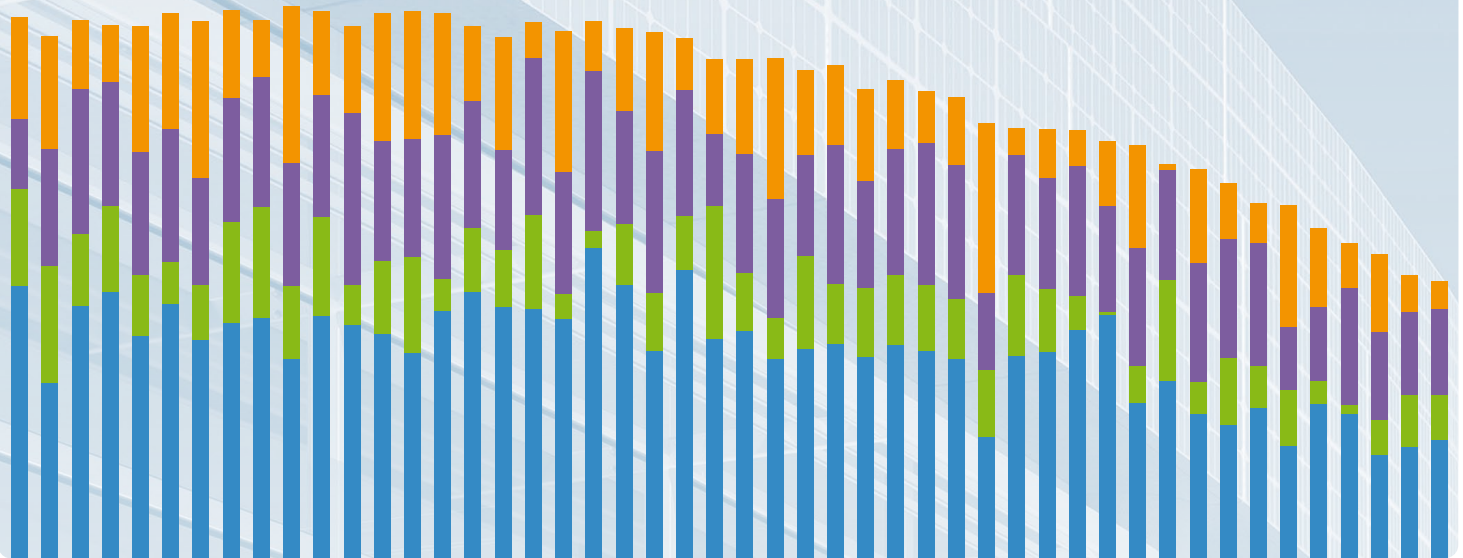




Climate Change
Performance
Index

Results 2019

Jan Burck, Ursula Hagen, Franziska Marten, Niklas Höhne, Christoph Bals



Imprint

Germanwatch – Bonn Office

Kaiserstr. 201
D-53113 Bonn, Germany
Ph.: +49 (0) 228 60492-0
Fax: +49 (0) 228 60492-19

Germanwatch – Berlin Office

Stresemannstr. 72
D-10963 Berlin, Germany
Ph.: +49 (0) 30 28 88 356-0
Fax: +49 (0) 30 28 88 356-1

E-mail: info@germanwatch.org
www.germanwatch.org



NewClimate Institute – Cologne Office

Clever Str. 13-15
D-50668 Cologne, Germany
Ph.: +49 (0) 221 99983300



NewClimate Institute – Berlin Office

Brunnenstr. 195
D-10119 Berlin, Germany
Ph.: +49 (0) 30 208492742

CAN

Climate Action Network International

Rmayl, Nahr Street,
Jaara Building, 4th floor
P.O.Box: 14-5472
Beirut, Lebanon
Ph.: +961 1 447192



Authors:

Jan Burck, Ursula Hagen, Franziska Marten,
Niklas Höhne, Christoph Bals

With support of:

Pieter van Breenvoort, Leonardo Nascimento,
Lena Donat, Gereon tho Pesch, Carolin Frisch,
Niklas Clement, Leonie Neier

Editing:

Editing: Daniela Baum, Anna Brown,
Rebekka Hannes, Gerold Kier

Maps:

Carolin Frisch

Design:

