

# A fair share of climate finance?

An initial effort to apportion responsibility for the \$100 billion climate finance goal

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## Key messages

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In Copenhagen in 2009, developed countries committed to jointly mobilise USD 100 billion dollars a year by 2020 to address the needs of developing countries. However, the climate accords rely on pledging and do not include any formulae for determining how responsibility for this target should be apportioned among developed countries.

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This paper suggests three metrics to assess each developed country's fair share of the climate finance goal: gross national income, cumulative carbon dioxide emissions and population. While imperfect, these metrics offer an indicative range to begin holding individual national governments to account.

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With more generous interpretations of their contributions and favourable ways of apportioning responsibility, France and Germany are paying their fair share of climate finance. By comparison, the USA contributed just 7% of its fair share in 2017-2018.

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If assessed against a more stringent definition of climate finance and using less favourable ways of apportioning responsibility, all the large developed countries need to increase their commitments. Under these conditions, Germany, Japan and the UK are paying 40-45% of their fair share. By comparison, Australia, Canada and the USA contributed less than 5% of their fair share in 2017-2018.

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## About this paper

This paper was rapidly produced in advance of the 2021 G7 Summit to inform debate around progress towards the climate finance goal. It is intended to provide early ideas and evidence to catalyse debate about apportioning responsibility for the \$100 billion target among developed countries. It has been cross-read and edited but the usual rigorous processes have not necessarily been applied.

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# 1 Introduction

At the 15<sup>th</sup> Conference of Parties (COP15) held in Copenhagen in 2009, developed countries committed to:

*“mobilizing jointly USD 100 billion dollars a year by 2020 to address the needs of developing countries. This funding will come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance.” (United Nations Framework Convention on Climate Change (UNFCCC), 2009: p3)*

According to decision 1/CP.21 in Paris and reiterated in decision 14/CMA.1 at Katowice, the \$100 billion target also serves as the annual floor for international climate finance to 2025, when the new goal will be adopted. Formal deliberations will begin on the new climate finance goal at COP26 in Glasgow in 2021.

There are many elements of the \$100 billion a year target set in Copenhagen that are ill-defined: the definition of developed countries that form the contributor base, the split between private and public finance, what might be considered ‘alternative sources of finance’ and the acceptability of different financial instruments. Article 9 of the Paris Agreement reiterates the need for financial resources to be provided by developed country Parties, but does not provide further clarity on any of the thorny issues raised above and introduces new debates, such as the appropriate balance between mitigation and adaptation finance (UNFCCC, 2015).

While the wording of the \$100 billion a year target was considered a necessary political compromise, divergent perspectives on what counts towards the goal have subsequently fuelled disagreement (Pickering et al., 2015; Weikmans et al., 2020). Most analyses of climate finance flows are based on the datasets from Biennial Reporting to the UNFCCC, the OECD Development Assistance Commitment Creditor Reporting System and Multilateral Development Banks’ (MDBs) joint reporting. However, individuals, organisations and countries give different weight to the motivation, level of concessionality, causality, geographic origin and recipient of climate finance (Bodnar et al., 2015; Bhattacharya et al., 2020). Consequently, there are many different estimates of progress towards the \$100 billion target, as outlined below.

Developed countries will need to meet and exceed the climate finance goal to maintain trust in UNFCCC processes and stimulate the more ambitious near-term pledges and measures needed to hold global warming to 1.5°C. Signatories to the Paris Agreement are expected to submit more ambitious Nationally Determined Contributions (NDCs) in advance of COP26, but many first expect developed countries to outline a credible path to achieving the \$100 billion a year target.

