

BROWN TO GREEN:

THE G20 TRANSITION TO A LOW-CARBON ECONOMY | 2018

THE UNITED KINGDOM

GREENHOUSE GAS (GHG) EMISSIONS (INCL. FORESTRY) PER CAPITA

(tCO₂e/capita)









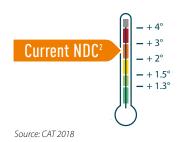
Data from 2015 | Source: PRIMAP 2018

The gap:

Is the UK on track to stay below the Paris Agreement temperature limit? Based on implemented policies, the UK's **GHG emissions** are expected to fall to 403 MtCO₂e by 2030 (excl. forestry). This emission pathway is not compatible with the Paris Agreement.1

The UK committed to the joint **NDC** of the European Union. The EU's NDC is not consistent with the Paris Agreement but would lead to a warming of between 2°C and 3°C. At national level, the UK has more ambitious targets.²

The UK's sectoral **policies** still fall short of being consistent with the Paris Agreement but its coal phase-out and ambitious energy efficiency policies for new buildings are a promising sign.³



Recent developments:

What has happened since the Paris conference?



Several policies to reduce GHG emissions have been cancelled (Zero Carbon Feed-in Homes, Tariffs, CCS development, energy efficiency measures buildings).



The UK announced it would review its 2050 target to bring it in line with the Paris Agreement's 1.5°C goal.



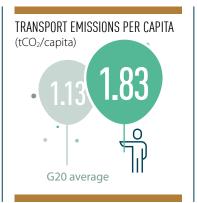
The government launched a new Green Finance Taskforce to help identify "public and private investment" needed to meet the UK's carbon reduction targets.

Brown and green performance:

Where does the UK lead or lag compared to G20 countries?



Data from 2016 | Source: Enerdata 2018



Data from 2017 | Source: Enerdata 2018

ENERGY INTENSITY OF THE ECONOMY (Total primary energy supply in TJ

per GDP in million US\$2015 (PPP)) United Kingdom

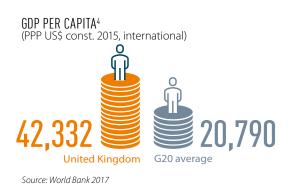
G20 average: **4.72**

Source: Enerdata 2018

This country profile is part of the Brown to Green 2018 report. The full report and other G20 country profiles can be downloaded at: http://www.climate-transparency.org/g20-climate-performance/g20report2018

BACKGROUND INDICATORS: UNITED KINGDOM





HUMAN DEVELOPMENT INDEX5

0.92

low very high

Data from 2017 | Source: UNDP 2018

THE UK'S EXPOSURE TO CLIMATE IMPACTS⁶

This indicator shows the extent to which human society and its supporting sectors are affected by the future changing climate conditions based on an approximately 2°C scenario. This sectoral exposure will be even higher given that the efforts depicted in current NDCs will lead to an approximately 3°C scenario.





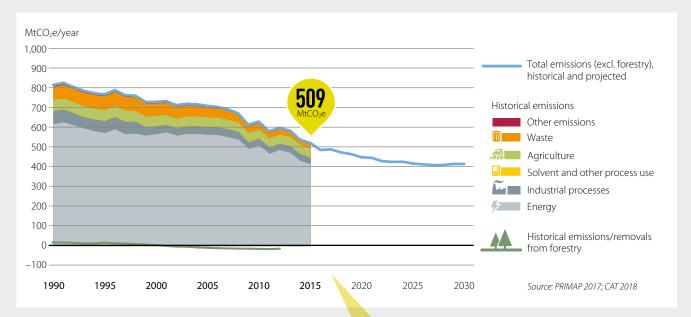
Own composition based on ND-GAIN 2017 (based on data for 2016)



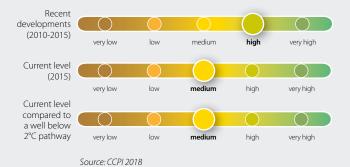
GREENHOUSE GAS (GHG) EMISSIONS

UNITED KINGDOM

TOTAL GHG EMISSIONS ACROSS SECTORS⁷

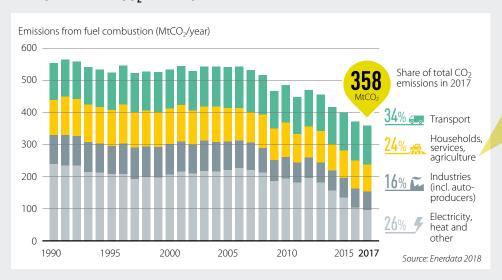


CCPI PERFORMANCE RATING OF GHG EMISSIONS PER CAPITA⁸



The UK's emissions decreased by 37% between 1990 and 2015. This trend is expected to continue towards 2030, but at a lower speed. Emissions from the energy sector account for the largest share of overall emissions.