Dietmar Putscher

December 2018

Purchase Order Number: 19-2-03e
ISBN 978-3-943704-68-6

You can find this publication as well
as interactive maps and tables at
www.climate-change-performance-index.org

A printout of this publication can be ordered at:
www.germanwatch.org/en/16073

With financial support from
the Barthel Foundation



Contents

Foreword	3
1. About the CCPI	4
2. Recent Developments: How Far Have Countries Progressed on Implementing the Paris Agreement?	5
3. Overall Results CCPI 2019	6
3.1 Category Results – GHG Emissions	8
3.2 Category Results – Renewable Energy	10
3.3 Category Results – Energy Use	12
3.4 Category Results – Climate Policy	14
4. Key Country Results	16
5. CCPI Website	21
6. Sources and Further Reading Recommendations	22

Foreword

Dear Reader,

Three years after the adoption of the Paris Agreement, global climate action is not yet sufficient to limit global warming to well below 2°C and to pursue efforts to limit warming to 1.5°C. In order to achieve the Paris targets, more ambitious climate action is needed. In the context of the newly released special report *Global Warming of 1.5°C* by the Intergovernmental Panel on Climate Change (IPCC), it is ever more urgent to act now. By showing the substantial difference in impacts between warming of 1.5°C and 2°C, the IPCC report states that limiting global warming to 1.5°C requires a rapid reduction in greenhouse gas emissions (GHG) in all sectors. Accordingly, global emissions must decrease by 45% by 2030 (as compared to 2010 levels). Global CO₂ emissions need to decline by 2050.

To implement the Paris Agreement, countries must raise their ambitions and enact concrete measures to make their individual contributions to the global goal. For the past 14 years, the Climate Change Performance Index (CCPI) has tracked countries' efforts to combat climate change. The varying initial positions, interests and strategies of the numerous countries make it difficult to distinguish their strengths and weaknesses. The CCPI has been an important tool in contributing to a clearer understanding of national and international climate policy. As we approach the year 2020, when countries need to submit their amended national climate targets (revised Nationally Determined Contributions – NDCs), the CCPI aims to inform the process of raising climate ambition.

For the CCPI 2018, we evaluated and revised the CCPI methodology to demonstrate existing measures more accurately and to encourage steps towards effective climate policy. Since last year's edition, the CCPI is monitoring the development of all GHG emissions of the 56 countries and the EU that are assessed in the index. The index now is even better suited to measure how well countries are on track to meet the global goals of the Paris Agreement. It does this not only by comparing countries by their development and current status in the three categories "GHG Emissions", "Renewable Energy" and "Energy Use", but also on the Paris-compatibility of their current status and targets set for the future in each of these categories. With its globally unique policy section, the index also continues to evaluate countries' ambition and progress in the field of climate policy.

The index is published by Germanwatch, the NewClimate Institute and the Climate Action Network. It has only been possible to include a review of each country's national and international climate policies thanks to the help of around 350 energy and climate experts from all over the world. The review charts the efforts that have been made to avoid dangerous climate change, and also evaluates the various countries' current efforts to implement the Paris Agreement. We greatly appreciate these experts' time, efforts and knowledge in contributing to this publication. The experts are mainly representatives of NGOs who work within their respective countries, being experts on the climate policies of their countries with a high level of independence.

Best regards,



Jan Burck
(Germanwatch)



Ursula Hagen
(Germanwatch)



Franziska Marten
(Germanwatch)



Niklas Hoehne
(NewClimate Institute)



Stephan Singer
(Climate Action
Network International)

1. About the CCPI

The Climate Change Performance Index (CCPI) is an instrument designed to enhance transparency in international climate politics. Its aim is to put political and social pressure on those countries that have, until now, failed to take ambitious action on climate protection, and to highlight those countries with best practice climate policies.

On the basis of standardised criteria, the index evaluates and compares the climate protection performance of 56 countries and the European Union (EU), which are together responsible for more than 90% of global greenhouse gas (GHG) emissions.