Citizens concerned about the climate emergency are looking to ensure that developed countries fulfil their commitments. However, it is difficult to collectively hold the 24 countries identified in the Kyoto Protocol accountable, and the climate accords do not include a 'fair share' formula for determining how responsibility should be attributed among them. Individual governments have not publicly indicated what they consider to be their fair share of the annual \$100 billion (Hattle and Nordbo, 2019), nor is there extensive analysis of how much each developed country should contribute towards the goal.<sup>1</sup>

Definitions and norms reflect power relations at a given time, and the climate diplomacy space is no exception. Determining the fair share of each developed country will be a fiercely contested process, although not one that has yet been made explicit. This paper seeks to catalyse a conversation about apportioning responsibility for the \$100 billion a year target among developed countries, and offers pointers as to what might underpin such a calculation. However, it also recognises that there will be different understandings of what a fair share constitutes and, furthermore, that a country's fair share may change as its capabilities and climate policies evolve.

This paper focuses particularly on the Annex II countries attending the G7 Summit in 2021. The G7 Summit is an important milestone on the road to COP26, with both events hosted by the UK. The G7 Climate and Environment Ministers have already met, reaffirming their commitment to jointly mobilising \$100 billion. In advance of the Leaders' Summit from 11-13 June, this analysis provides indicative estimates of each country's fair share of that climate finance goal.

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<sup>1</sup> There is recent analysis examining individual countries and regions, notably the recent analysis commissioned by ACT Alliance EU to assess the climate finance offered by the member states of the European Union and European Free Trade Association (Hattle et al., 2021a).

## 2 Methods

### 2.1 Defining the contributor base

This analysis assumes that only Annex II Parties will be held responsible for meeting the climate finance goal.<sup>2</sup> The UNFCCC divides countries into three main groups according to their different commitments. Annex II Parties are industrialised countries that were members of the Organisation for Economic Co-operation and Development (OECD) in 1992. These are the countries that are required to provide financial resources to enable developing countries to undertake emissions reduction activities under the Convention and to help them adapt to adverse effects of climate change.

Many countries have achieved significant increases in per capita incomes since the Convention came into force. Some have joined the OECD;<sup>3</sup> others have not, but have become significant international financiers including Brazil, China and Saudi Arabia. Some of these nations are submitting biennial communications on climate finance to the UNFCCC. However, for the sake of simplicity and transparency, this analysis uses the original country classification of the Convention. An important question for future analysis and negotiations is whether any non-Annex II countries should have responsibility for meeting the new climate finance goal and if so, which ones.

### 2.2 Selecting indicators for responsibility attribution

This analysis selects three metrics to calculate a country's fair share of the new climate finance goal: gross national income (GNI) in 2019, population in 2019 and cumulative carbon dioxide (CO<sub>2</sub>) emissions between 1990 and 2018. Each of these metrics speaks to different ways of understanding a fair share. Unlike development or humanitarian finance, climate finance is based on an explicit historic responsibility for global warming in addition to a moral imperative. Using cumulative emissions thus captures the 'polluter pays' principle. The principle of 'common but differentiated responsibility and respective capabilities' has long been at the heart of the Convention (UNFCCC, 1992). Using current population and economic size serves as a crude proxy for human and financial capital, and therefore capabilities to pay.

A range of alternative indicators could have been used. For example, the authors have chosen to use cumulative emissions from 1990 to 2018 because the first report of the Intergovernmental Panel on Climate Change (IPCC) was published in 1990. Using cumulative emissions from this date captures a country's climate policy choices once there was a clear scientific consensus that justified action. However, greenhouse

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<sup>2</sup> Australia, Austria, Belgium, Canada, Denmark, the European Economic Community, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom and the United States.

<sup>3</sup> Chile, Colombia, Czech Republic, Estonia, Israel, Korea, Latvia, Lithuania, Mexico, Poland, Slovak Republic and Slovenia.

gases emitted before 1990 are also contributing to global warming and other authors may have chosen to use cumulative emissions since the industrial era began. Similarly, the authors have chosen to use 2019 data for income and population because the aim of this paper is to stimulate new climate finance commitments, so the recommendations should reflect current financial and human capabilities. Other authors may have chosen to use income or population data from 1990, the point of scientific consensus, or 2009, when the \$100 billion target was agreed. The indicators are technical choices, but should also be the subject of public debate around responsibilities and capabilities, which these initial figures are trying to inform and provoke.