ENERGY-RELATED CO₂ EMISSIONS⁹



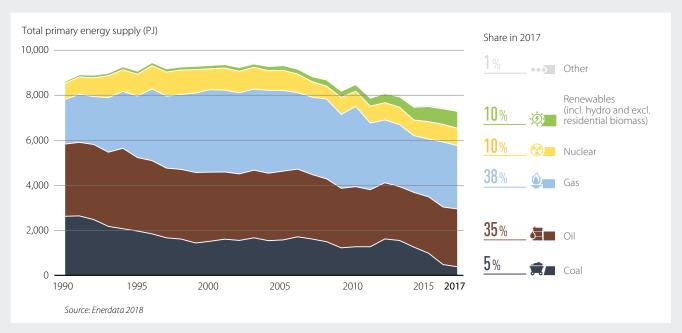
The largest driver for overall GHG emissions are CO₂ emissions from energy, which have decreased by 24% (2012–2017). This decrease was mainly driven by falling emissions from power generation.

(CO₂)

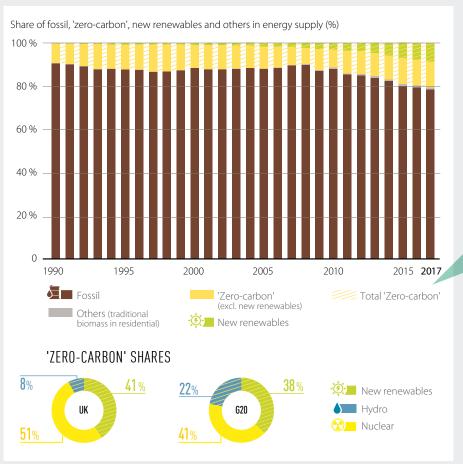
DECARBONISATION

UNITED KINGDOM

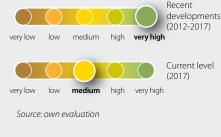




SHARE OF FOSSIL FUELS AND 'ZERO-CARBON' FUELS IN ENERGY SUPPLY 11



PERFORMANCE RATING OF SHARE OF FOSSIL FUELS¹²



Zero-carbon fuels include nuclear, hydropower, new renewables. These sources account for 21% of the UK's energy supply, well above the G20 average (14%), and the share is increasing.

PERFORMANCE RATING OF SHARE OF ZERO-CARBON TECHNOLOGY¹²



Source: own evaluation

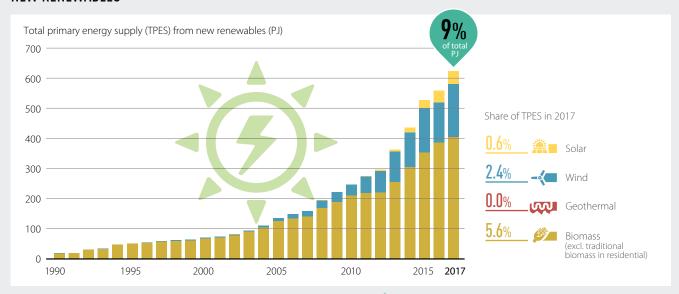
Source: Enerdata 2018



DECARBONISATION

UNITED KINGDOM

NEW RENEWABLES¹³



Source: Enerdata 2018

"New renewables" excludes unsustainable renewable sources such as large hydropower. New renewables make up 9% of the UK's energy supply compared to the G20 average (5%). Supply from these sources has increased by 110% (2012-2017), reflecting the growth in wind, solar and biomass energy.

