacement in relation to the climate crisis cannot be divorced from how much of the wealth in rich, high-emitting countries is derived from the dispossession of what are now the world's poorer countries, which started with colonialism and continues with neoliberal globalisation, reinforced by military power. The highest historic emitter, the US, has nearly 800 military bases¹²⁵ across the world and has left devastation, both historically and in the present, from South and Central America to Somalia, the Philippines or Iraq. Companies from the high-emitting countries have long been forcibly extracting natural wealth and resources from low-emitting countries, such as Chevron in the Niger Delta. In other words, the same countries most prone to displacement due to climate change are also most afflicted by their exploitative incorporation into economic globalisation and various forms of political and military subjugation. For example, to understand the impacts of climate change and displacement in Guatemala, it is also necessary to examine a discriminatory political and neoliberal economic system that has long favoured local oligarchies and transnational corporations over the country's majority of indigenous peoples and small farmers.

All of these factors together drive displacement, and climate change is now another pressure. The World Bank's September 2021 report *Groundswell: Preparing for Internal Climate Migration*¹²⁶ states in its first sentence that 'Climate Change is an increasingly potent driver of migration', while underlining that this is especially affecting regions most afflicted by poverty and vulnerability. It predicts that by 2050, countries across sub-Saharan Africa could have as many as 85.7 million internally displaced, East Asia and the Pacific 48.4 million, South Asia 40.5 million (19.9 million in Bangladesh alone), North Africa and the Middle East 19.3 million, Latin America and the Caribbean 17.1 million, and Eastern Europe and Central Asia 5.1 million.

The report provides data that could be used to show where climate finance should be directed to alleviate displacement, help people move if they need to, and bolster infrastructure so that cities and towns in the affected countries could more readily absorb a large population influx. This would be a much more sensible and more effective form of investment than building more walls. The report stresses that the movement of people is a form of climate adaptation and deserves support rather than a militarised response.

There are considerable gaps in research that look precisely at how internal displacement triggers international migration. For example, displacement in Honduras may lead one family member to seek work in the capital Tegucigalpa or another large city, and go to the US as a last resort, if there is no work available or it is ill-paid (and not unionised), as is the case in many foreign-owned sweatshops and factories, or the person encounters violence in the city. In other words, international migration is not usually the first option following displacement, but only after other options have been fruitless. 'The great climate migration' investigation tried to address these research gaps, contracting a team to look at different future climate scenarios to model 'for the first time, how people will move across borders'.¹²⁷ They focused on Central America, finding that migration would rise regardless of climate change, but when they added climate scenarios, the most extreme one was of around 30 million people reaching the US border over the next 30 years, 5% of them primarily driven by climate-related reasons. The models show that even 'modest' action to reduce emissions could have a significant impact in reducing these numbers.

To these complex realities, the highest emitting countries offer sophisticated, expensive border systems as opposed to investing in infrastructure in places to which displaced people are flocking, whether Manila, Mexico City or Mogadishu. These border systems are not only deployed on international boundaries, but also within countries, via networks of checkpoints or police collaboration with immigration agencies. There are domestic checkpoints in countries seeking to prevent internal migration, such as in Honduras,¹²⁸ Mexico and Mali.¹²⁹ Also, while cross-border migration tends to be to neighbouring countries, borders are proliferating even in smaller countries, often via externalisation policies adopted by the US, EU, and Australia. Malian migrants, for example, will face a physical, maritime or technological border wall to reach mainland Europe whether they go via the Canary Islands, Morocco or Libya. Borders do not aim to provide a solution, but rather to keep a system of injustice in place, and distract attention from where solutions might be found. There are resources for climate finance, but spending them on militarised borders simply sustains and generates immense unnecessary suffering.

CASE STUDIES

Tunisia: how climate change, uneven development and neoliberal policies fuel displacement

In 2021, the Mediterranean was hit once again by exceptional weather events including major heat waves and droughts, accelerated by global heating and climate change. Tunisia was stunned by record-breaking temperatures of 50°C in 2021, and by a disastrous delay in annual rainfall, which threatened the crops of hundreds of thousands of farmers. Nine per cent of all protests in the country during August 2021 centred on the demand for access to water.¹³⁰

A draft report by the IPCC, due to be published in 2022, now predicts that temperature rises across the Mediterranean could be 20% higher than global average.¹³¹ The report even frames the region as a 'climate change hotspot' that faces 'sea-level rise related risks, land and maritime biodiversity losses, risks related to drought, wildfire, alternations of water cycle, [and] endangered food production'.

Tunisia has already experienced a 'significant increase in temperatures over the last 30 years', with temperatures rising by 0.37% for each decade and a mean average increase of 1.4°C since 1901, according to the World Bank. At the same time, rainfall has decreased by 3% since 1990, a trend that is predicted to accelerate.¹³² 'Until 2050, Tunisia will witness a decrease of precipitation of 5 to 10%, and temperature rises between 1 and 2°C', says Ines Labiadh, coordinator of the climate and environmental justice department of the Tunisian NGO Forum for Social and Economic Rights (FTDES).

Too little freshwater and too much seawater

As Tunisia is already considered water-scarce, with water resources of only 385 m³ per year per capita (the UN defines water scarcity as below 500 m³ per year per capita),¹³³ any further fall in water reserves could have devastating effects on urban and rural livelihoods, and fuel displacement across the country.

Indeed, water scarcity already fuels forced migration from the country's inland regions, according to Romdhane Ben Amor, a spokesperson of FTDES. 'In provinces such as Kasserine or Jendouba, there is no regularity of rain anymore, which heavily affects local economies. Many people here are already forced to migrate to the cities to look for work', he says. 'Climate change is not a major reason for migration yet. However, it is already a secondary trigger, and contributes to the dynamics of displacement within the country.'

Rising temperatures and changing rainfall in Tunisia's inland regions already affects the quality of orchard products, partly as farmers are forced to harvest earlier than normal. 'Traditional crops like olive trees live on rainfall, but we have witnessed irregularities of rainfall since the 1990s. If it rains at the wrong time, a farmer can lose the entire harvest', explains Aymen Amayed, a researcher affiliated to the University of Ghent and the former executive director of the Tunisian Observatory for Food and Environmental Sovereignty (OSAE).

At the same time, sea-level rise is having an impact on Tunisia's low-lying coast, home to two thirds of its population of 11.5 million, and contributes to the salinisation of coastal aquifers and land submersion. 'In some regions in the province of Bizerte and in Kerkennah island, land gets already submerged by the sea', says Amayed, 'So far, we lose very few metres or centimetres per year to land submersion, but an acceleration of this trend lies ahead', he says. The low-lying island of Kerkennah is threatened in its entirety. The salinisation of soils by sea-level rise has already destroyed large parts of the island's agricultural land, and forced many inhabitants to move to the cities, Ben Amor adds.

USAID, the US bilateral agency, forecasts that the sea could rise from 3 to 61 centimetres by 2100,^{134 135} and that more than half of these 'potentially submersible lands are residential urban' areas located mainly in Tunis and Sfax—Tunisia's two biggest cities. 'Without adaption measures, 78,700 Tunisians could be affected annually between 2070 and 2100 by sea level rises and flooding', USAID warns.

Climate intersects with state failure to fuel displacement

The impact of climate change and the rise in displacement is greatly exacerbated by the government's failure to develop effective water-management policies, particularly for the marginalised interior of the country from which most displacement occurs.

'Today the main reason for difficulties with access to water is poor water management and the lack of infrastructure. However, climate change is a threat as it has an impact on decreased precipitation', Labiadh says. 'Low rainfall also causes problems for water management. Our dams now hold less than 30% of their original reserves', she adds. Tunisia's National Observatory of Agriculture warned that two dams are estimated to be dry by 2035 in the absence of mitigation, yet Tunisia's 36 major dams witnessed a record-low, in which they were only filled to 23% of their capacity in August 2021.¹³⁶

The liberalisation of Tunisia's agricultural sector has also increased the pressures on small-scale farmers across the country as large-scale farms owned by investors over-exploit the groundwater. While big farmers receive loans to dig deeper wells, peasant farmers have no access to such loans, become indebted due to lower yields and no access to water, and are progressively dispossessed from their land, Amayed explains. 'At one point, they are forced to sell their land, and move to the cities.' He believes that half of Tunisia's 516,000 farms are at risk of collapse, which could lead to 'an exodus of young rural people into the cities where there is no work for them, and where migration is considered an alternative'.¹³⁷

Kasserine, Jendouba and other regions in western Tunisia are particularly affected by these dynamics, having been marginalised by the state for decades. They have been a focal point of protest movements that challenge the government's negligence in failing to provide adequate water and electricity supply as well as jobs. No government has adequately addressed these issues, which have made daily life very difficult. Combined with the growing impacts of climate change an increasing number of rural people are moving to the coastal provinces. Between 2009 and 2014, almost 80,000 people migrated from Tunisia's western and southern regions to the coastal provinces, 46,300 to Greater Tunis alone.¹³⁸ Coastal cities are unable to absorb this constant influx and provide enough jobs which, in turn, leads many to undertake irregular migration to Europe or elsewhere.

