CLIMATE PLUNDER

How a powerful few are locking the world into disaster

Methodology note

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Section 1. Methodology and Statistics

Methodologies

Historical emissions

Oxfam and the Stockholm Environment Institute's (SEI) approach to estimating how global carbon emissions can be attributed to individuals based on their consumption builds on previous work by Oxfam and the SEI.[1] Other researchers, including Lucas Chancel and Thomas Piketty, have made similar findings.[2]

The approach used in this report follows the methodology outlined in the joint report from 2020, The Carbon Inequality Era, with some changes to the data sources.[3] The 2020 report used multiple data sources to fill data gaps in emissions, income distribution and income data. By 2023, the preferred datasets had improved coverage, enabling a streamlined approach and less dependence on multiple sources for most variables.

For the national statistics, national consumption emissions data for 196 countries from 1990 to 2022 from the Global Carbon Atlas,[4] which covers nearly 99% of global emissions, was used. This reflects both the carbon emissions produced in a country and net trade emissions embedded in imported goods and services, while excluding emissions embedded in exports. For the global statistics, the total global emissions for 1990 to 2023 were used.

Emissions measured were for carbon dioxide (CO_2) and excluded non-CO_2 emissions and emissions from land use, land-use change and forestry (LULUCF) due to limited publicly available data.

National consumption emissions were allocated to individuals within each country based on a functional relationship between income and emissions, drawing on the most recent income-distribution data from the World Inequality Database (WID).[5] These estimates of the consumption emissions of individuals in each country were then sorted into a global distribution according to income.

Based on numerous studies at national, regional and global levels, the approach assumed that emissions rise in proportion to income, above a minimum emissions floor and to a maximum emissions ceiling.[6]

The approach also assumed that all humans emit a minimum amount of carbon for their survival (an emissions floor) and applied a country-specific per capita emissions floor below which it is assumed that an individual's emissions will not fall. This floor is the emissions associated with an income equal to 30% of the median income of a country. This

income level is one-half of the level defined for the European Union's risk-of-poverty threshold (60% of the median income).

Given that carbon emissions are finite, it was assumed that a household has a maximum amount of carbon emissions that it produces (an emissions ceiling). The previous analysis assumed a conservative ceiling of 300 tons of carbon dioxide per capita, anchored to estimates of very high-income carbon footprints in the literature at the time. In the 2025 analysis, the maximum emissions ceiling was raised to 3,000 tons per capita to reflect new evidence of the carbon footprint of the richest individuals.[7]

National income data (i.e. gross domestic product (GDP)) was obtained from the World Bank's World Development Indicators (WDI)[8], with any gaps filled with data from Penn World Tables (PWT).[9] The data is expressed in 2021 US-dollars purchasing power parity, which adjusts for differences in purchasing power between different countries and regions. Population numbers for the SEI estimates were also from WDI and PWT, covering up to 2023.

Carbon budgets: how much carbon is left to be burned while staying within the limits of a 1.5°C temperature rise

To have even a 50% chance of limiting global warming to 1.5°C, humanity can only emit another 130Gt CO_2 starting in 2025.[10]

The budget available in 1990 was calculated by adding cumulative emissions from 1990 to 2023 to the 130Gt CO_2 budget, as well as emissions from 2024, which were 37.4Gt CO_2.

According to SEI data (Table 1), the total cumulative emissions between 1990 and 2023 were 981.9Gt CO_2.[11]

Therefore, 130 + 981.9 + 37.4 = 1,149.3Gt CO_2 carbon budget was available in 1990. This allows estimates of what proportion has already been used.

Table 1 outlines the historical emissions analysis by the SEI by income group.

Sustainable level of emissions per capita

According to the United Nations Environment Programme (UNEP) Emissions Gap Report 2024, the median estimate of emissions level in 2030 that is consistent with limiting global heating to around 1.5°C is 24Gt of CO_2e (range: 20–26), which is equivalent to approximately 17.8Gt of CO_2 based on the 2019 share of CO_2 emissions in greenhouse gas emissions (74.1%).[12]

According to the UN, the global population is projected to reach 8.5 billion in 2030.[13]

Dividing the 1.5°C-compatible 2030 emissions level (17.8Gt CO_2) by 8.5 billion gives an estimate of an annual carbon budget of 2.1 tons of CO_2 per person.