PERFORMANCE RATING OF NEW RENEWABLES¹²



Recent developments (2012-2017)

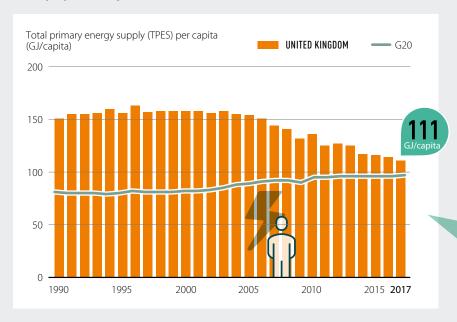


medium

Current level (2017)

low Source: own evaluation

ENERGY USE PER CAPITA¹⁴



PERFORMANCE RATING OF ENERGY USE PER CAPITA¹²



developments (2012-2017)

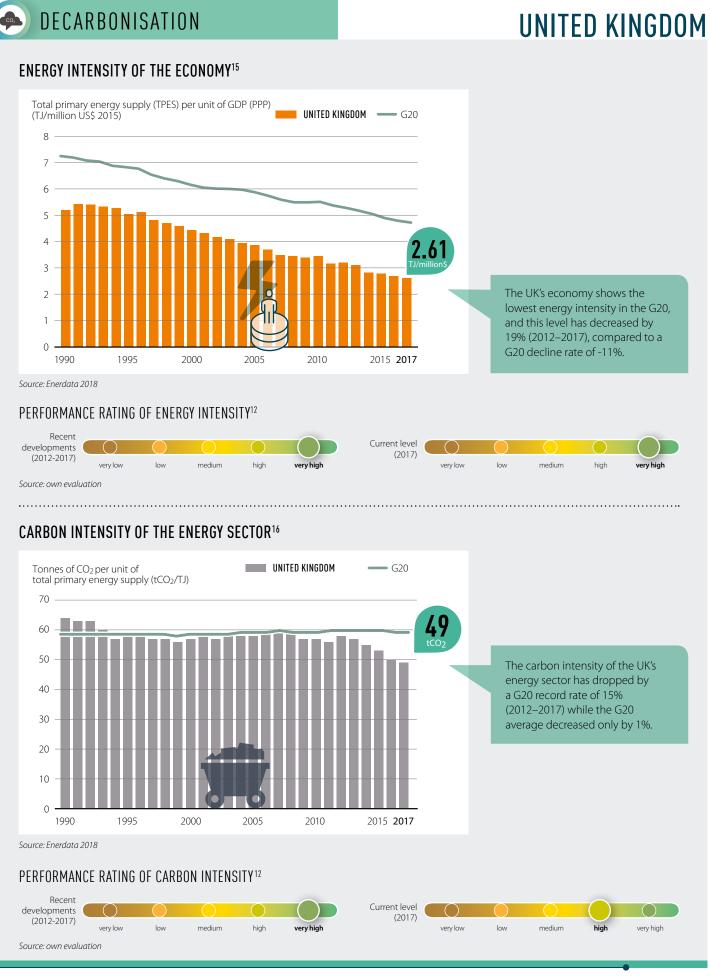


Current level (2017)

Source: own evaluation

Energy use per capita has decreased at a rate of 13% (2012-2017) but is still slightly above the G20 average.

Source: Enerdata 2018





DECARBONISATION

UNITED KINGDOM

SECTOR-SPECIFIC INDICATORS

Legend for trend:



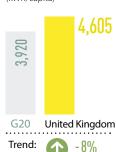


The trend number shows developments over the past five years, where data is available

POWER SECTOR

ELECTRICITY DEMAND PER CAPITA

(kWh/capita)



Data from 2017 Source: Enerdata 2018 **EMISSIONS INTENSITY** OF THE POWER SECTOR (gCO₂/kWh)



Trend: - 40%

Data from 2016 Source: Enerdata 2018 SHARE OF RENEWABLES IN POWER GENERATION (incl. large hydro)



G20 average: 24%

Trend: +148%

Data from 2017 Source: Enerdata 2018 SHARE OF POPULATION WITH ACCESS TO ELECTRICITY



Trend: 0%

Data from 2016 Source: World Bank 2018 SHARE OF POPULATION WITH BIOMASS DEPENDENCY



Data from 2014 Source: IEA 2016

TRANSPORT SECTOR

TRANSPORT EMISSIONS PER CAPITA

(tCO₂/capita)



Trend:



Data from 2017 Source: Enerdata 2018 MOTORISATION RATE (Vehicles per 1000 inhabitants)