Displacement meets Europe's Immigration and Border Regime

While most migration takes place within Tunisia or to neighbouring countries, some migrants seek to reach Europe. At this point, migrants come up against the restrictive immigration and visa policies imposed by the EU and its member states on third-country nationals as well as the wider approach of the EU to externalise and militarise its borders. In October 2021, the French President Emmanuel Macron announced he would halve the number of visas granted to citizens from Algeria, Morocco and Tunisia, its former colonies. The move, assumed to be a pre-election campaign stunt, caused outrage across North Africa, but is in line with the EU's general policy dating back over 20 years to limit visas for non-EU citizens. This means of controlling migration leads people to resort to irregular ways of travelling to Europe, taking increasingly dangerous journeys to cross the Mediterranean.

Rather than provide safe routes, since the early 2000s, the EU has focused on expanding border controls, upgrading the EU coast guard agency Frontex, and externalising European borders to countries in North Africa, such as Tunisia. Both the EU and Italy have provided extensive training and equipment for Tunisian coast and border guard agencies,¹³⁹ while Germany and the US have supported the erection of barriers along the land border between Libya and Tunisia, supplying Tunisian police and military forces with radar and surveillance equipment to track down irregular movements of people.

These and other EU-funded border fortification measures at Tunisia's land borders not only restrict and endanger refugees and migrants, they also gravely affect local communities, already marginalised by successive Tunisian governments for decades. Irregular cross-border trade from Tunisia to Libya and Algeria has been a major source of income for tens of thousands of families. Shutting down or obstructing these informal trade routes by expanding a sophisticated system of border control not only threatens the income of entire regions in Tunisia's borderlands, but also fuels displacement and migration, especially near the now heavily fortified border with Libya. In other words, the EU's militarised approach to border control not only fails to prevent irregular migration, but actively fuels it.

Case study by Sofian Philip Naceur, a Tunis-based freelance journalist, and project manager and researcher at Rosa Luxemburg Stiftung's Tunis office.

Drying Land: Drought, Migration and Displacement in Mexico, Central America and the US



Karina, a Honduran migrant who now lives in the US, explained that the lack of water was one of the reasons to leave, along with her daughters, risking their lives to travel to the US. 'Back there, where we're from, water is scarce; we only get some for about 3 hours during the day', she commented in an interview with JADE.

Honduras, as well as El Salvador, Guatemala, Nicaragua and the US, have experienced drying lands as rising temperatures and changes in rainfall patterns owing to climate change have led to increasing drought.¹⁴⁰ Mexico is currently experiencing one of its most widespread and intense droughts in decades, with NASA reporting that 85% of the country was facing drought conditions in April 2021.¹⁴¹ In addition, there has also been a rise in other extreme weather events in the region, including flooding and hurricanes.¹⁴² Although the Central American countries are responsible only for 0.5% of global GHG emissions – compared with 15% from the US and 1% from Mexico – Central America has become one of the regions most vulnerable to the global climate crisis.

Recurrent drought not only causes land degradation and desertification but also affects agricultural yields, public health and food security.¹⁴³ Eventually, as Fernando Aragon, Mexican lead author of the *Special Report on Global Warming of 1.5°C* for the IPCC, points out, this leads to the 'jeopardizing of productive chains and of people's livelihoods, leaving them no other choice but to leave [and join] already existing migratory flows'.¹⁴⁴

The International Organization for Migration (IOM) has, for example, noted that many people who were part of the Central American caravans that made the headlines in 2018 and are still continuing were previously engaged in agriculture, forestry, livestock farming and fishing, and were therefore more vulnerable to food insecurity due to droughts associated with global heating.¹⁴⁵ The IDMC attributes 28.3% of internal displacement in Mexico (numbering 357,000 people in 2020) to extreme natural events.¹⁴⁶

Clearly, the environmentally displaced are not restricted to Mexico and Central America. As Carlos Martin of the Urban Institute notes, 'Climate migrants [...] already exist in the United States. They include homeowners wading through the process for buyouts of flood-prone homes, families evacuating during climate-exacerbated disasters, and families moving en masse from places experiencing environmental and economic changes'.¹⁴⁷ Owing to systemic inequality, exclusion and segregation in the US, these climate crises have mostly affected Latino, Native-American, African-American and White working-class communities, manifested in urban poverty, racial disparities, race riots and police power.

Until recently, however, the climate crisis was rarely described as causing displacement or indeed as a factor in poverty in the US. Instead, migrants heading towards the US have been explained largely in socio-economic terms, driven by the lack of economic opportunities and poverty. But the truth is that there are multiple aggravating factors driving people to leave their home, including violence (especially by criminal groups), food insecurity, expropriation of land and natural resources by mega-projects,¹⁴⁸ environmental degradation, exacerbated by government policies of rural disinvestment, unsustainable economic practices, inadequate labour laws, lack of development planning and insufficient environmental regulation. These factors intersect with an escalating climate crisis which threatens to further deepen profound inequalities and human rights violations.

Regardless of the causes, the reality for people who are displaced is violence and suffering. Migrants face new and violent obstacles, not only at the US–Mexico border but also at Mexico’s border with Guatemala. Trump’s ‘Remain in Mexico’ (Migration Protection Policy) in particular was associated with increased cases of torture, assaults, abductions, family separations, human trafficking, and violent persecution of migrants on both of Mexico’s borders.

‘I was persecuted and abducted in Reynosa [Tamaulipas]. They blindfolded me and took me into some kind of storage room. They took my cell phone and forced me to tell them who my contact in the U.S. was. They called him and asked for \$3,000 for my life and release. Some days later I woke up beaten on some street. It was because of this assault that I managed to be acknowledged as a refugee.’

– Marvin, a Honduran migrant in interview with JADE

While the right to migrate is constantly questioned, criminalised and undermined, recognising migration as linked to environmental degradation can provide insights not only into how global heating does not respect national borders, but also why it should lead to regional development policies based on principles of shared responsibility centred on the respect and protection of human rights, prioritising highly vulnerable populations. A climate lens applied to migration shows that since climate change has no regard for borders, climate-induced migration will also need to be tackled through cross-border cooperation. It requires an examination of the root causes of migration, and demands that the richest countries that have produced most of the historic GHG emissions have a particular responsibility and a debt to repay to those most adversely affected by climate change.

Evidence of the need for a shared approach which looks at root causes is already evident in the current mega-drought affecting western Mexico and the US, as well as the Central American dry corridor. The drought is not only adding to pressures to migrate, but it is also leading to escalating US–Mexico disputes over shared water supplies.¹⁴⁹ In 2020, fierce protests by farmers erupted in the drought-stricken state of Chihuahua against the Mexican government’s decision to ship scarce water supplies to the US. The protests were repressed by the Mexican National Guard and led to at least one death and fuelled tensions with the US.¹⁵⁰

Although the conflict was often portrayed in nationalistic terms, the underlying factors were failed public policy and transnational corporate actors. In Mexico, for example, water scarcity is compounded by years of local authorities allowing international corporations, such as Coca-Cola, FedEx and Walmart, to take water for their Mexican factories, stores and distribution centres without fully compensating for it. There has also been malpractice and institutionalised corruption in the National Water Commission (CONAGUA) and a chronic lack of investment in local piping and sewage infrastructure.¹⁵¹

In the US, corporate interests also intensify the crisis.¹⁵² Federal subsidies and incentives to cattle and crop farmers, for example, is leading to the near disappearance of the Colorado River.¹⁵³ According to Bruce Babbitt, Arizona's former governor and a former US Secretary of the Interior, US policy is 'distorting water usage throughout the West and providing an incentive to use more water than would be used in an open market'.¹⁵⁴

This all points to the need for a new approach to climate-induced migration. On the one hand, changing the development model that leads to displacement, namely unsustainable intensive agriculture, ecologically damaging mega-projects for energy production, resource-depleting concessions to industries, and corrupt political institutions bypassing environmental restrictions and sanctions. And on the other hand, looking to build cross-regional strategies centred on human rights that protect and support the livelihoods of those most affected by climate change so that no-one is forced to leave their home.

Case study by Diana Siller and Yaoci Pardo, JADE (Environmental Justice and Human Rights Organisation), Mexico.

A HISTORY OF MILITARISED RESPONSES TO MIGRATION

A number of factors have led to the increased militarisation of borders and immigration enforcement over the years. For example, when the US 'war on drugs' was launched in the 1970s, it justified increased border enforcement that continues to this day. A crucial step in Europe was the establishment of the Schengen Area, which coupled internal open borders among many European countries with greatly increased security and control at the external EU borders. Also, with the advent of economic globalisation in the 1980s and 1990s governments understood that the forced implementation of structural adjustment and 'free' trade rules would cause displacement, providing one impetus behind various border militarisation operations in the US in the mid-1990s. With the Global War on Terror (GWOT) after the 9/11 attacks came a global upsurge of borders in terms of walls, border guards and surveillance technologies. This caused a massive increase in the participation of the influential private industry in border fortification, and a lucrative profit motive to lobby for ever-increasing budgets. In none of this was climate change emphasised, at least as a frontline issue, until recently.