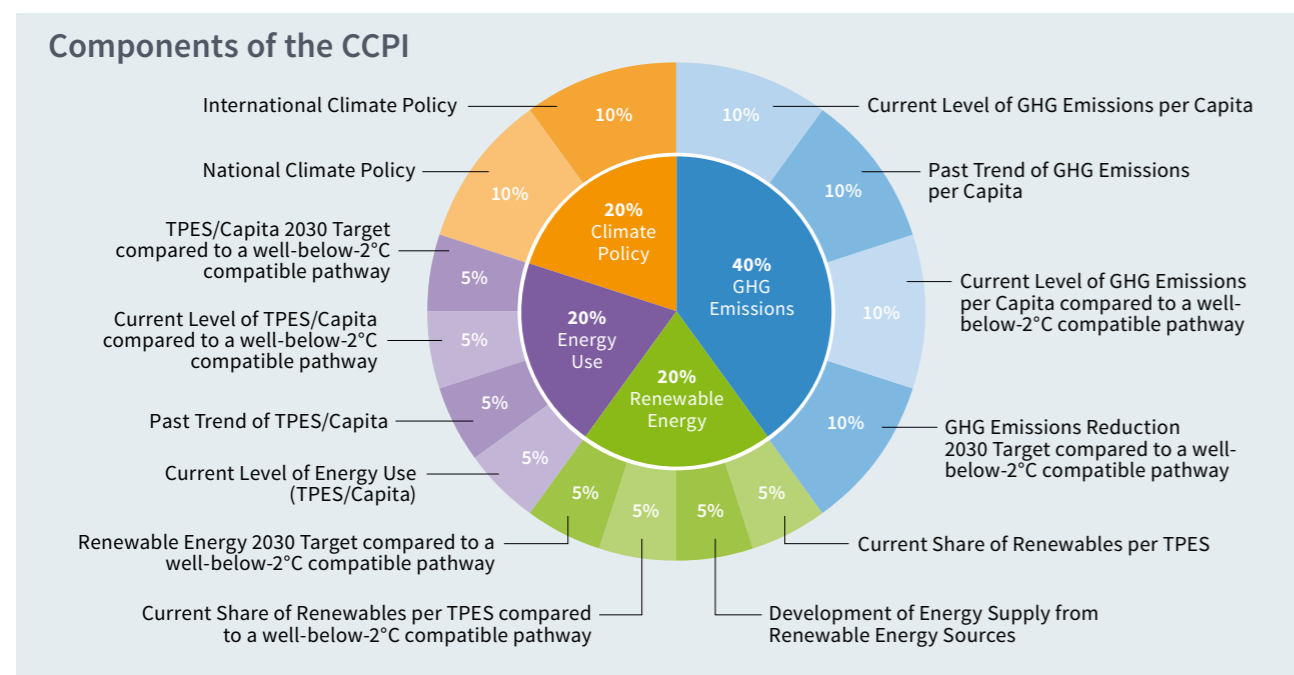
In 2017 the methodology of the CCPI was revised, to fully incorporate the Paris Agreement, which marked a milestone in the international climate negotiations. For the first time, it is possible to measure states based on the promises that they themselves formulated in their Nationally Determined Contributions (NDCs). New and revised NDCs are expected by 2020. So far 184¹ Parties have ratified the Paris Agreement and have promised to combat dangerous climate change by limiting global temperature rise to well below 2°C or even to 1.5°C.

The CCPI captures those promises and evaluates the countries' 2030 targets within the important categories – “GHG Emissions”, “Renewable Energy” and “Energy Use” – to determine if they are on track to a well-below-2°C pathway. The CCPI also reflects countries' current performances towards this pathway in absolute terms, in addition to the relative indicators measuring the current level and past trends in all three categories. 40% of the evaluation is based on indicators of Emissions, 20% on Renewable Energies and 20% on Energy Use. The remaining 20% of the CCPI evaluation is based on national and international climate policy assessments by experts from the respective countries.

The main methodological change is the addition of indicators measuring countries on their way to stay well below 2°C, as well as changes in the weighting and smaller modifications within the calculation method. The three categories “GHG Emissions”, “Renewable Energy” and “Energy Use” are each defined by four indicators (recent developments, current levels, 2°C compatibility of the current performance and an evaluation of the countries' 2030 targets in the respective categories). With its current methodology, the CCPI covers the evaluation of the countries' promises as well as their current progress in terms of climate protection.

For the pathways, we set three ambitious targets that are essential to stay well below 2°C, and that need to be reached by 2050: nearly zero GHG emissions (taking into account country-specific pathways, which give developing countries more time to reach this goal); 100% energy from renewable sources; and keeping today's average global energy use per capita levels and not increasing beyond. The CCPI compares where countries actually are today and where they should have been to meet the ambitious benchmarks. Following a similar logic, the CCPI evaluates the countries' own 2030 targets by comparing them to the same benchmarks.