Note that this figure divides emissions equally between all individuals, which does not constitute a fair way of sharing emissions. A fair share would integrate considerations on historical emissions and capacity to act.

Section 1 data and statistics

This section first presents the climate inequality data and then describes the methodology behind each statistic, in order of appearance in the report.

Table 1a. CO_2 emissions by income group, 1990 and 2023

	1990			2023		
	Total	**Share**	**Population**	**Total**	**Share**	**Population**
Unit	***Gt CO_2***	***%***	***Number of people***	***Gt CO_2***	***%***	***Number of people***
Poorest 10%	0.12	0.6	520,000,000	0.16	0.4	790,000,000
Poorest 50%	1.9	9	2,600,000,000	3.0	8	3,900,000,000
Middle 40%	8.7	40	2,100,000,000	16	44	3,100,000,000
Richest 10%	11	52	520,000,000	17	48	790,000,000
Richest 1%	3.2	15	52,000,000	6.0	17	79,000,000
Richest 0.1%	1.1	5	5,200,000	2.4	7	7,900,000
Total, world	22		5,200,000,000	36		7,900,000,000

Source: Stockholm Environment Institute / Oxfam (2025).[14]

Table 2b. CO_2 emissions by income group, 1995 and 2015

	1995 – year of COP1			2015 – year of the Paris Agreement		
	Total	**Share**	**Population**	**Total**	**Share**	**Population**
Unit	***Gt CO_2***	***%***	***Number of people***	***Gt CO_2***	***%***	***Number of people***
Poorest 10%	0.13	0.6	570,000,000	0.21	0.6	740,000,000
Poorest 50%	1.8	8	2,800,000,000	2.7	8	3,700,000,000
Middle 40%	8.8	39	2,100,000,000	14	43	3,000,000,000
Richest 10%	12	53	570,000,000	17	50	740,000,000
Richest 1%	3.6	16	57,000,000	5.7	17	74,000,000
Richest 0.1%	1.1	5	5,700,000	2.1	6	7,400,000
Total, world	23		5,700,000,000	34		7,400,000,000

Source: Stockholm Environment Institute / Oxfam (2025).

Table 3. Cumulative CO_2 emissions, 1990 to 2023

	Cumulative, total	**Cumulative, share**	**Cumulative, share of the carbon budget**
Unit	***Gt CO_2***	***%***	***%***

	Cumulative, total	Cumulative, share	Cumulative, share of the carbon budget
Poorest 10%	5.5	0.6	0.5
Poorest 50%	76	8	7
Middle 40%	400	41	35
Richest 10%	506	52	44
Richest 1%	167	17	15
Richest 0.1%	59	6	5
Total, world	982		

Source: Stockholm Environment Institute / Oxfam (2025).

Table 3. Average CO_2 emissions per person per year

	1990	2023	1990 to 2023 (average)	Relative change needed by 2030 to stay within 1.5°C (i.e. reach 2.1 tons per person per year)
Unit	***ton CO_2 per capita***			**%**
Poorest 10%	0.2	0.2	0.2	91% increase
Poorest 50%	0.7	0.8	0.7	63% increase
Middle 40%	4.2	5.1	4.4	56% decrease
Richest 10%	22	22	22	90% decrease
Richest 1%	62	75	73	97% decrease
Richest 0.1%	206	298	256	99% decrease
Average, world	4.2	4.6	4.3	54% decrease

Source: Stockholm Environment Institute / Oxfam (2025).