Border guards at the Greece/Turkey Border in the region of Evros. Credit: Sara Prestianni.

There is, however, a much longer history of national security planning in relation to climate change and predicted environmental devastation since the 1990s.¹⁵⁵ A 1994 article 'The coming anarchy: how scarcity, crime, overpopulation, tribalism, and disease are rapidly destroying the social fabric of our planet' by US journalist Robert Kaplan, captured the frame rich countries have used to define climate security.¹⁵⁶ Kaplan presciently predicted that the environment would be the 'national security issue of the 21st century'. To illustrate this, Kaplan referred to looking out of his window in West Africa where 'hordes' of young men with 'restless, scanning eyes' surrounded his taxi and put their hands on the window asking for tips. 'They were loose molecules in a very unstable social fluid', he wrote, 'a fluid that was clearly on the verge of igniting'. According to Kaplan, this was the mixture of environmental degradation and migration: people moving from untenable rural areas, afflicted with drought, to the cities, where 'they join other migrants and slip gradually into the criminal process'.

Shortly after the article's publication, Tim Wirth, the US Undersecretary of State, faxed a copy to every US embassy. President Bill Clinton lauded Kaplan and Thomas Homer-Dixon, the environmental conflict scholar, featured in Kaplan's article, as 'the beacons for a new sensitivity to environmental security'. Secretary of State Madeline Albright said in 1994, 'We believe that environmental degradation is not simply an irritation but a real threat to our national security'.

Albright's words encapsulate what now is called the climate security narrative, which decades later has become more polished, and now lies at the heart of not only US but also global strategies regarding climate change. As scholars such as Betsy Hartmann have emphasised, it has historical roots in the Malthusian idea that population growth, most of all if it happens in countries where the majority are not white, is the principal cause of scarcity, poverty, and war.¹⁵⁷ 'It still resonates in both the public policy arena and popular culture. It shapes dominant discourses about the relationship between climate change, conflict and security in Africa', or anywhere. And it has also fundamentally shaped migration policies.

In essence, national security strategies view migration as a threat.

The term 'threat multiplier' first appeared in the 2004 UN report 'Threats, Challenges, and Change' but did not enter the common security lexicon until 2007. According to researcher Ben Hayes, 'just as emphasis on the "war on terror" was receding ... influential security actors in Europe and the U.S. began to outline foreign policy options for addressing climate change as a security threat'.¹⁵⁸

The US has led the way in defining climate change as a 'threat multiplier', followed by other industrialised countries including many European nations, Australia and New Zealand, although noticeably not by many smaller countries, which have resisted attempts to frame climate change as a security concern at the UN.¹⁵⁹

The threat is not primarily the hurricane or the drought, it is what people do in response to it. As US Brigadier General Stephen Cheney of the American Security Project said at a 2015 conference, 'No surprise to anyone here: extreme weather presents a direct threat to U.S. homeland security'. The US Department of Home Security (DHS) official Thomas Smith described the term 'threat multiplier' like this: 'we describe that climate change can aggravate stressors such as poverty, such as food insecurity, such as causing population migration'.

British Rear Admiral Chris Parry summed up this international security consensus regarding climate refugees in perhaps the most vivid terms. The future climate migrations would be like the 'Goths and the Vandals', the barbarian invaders who brought down the Roman Empire in the 5th century. He claimed that large immigrant populations would have little regard for their host countries and begin a sort of 'reverse colonisation', a term similar to the *reconquista* used by members of border militia groups in the US, and for that matter Donald Trump, who fear that Mexico will take back the 55% of its territory ceded in 1848 after the Mexico-American war.¹⁶⁰

While vivid and exaggerated, Parry's words fell right in line with reports based on the expectation that the climate crisis will cause uncontrollable levels of migration that will overwhelm destination countries and create conflict and international instability. The hugely influential 2007 report, *Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change*, produced by national intelligence insiders and leading Democratic foreign policy experts, even describes large-scale migration as 'perhaps the most worrisome problem associated with rising temperatures and sea levels' warning it will 'trigger major security concerns and spike regional tensions'.¹⁶¹ Through examining three potential future scenarios based on different temperature increases (1.3°C, 2.6°C, 5.6°C), it predicts mass migration in every region of the world, but is most concerned about its impact on the richest countries.

It also correlates migration with terrorism, often stating that displaced migrants in Africa, Asia and Europe are likely to be fertile ground for 'radicalisation'¹⁶² recruitment by non-state armed groups or criminal gangs.

Speaking of the impacts on Europe under the scenario of a 2.6°C temperature increase, it warns that:

'Environmental pressures will accentuate the migration of peoples to levels that effectively change the ethnic signatures of major states and regions. In Europe the influx of illegal immigrants from Northern Africa and other parts of the continent will accelerate and become impossible to stop, except by means approximating blockade. There will be political tipping points marked by the collapse of liberal concepts of openness, in the face of public demands for action to stem the tide.'¹⁶³

It goes on to say 'Altruism and generosity would likely be blunted.'

As for the US, Leon Fuerth, former security adviser and report author, said: 'Governments with resources will be forced to engage in long, nightmarish episodes of triage: deciding what and who can be salvaged from engulfment by a disordered environment. The choices will need to be made primarily among the poorest, not just abroad but at home'.

Other climate security strategies among the 10 richest countries have been less alarmist, but have nevertheless consistently warned of the 'threat' of migration caused by climate change. A year after *Age of Consequences*, in 2008 the European Commission published *Climate change and international security*, a paper that cited climate-induced migration as the fourth most significant security concern (after conflict over resources, economic damage to cities/coasts, and territorial disputes).¹⁶⁴ It warned that 'migration may increase conflicts in transit and destination areas. Europe must expect substantially increased migratory pressure' and called for 'further development of a comprehensive European migration policy' in light of 'environmentally-triggered additional migratory stress'.

Since then the EU has prioritised security issues in general and boosted its spending and focus on border militarisation in particular. In 2015, the EU's European Agenda on Security gives a prominent mention to migration, promoting a strong integration of security policies with the increasingly draconian European Agenda on Migration.¹⁶⁵

A 2016 Australia Defence Force report, *Future Operating Environment: 2035*, echoes both the US and EU in predicting that '[c]limate change is likely to exacerbate existing scarcities of food, water, fibre and arable land and intensify international migration pressures' and that it could 'disrupt established patterns of culture, politics and economics, and create the conditions for a variety of social dislocations'.¹⁶⁶ The 2015 UK *National Security Strategy and Strategic Defence and Security Review* similarly predicts that more extreme weather will make 'political instability, conflict and migration more likely' and 'hamper economic growth, and result in ungoverned spaces which can be exploited by terrorists and criminals'.¹⁶⁷ It calls for the UK government to strengthen its 'ability to control migration'.

In 2021, climate security became an even more dominant frame in the run-up to Cop26. In his first days in office, President Biden issued an Executive Order to put the climate crisis 'at the center of U.S. foreign policy and national security' and in April held an international Leaders' Summit on Climate,¹⁶⁸ which included a special session on climate security. In March, the UK's Ministry of Defence launched its *Climate Change and Sustainability Strategic Approach*¹⁶⁹ and in June, NATO agreed a Climate Change and Security Action Plan,¹⁷⁰ which warns of the dangers of climate change leading 'to displacement, migration, and human mobility, creating conditions that can be exploited by state and non-state actors that threaten or challenge the Alliance'.

Treating the victims of climate change as threats is a triple injustice: those least responsible for the climate crisis are not only the most likely to be victims of climate change, but are now regarded as threats if they migrate in order to survive. The nature of security-framing also obscures the complex reasons for migration and serves to distract from alternative approaches that would seek to support migrants to stay when they can and migrate if they must. Security approaches inevitably seek to consolidate existing and unjust systems of power rather than challenge them to build something new.

THE BORDER INDUSTRY SEEKS TO CAPITALISE ON THE CLIMATE CRISIS

In the US and Europe the border and immigration enforcement industry has boomed, particularly in the last decade. In the US, between 2008 and 2020 CBP and ICE issued more than 105,000 contracts worth \$55 billion to private companies. Pivotal companies that have been identified include CoreCivic, Deloitte, Elbit Systems, GEO Group, General Atomics, General Dynamics, G4S, IBM, Leidos, Lockheed Martin, L3Harris, Northrop Grumman, and Palantir. These companies provide private detention facilities, surveillance technology, biometric systems, data bases, armoured transport and drones among other things. These companies also wield power and influence in Washington through making campaign contributions to key politicians (including presidential candidates) and have the ability to make lobbying efforts, particularly when annual Homeland Security budgets are being debated.¹⁷¹

In Europe the border security market is also good business, and dominated by arms companies Airbus, Thales, and Leonardo, as well as smaller IT and specialised firms. This industry shapes European border policy through lobbying, interactions with the EU's border institutions, and its influence on research policy.¹⁷²

Border Wars – the industry behind border militarisation

Since 2016, TNI with StopWapenHandel has been examining the border industry that both profits from and also drives militarisation of borders and immigration enforcement. The research has shown that military contractors along with various security, IT, and biometric companies are enmeshed in political circuits of power in both the US, EU and Australia.