More than half of the CCPI ranking indicators are qualified in relative terms (better/worse) rather than absolute. Therefore even those countries with high rankings have no reason to sit back and relax. On the contrary, the results illustrate that even if all countries were as committed as the current frontrunners, efforts would still not be sufficient to prevent dangerous climate change.



GHG = Greenhouse Gases | TPES = Total Primary Energy Supply

¹ As of 19 November 2018

2. Recent Developments: How Far Have Countries Progressed on Implementing the Paris Agreement?

The IPCC special report on *Global Warming of 1.5°C* underlines that the upcoming years are crucial in setting the world on track to achieve the targets agreed three years ago in Paris. We still see a huge ambition gap² between countries' greenhouse gas (GHG) reduction targets and what is needed to keep global warming to well below 2°C, and to pursue efforts to aim for a 1.5°C limit.

Mixed signals on the decarbonisation of the global energy system: again rising emissions despite decreasing costs of renewable energy

The decarbonisation of energy systems plays a key role in limiting emissions and in reducing them in the future. After three consecutive years of being stable, global energy-related carbon dioxide (CO₂) emissions are on the rise again, showing an increase of 1.6% in 2017.³ This correlates with above-trend growth in primary energy demand of 2.2% in 2017.⁴ Last year, despite increasing coal prices, both coal production and consumption increased for the first time since 2013.⁵ Fossil fuel consumption subsidies rose by 12% in 2017, accounting for US\$300 billion. Estimates are also seeing an increase for 2018 more likely than a decrease.⁶ Nevertheless, there are encouraging signs that a global energy transition is under way. The year 2017 saw the largest annual increase in renewable power generation capacity with the increase in added capacity from solar photovoltaic (PV) alone higher than net additions of coal, gas and nuclear combined.⁷ At the same time, the total number of people without access to electricity fell below 1 billion.⁸ Again, almost all countries included in the index maintained double-digit growth rates in renewable energy in 2017.⁹ Emerging economies as well as developing countries continue to play an increasingly crucial role in the global energy transition with Asia, accounting for 64% of new capacity in 2017.¹⁰ Shrinking costs of renewable energies further increase developing countries' potential to leapfrog fossil fuel-based industrialisation. By 2020, all major renewable power generation technologies will be competitive or even undercutting fossil fuels in their generation cost.¹¹ Solar PV, as the fastest growing renewable energy technology, is expected to overtake coal in terms of installed capacity before 2040.¹² Improving supportive and transparent policy frameworks will be key to maintain the positive developments in renewables and to exploit the full spectrum of renewable energy potential.

The need for new ways of cooperation: the formation of frontrunner alliances

As a result of (geo)political dynamics and resistance against ambitious climate action in some countries, new ways of cooperating among (non-)state actors outside the formal climate negotiation context are gaining importance. After US President Donald Trump's withdrawal from the Paris Agreement in June 2017, towns, states and companies in the United States, as well as actors on financial markets started to implement their own

strategies to uphold the Paris Agreement.¹³ Further promising signals include an increasing number of countries that support the introduction of CO₂ pricing and initiatives like the “Powering Past Coal Alliance”, with more than 50 member states, and the International “Solar Alliance” enhancing international cooperation for a global energy transition.

Growing global climate movement: increasing the pressure on governments for ambitious climate policy

The sense of urgency to take immediate action to protect the global climate is being increasingly taken up by a growing global climate movement. The extreme weather phenomena all around the globe with drought, fires and extreme rainfall have been a wakeup call for many citizens. The various ways in which civil society demands ambitious climate policy from governments – from demonstrations against coal mining in Germany and marches for more ambitious climate policy in Finland and Canada to legal action against governments and fossil fuel companies – are signs of hope in the efforts to limit global warming to well below 2°C.¹⁴ They increasingly put governments under pressure to make climate policy a priority. In recent by-elections in Australia and the US Senate elections, polls showed that climate and environment are increasingly important issues for voters.