Table 4. Relative change in CO_2 emissions share, per income group

	Since 1990	***Since COP1***	***Over the last 10 years***	***Since the Paris Agreement***
	1990–2023	***1995–2023***	***2013–2023***	***2015–2023***
Poorest 10%	23% decrease	24% decrease	27% decrease	29% decrease
Poorest 50%	3% decrease	4% increase	10% decrease	7% increase
Middle 40%	11% increase	13% increase	3% increase	3% increase
Richest 10%	8% decrease	10% decrease	5% decrease	4% decrease
Richest 1%	13% increase	4% increase	2% decrease	2% decrease
Richest 0.1%	32% increase	31% increase	5% increase	4% increase

Source: Stockholm Environment Institute / Oxfam (2025).

Table 5. Relative change in total CO_2 emissions, per income group

	Since 1990	*Since COP1*	*Over the last 10 years*	*Since the Paris Agreement*
	1990–2023	***1995–2023***	***2013–2023***	***2015–2023***
Poorest 10%	27% increase	21% increase	22% decrease	25% decrease
Poorest 50%	60% increase	66% increase	18% increase	14% increase
Middle 40%	83% increase	81% increase	2% increase	10% increase
Richest 10%	51% increase	43% increase	5% increase	2% increase
Richest 1%	86% increase	65% increase	4% increase	5% increase
Richest 0.1%	117% increase	109% increase	13% increase	11% increase

Source: Stockholm Environment Institute / Oxfam (2025).

Table 6. Breakdown of change in emissions of seven of the world's wealthiest countries between 1990 and 2023

	France	**Italy**	**Germany**	**UK**	**USA**	**Canada**	**Japan**
Bottom 50%	-10%	-24%	-32%	-19%	10%	3%	-5%
Middle 40%	-17%	-27%	-33%	-33%	9%	2%	-16%
Richest 10%	-25%	-11%	-23%	-25%	17%	9%	-3%
Richest 1%	-19%	22%	-21%	4%	23%	14%	-18%
Richest 0.1%	-15%	115%	-26%	53%	30%	44%	-51%

Source: Stockholm Environment Institute / Oxfam (2025).

Table 7. Global incomes by percentile, 2023, USD, Market exchange rate

Income group	**Threshold**	**Average**
Poorest 50%	$3,784 (and below)	$764
Richest 10%	$37,249	$103,605
Richest 1%	$153,595	$403,526
Richest 0.1%	$528,125	$1,685,606

Source: World Inequality Database.

Stat 1.1: Someone in the richest 1% has used up over 100 times more of the carbon budget since 1990 than someone in the poorest 50%, and 300 times more than someone in the poorest 10%.

Average per capita emissions of someone from the richest 1% in the world over the period 1990 to 2023 = 73 tons of CO_2 per person per year.

Average per capita emissions of someone from the poorest 50% in the world over the period 1990 to 2023 = 0.7 tons of CO_2 per person per year.

73/0.7 = 108

Average per capita emissions of someone from the poorest 10% in the world over the period 1990 to 2023 = 0.25 tons of CO_2 per person per year.

73/0.25 = 297

Stat 1.2: Eighty-six percent of the richest 0.1% live in the Global North, producing 6% of all global emissions.

The population of adults who own over US$4,744,775, which is the global threshold to be in the richest 0.1%, was calculated for each country using the WID. Countries were then categorized as either Global North or Global South based on the list from the Financial Centre for South–South Cooperation.[15] Any country not on this list was assumed to be part of the Global North.

Location	Population, adult	%
Global North	4,572,004	86%
Global South	726,075	14%

Emissions share: see Table 1.

Stat 1.3: Someone in the richest 0.1% in Nepal, a country with a very low share of historic emissions, emits eight times more than someone in the poorest 50% in the UK.

Average per capita emissions, richest 0.1% in Nepal (2022): 38.8 tons of CO_2 per person per year**.**
Average per capita emission, poorest 50% in the UK (2022): 4.7 tons of CO_2 per person per year.

38.8/4.7 = 8.15

Stat 1.4: In 1990 there was 1,149Gt of CO_2 that could be safely emitted and give a 50% chance of keeping the world below the 1.5°C threshold. In the last 24 years, 89% of this remaining carbon budget has been used up.