Data for the three indicators were collated for Annex II countries from global datasets (Friedlingsten et al., 2020; World Bank 2021a; World Bank 2021b). The most recently available data were used. The proportion of each country's economy, emissions and population was calculated out of the Annex II countries' total and these percentages were used to indicate their fair share of the \$100 billion a year target.

Considering all three metrics together provides a starting point for apportioning climate finance responsibility among Annex II countries. Comparing the findings for population and GNI illuminates inequalities of income, while comparing the findings for GNI and cumulative emissions highlights how the carbon intensity of economic activity varies across countries. The composite indicator is an average of each country's share of Annex II GNI, cumulative emissions and population, i.e. each of the three metrics is given equal weight in the composite indicator.

## **2.3 Measuring climate finance contributions**

As indicated above, there is considerable debate about what constitutes climate finance and, consequently, progress towards the \$100 billion a year goal. This analysis presents data from two sources: the OECD's Development Assistance Committee (DAC) and Oxfam. Both estimates are grounded in the OECD DAC Creditor Reporting System and accordingly structure their climate finance records in a similar way. For each country, bilateral development assistance is screened and marked according to whether it is significantly intended to target climate change (Rio Marker 1); principally intended to target climate change (Rio Marker 2); or does not target climate change at all (OECD, n.d.). Additionally, each country's contribution to multilateral organisations is noted, though these organisations then self-report on their own share of climate finance.

Although Oxfam's biennial *Climate Finance Shadow Report* is based on the OECD DAC Creditor Reporting System, there are two methodological differences. First, Oxfam calculate the grant equivalent of loans, guarantees and other non-grant instruments while OECD DAC takes them at face value. Second, Oxfam measures the climate relevance of Rio Marker 1 projects more stringently than most donors. Most Annex II countries adopt a blanket approach to Rio Marker 1 projects, automatically ascribing a share of the finance to climate purposes. Most countries apply a percentage of 40-50%; Japan is an outlier at 100%. Oxfam offers a range of 30-50% to reduce the risk of overcounting.

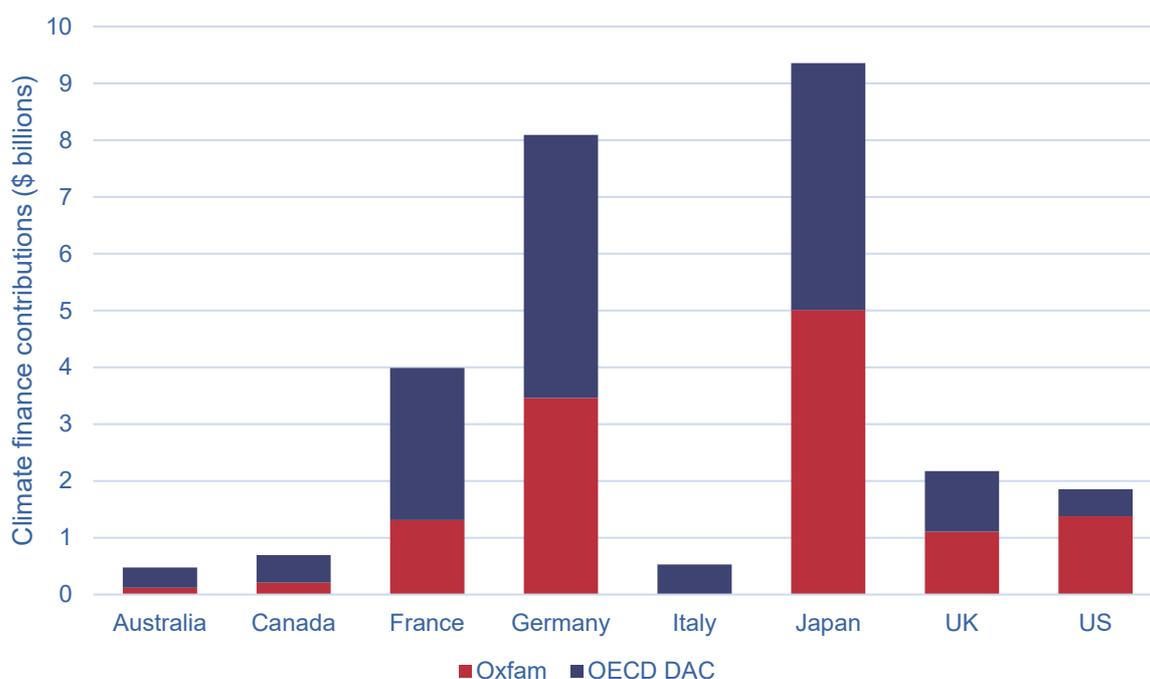
The OECD (2021) found that the Annex II countries attending the 2021 G7 Summit collectively contributed an average of \$27.2 billion in public climate finance in 2017 and 2018, excluding export credits. Over the same years, Oxfam (2020) estimated that these countries had averaged just \$12.6 billion (Figure 1). Contrary to the OECD numbers, the Oxfam estimates do not include multilateral organisations' contributions, but are adjusted for grant equivalence.