Closing the emission gap: processes to establish an “ambition mechanism”

In order to encourage countries to close the gap between national emission targets and the Paris Agreement's temperature limit, several processes are set to establish an “ambition mechanism”. This is a request to raise not only the mitigation target, but also the level of climate financing and innovative ways of cooperating, regarding technologies and other means. Within the UN negotiation context, the Talanoa Dialogue aims to inform the process of developing enhanced national climate targets, which countries must submit by 2020. UN Secretary-General António Guterres announced a Climate Summit for September 2019 to further facilitate ambition for climate action and finance. Countries also need to put forward their long-term strategies for moving towards CO₂ neutrality by 2050.

The role of the Climate Change Performance Index (CCPI): keeping track of countries' ambition and progress in implementing policies

The CCPI measures the progress of countries towards contributing to the temperature limit that the global community agreed to in Paris. None of the 56 countries nor the EU are on a well-below-2°C pathway in their overall performance, although there are some initial indications that this might change for some countries during the next few years. Countries must raise their ambition to adapt their targets to what would be well below 2°C or 1.5°C compatible and prove consistent in implementing the policies needed to reach their national mitigation targets.

² UNEP (2018)

³ IEA (2018a)

⁴ BP (2018)

⁵ BP (2018)

⁶ France24 (2018)

⁷ REN21 (2018)

⁸ IEA (2018a)

⁹ BP (2018)

¹⁰ IRENA (2018a)

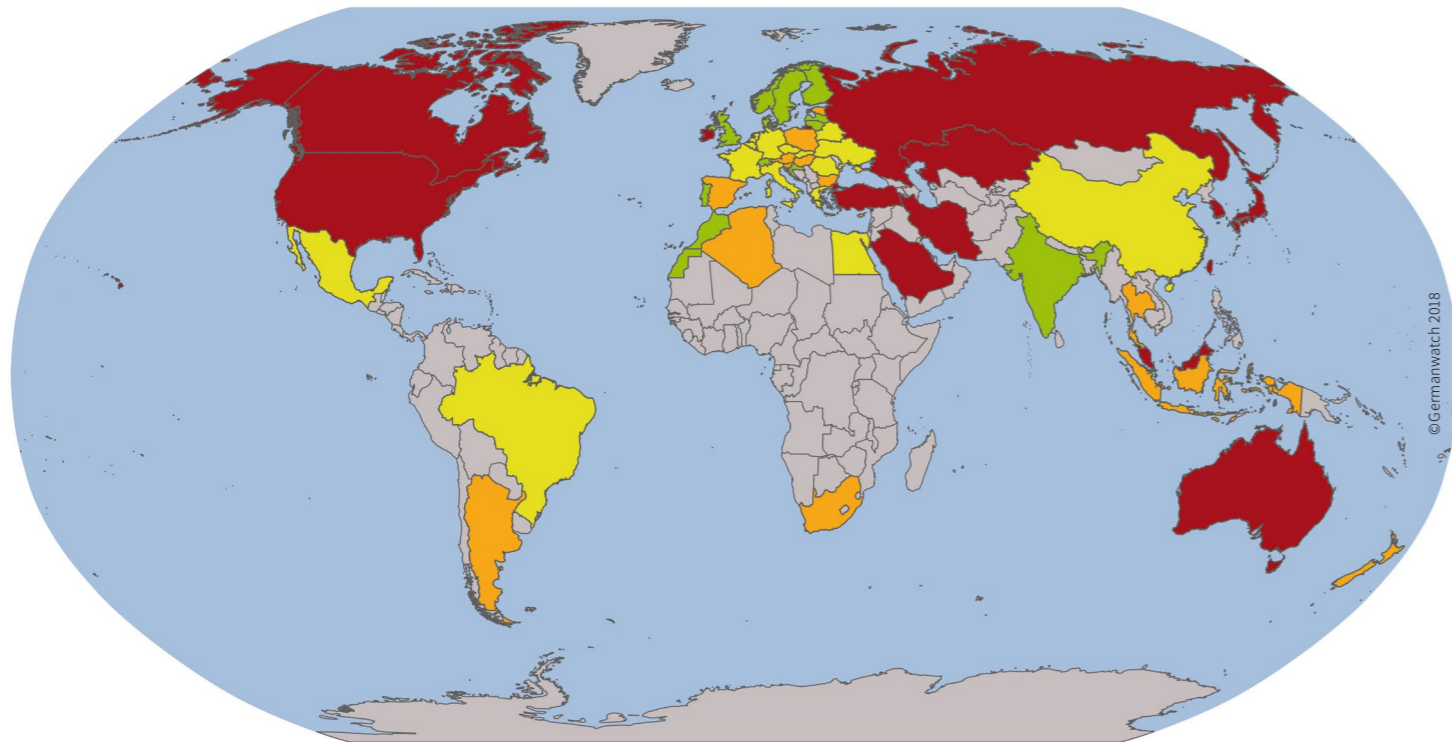
¹¹ IRENA (2018b)