As described in the carbon budget section above:

Remaining carbon budget at the start of 2025: 130Gt of CO_2.

Total emissions emitted between 1990 to 2024: 1019.3Gt of CO_2.

Carbon budget available in 1990 = 1149.3Gt of CO_2.

1019.3/1149.3 = 89% of the carbon budget has already been used.

Stat 1.5: The per capita emissions of the richest 0.1% have increased by 92 tonnes between 1990 and 2023, compared to just a 0.1 tonne increase for the poorest half of humanity.

Average per capita emissions, richest 0.1% (Table 3):

- 2023: 298 tons of CO_2 per person per year.
- 1990: 206 tons of CO_2 per person per year.

298-206 = 92

Average per capita emissions, poorest 50% (Table 3):

- 2023: 0.8 tons of CO_2 per person per year.
- 1990: 0.7 tons of CO_2 per person per year.

0.8-0.7 = 0.1

Stat 1.6: The annual per capita emissions of the richest 0.1% have increased by 3 tonnes per person per year while the emissions of the poorest 50% have increased by just 3kg per person per year.

Per capita emissions of the richest 0.1% (Table 3):

- 1990: 206 tons ofCO_2 per person per year.
- 2023: 298 tons of CO_2 per person per year.

Difference = 92 tons ofCO_2 between 1990 and 2023.
92/33 = 2.8 tons ofCO_2 per person per year.

Per capita emissions of the poorest 50% (Table 3):

- 1990: 0.7 tons of CO_2 per person per year.
- 2023: 0.8 tons of CO_2 per person per year.

Difference = 0.1 tons of CO_2 per person per year.

0.1/33 = 0.003 tons of CO_2 per person per year = 3kg of CO_2 per person per year.

Stat 1.7: A person from the richest 0.1% in the world emits over 800kg of CO_2 every day. Even the strongest person on earth could not lift this much. In contrast, someone from the poorest 50% of the world emits on average 2kg of CO_2 per day, which even a child could lift.

Yearly per capita emission of the richest 0.1% in 2023: 298 tons of CO_2 per person per year (Table 3).

298/365 = 817kg of CO_2 per day.

Yearly per capita emission of the poorest 50% in 2023: 0.8 tons of CO_2 per person per year (Table 3).

0.8/365 = 2kg of CO_2 per day.

Stat 1.8: If everyone emitted like someone from the richest 1% (at their current emission rate) the carbon budget would be used up in fewer than three months. For the 0.1% it would be used up in less than 3 weeks.

Average emissions per person of the richest 1% in 2023: 75 tons of CO_2 per person per year (Table 3).

Average emissions per person of the richest 0.1% in 2023: 298 tons of CO_2 per person per year (Table 3).

Total global population in 2023: 7,874,803,317.

1%:75 x 7874803317 = 591Gt of CO_2 per year.
0.1%: 298 x 7874803317 = 2,347 Gt of CO_2 per year.

Remaining carbon budget: 130Gt of CO_2.

1%: 130/591 = 0.2 years = 2.6 months.

0.1%: 130/2,347 = 0.06 years = 2.9 weeks

Stat 1.9: If everyone emitted like someone from the richest 10% (at their current emission rate), the carbon budget would be used up in nine months.

Average emissions per person of the richest 10% in 2023: 22 tons of CO_2 per person per year (Table 3).

Total global population in 2023: 7,874,803,317.

22 x 7874803317 = 173Gt of CO_2 per year.

Remaining carbon budget: 130Gt of CO_2.

130/173 = 0.8 years = 9 months.

Stat 1.10: To stay within the 1.5°C maximum warming threshold, Oxfam projects that the richest 1% and 0.1% would need to cut their per capita emissions by 97% and 99%, respectively, by 2030.

See the 'sustainable level of emissions per capita' section above, and Table 3.

Stat 1.11: A person in the top 0.1% emits more in a day than a person in the poorest 50% emits all year.