There are other estimates of climate finance flows available. The OECD, for instance, publishes a separate annual report tracking climate finance using data submitted to the UNFCCC in countries' biennial reports (rather than via the Creditor Reporting System). The most recent version found that total climate finance provided and mobilised by developing countries reached \$78.9 billion in 2019, of which 81% was public finance (including export credits) and 19% was private finance (OECD, 2020). These much higher estimates are based on data submitted to the UNFCCC in biennial communications, rather than to the OECD DAC creditor reporting system.

Finally, it is important to note that the Copenhagen Accord recognises that funding can come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance. This paper focuses only on public climate finance, excluding export credits. This is a conscious decision by the authors given ongoing debates about whether private finance should be counted towards the goal and, if so, appropriate methodologies for measuring private finance mobilisation.

This report presents countries' progress towards their fair share of the climate finance goal using both the OECD DAC and Oxfam estimates of their contributions.

Figure 1. Average, annual climate finance flows from the Annex II countries attending the 2021 G7 Summit, 2017-2018. The red represents Oxfam's estimates of grant-equivalent financing, which do not include multilaterals' contributions, and the blue represents the additional public climate finance reported to the OECD DAC, which includes multilaterals' contributions but is not calculated on a grant-equivalent basis.

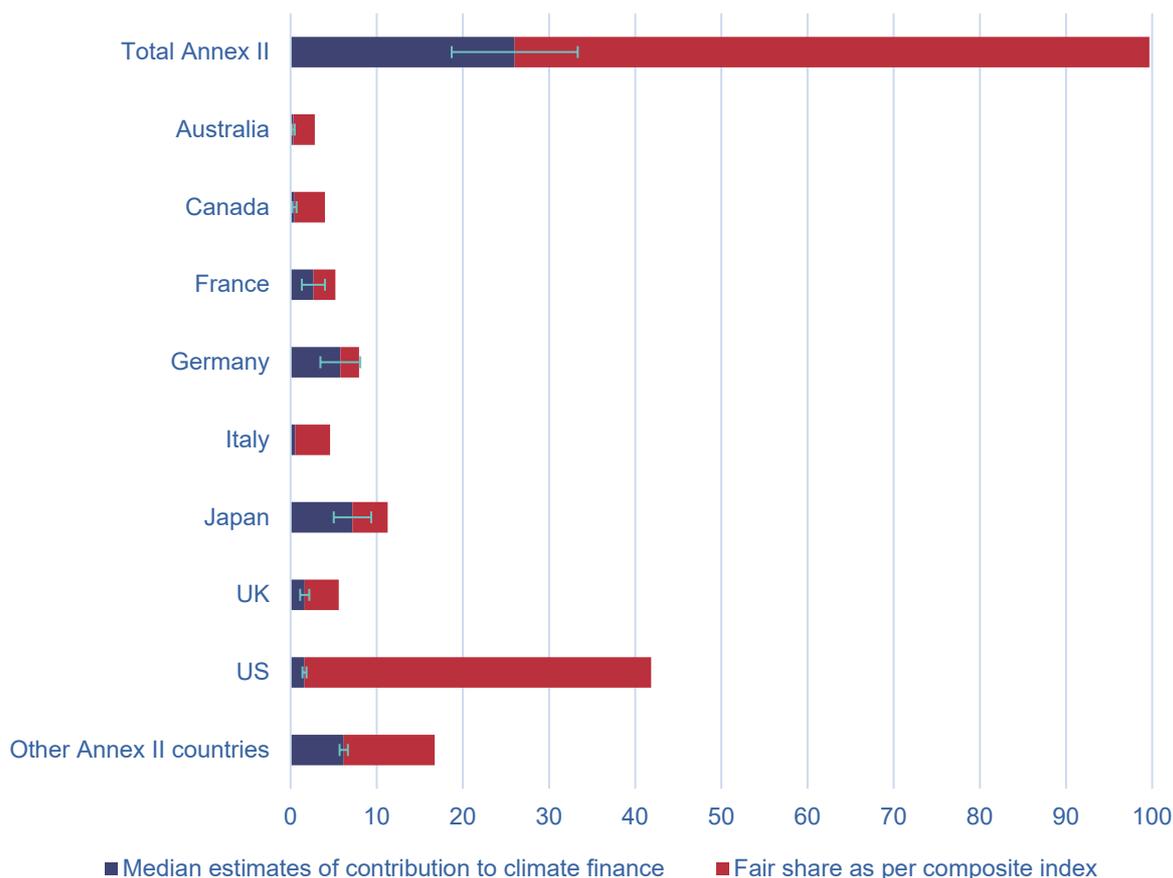


Sources: OECD (2021); Oxfam (2020).