Through lobbying, political donations, mingling at security fairs, and participation in high-level working groups, as well as revolving door appointments between state agencies and corporations, these firms have pushed and promoted militarised approaches and technologies to border control. And they have reaped handsome profits in return, as state budgets have boomed.

TNI's first report, *Border Wars*, in 2016, showed how arms companies in particular Finmeccanica (now Leonardo), Thales and Airbus were not only prominent players in border security but also three of the top four European arms traders to North Africa and the Middle East. In 2021, in *Smoking Guns*, we dug deeper, providing evidence on how some of these companies exports were directly linked to forced displacement in conflicts outside Europe. *Expanding the Fortress* (2018) detailed the booming market due to the policies of border externalisation by the EU and the way this was strengthening repressive and authoritarian regimes in North Africa, while *Outsourcing Oppression* (2021) explored how EU policy and funding was also promoting migrant detention and related human rights abuses in 22 countries outside Europe.

More than a Wall (2019) looked at the situation in the US, identifying 14 companies that were the key beneficiaries of US border militarisation. A subsequent briefing, *Biden's Border* (2021), showed that these firms largely favoured Biden and the Democrats during the election cycle despite Trump's racist anti-migrant rhetoric and policies. Finally, *Financing Border Wars* (2021) identified the key financiers investing in the border industry in US, Australia and Europe, notably The Vanguard Group, Blackrock, Capital Research and Management and State Street Global Advisors (SsgA).

As these markets grow around the world, there has been a keen awareness among the top companies that climate devastation could be beneficial to them and the products they sell. There is also a striking similarity in how both migration and climate change are framed as predominantly security problems, and how the industry is positioning itself to lobby for increased security spending and to profit from their efforts.

Top border contractor G4S, for example, recognises that it could increase its revenue from increased displacement due to climate change. It told the Carbon Disclosure Project that in 2014, the UN ‘projected that we [the planet] will have 50 million environmental refugees’ and that could result in financial opportunities. G4S is one of 14 border security corporations profiled in TNI’s report *More Than a Wall*, which play a pivotal role in the US border and immigration enforcement infrastructure.¹⁷³ The G4S CEO said ‘At G4S we understand the bigger picture and the challenges of keeping borders secure’.¹⁷⁴

Other top companies in the border and immigration industry have also mentioned climate catastrophe as a potential impetus for revenue. Raytheon warned that climate change might cause ‘humanitarian disasters, contribute to political violence, and undermine weak governments’ and that ‘demand for its military products and services as security concerns may arise as results of droughts, floods, and storm events’.¹⁷⁵

Top CBP contractor United Technologies (now part of Raytheon Technologies), after citing arguments that a historic drought contributed to instability in Syria, noted that helicopters made by its Sikorsky business (since sold to Lockheed Martin) were ‘deployed during population dislocations and humanitarian crises’, and that it provided support to the US military to ‘mitigate population dislocations in Syria’.

Cobham, a British company that sells surveillance systems and one of the main contractors for Australia’s border security, said that ‘changes to countries [sic] resources and habitability could increase the need for border surveillance due to population migration’.¹⁷⁶

Table 5: Market forecasts for the global border security industry

Year (forecast)	Forecast (\$ billion)	Growth rate (annual)	Source
2028	\$69.7	6.21%	Insight Partners ¹⁷⁷
2024	\$51.4 Billion	6.3%	Global Industry Analysts ¹⁷⁸
2026	\$ 25.2 Billion	5.2%	Market Reports World ¹⁷⁹
2025		7%	Mordor Intelligence ¹⁸⁰
2025		7%	Research and markets ¹⁸¹

Climate change is also increasingly prevalent in market forecasts for this industry that foresee a future full of growth. A range of market forecasts for the border security industry predict substantial growth – 5–7% annually – this decade (see Table 5). A 2019 forecast by ResearchAndMarkets.com looking at the broader Global Homeland Security and Public Safety Market attributes the growth in part to ‘climate warming-related natural disasters growth’.¹⁸² Another report by MarketandMarkets, attributes ‘Dynamic climatic conditions’ and ‘rising natural calamities’ to the growth. As MarketandMarkets puts it, this market is currently ‘ripe’.¹⁸³ Most forecasts agree that the largest markets are in North America and Asia-Pacific, and that the fastest growth rates are in Europe and Asia-Pacific.

Needless to say, what is lost in these forecasts is the human rights abuses that result from increased border militarisation. As TNI's report, *Financing Border Wars*, showed, these abuses include direct violence against refugees, disturbing rises in deaths, inhumane treatment of detainees, deprivation of the right to family unity, the right to seek asylum, the right to humane treatment in detention, the right to due process, and the rights of children through deportations, and threats to rights to privacy, civil liberties and non-discrimination due to increased use of biometric surveillance systems.¹⁸⁴

Furthermore, the externalisation of migration policies has led to the EU, US and Australia increasing cooperation with authoritarian regimes to try and prevent migrants from even getting close to their borders. This has led them to donate money, equipment or training to security forces in authoritarian regimes expanding and strengthening their capacities which leads to a rise in human rights violations more broadly. Nowhere are the human rights consequences of border externalisation policies clearer than in the case of Libya, where funding, training and cooperation between the EU and individual member states (in particular Italy and Malta) and the Libyan security forces and militias, has led to violence, murder, disappearance, rape and other forms of sexual violence, enslavement and torture of migrants in the country's detention centres.¹⁸⁵

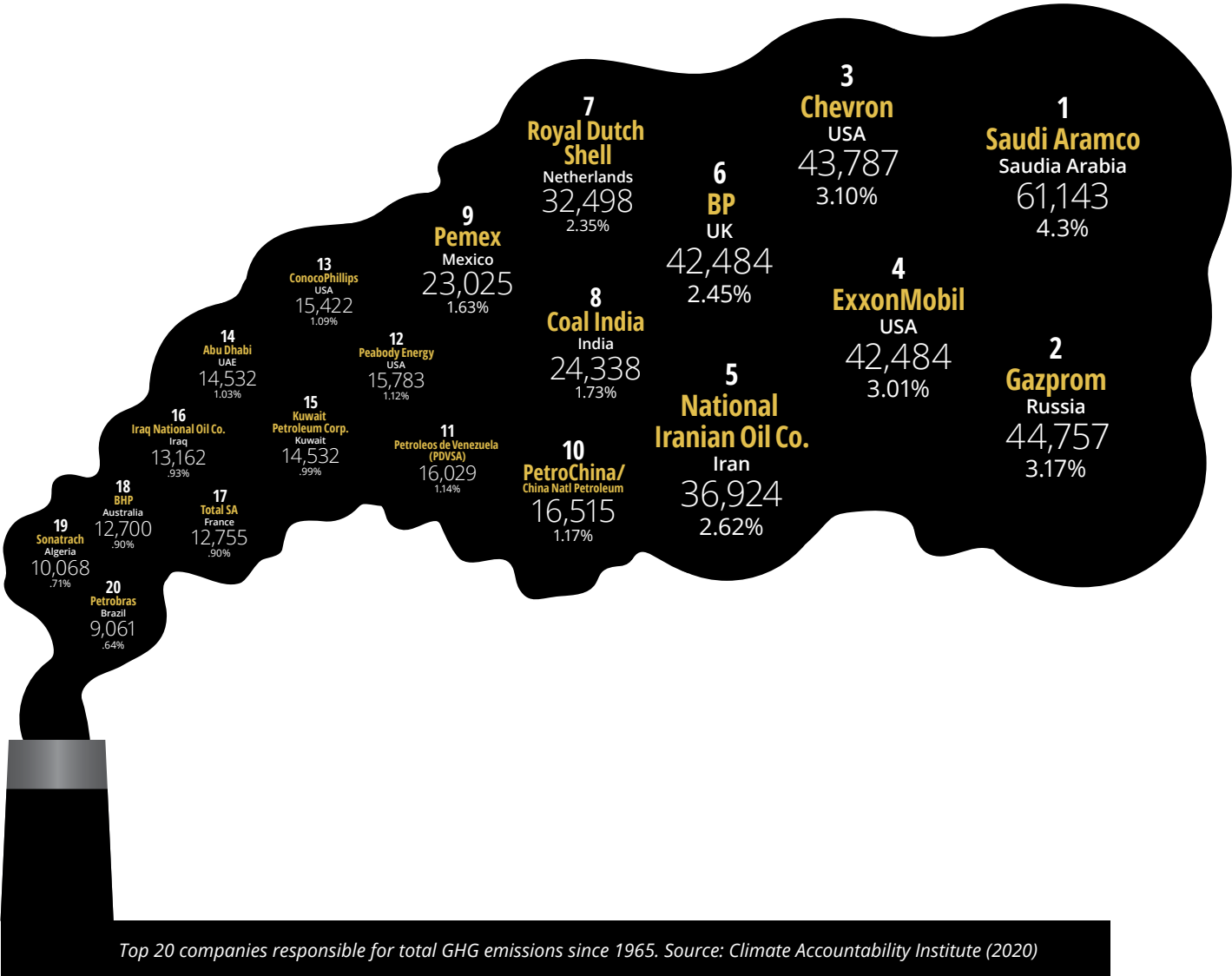
As much of the border and immigration enforcement is privatised, the corporations that have been involved in or connected to policies and practices have come under fire because of violations of the human rights of refugees and migrants. Sometimes the companies are directly responsible for perpetrating these violations or related concerns. In other cases, they are indirectly responsible by contributing to a border infrastructure that denies human rights and through lobbying to influence policy-making to prioritise militarised responses to migration.