As per table 3, the average annual emissions of someone in the richest 0.1% in 2023 were 298 tonnes CO2, divided by 365 gives 0.816 tonnes CO2 per day. The average annual emissions of someone in the poorest 50% in 2023 were 0.8 tonnes.

Section 2. Methodology and Statistics

Stat 2.1: Analysis by Oxfam of almost 18,000 corporations worldwide which report their Scope 1 and 2 emissions finds that just six companies are responsible for 10% of these emissions, while 100 companies are responsible for half.

Using the S&P Capital IQ database, a screen was created for all companies that reported Scope 1 and 2 (location or market based) emissions in 2023 through the Sustainable Finance Disclosure Regulation and which were currently operating and a parent company. This produced a sample of 17,718 companies.

Total reported emissions were 16,502,427,037 tonnes of CO_2e. The six highest emitters combined produced 1,707,722,975 tonnes of CO_2e (10.3% of all emissions). The top 100 produced 8,213,211,572 tonnes of CO_2e (49.8% of all emissions).

Stat 2.2: The investment emissions of billionaires.

Using a combination of the Bloomberg Billionaires Index, S&P Capital IQ database, the Forbes World's Billionaires List and company accounts, Oxfam developed a database of corporate ownership based on the list of the world's 500 richest people according to the Bloomberg Billionaires Index.

From the initial sample of 500 individuals, Oxfam identified the investments of 975 companies owned by 481 billionaires. Filtering out companies with less than 10% billionaire ownership resulted in a sample of 410 billionaires who had 10% or higher ownership in 775 companies.

These company names were then cross-referenced with the S&P Capital IQ database, leading to the identification of 470 of these companies, owned by 308 billionaires, that report their Scope 1 and 2 emissions.

Stat 2.2.1: In 2024, the total investment emissions of the 308 billionaires were 586 million tonnes of CO_2e per year. If they were a country then they would be ranked as the 15th-most polluting country in the world, ahead of South Africa, and be responsible for more than the combined emissions of 118 countries.

Billionaires' investment emissions were calculated by summing Scope 1 and 2 emissions and multiplying these by the equity percentage owned by the billionaire.

The sum of these investment emissions for the 308 billionaires owning 470 companies was 585,746,901 tonnes of CO_2e.

Country emissions were sourced from the Emission Database for Global Atmospheric Research (EDGAR)[16] and converted from CO_2 to CO_2e by

multiplying by the 1.375 conversion coefficient. The 15th-highest emitter, South Africa, emitted 556,839,951 tonnes of CO_2e in 2022.

Countries were ordered from lowest to highest emitters: the sum of the bottom 118 countries (more than half the countries) was 576,836,854 tonnes of CO_2e.

Stat 2.2.2: On average, the annual billionaire's per capita investment emissions are 1.9 million tonnes of CO_2e, which is 346,000 times more than the average person. These billionaires would have to circumnavigate the world almost 10,000 times in their private jets to emit this much.

To calculate the average per capita investment emissions the sum of the total investment emissions for each billionaire was divided by the number of billionaires (308), which gives 1,901,775.65 tonnes of CO_2e.

The emissions of a private jet circumnavigating the earth (40,075km[17]) were calculated using a Cessna Citation XLS – a popular private jet – which burns 857 litres of aviation fuel per hour on average.[18] Aviation fuel emits 2.52kg of CO_2 per litre; with a multiplier of 1.9 to reflect the effect on non-CO_2 emissions,[19] this means that the Cessna Citation XLS emits 4.1 tonnes of CO_2 per hour. The airplane has a maximum speed of 816kph and so would take 49 hours to circumnavigate the world (not accounting for fuel stops and assuming that the aircraft maintains maximum speed). The aircraft would therefore emit 202 tonnes of CO_2e for every circumnavigation.

1,901,775.65/202 = 9,415.

Stat 2.2.3: Twenty percent of the companies have increased their emissions intensity since 2020, and an independent assessment of their decarbonization plans finds that two-thirds are not aligned to the 1.5°C Paris target and one-third of the companies would push the world above 4°C of warming.