### 3 Indicative assessment of country performance

Depending on which indicator is used to apportion responsibility for the climate finance goal, the Annex II countries attending the G7 Summit in 2021 should be providing 77-88% of the \$100 billion target each year. Using the more generous interpretation of their climate finance contribution based on OECD (2021) rather than Oxfam (2020), they have collectively provided \$26.3 billion of public climate finance through bilateral and multilateral channels.

Figure 2. Contributions to international climate finance relative to countries' fair share (USD billions).



Note: The composite index is based on Annex II countries' GNI (2019), population (2019) and cumulative emissions (1990-2018). Each country's contribution to climate finance is the median value between estimates from the revised Oxfam data and the OECD DAC data (see Table 1), while the error bars correspond to these data.

Most individual countries in the G7 fell far short of their fair share of climate finance (Table 1). France and Germany are the notable exceptions, if one chooses to apportion responsibility by cumulative emissions. The most striking shortfall in both absolute and relative terms is the US, which – if one attributes fair share according to population, which is the most favourable indicator for the US – contributed only 7% of its fair share in 2017-2018.

All these countries must increase their commitments if measured against Oxfam's more stringent definition of climate finance and using less favourable ways of apportioning responsibility. The best performers under these conditions are Germany, Japan and the UK, which are then paying an estimated 40-45% of their fair share. By comparison, Australia, Canada and the USA all contributed less than 5% of their fair share.

Table 1. Contributions and responsibilities for international climate finance using different measures and indicators (USD billions).