Data from 2016 | Source: Agora Verkehrswende, 2018

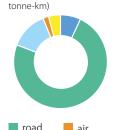
PASSENGER TRANSPORT (modal split in % of



bus rail

Data from 2015 | Source: Agora Verkehrswende, 2018

FREIGHT TRANSPORT (modal split in % of



road rail pipeline inland waterways

Data from 2016 | Source: Agora Verkehrswende, 2018

MARKET SHARE OF ELECTRIC VEHICLES IN NEW CAR SALES

(%)



Data from 2017

INDUSTRY SECTOR®

INDUSTRY EMISSIONS INTENSITY

(tCO₂e/thousand US\$2015



-8%

Data from 2015 Source: PRIMAP 2018

Trend:

BUILDING SECTOR

BUILDING EMISSIONS PER CAPITA



-16%

Data from 2016 Source: Enerdata 2018

Trend:

AGRICULTURE SECTOR

AGRICULTURE EMISSIONS

INTENSITY (tCO₂e/thousand US\$2015

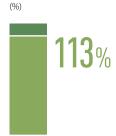


G20 average: **0.95** Trend: -14%

Data from 2015 Source: PRIMAP 2018

FOREST SECTOR

FOREST AREA COMPARED TO 1990 LEVEL



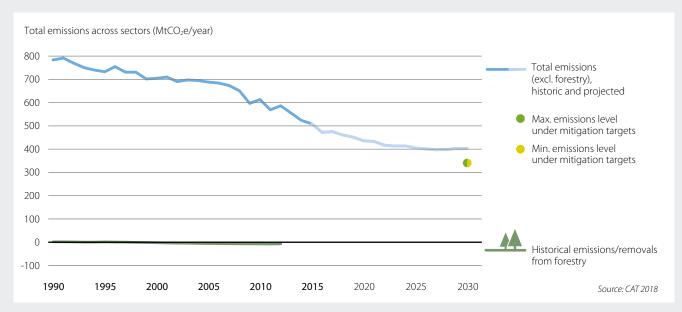
Data from 2015 Source: PRIMAP 2018





UNITED KINGDOM

COMPATIBILITY OF CLIMATE TARGETS WITH THE PARIS AGREEMENT²



The UK has a national target to reduce emissions by 2030 by 57% below 1990 levels and has announced a review of its 2050 target in 2018, possibly towards "net zero". As an EU member state, the UK did not submit its own NDC under the Paris Agreement, committing instead to the EU NDC. The CAT rates the EU's NDC "insufficient" as it is not ambitious enough to limit warming to below 2°C, let alone to 1.5°C. Under current policies, the EU is not on track to meet its 2030 target.

CLIMATE ACTION TRACKER (CAT) EVALUATION OF NDC²



NATIONALLY DETERMINED CONTRIBUTION (NDC)

The table presents the NDC of the European Union that includes contributions from all member states.

MITIGATIO	MITIGATION			
Targets	Overall targets At least 40% domestic GHG emissions reduction compared to 1990 by 2030			
	Coverage 100% of emissions covered (all sectors and gases)			
Actions	Not mentioned			

ADAPTATION		
Targets	Not mentioned	
Actions	Not mentioned	

FINANCE	
Conditio- nality	Not applicable
Investment needs	Not specified
Actions	Not mentioned
International market mechanisms	No contribution from international credits for the achievement of the target

Own compilation based on UNFCCC 2018





CLIMATE POLICY

UNITED KINGDOM

POLICY EVALUATION¹⁷

The ratings evaluate a selection of policies that are essential pre-conditions for the longer-term transformation required to meet the 1.5°C limit. They do not represent a complete picture of what is necessary.

Legend: low No action medium Some action

high Significant action and a long-term vision

 $\textbf{frontrunner} \ \ \text{Significant action, and a long-term vision that is compatible with 1.5 °C}$

! most important measures based on share of emissions and political relevance



The UK submitted its Clean Growth Strategy to the UNFCCC in early 2018. Under the Climate Change Act (2008), the UK aims to reduce GHG emissions by at least 80% by 2050 compared to a 1990 baseline. With legally binding carbon budgets, the UK

sets interim milestones to achieve this goal. The government has announced it will review the 2050 target to bring it to net zero emissions and in line with the 1.5°C goal.





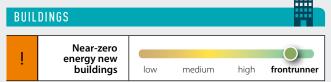
Power sector emissions in 2017 were 65% lower than in 1990 but there is no long-term plan after 2020 for renewable energy. The Contract for Difference supports the deployment of large-scale renewable projects. Feed-in tariffs for smaller projects are to end in March 2019.