Both 2024 and 2020 emissions intensity data (emissions as a share of revenue) was available for 363 companies: 292 of the companies had decreased their Scope 1 and 2 emissions intensity while 71 (19.6%) had increased their intensity.

The emissions pathways of 360 companies were identified by using the Trucost Paris Alignment dataset on S&P Capital IQ,[20] with just one-third of them aligned to the 1.5°C Paris target and one-third aligned to above 4°C.

Paris alignment	Number of companies	Share of total companies (%)
<1.5°C	117	33
>2.7°C	6	2
1.5–2°C	27	8
2–2.7°C	7	2
2–3°C	66	18
3–4°C	22	6
>4°C	115	32

Stat 2.2.4: The research was also able to identify the Scope 3 investment emissions of 222 individuals. Their combined Scope 1, 2 and 3 emissions were 1.85 billion tonnes of CO_2e, which is 3.6% of global emissions and would rank as the fifth-most polluting country in the world. Their average was 8.3 million tonnes of CO_2e, meaning a single billionaire emits as much as the entire population of many countries, such as Jamacia, Burkina Faso or Nicaragua.

Using S&P Capital IQ, the Scope 3 investment emissions were added to the data for Scope 1 and 2 emissions where available: which was available for 222 billionaires invested in 298 companies. The total emissions were 1,849,949,808 tonnes of CO_2e (divided by 1.375 to give 1,345,418,042 tonnes of CO_2). Global emissions for 2024 are estimated at 37.8Gt of CO_2,[21] which is 3.6% of the billionaires' emissions. The current fifth-most polluting country is Japan with 1,082,645,430 tonnes of CO_2.

The average was calculated by taking the total investment emissions and dividing by 222, which gives 8,333,107 tonnes of CO_2e (6,060,442 tonnes of CO_2).

Jamaica's emissions were 6,083,040 tonnes of CO_2, Burkina Faso's were 5,820,480 tonnes of CO_2, while Nicaragua's were 5,734,390 tonnes of CO_2.[22]

Stat 2.2.5: Using the S&P 1,200 Global Index – an investment index which covers 31 countries and approximately 70% of the global stock market – as an average comparator, Oxfam found that the world's richest people tend to invest in much more polluting companies than average. For every US$1m invested, billionaire investments produce over two and a half times more emissions than the S&P 1,200. Almost 60% of the billionaire investments are classified as being in high climate-impact sectors, versus 49% for the S&P 1,200, while 14% of their wealth is from companies with fossil-fuel revenue, versus 9% for the S&P 1,200.

To calculate the emissions per million dollars invested, the Scope 1 and 2 investment emissions were divided by the value of the investments then multiplied by 1,000,000.

Total investment emissions were 585,746,901 tonnes of CO_2, total value of investments were US$4,257,693,508,148, which gives 137.6 tonnes of CO_2 per US$1m invested.

For the S&P 1,200, for each company the emissions were divided by the market capitalization for that day and then multiplied by 1,000,000.

Total Scope 1 and 2 emissions were available through S&P Capital IQ for 1,128 of the 1,200 companies. The total market capitalization was US$76,644,929,263,423 and total emissions were 4,197,775,424.20 tonnes of CO_2e, which gives 54.8 tonnes of CO_2e per US$1m invested: 137.6 divided by 54.8 equals 2.5 (times more emissions).

The classification of high climate-impact sectors was based on the S&P Capital IQ Truecost methodology,[23] and fossil-fuel revenue was based on Sustainable Finance Disclosure Regulation access via S&P Capital IQ.[24]

Stat 2.2.6: Billionaires could direct their investments towards less climate-damaging companies. If instead they chose to invest specifically in investment funds which prioritize good environmental, social and governance (ESG) performance then they would cut their emissions by 23 times.

Using Stewart Investors as a benchmark for an example ESG fund, they report that an investor who focuses on long-term investment in companies with strong environmental and social performance produces six tonnes of CO_2e per US$1m invested:[25] 137.6 divided by 6 equals 22.93.