	Contributions to international climate finance (2017-2018)		Responsibilities for international climate finance			
	Oxfam	OECD DAC	Gross National Income (2019)	Cumulative CO <sub>2</sub> emissions (1990-2019)	Population (2019)	Composite index
Australia	0.12	0.48	2.76	3.20	2.45	2.80
Canada	0.21	0.69	3.51	4.81	3.65	3.99
France	1.31	3.99	5.66	3.43	6.51	5.20
Germany	3.46	8.09	8.10	7.69	8.06	7.95
Italy	-	0.53	4.13	3.79	5.85	4.59
Japan	5.01	9.36	10.76	10.82	12.25	11.28
UK	1.11	2.17	5.67	4.61	6.49	5.59
US	1.38	1.85	44.32	49.35	31.85	41.84
Other Annex II countries	5.69	6.65	15.00	12.31	22.88	16.73
<b>Total Annex II countries</b>	<b>18.29</b>	<b>33.81</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Sources: Friedlingstein et al. (2020); Oxfam (2020); OECD (2021); World Bank (2021a); World Bank (2021b).

Note: Countries in red pay less than 50% of their fair share using with the most favourable interpretation of both their contributions and responsibilities. Countries in amber pay 50-100% of their fair share and countries in green pay over 100% of their fair share.

The text below outlines how far individual countries have progressed towards their fair share of the climate finance goal. Each country is benchmarked using the most favourable interpretation of its contribution to public climate finance (i.e. the OECD DAC data rather than the Oxfam data) against whichever indicator of 'fair share' is

most advantageous to that country, whether GNI, cumulative emissions or population. This is therefore a conservative estimate of each country's progress towards the target, albeit one that does not take into account export credits or private finance mobilisation.

**Australia** should be contributing \$2.5 – \$3.2 billion a year. With the most favourable interpretation of both its contributions and responsibilities, it provided 26% of its fair share in 2017-18. Looking forward, Australia has committed AU\$1.5 billion (\$1.2 billion) for climate finance from 2021-2025 (Hattle and Nordbo, 2021b), which means it will be funding only 12% of its fair share over the next five years.

**Canada** should be contributing \$3.5 – \$4.8 billion a year. With the most favourable interpretation of its contributions and responsibilities, it provided 26% of its fair share in 2017-18. Looking forward, Canada has not provided enough quantitative information to assess its future climate finance contributions (Hattle and Nordbo, 2021b).

**France** should be contributing \$3.4 – \$6.5 billion a year. With the most favourable interpretation of its contributions and responsibilities, it exceeded its fair share by 60% in 2017-18. Looking forward, France has committed €6 billion (\$7.3 billion) of climate finance annually (Hattle and Nordbo, 2021b).

**Germany** should be contributing \$7.7 – \$8.1 billion a year. With the most favourable interpretation of its contributions and responsibilities, it exceeded its fair share by 14% in 2017-18. Looking forward, Germany has communicated that its climate finance will probably remain at least at a constant level for the next two years (Hattle and Nordbo, 2021b).

**Italy** should be contributing \$3.8 – \$5.9 billion a year. With the most favourable interpretation of its contributions and responsibilities, it provided 13% of its fair share in 2017-18. Looking forward, Italy has not provided enough quantitative information to assess its future climate finance contributions (Hattle and Nordbo, 2021b).

**Japan** should be contributing \$10.8 – \$12.3 billion a year. With the most favourable interpretation of its contributions and responsibilities, it provided 70% of its fair share in 2017-18. Looking forward, Japan has not provided enough quantitative information to assess its future climate finance contributions (Hattle and Nordbo, 2021b).

**The UK** should be contributing \$4.6 – \$6.5 billion a year. With the most favourable interpretation of its contributions and responsibilities, it provided 63% of its fair share in 2017-18. Looking forward, the UK has pledged to provide £11.6 billion (\$16.4 billion) between 2021-2015 (UK DFID, 2019), which means it will be providing 71% of its fair share over the next five years.