G4S is one of the companies most often in the spotlight. In 2017, not only were assaults by its staff on migrants at the Brook House immigration removal centre in the UK broadcast by the BBC, but it was also hit with a class suit in Australia by almost 2,000 people who are or were detained at the externalised detention centre on Manus Island, because of physical and psychological injuries as a result of harsh treatment and dangerous conditions. The company eventually settled the case for A\$70 million (about \$53 million) in the largest-ever human rights class-action settlement. G4S has also faced allegations of human rights abuses related to its involvement in deportations.¹⁸⁶

BORDER INDUSTRY INTERLOCKS WITH BIG OIL

According to the Carbon Majors database, 20 companies are responsible for 35.45% of total GHG emissions between 1965 and 2017.¹⁸⁷ Since 2013, this database has been recording emission data and demonstrating their links to companies, or ‘Carbon Majors’. It makes clear that this cluster of companies bear the lion’s share of responsibility of global heating and the devastation and displacement it has caused.

Figure 4: Top 20 companies responsible for GHG emissions

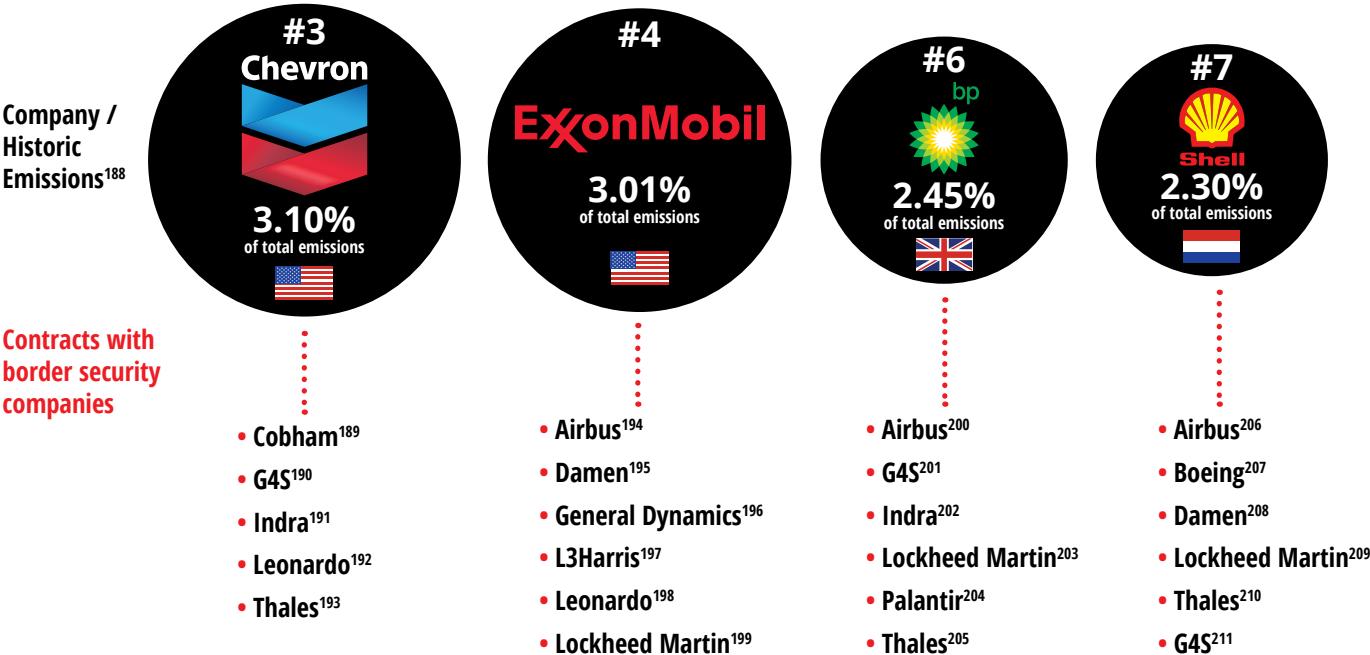


Key companies in the border industry, many that have acknowledged the profit potential of climate devastation, are also receiving contracts from these Carbon Majors, the chief culprits.

CONTRACTS BETWEEN FOSSIL FUEL FIRMS AND THE BORDER SECURITY INDUSTRY

This section examines four of the private fossil fuel companies included in the top 10: Chevron, Exxon Mobil, British Petroleum, and Royal Dutch Shell (we will not examine state-owned companies such as Saudi Aramco or Coal India, although these are major polluters). Each of these companies is connected to high-emitting countries and regions (the EU, the UK the US) with large border and immigration budgets. The total cumulative emissions attributed to these companies is 10.86%, meaning that they have emitted more than every country except for the US and China, or nearly the equivalent of every country in Africa, Latin America and the Middle East. In 2020 alone, the cumulative revenue of these four companies was \$638 billion. Their extensive global operations are highly lucrative. Unsurprisingly, the companies seek out the same border industry that is providing surveillance, biometrics, and databases on the US–Mexico border, the Mediterranean coasts of EU member states, and around the world.

Table 6: Fossil fuel firms’ contracts with border security industry



A top GHG emitter Exxon Mobil (ranked fourth), for example, contracted the border contractor L3 Harris (one of the top 14 US border contractors²¹²) to provide ‘maritime domain awareness’ around Exxon’s drilling in the Niger delta.²¹³ Nigeria is West Africa’s largest oil producer with 2 million barrels a day. As L3 Harris explains, Vigilis is a maritime domain awareness system equipped with a command and control centre reminiscent of border systems across the world, where agents watch different video streams in a small room packed with monitors. ‘Vigilis monitors the movement of vessels around identified risk areas and regions to improve security and safety, protecting against and alerting to collisions, hostile vessels, smuggling, piracy, illegal immigration, obstruction of sea-lanes, and pollution.’

The densely populated Niger Delta has experienced tremendous displacement due to oil extraction in the wake of environmentally damaging oil spills that have leaked into rivers and killed fish, robbing people's livelihoods.²¹⁴ In this sense, companies like Exxon Mobil have a dual responsibility in relation to mass displacement. Besides the climate-related catastrophes the extraction of fossil fuels inflicts on the planet, there is a more direct displacement tied to directly to the drilling, especially pollution and environmental damage in the aftermath of spills and gas flaring.

From US Customs and Border Protection, between 2008 and 2019 L3Harris received 26 contracts for \$894 million including night surveillance systems, 'night conqueror' cameras, sensor technology, and maintenance and logistical support for CBP surveillance aircrafts. As CEO Frank Lanza said in 2004, 'there is no greater honor than to help those who put their lives on the line for others and L-3 employees take great pride in the work they do to support the safety and security of the nation's protectors with the best available products and systems'.²¹⁵

L3 Harris was also contracted by top emitter Saudi Aramco (ranked first) to 'to secure one of the world's key crude oil distribution waterways', according to the company. It is also providing Vigilis 'for more than 30 ARAMCO oil and gas monitoring and control sites'.²¹⁶

Exxon Mobil is planning to raise its yearly CO₂ emissions by 17% by 2025 (according to internal documents).²¹⁷ It has also contracted top US border contractor Lockheed Martin, for example, to design an architecture to 'optimize refining and chemical manufacturing facilities',²¹⁸ and top European contractor Airbus for two Airbus H145 helicopters for TK in Papua New Guinea.²¹⁹

British Petroleum (BP) (ranked sixth) contracted Palantir, which has a growing role in providing surveillance software to agencies like ICE and has faced significant pressure from US immigration rights activists.²²⁰ Palantir helped BP develop a 'repository of all operated wells historical and real time drilling data'.²²¹ According to BP this has 'improved business insight' and added 'hundreds of millions of dollars in value'. Lockheed Martin also manufactured an infrared camera to manage 'methane emissions at oil and gas production facilities ranging from Alaska to Angola' for BP.²²²