¹² IEA (2018a)

¹³ Data Driven Yale, NewClimate Institute, PBL Environmental Assessment Agency (2018)

¹⁴ The Guardian (2018a-d); YLE News (2018); CBC (2018); New York Magazine (2018)

3. Overall Results CCPI 2019



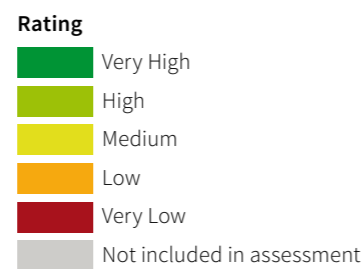
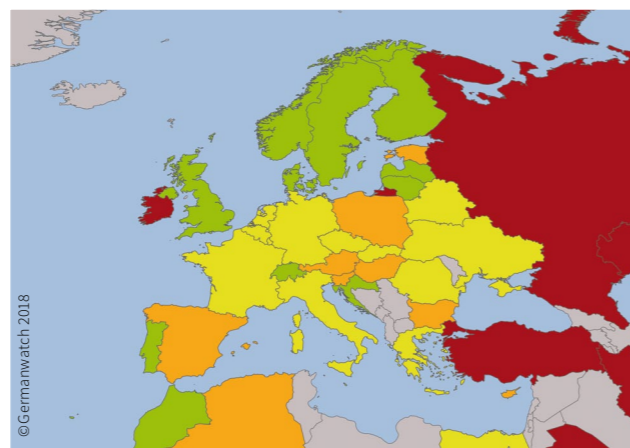
This section shows the overall results of the Climate Change Performance Index 2019. The ranking results are defined by a country's aggregated performance regarding 14 indicators within the four categories "GHG Emissions", "Renewable Energy" and "Energy Use", as well as on "Climate Policy", in a globally unique policy section of the index.

The CCPI 2019 results illustrate the main regional differences in climate protection and performance within the 56 evaluated countries and the EU. No country performed well enough to reach the ranking *very good* in this year's index, meaning that no country has yet made it to one of the top three places in the rankings.

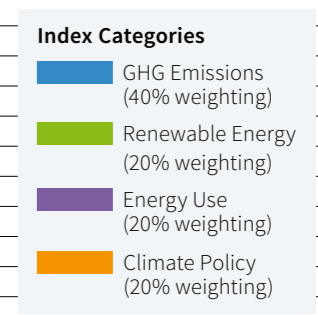
The world map shows the aggregated results and overall performance of countries. The table on the right shows the overall ranking and indicates how the countries perform in the different categories.

In this year's index, Sweden leads the ranking, followed by Morocco and Lithuania. The group of *medium*-performing countries includes countries like France, Mexico, Germany and the Czech Republic. Among the *low* performers overall are Indonesia, Austria and New Zealand. The bottom five in this year's CCPI are Saudi Arabia, the United States, Islamic Republic of Iran, Republic of Korea and Chinese Taipei, scoring *low* or *very low* across almost all categories.

An overview on the performance of 33 selected countries and the EU can be found in chapter 4.