Stat 2.3: Oxfam also analysed the ownership of the Carbon Majors, the world's 180 largest oil, gas, coal and cement producers. Of the 99 publicly owned companies (i.e. not state owned), five asset managers – Vanguard Group, BlackRock, State Street Global Advisors, Capital Research and Management, and FMR – jointly own one-fifth of these companies, with over half a trillion dollars invested. One hundred and twenty investors collectively own half of these polluting companies. These 99 companies together emitted over 10 billion tonnes of CO_2e in 2023, almost one-fifth of all global emissions that year.

Carbon Majors is a database of historical production data from 180 of the world's largest oil, gas, coal and cement producers.[26] The investors of the 99 publicly listed companies in the database were identified using Capital IQ Investor screening. The percentage of the total market capitalization owned by five investors totalled 20.82%; 120 investors together owned 50.6%.

Investor	Market value (US$m)	No. of constituents held	% of total market capitalization
Vanguard Group Inc.	180,769.2	61	7.15
BlackRock Inc.	163,114.1	61	6.46
State Street Global Advisors Inc.	91,917.5	59	3.64
Capital Research and Management Co.	54,256.6	26	2.15
FMR LLC	36,103.7	50	1.43

According to the Carbon Majors database,[27] the 2023 Scope 1, 2 and 3 emissions of the investor-owned companies totalled 10,225,669,826

tonnes of CO_2e (7,436,850,783 tonnes of CO_2). Global CO_2 levels were 37,800,000,000 tonnes of CO_2 (see Stat 2.2.4), meaning that these companies produce 19.7% of global emissions.

Stat 2.4: Oxfam's analysis of the COP29 attendee list found that just 35% of those with party tickets, and thus having access to negotiations, were women. Overall, 60% of COP29 attendees were men.

The names on the COP29 attendee list were analysed by gender. First, where the prefix identified the person (e.g. Mr or Ms), this was used. The prefix was used to identify 94% of attendees. Where no prefix was given, natural language processing, using the OpenAI API, was used to identify gender from the names – with a certainty level of above 85% used. In total, 99.5% of attendees were categorized.

Parties

Gender	Number of attendees	Percentage
Female	6,107	35
Male	11,458	65

All

Gender	Number of attendees	Percentage
Female	20,665	40
Male	31,342	60

Notes

[1] T. Gore. (2015). *Extreme Carbon Inequality: Why the Paris Climate Deal Must Put the Poorest, Lowest Emitting and Most Vulnerable People First*. Oxfam. Accessed 8 September 2025. https://www.oxfam.org/en/research/extreme-carbon-inequality; S. Kartha, E. Kempt-Benedict, E. Ghosh, A. Nazareth and T. Gore. (2020). *The Carbon Inequality Era: An Assessment of the Global Distribution of Consumption Emissions Among Individuals from 1990 to 2015 and Beyond*. Stockholm Environment Institute and Oxfam. Accessed 8 September 2025. https://www.sei.org/publications/the-carbon-inequality-era; E. Ghosh, S. Kartha and A. Nazareth. (2022). *The Inequality–Emissions Link and What It Means for the 1.5°C Goal*. Stockholm Environment Institute. Accessed 8 September 2025. https://www.sei.org/wp-content/uploads/2022/01/220109a-burton-ghosh-inequality-report-2111a.pdf

[2] L. Chancel and T. Piketty. (2015). *Carbon and Inequality: From Kyoto to Paris*. Accessed 8 September 2025. http://rgdoi.net/10.13140/RG.2.1.3536.0082; L. Chancel (2022). 'Global Carbon Inequality over 1990–2019'. *Nature Sustainability*, 5(11), 931–8.

[3] S. Kartha et al. (2020). *The Carbon Inequality Era*, op. cit.

[4] Global Carbon Atlas. https://globalcarbonatlas.org. Accessed 8 September 2025.

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For further information on the issues raised in this paper please email advocacy@oxfaminternational.org

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