**The US** should be contributing \$31.9 – \$49.4 billion a year. With the most favourable interpretation of its contributions and responsibilities, it provided 7% of its fair share in 2017-18. Looking forward, the Biden administration has requested \$2.5 billion for climate finance in 2021 and intends to “double, by 2024, [its] annual public climate finance to developing countries relative to the average level during the second half of the Obama-Biden Administration (FY 2013-2016)” (The White House, 2021). This would bring its annual contribution to \$5.7 billion (Shalal, 2021) or 18% of its fair share.

## 4 Options for responsibility attribution

This section looks more closely at each of the three metrics used to apportion responsibility for international climate finance among Annex II countries, and their implications for each country's fair share of the \$100 billion target.

### First, Gross National Income.

This metric reflects potential capabilities to provide finance to developing countries. However, GNI is imperfect because it fails to capture inequalities among Annex II countries, which disadvantages countries like Italy or Turkey that have large populations but relatively low per capita incomes. It also does not reflect the carbon intensity of economic activity, to the detriment of countries such as France that have a relatively clean energy.

The United States is by far the largest economy among the Annex II parties, accounting for 44.3% of their collective GNI in 2019 (see Figure 3). Japan is a distant second at 10.8% with Germany close behind at 8.1%. Member states of the European Union collectively account for 28.7% of economic activity of Annex II countries. The countries attending the 2021 G7 Summit collectively account for 84.9% of the GNI of Annex II countries.

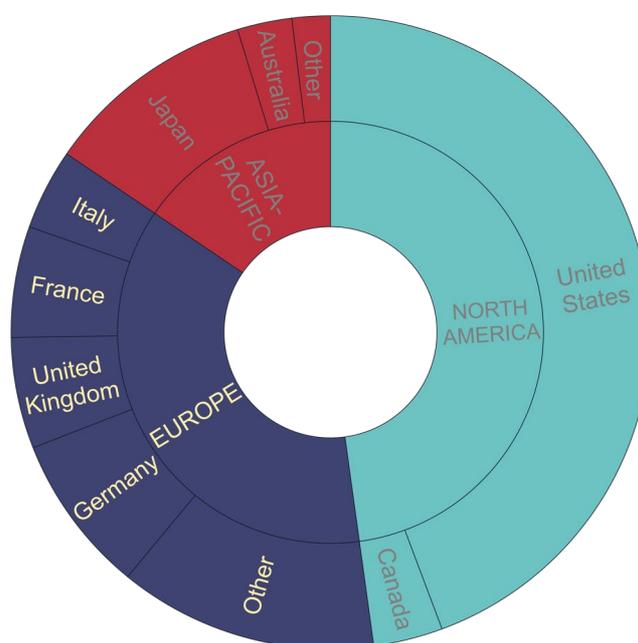


Figure 3. Share of Gross National Income of Annex II countries, 2019. Source: World Bank (2021).

**Second, cumulative carbon dioxide (CO<sub>2</sub>) emissions.** This metric reflects responsibility for climate change, so it disadvantages countries that have high-carbon economies such as Australia, Canada and the USA. The United States is responsible for nearly half – 49.3% – of emissions of the Annex II parties between 1990 and 2018 (see Figure 4). Japan's share of emissions is equivalent to its economic share, while Germany is slightly more carbon efficient at 7.7%. All other Annex II countries are responsible for less than 5% of Annex II countries' historical emissions. The countries attending the 2021 G7 Summit collectively account for 87.7% of the cumulative emissions of the Annex II countries.

**Third, total population.** This metric arguably represents capabilities to respond to climate change, given the importance of human capital. It disadvantages countries with larger populations and lower per capita incomes or emissions. This is not the metric that the authors would recommend to apportion responsibility for climate finance; rather, its inclusion in this working paper is intended to highlight inequalities among Annex II countries that need to be surfaced as responsibility for the climate finance goal is apportioned. The inequalities are exemplified by the emergence of Turkey as a significant Annex II country at 8.1% of the group’s total population; for reference, the country accounts for 1.5% of GNI and 2.4% of cumulative emissions.