Chevron (ranked third) has hired Cobham, G4S, Indra, Leonardo, and Thales, and Royal Dutch Shell (the largest driller in the Niger Delta) has contracts with Airbus, Boeing, Damen, Leonardo, Lockheed Martin, Thales, and G4S.²²³

Border contractor G4S has a relatively long history of protecting oil pipelines. One precursor of the G4S, Defense Systems Limited (DSL, later ArmorGroup, purchased by G4S in 2008), was implicated in the use of intimidation and torture in Colombia while protecting BP's 806 km pipeline.²²⁴ G4S also oversaw security for the Basrah Gas Company in Iraq, jointly owned by Shell, Mitsubishi, and the South Oil Company.²²⁵ In 2016, the company was hired to guard the Dakota Access pipeline, very close to the Standing Rock Indigenous-led resistance encampment.²²⁶ In 2013, G4S signed a 'strategic global framework agreement with Shell International Limited, to provide security solutions to the energy and petrochemicals company in more than 30 countries'. Graham Levinsonh of G4S said, 'We are delighted to strengthen our relationship further and look forward to continuing to support their international business strategy by helping to protect their assets and people'.²²⁷

BOARD INTERLOCKS

The synergy between fossil fuel companies and top border security contractors can also be seen in their board of directors, where many of the same individuals sit on each other's executive boards. The boards from the top 15 private companies were examined from a list of 90 top GHG emitters (responsible for two thirds of all emissions) (see Table 7). This shows a large number of senior personnel from both sectors sitting on each other's executive boards. Chevron has the former CEO and Chairman of Northrop Grumman, Ronald D. Sugar, and Lockheed Martin's former CEO Marilyn Hewson on its Board of Directors. Conoco Phillips has John V. Faraci, formerly on the United Technologies Corporation board, and David Seaton, the CEO of Fluor Corporation. The oil and gas company ENI has Nathalie Tocci on its board, who helped draft the EU Global strategy, and important context in regards to EU border externalisation.

Table 7: Links between Boards of Directors of fossil fuel and border security companies²²⁸

Company	Board members ²²⁹	Function
Fossil fuel industry		
Anglo American	Stuart Chambers	• Formerly Board of Directors Smits Group
	Stephen Pearce	• Board of Directors BAE Systems
	Anne Stevens	• Formerly Board of Directors Lockheed Martin • Formerly Board of Directors GKN
BP	Paula Rospot Reynolds	• Formerly Board of Directors BAE Systems
Chevron	Ronald D. Sugar	• Former CEO and Chairman Northrop Grumman
	Marilyn A. Hewson	• Former CEO Lockheed Martin
	Debra Reed-Klages	• Board of Directors Lockheed Martin
Conoco Phillips	John V. Faraci	• Formerly Board of Directors United Technologies
	David T. Steation	• Former CEO Fluor Corporation
RWE	Helle Valentin (Supervisory Board)	• General Manager Global Business Services Nordic (IBM) • Board of Directors IBM Denmark
Border security and control industry		
Airbus	Jean Pierre Clamadieu	• Chairman Board of Directors Engie
	Ralph D. Crosby	• Formerly Board of Directors American Electric Power
Boeing	Lynn J. Good	• CEO, President and Chairman Duke Energy
	John M. Richardson	• Board of Directors Exelon
Booz Allen Hamilton	Arthur Johnson	• Formerly Board of Directors AGL Resources ²³⁰
Cobham	Kevin P. Chilton	• Formerly Board of Directors Anadarko Petroleum
CoreCivic	Anne L. Mariucci	• Board of Directors Southwest Gas Company
Elbit	Ehood (Udi) Nisan	• Former Chairman Board of Directors Delek
Embraer	Alexandre Gonçalves Silva	• Board of Directors Ultrapar • Member nominating committee Vale
	Raul Calfat	• Former CEO and Chairman Votorantim
	Dan Ioschpe	• Board of Directors Cosan
	João Cox Neto	• Vice-chairman Board of Directors Braskem • Formerly Board of Directors Petrobras
	Pedro Wongtschowski	• Former CEO Oxiteno • Former CEO Ultrapar • Chairman Board of Directors Ultrapar

Fincantieri	Paolo Muratorio	• Chairman Board of Directors 2iRete Gas
	Federica Seganti	• Board of Directors Hera • Board of Directors InRete
General Atomics	Vivek Lall (CEO)	• Former CEO Reliance Industries
IBM	Andrew N. Liveris	• Former CEO and Chairman Dow Chemical • Board of Directors Saudi Aramco
	Peter R. Voser	• Former CEO Royal Dutch Shell
Indra	Isabel Torremocha	• Board of Directors Repsol
L3Harris	Lewis Hay III	• Former CEO NextEra Energy
Leidos	Robert S. Shapard (lead director)	• CEO and Chairman Oncor Electric Delivery
	Susan M. Stalnecker	• Formerly Board of Directors PPL
Lockheed Martin	James O. Ellis, Jr.	• Board of Directors Dominion Energy
	Vicki A. Hollub	• CEO Occidental Petroleum • Board of Directors American Petroleum Institute
	Debra L. Reed-Klages	• Former CEO, President and Chairman Sempra Energy • Board of Directors Chevron
	Patricia E. Yarrington	• Former CFO and Vice-President Chevron
Mitie	Phil Bentley (CEO)	• Formerly Board of Directors Centrica • Former Managing Director British Gas
	Mary Reilly	• Formerly Board of Directors Ferrexpo
Northrop Grumman	David Abney	• Board of Directors Freeport McMoRan
	Donald E. Felsing	• Former CEO and Chairman Sempra Energy
PAE	Paul T. Bader	• Board of Directors Key Energy Services
Rheinmetall	Ulrich Grillo (Supervisory Board)	• Supervisory Board E.ON
Serco	Kirsty Bashfort	• Former senior executive BP
	Ian El-Mokadem	• Former senior management Centrica
Thales	Laurence Broseta	• Chairman Antargaz
	Marie-Françoise Walbaum	• Formerly Board of Directors ESSO
Unisys	Peter A. Albatef (CEO)	• Board of Directors NiSource • Board of Advisors Merit Energy
	Denise K. Fletcher	• Board of Directors Sempra Energy

For the border industry, we looked into the board memberships of the most important private companies involved in border security and control in Europe, the US and Australia.²³¹ Anne L. Mariucci from the US is on the board of the private prison company CoreCivic and Southwest Gas Company, which provides natural gas to 2 million customers in the western United States. Israeli professor Ehood Nisan sits on the board of Elbit Systems and the Israel Fuel Corporation LTD. Before becoming the CEO at the drone manufacturer General Atomics (which provides UAVs to CBP), Vivek Lall was the CEO of Reliance Industries, an Indian company with business in petrochemicals, natural gas, and energy among other things. On the board of IBM, a top CBP and ICE contractor, Iboard is Andrew Liveris, the former CEO of Dow Chemical and formerly on the board of Saudi Aramco, the company using the L3Harris Vigilis system. The former CEO of Royal Dutch Shell is also on IBM's board.

The border security industry itself has a substantial carbon 'bootprint'. A recent study by Scientists for Global Responsibility and Conflict and Environment Observatory estimated that 'that the total GHG emissions of the combined military-industrial sectors [armed forces and military technology industry] represent approximately 0.35% of total GHG emissions reported', which is 'equivalent to nearly 14 million cars'. The EU's major beneficiaries from European border security contracts – Airbus, Leonardo and Thales – are also among those with the largest military-related GHG emissions.²³² Similarly, US arms companies deeply involved in border militarisation, including Lockheed Martin and Raytheon, are responsible for large volumes of GHG emissions.²³³ According to Neta C. Crawford at Boston University in the US, 'the share of US greenhouse gas emissions from US based military industry is estimated to be about 15 percent of total US industrial greenhouse gas emissions'.²³⁴

This power nexus of fossil fuel companies, top border (and often military) contractors, and high-emitting countries adds new elements to the world experiencing catastrophic climate change. These companies wield tremendous influence in governments via lobbying, campaign contributions, and a revolving door in which many different actors from different power sectors are involved. This not only includes military policies, but also how border and immigration infrastructure has mimicked the military's, where border zones have become pseudo war zones pitting not nations, but this power nexus versus the very populations that it displaces.