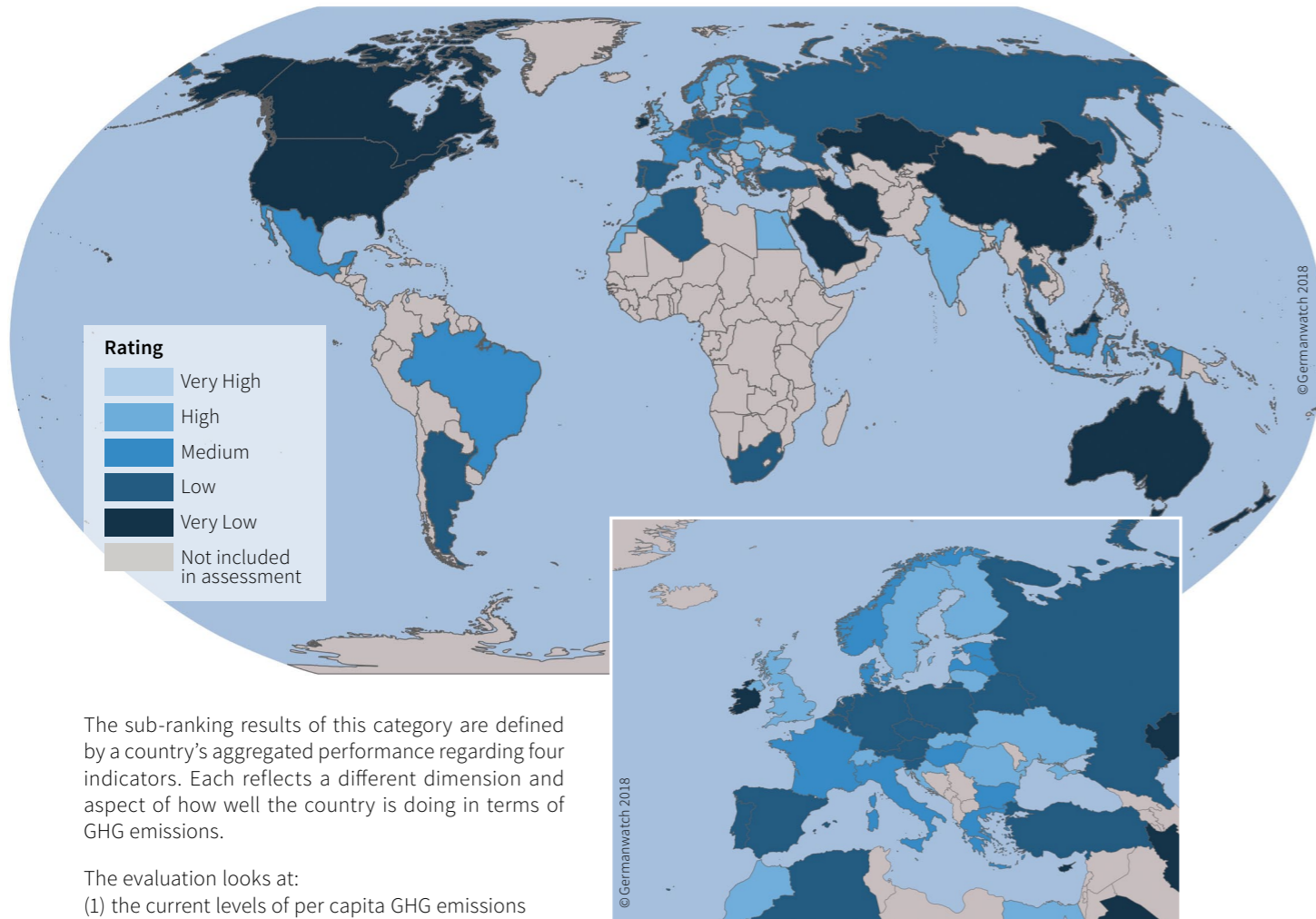


Rank	Country	Score**	
1.*	-	-	
2.	-	-	
3.	-	-	
4.	▲ Sweden	76.28	
5.	▲ Morocco	70.48	
6.	▼ Lithuania	70.47	
7.	▲ Latvia	68.31	
8.	- United Kingdom	65.92	
9.	▲ Switzerland	65.42	
10.	▲ Malta	65.06	
11.	▲ India	62.93	
12.	▼ Norway	62.80	
13.	▼ Finland	62.61	
14.	▼ Croatia	62.39	
15.	▲ Denmark	61.96	
16.	▲ European Union (28)	60.65	
17.	▲ Portugal	60.54	
18.	▲ Ukraine	60.09	
19.	▲ Luxembourg	59.92	
20.	▲ Romania	59.42	
21.	▼ France	59.30	
22.	▼ Brazil	59.29	
23.	▼ Italy	58.69	
24.	▲ Egypt	57.49	
25.	▲ Mexico	56.82	
26.	▼ Slovak Republic	56.61	
27.	▼ Germany	55.18	
28.	▲ Netherlands	54.11	
29.	▼ Belarus	53.31	
30.	▲ Greece	50.86	
31.	▲ Belgium	50.63	
32.	▲ Czech Republic	49.73	
33.	▲ China	49.60	
34.	▲ Argentina	49.01	
35.	▲ Spain	48.97	
36.	▼ Austria	48.78	
37.	▼ Thailand	48.71	
38.	▼ Indonesia	48.68	
39.	▲ South Africa	48.25	
40.	▲ Bulgaria	48.11	
41.	▼ Poland	47.59	
42.	▲ Hungary	46.79	
43.	▼ Slovenia	44.90	
44.	▼ New Zealand	44.61	
45.	▼ Estonia	44.37	
46.	▼ Cyprus	44.34	
47.	▼ Algeria	42.10	
48.	▲ Ireland	40.84	
49.	▲ Japan	40.63	
50.	▼ Turkey	40.22	
51.	▲ Malaysia	38.08	
52.	▲ Russian Federation	37.59	
53.	▲ Kazakhstan	36.47	
54.	▼ Canada	34.26	
55.	▲ Australia	31.27	
56.	▼ Chinese Taipei	28.80	
57.	▲ Republic of Korea	28.53	
58.	▲ Islamic Republic of Iran	23.94	
59.	▼ United States	18.82	
60.	- Saudi Arabia	8.82	