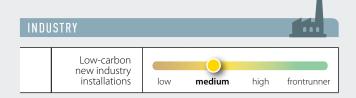
In early 2018, the government announced that all unabated coal power plants would be shut down by 2025 at the latest.



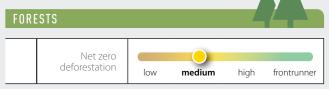
All cars must abide by EURO 6 standards. The UK plans to ban new petrol and diesel car sales by 2040. Under the Renewable Transport Fuels Obligation, first introduced in 2008, the renewable share of fuels for road transport and non-road mobile machinery will increase from 7.25% in 2018 to 12.4% by 2032.



According to EU law, all new buildings will need to be near zero-energy by 2020. There is a mandatory green building energy rating, and from 2018 all rented properties must meet a minimum energy efficiency standard. However, the UK government has abandoned plans for all new homes to be zero-carbon.



The UK is part of the European Union emissions trading scheme. The government has established decarbonisation plans for energyintensive industrial sectors.



Forestry is a devolved responsibility. A flagship project is the creation of a new forest in Northern England, with 50 million trees planted over 25 years. However, the rate of afforestation in England is too low to meet government carbon targets.

Source: own evaluation



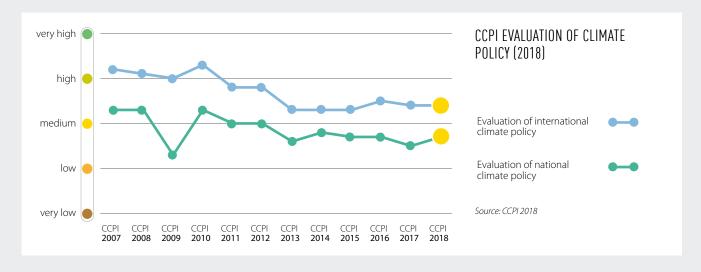
CLIMATE POLICY

UNITED KINGDOM

CCPI EXPERTS' POLICY EVALUATION18

Experts appreciate the UK's newly passed clean growth strategy, especially the ambition for off-shore wind, a coal phase-out and the policy in clean vehicles, which might support effective decarbonisation. Yet its 2030 targets, especially on renewable energy and emissions are not ambitious enough and the variety

in climate policies across the country lead to a medium rating in national climate policy. Experts rate the UK as high in terms of international performance, due to the speed of signing the Paris Agreement and its presence in international climate negotiations.



JUST TRANSITION¹⁹

Just transition discourse in the UK has been mostly isolated to trade unions and civil society. A recent report by the Environmental Audit Committee noted that the "UK Government seems uninterested in raising the profile of the [Sustainable Development] Goals [incl. SDG 8, decent work and jobs], having undertaken no substantive work to promote them domestically". In terms of policy, both the 2017 Industrial Strategy White Paper and 2018 Clean Growth Strategy fail to mention just transition and have limited reference to the role of trade unions.

In contrast, the Trades Unions Congress (TUC) has undertaken research and produced considerable work on Just Transition, including a Climate Change Policy that sets out demands for a Just Transition Strategy from government. The TUC continues to push for dialogue, via the Ministerial Advisory Group on Manufacturing, the Trade Union Sustainable Development Advisory Committee, and the Coal Forum.







FINANCING THE TRANSITION

UNITED KINGDOM

FINANCIAL POLICIES AND REGULATIONS

Through policy and regulation governments can overcome challenges to mobilising green finance, including: real and perceived risks, insufficient returns on investment, capacity and information gaps.

APPROACHES TO IMPLEMENTING THE RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)²⁰

This indicator establishes the degree of government engagement with the recommendations of the G20 Financial Stability Board's Task Force on Climate-Related Financial Disclosure.

No formal engagement with TCFD	Political and regulatory engagement	Formal engagement with private sector	Publication of guidance and action plans	Encoding into law

Source: CISL 2018

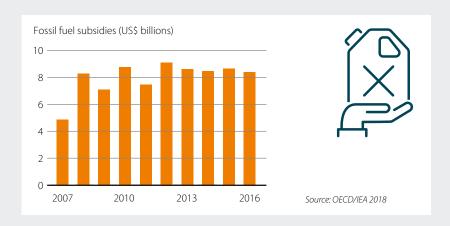
In 2017, the government launched a Green Finance Taskforce encouraging TCFD implementation. The Bank of England Prudential Review Authority reviewed climate-related risks to UK banks in 2018, and the insurance sector in 2015. The Bank of England is a founding member of the Central Banks and Supervisors Network for Greening the Financial System. The London Stock Exchange has also issued ESG reporting guidance (2017).