CLIMATE MIGRATION AS ADAPTATION

The border and climate security narrative promoted by many policy-makers, particularly in the historically high-emitting countries, comes from the underlying assumption that migration is a 'threat', a net negative, a destabilising force. The narrative obscures something fundamental: that people, families, communities, or whole nations (the Maldives, for example) may need to find safety and security from a changing climate by moving elsewhere in the country or migrating in order to earn money, whether to rebuild their home, or to send remittances to support their family, or to start a new life in a new location. As Abrahm Lustgarten wrote in the *New York Times*, 'there is no more natural and fundamental adaptation to a changing climate than to migrate'.²³⁵

Alex Randall, an expert at the Climate and Migration Coalition in the UK, also said that migration 'is a successful climate adaptation strategy'.²³⁶ Such adaptation has been happening for a long time. Hindou Oumarou Ibrahim, from the Chadian Mbororo pastoralist community emphasised to the International Organization on Migration: 'Migration has now become an inevitable method of adaptation for us...'.²³⁷ Austin Parsaloi, a Maasai pastoralist in Kenya, reinforced this: 'For example, if you are in one place and it is not raining, then you simply move your cows to another place,' he said, explaining the impossibility of doing this work when confined by borders. 'Right now there is a big problem of drought. And there's no place you can go for green pasture. So you need to stay there. There. There', he repeated, insisting that it is not possible to move away, but to stay and endure whatever is there 'your entire life'.²³⁸

In essence, and quite simply, freedom of movement – whether a person is a pastoralist, a farmer, a member of a fishing community, or a whole host of other occupations that are or will be affected with the changing climate – allows people to respond to this crisis and find the best alternatives

for their own specific situations. Indeed, as the report *Migration as Adaptation* states, 'migration has become an increasingly important aspect of rural livelihood strategies in the face of slow-onset climate change impacts such as desertification, soil degradation, variable rainfall patterns, and temperature changes'.²³⁹

From a broader perspective, there have been three main ways that people have used migration to adapt to climate change, according to geographers Helen Adams and W. Neil Adger.²⁴⁰ There is the potential of forced relocation in countries like the Maldives, where 80% of its islands – including its capital Malé – may become submerged and uninhabitable if the sea level rises more than one metre. This has prompted leaders to buy land elsewhere and talk of a potential mass relocation. There are emerging models to follow in cases like this. In 2016, the US government issued the people of the Isle of Jean Charles, off the coast of Louisiana, a \$48 million grant to help them relocate due to sea-level rise and storm-surge problems.²⁴¹ Similar cases may also arise in regions where desertification and unbearable heat have taken hold, given the possibility that 19% of the planet's surface will be too hot to sustain human life by 2070 if there is no change to the status quo.

The second and third, and most common, types of migration as adaptation are either in anticipation of potential difficulties, or in response to ongoing problems. Small farmers, for example, suffering inconsistent rains and lower agricultural yields might send a family member to migrate and send remittances. This migration strategy – whether to cities in the country or abroad – and then sending remittances is one way for families to sustain their income and create resilience and a cash buffer if a harvest fails. Adams and Adger stress that '[d]ominant discourses on migration in the context of environmental change tend to depict migration as both a negative outcome of climate change impacts and a negative form of demographic change in itself. Promoting migration as an effective form of adaptation requires significant changes in how it is conceived by governments and the public everywhere'.²⁴²

Indeed, in terms of migration, the dominant discourse justifies more border enforcement. As it stands, climate adaptation tends not to focus on migration, but rather on people staying where they are and building up their defences to different climate hazards. It could be a sea wall to cope with encroaching oceans, new resilient crops to withstand drought, or an emphasis on altering infrastructure to cope with various problems, such as flooding. These may all be worthwhile and important investments that should be part of climate finance, but as a group of prominent UK environmental scientists explain in the journal *Nature*, 'Other actions to boost resilience – including sustainable urbanization, climate-smart development, conflict resolution and emergency preparedness – need to take account of an increased propensity for people to migrate'. The authors continue, 'It is therefore important that long-term initiatives, including for example those instigated under the United Nations Framework Convention on Climate Change, recognize the links between global environmental change and migration'.²⁴³

In other words, not only does the global fixation on borders as a solution to migration inflict unnecessary suffering on people, families, and communities, it also obscures other ways that seek to identify, understand, and begin to find solutions to a now undeniable future of more displacement and migration.

Entire programmes – not imposed by donor countries, but rather community and regionally led – could be financed by abandoning or even incrementally reducing border security. As the World Bank's report *Groundswell* notes, 'if well managed, shifts in population distribution can become part of an effective adaptation strategy, allowing people to rise out of poverty and build resilient livelihoods'.²⁴⁴

The Climate and Migration Coalition has made specific suggestions about how this can be done. Financing migration as adaptation, they suggest, could come in many forms such as assisting people with relocation costs, training them to find work in new locations, or helping to create better infrastructure, such as affordable housing or a strong health system. 'Governments have a stark choice ahead of them... They can either facilitate safe, legal migration. Or they can attempt to stop people moving and create crises...'²⁴⁵

By treating the movement of people as a threat, this stifles their ability to creatively adapt to the situation, to make a choice if crops fail in a drought, or if flooding has swept away their home. Instead of using hefty border and immigration enforcement budgets to slam doors shut to people, that money could be put to much better use to assist people who are forced to move and help build infrastructure in their destinations. By divesting from building more walls, surveillance technology, arming and hiring more border patrols, that money could be freed up to dedicate to climate finance.

In this sense, climate finance could be the reverse of border militarisation – and finance another, possibly better, world. If rich countries did this, they would perhaps at last be matching their rhetoric with their money. The climate crisis demands that we stop seeing migration as a negative, but rather as one means of survival and a sign of people's capacity to resist, persist and thrive in difficult circumstances. As Lorenzo Guadagno of the IOM said, 'Mobility is resilience'.²⁴⁶

CONCLUSION

In May 2021, the G7 ministers for climate and the environment issued a joint communique on climate change proclaiming a collective desire to build a just and fair world in which 'no person, group or geographic region is left behind.'²⁴⁷ The G7 is composed of the richest, and thus the highest historically emitting countries in the world, particularly those discussed in The Global Climate Wall – the United States, United Kingdom, Japan, France, Germany and Canada. The communique continues by saying its countries 'recognise the need to increase global ambition and enhance collaboration' as well as recalling and reaffirming the commitment 'to jointly mobilise US\$100 billion annually by 2020 through to 2025.'

For those people outside of the G7, who face the ever more-fortified borders from these same countries, this welcoming communique may sound reassuring. Yet the text does not contain the words "migrant," "refugee," or "displacement," nor does it acknowledge that the G-7 countries are the most responsible for climate change. Further there is no mention that the wealth that makes them the world's power brokers comes from a history of plunder, colonization, and environmental destruction.

The rhetoric relies on assumptions that the G7 countries are benevolent, and working in the world's best interests, and this sleight of hand masks how they are really responding to climate change. The leaders say all the right things, but offer no new financing, nor binding action plans, to back up the words. Nor even an acknowledgment that they are yet to deliver a promise of \$100 billion dollars a year in climate finance made back in 2009. The story of climate financing, as we have shown in this report, is one of broken promises, woeful neglect, over-reporting and even increasing debt for the poorest countries as loans have been given instead of grants. Even if the wealthiest countries were to reach the goal of \$100 billion per year, that is a woefully low amount of resources to address both what is needed and what should be expected from those most responsible for the world's accelerating climate crisis.

Instead, these same countries are enhancing and scaling up border militarization and immigration enforcement. This has expanded dramatically in a very short period of time. This mass policing apparatus goes beyond just the patrolling of international boundaries and includes both interior enforcement within each country and an increasing emphasis on externalization – in which US, EU, and Australian migration controls expand way beyond their shores. While stalling on climate finance, the highest emitting countries have lavished contracts on private contractors to build barriers and detention centers, to form an intimidating global border regime of at least 63 border walls, tens of thousands of armed agents, and high-tech surveillance technology, making the world look more like a dystopia than the sustainable and inclusive world the rich nations say they aspire to.

However, this divide between rhetoric and budgets can point us in the direction of solutions. One simple remedy is to take the money out of border militarisation and immigration enforcement and put it into climate finance. The money could fulfill the \$100 billion per year commitment without a need to over-report, or to hide loans as financing. Beyond this, countries need to acknowledge that the \$100 billion figure is too low to adequately deal with the scale of climate impacts. The G-77 block, for example, has called for an annual finance transfer of 1.5 percent from rich countries GDPs which would amount to \$782.2 billion a year, more than seven times higher.

Climate finance also has to embrace a new way of looking at migration. Climate-induced displacement and migration is already happening and will increase going forward. The security narrative that stigmatises migration as a net negative needs to shift to a climate finance narrative that understands such movement is a form of adaptation, and for some places an inevitable one – and therefore seek to facilitate and support it. There are reports and studies that point out where these hot spots will likely be, and where displaced people will likely go. Why not assist people forced to move rather than blockade them, help build housing in places where they arrive rather than prisons?

To unravel the deceptive rhetoric deployed by the G7 and perpetuated by much of the media, there has to be a shift in perception from the richest countries being the world's leaders, to them being the world's highest emitters. This puts the ongoing brutalizing and maiming of migrants from low-emitting countries in the proper perspective, an injustice that clearly needs to be rectified.

This demands a simultaneous divestment from a global system of borders, and the corporations that fuel its growth, with an investment in assisting people forcibly displaced. This divestment and investment could alleviate the incredible suffering and death inflicted by the current border system and make it easier for people to stay close to home. This would be one step in creating a world, as the G-7 communique insists, that is just, fair, sustainable, and leaves no one behind.