Around a third of the population of Annex II countries live in EU member states, while the United States is home to just under that at 31.9% (see Figure 5). 12.3% reside in Japan, while Germany has 8.1% of the Annex II population. France and the UK are also significant with 6.5% of the population each. The countries attending the 2021 G7 Summit collectively account for 77.1% of the current population of the Annex II countries.

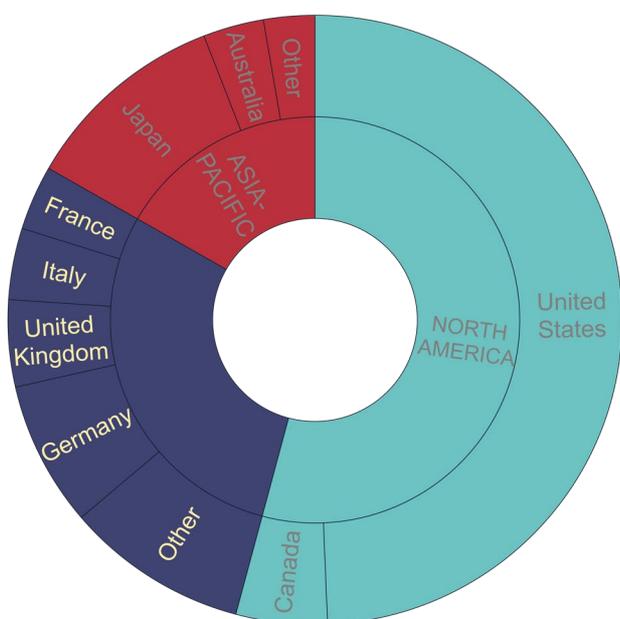


Figure 4. Share of cumulative CO<sub>2</sub> of Annex II countries, 1850-2018. Source: Friedlingstein et al. (2020).

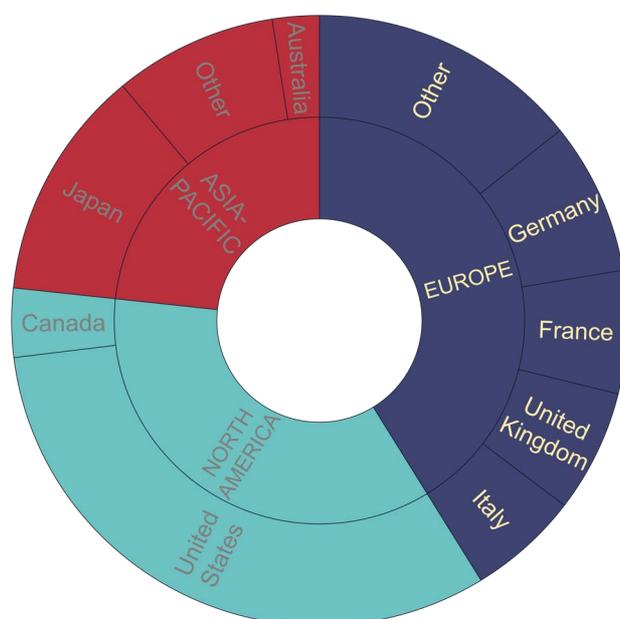


Figure 5. Share of population of Annex II countries, 2019. Source: World Bank (2021b).

Whichever metric is used, it is clear that most Annex II countries attending the G7 Summit are not on track to meet their climate finance commitments. Disputes around climate finance risk poisoning other parts of the climate negotiations. The G7 Summit offers an opportunity to acknowledge the leaders and demand more from the laggards. This note will hopefully facilitate an informed conversation about which countries need to step up, and by how much, to achieve the \$100 billion target.

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