FISCAL POLICY LEVERS

Fiscal policy levers raise public revenues and direct public resources. Critically, they can shift investment decisions and consumer behaviour towards low-carbon, climate-resilient activities by reflecting externalities in prices.

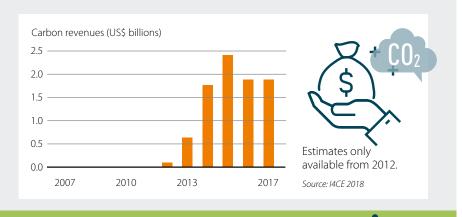
FOSSIL FUEL SUBSIDIES

In 2016, the UK provided US\$8.4bn in fossil fuel subsidies (from US\$4.9bn in 2007). Between 2007 and 2016, subsidies were similar to the G20 average of US\$0.003 per unit of GDP. Subsidies were provided through direct budget support and tax exemptions, primarily targeting consumption (87%). The largest subsidy is the reduced rate of value added tax applied to domestic fuels and power (coal, petroleum and natural gas) (US\$4.6bn in 2016).



CARBON REVENUES

In 2013, the UK introduced a national carbon tax that generated US\$1.2bn in 2017. The Carbon Price Floor covers 23% of power sector emissions, at US\$25/tCO₂. The UK is also party to the European Emissions Trading Scheme that generated US\$1.9bn in the UK alone in 2017. From 2012 to 2017, carbon revenues were greater (US\$0.0006) than the G20 average (US\$0.0005) per unit of GDP.





FINANCING THE TRANSITION

UNITED KINGDOM



Governments steer investments through their public finance institutions including via development banks, both at home and overseas, and green investment banks. Developed G20 countries also have an obligation to provide finance to developing countries and public sources are a key aspect of these obligations under the UNFCCC.

NATIONAL AND INTERNATIONAL PUBLIC FINANCE IN THE POWER SECTOR²¹

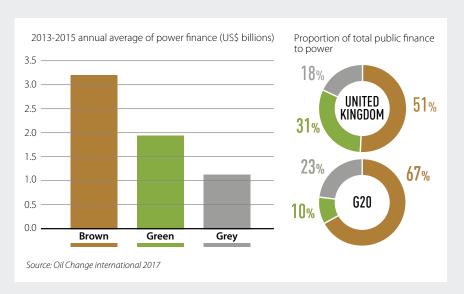
The annual average (2013–2015) that public finance institutions spent in the power sector domestically and internationally to power was US\$3.2bn brown, US\$1.9bn green and US\$1.1bn in grey financing. The largest transaction was a US\$700m UK Export Finance guarantee for the Sadara Chemical Company petrochemical complex in Saudi Arabia.

> coal, oil and gas projects (and associated infrastructure)

large-scale hydropower, biofuels, biomass, nucléar, incineration, transmission, distribution, storage, energy efficiency, other general electricity support

renewable energy projects (excluding grey financing)

green



PROVISION OF INTERNATIONAL PUBLIC SUPPORT

The UK's bilateral climate finance commitments were the fifth largest in the G20. Bilateral spending increased between 2013/4 and 2015/6, in line with the 2015 commitments to "significantly increase climate finance" until 2020 and a 50:50 split between adaptation and mitigation. The UK is second highest contributor to multilateral climate funds (26% of the G20 total), but would be the top contributor if US President Donald Trump were to officially cancel further US contributions to the GCF. While the UK channels international public finance towards climate change via multilateral development banks, this has not been included in this report.