ANNEX A: METHODOLOGY FOR CALCULATING CLIMATE FINANCE AND BORDER SPENDING

All currency conversions in this report were done with the exchange rates of 1 October 2021, as reported by Morningstar (www.morningstar.com)

Reported climate financing

Total reported figures from the Biennial Reports to the UNFCCC ([https://unfccc.int/BRsBiennial Reports 2, 3 and 4](https://unfccc.int/BRsBiennial%20Reports%202,%203%20and%204) based on bilateral grants and climate-specific multilateral financing) (<https://www4.unfccc.int/sites/br-di/Pages/FinancialSupportSummary.aspx> see note on the United States). This excludes non-climate-specific core/general spending.

Actual climate financing

This is the sum of:

- Actual bilateral climate financing as calculated by Oxfam International in its Climate Finance Shadow Reports 2016, 2018 and 2020. Sources: <https://www.oxfam.org/en/research/climate-finance-shadow-report-2016>; [https://www.oxfam.org/en/research/climate-finance-shadow-report-2018 /](https://www.oxfam.org/en/research/climate-finance-shadow-report-2018/) <https://www.oxfam.org/en/research/climate-finance-shadow-report-2020>
- Multilateral climate financing (climate-specific), using data from the Biennial Reports with the settings: BR2/BR3/BR4 (2013–2018) – Total contribution through multilateral channels. This is a high estimate, since it might still include loans and other non-grant instruments.

Note: As the US lags behind in reporting, Oxfam International used different methods to calculate figures (see explanation in Shadow Reports 2018 and 2020)

Country	Funding	2013	2014	2015	2016	2017	2018	Average / year
United States**	Core	2139.3	2367.6	-	-	No report submitted		1126.7
	Climate-specific	2696.5	2770.9	2966.7	3270.2	2926.1		
Germany	Core	91.8*	1007.2*	1002.5*	954.2*	1048.7	908.2	835.4
	Climate-specific	2230.0*	2463.9*	8355.0*	9700.1*	7350.4	7489.0	6264.7
Japan	Core	2337.2	2559.8	2155.2	2175.3	1871.5	1810.2	2151.5
	Climate-specific	8072.5	8211.7	8960.9	10885.5	9800.4	11024.9	9492.7
United Kingdom	Core	2175.1	3005.6	2415.9	1925.5	2295.3	3167.0	2497.4
	Climate-specific	1215.7	1460.9	1915.0	1416.5	1161.5	1558.2	1454.6
Canada	Core	164.6	143.7	108.8	100.0	138.6	140.0	132.6
	Climate-specific	67.4	70.3	41.6	189.4	277.6	444.9	181.9
France	Core	45.1	45.1	70.3	70.3	612.6	1594.8	406.4
	Climate-specific	2983.1	3671.5	2981.4	3493.9	4932.2	6008.0	4011.7
Australia	Core	310.4	325.6	385.3	320.7	330.5	455.6	354.7
	Climate-specific	236.4	142.1	236.7	207.2	216.2	263.1	217.0

*Only submitted in euros – used current €/US\$ exchange rate

**No Biennial Reports 3 and 4 submitted; 2015 and 2016 figures taken from:

<https://unfccc.int/sites/default/files/resource/2018%20BA%20Technical%20Report%20Final%20Feb%202019.pdf>

Border militarisation budget

In general: Sum of budget(s) of main enforcers of border and immigration enforcement agencies. Note that sometimes these agencies have broader mandates (other tasks) and that in many countries there are many other costs across the fields of border security and control, detention, deportations and border externalisation.

United States: Sum of budgets for Customs and Border Protection (CBP) and Immigration and Customs Enforcement (ICE) taken from:

- https://www.americanimmigrationcouncil.org/sites/default/files/research/the_cost_of_immigration_enforcement_and_border_security.pdf

Germany: sum of budget Bundespolizei and estimate of costs for deportations (as calculated by the Migrant Files) taken from:

- https://www.bundespolizei.de/Web/DE/Service/Mediathek/Jahresberichte/jahresbericht_2018_EN_file.pdf?__blob=publicationFile&v=2
- <https://www.bamf.de/SharedDocs/Anlagen/DE/Forschung/Migrationsberichte/MB-2019/migrationsbericht2019-abbildung6-4.html>
- <https://docs.google.com/spreadsheets/d/1rDThuJ1HVTsWWPEvauOIGuY0kd7h8fGkrxebmIMt7h4/edit#gid=2040144651>

Notes:

- Bundespolizei has a broader mandate than simply border security and control
- costs for detention and deportation are born by Bundesländer (states), and in theory have to be repaid by the deportees

Japan: sum of budgets for Immigration Bureau (since 2019 known as Immigration Services Agency) and the Coast Guard taken from:

- <https://www.statista.com/statistics/1116679/japan-immigration-services-administration-budget-by-expense/>
- <http://www.moj.go.jp/content/001276988.pdf>
- <https://amti.csis.org/the-japan-coast-guard-resourcing-and-responsibility/>
- <https://www.theguardian.com/world/2016/dec/22/japan-boosts-coast-guard-fleet-to-defend-disputed-east-china-sea-islands>
- <https://www.kaiho.mlit.go.jp/e/english.pdf>
- <https://asia.nikkei.com/Politics/Japan-readies-biggest-ever-coast-guard-budget>
- http://europe.chinadaily.com.cn/world/2013-08/28/content_16925060.htm
- <https://www.bloomberg.com/news/articles/2013-01-29/japan-s-defense-spending-to-increase-for-first-time-in-11-years>

Notes:

- no 2013 budget could be found for Immigration Bureau
- budgets for Coast Guard 2016 and 2017 are estimates; sometimes extra budget is provided throughout the year, but no final annual accounts were found
- Coast Guard has a broader mandate than simply border security

United Kingdom: sum of budgets for Border Force, Immigration Enforcement and UK Visas and Immigration taken from:

- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/441282/HO-AR15_web.pdf
- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/539638/HO_AR_16_gov.pdf
- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727179/6_4360_HO_Annual_report_WEB.PDF
- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/807126/6.5571_HO_Annual_Report_201920_WEB.PDF

Canada: budget of Canada Border Services Agency taken from:

- <https://www.cbsa-asfc.gc.ca/agency-agence/reports-rapports/menu-eng.html>

France: sum of budgets for two programmes (France national budget is divided by programmes, not by departments/agencies): Programme 'Police nationale' – action 4 'Police des étrangers et sûreté des transports internationaux' and 'Lutte contre l'immigration irrégulière du programme 303' taken from:

- https://www.performance-publique.budget.gouv.fr/sites/performance_publique/files/farandole/ressources/2017/pap/pdf/DPT/DPT2017_immigration.pdf
- https://www.performance-publique.budget.gouv.fr/sites/performance_publique/files/farandole/ressources/2014/pap/html/DBGPGMPRESCREDPGM176.htm
- https://www.budget.gouv.fr/files/uploads/extract/2019/PLR/BG/PGM/176/FR_2019_PLR_BG_PGM_176_CREDITS.html
- https://www.performance-publique.budget.gouv.fr/sites/performance_publique/files/farandole/ressources/2018/pap/html/DBGPGMPRESCREDPGM176.htm
- https://www.performance-publique.budget.gouv.fr/sites/performance_publique/files/farandole/ressources/2018/pap/html/DBGPGMPRESCREDPGM176.htm
- https://www.assemblee-nationale.fr/dyn/15/rapports/cion_fin/l15b2301-tiii-a28_rapport-fond.pdf
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NOTES

- 1 This is based on a list of the top 10 historical emitters of GHGs since 1850 according to Climate Equity Reference Calculator. The comparative figure excludes three of these countries – Brazil, China and Russia – as they are not designated ‘annex one’ countries (the richest countries in UNFCCC negotiations) and thus not legally obligated to contribute to the UNFCCC \$100 billion 2020 goal.
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 - Historical Responsibility: calculated based on emissions cumulative since 1850
 - Capability to Act, calculated in increasingly economically progressive ways: \$7,500 development threshold
 - Relative Weight for Historical Responsibility vs Economic Capability to Act: 50%-50%
 - Year to display: 2030
- Given there are different ways to calculate emissions and countries' responsibility, other research and publications come to different lists of historic emitters. A recent publication by Simon Evans (CarbonBrief) looks at national responsibility for nominal historical CO₂ emissions from 1850–2021, including CO₂ emissions from land use and forestry. The resulting top-10 comprises the US, China, Russia, Brazil, Indonesia, Germany, India, the UK, Japan and Canada; Evans, S. (5 October 2021) 'Analysis: Which countries are historically responsible for climate change', CarbonBrief. <https://www.carbonbrief.org/analysis-which-countries-are-historically-responsible-for-climate-change> (retrieved 6 October 2021).

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The world's biggest emitters are spending at least twice as much on building borders as on climate finance. This "Global Climate Wall" aims to seal off powerful countries from migrants, rather than addressing the causes of displacement.



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