OBLIGATION TO PROVIDE CLIMATE FINANCE UNDER UNFCCC





CONTRIBUTIONS THROUGH THE MAJOR MULTILATERAL CLIMATE FUNDS²²

Note: See Technical Note for multilateral climate funds included and method to attribute amounts to countries

Source: Climate Funds Update 2017

Annual average contribution (mn US\$, 2015-2016)			
384.69			

Theme of support			
Adaptation	Mitigation	Cross- cutting	
29%	62%	8%	

BILATERAL CLIMATE FINANCE CONTRIBUTIONS²³



1.111.8

Annual average	Theme of support			
contribution (mn US\$, 2015-2016)	Mitigation	Adaptation	Cross- cutting	Other
1,111.88	19%	29%	1%	51%

Source: Country reporting to UNFCCC

ANNEX



For more detail on sources and methodologies, please refer to the Technical Note at: https://www.climate-transparency.org/wp-content/uploads/2018/11/Technical-Note_data-sources-and-methodology.pdf

- The 2030 projections of the future development of greenhouse gas (GHG) emissions under current policies are based on the Climate Action Tracker (CAT) estimates.
- 2) The CAT is an independent scientific analysis that tracks progress towards the globally agreed aim of holding warming to well below 2°C, and pursuing efforts to limit warming to 1.5°C. The CAT "Effort Sharing" assessment methodology applies state-of-the-art scientific literature on how to compare the fairness of government efforts and (Intended) Nationally Determined Contribution ((I) NDC) proposals against the level and timing of emission reductions consistent with the Paris Agreement. The assessment of the temperature implications of a country's NDC is based on the assumption that all other governments would follow a similar level of ambition.
- 3) This assessment is based on the policy evaluation on page 9 of this Country Profile.
- 4) Gross Domestic Product (GDP) per capita is calculated by dividing GDP with mid-year population figures. GDP is the value of all final goods and services produced within a country in a given year. Here GDP figures at purchasing power parity (PPP) are used. Data for 2017.
- 5) The Human Development Index (HDI) is a composite index published by the United Nations Development Programme (UNDP). It is a summary measure of average achievement in key dimensions of human development. A country scores higher when the lifespan is higher, the education level is higher, and GDP per capita is higher.
- 6) The ND-GAIN index summarises a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience. This report looks only at the exposure indicators as part of the vulnerability component of the ND-GAIN index for six sectors. It displays the exposure scores provided by the ND-GAIN on a scale from low (score: 0) to high (score: 1).
- 7) The indicator covers all Kyoto gases showing historic emissions in each of the IPCC source categories (energy, industrial processes, agriculture, etc.). Emissions projections (excl. forestry) under a current policy scenario until 2030 are taken from the Climate Action Tracker and scaled to the historical emissions from PRIMAP (see Brown to Green Report 2018 Technical Note).

- 8) The ratings on GHG emissions are taken from the Climate Change Performance Index (CCPI) 2018. The rating of "current level compared to a well below 2°C pathway" is based on a global scenario of GHG neutrality in the second half of the century and a common but differentiated convergence approach.
- CO₂ emissions cover only the emissions from fossil fuels combustion (coal, oil and gas) by sector. They are calculated according to the UNFCCC methodology (in line with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories).
- 10) Total primary energy supply data displayed in this Country Profile does not include non-energy use values. Solid fuel biomass in residential use has negative environmental and social impacts and is shown in the category "other".
- 11) Zero-carbon fuels include nuclear, hydropower and new renewables (non-residential biomass, geothermal, wind, solar).
- 12) Climate Transparency ratings assess the relative performance across the G20. A high scoring reflects a good effort from a climate protection perspective but is not necessarily 1.5°C compatible.
- 13) New renewables include non-residential biomass, geothermal, wind and solar energy. Hydropower and solid fuel biomass in residential use are excluded due to their negative environmental and social impacts.
- 14) Total primary energy supply (TPES) per capita displays the historical, current and projected energy supply in relation to a country's population. Alongside the intensity indicators (TPES/GDP and CO₂/TPES), TPES per capita gives an indication on the energy efficiency of a country's economy. In line with a well-below 2°C limit, TPES per capita should not grow above current global average levels. This means that developing countries are still allowed to expand their energy use to the current global average, while developed countries have to simultaneously reduce it to that same number.
- 15) TPES per GDP describes the energy intensity of a country's economy. This indicator illustrates the efficiency of energy usage by calculating the energy needed to produce one unit of GDP. Here GDP figures at PPP are used. A decrease in this indicator can mean an increase in efficiency but also reflects structural economic changes.
- 16) The carbon intensity of a country's energy sector describes the CO₂ emissions per unit of total primary energy supply and gives an indication of the share of fossil fuels in the energy supply.



ANNEX (continued)

- G20
- 17) The selection of policies rated and the assessment of 1.5°C compatibility are informed by the Paris Agreement and the Climate Action Tracker (2016): "The ten most important short-term steps to limit warming to 1.5°C". The table below displays the criteria used to assess a country's policy performance. See the Brown to Green Report 2018 Technical Note for the sources used for this assessment.
- 18) The CCPI evaluates a country's performance in national climate policy, as well as international climate diplomacy through feedback from national experts from non-governmental organisations to a standardised questionnaire.
- 19) See the Brown to Green 2018 Technical Note for the sources used for this assessment.
- 20) The University of Cambridge Institute for Sustainability Leadership (CISL) in early 2018 reviewed the progress made by the national regulatory agencies of G20 members in making the Task Force on Climate-related Financial Disclosures (TCFD) recommendations relevant to their national contexts. See the Brown to Green Report 2018 Technical Note for more information on the assessment.
- 21) This data includes bilateral public finance institutions such as national development banks and other development finance institutions, overseas aid agencies, export credit agencies, as well as key multilateral development banks. The analysis omits most finance delivered through financial intermediaries and significant volumes of multilateral development bank (MDB) development policy finance (due to a lack of clarity on power finance volumes). Given a lack of transparency, other important multilateral institutions in which G20 governments participate are not covered. See the Brown to Green Report 2018 Technical Note for further details.
- 22) Finance delivered through multilateral climate funds comes from Climate Funds Update, a joint ODI/Heinrich Boell Foundation database that tracks spending through major multilateral climate funds. See the Brown to Green Report 2018 Technical Note for multilateral climate funds included and method to attribute approved amounts to countries.
- 23) Bilateral finance commitments are sourced from Biennial Party reporting to the UNFCCC. Financial instrument reporting is sourced from the OECD-DAC; refer to the Brown to Green Report 2018 Technical Note for more detail. Figures represent commitments of Official Development Assistance (ODA) funds to projects or programmes, as opposed to actual disbursements.

On endnote 17)	Criteria description			
	• Low	Medium	High	Frontrunner
GHG emissions target for 2050 or beyond	No emissions reduction target for 2050 or beyond	Existing emissions reduction target for 2050 or beyond	Existing emissions reduction target for 2050 or beyond and clear interim steps	Emissions reduction target to bring GHG emissions to at least net zero by 2050
Long-term low emissions development strategy	No long-term low emissions strategy	Existing long-term low emissions strategy	Long-term low emissions strategy includes interim steps and/or sectoral targets	Long-term low emissions strategy towards full decarbonisation in the second half of the century; includes interim steps and/or sectoral targets, plus institutions and measures in place to implement and/or regularly review the strategy
Renewable energy in power sector	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), average 0-25	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), average 26-60	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), average 61-100	Allianz Monitor 2018 Category 1.2 (targets) and 2 (policies), 61-100 plus 100% renewables in the power sector by 2050 in place
Coal phase-out	No consideration or policy in place for phasing out coal	Significant action to reduce coal use implemented or coal phase-out under consideration	Coal phase-out decided and under implementation	Coal phase-out date compatible with 1.5°C
Phase-out of fossil fuel light duty vehicles (LDVs)	No policy or emissions performance standards for LDVs in place	Energy/emissions performance standards or support for efficient LDVs	National target to phase out fossil fuel LDVs in place	Ban on new fossil-based LDVs by 2025/30
Near zero-energy new buildings	No policy or low emissions building codes and standards in place	Building codes, standards or fiscal/financial incentives for low emissions options in place	National strategy for near zero-energy buildings (at least for all new buildings)	National strategy for near zero-energy buildings by 2020/25 (at least for all new buildings)
Low-carbon new industry installations	No policy or support for energy efficiency in industrial production in place	Support for energy efficiency in industrial production (covering at least two of the country's sub-sectors (e.g. cement and steel production))	Target for new installations in emissions-intensive sectors to be low-carbon	Target for new installations in emissions-intensive sectors to be low-carbon after 2020, maximising efficiency
Net zero deforestation	No policy or incentive to reduce deforestation in place	Incentives to reduce deforestation or support schemes for afforestation / reforestation in place	National target for reaching zero deforestation	National target for reaching zero deforestation by 2020s or for increasing forest coverage

CLIMATE TRANSPARENCY

Partners:





























Funders:





Supported by:





based on a decision of the German Bundestag

Data Partners:









http://www.climate-transparency.org/g20-climate-performance/g20report2018