* None of the countries achieved positions one to three. No country is doing enough to prevent dangerous climate change. ** rounded

3.1 Category Results – GHG* Emissions



The sub-ranking results of this category are defined by a country's aggregated performance regarding four indicators. Each reflects a different dimension and aspect of how well the country is doing in terms of GHG emissions.

The evaluation looks at:

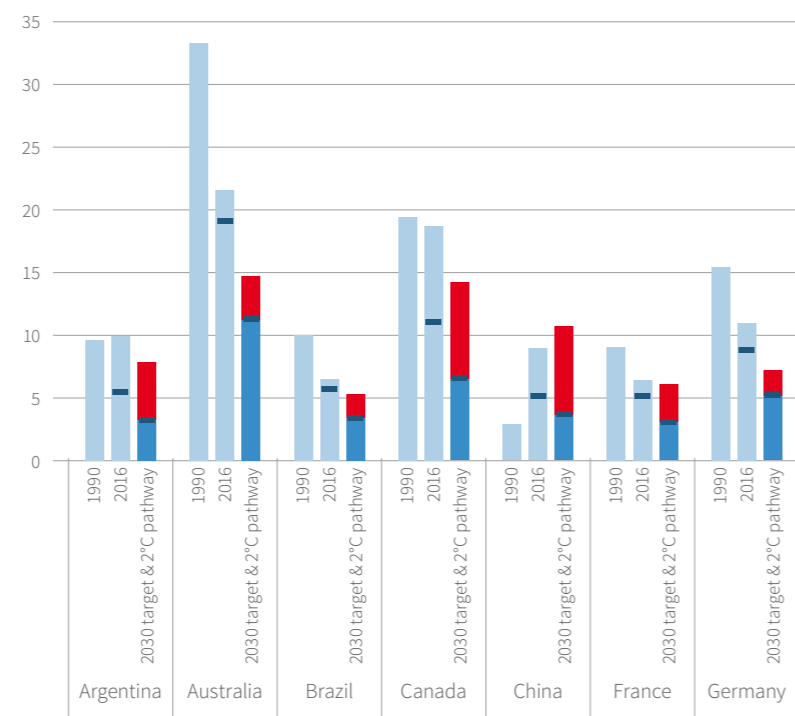
- (1) the current levels of per capita GHG emissions
- (2) the developments in GHG emissions over the past five years in absolute terms
- (3) the current levels of per capita GHG emissions compared to a country-specific well-below-2°C pathway
- (4) the country's own 2030 emissions reduction target compared to its well-below-2°C pathway.

The world map shows the aggregated results and overall performance of countries in the category "GHG Emissions". The table provides more detailed information on the performance of the G20 countries in the four indicators defining the category. The graph at the bottom indicates how emissions in those countries developed between 1990 and 2016, and visualises the 2°C compatibility of both a country's current level and its 2030 target.

Considering emissions from LULUCF**, Sweden is the best performing country regarding GHG emissions, followed by Egypt, Malta and the United Kingdom. Islamic Republic of Iran, Republic of Korea and Saudi Arabia are the bottom three countries, performing *very low* or *low* on every indicator of this category. Generally, mitigation targets for 2030 are too low and not on track for a pathway towards well below 2°C or even 1.5°C warming.

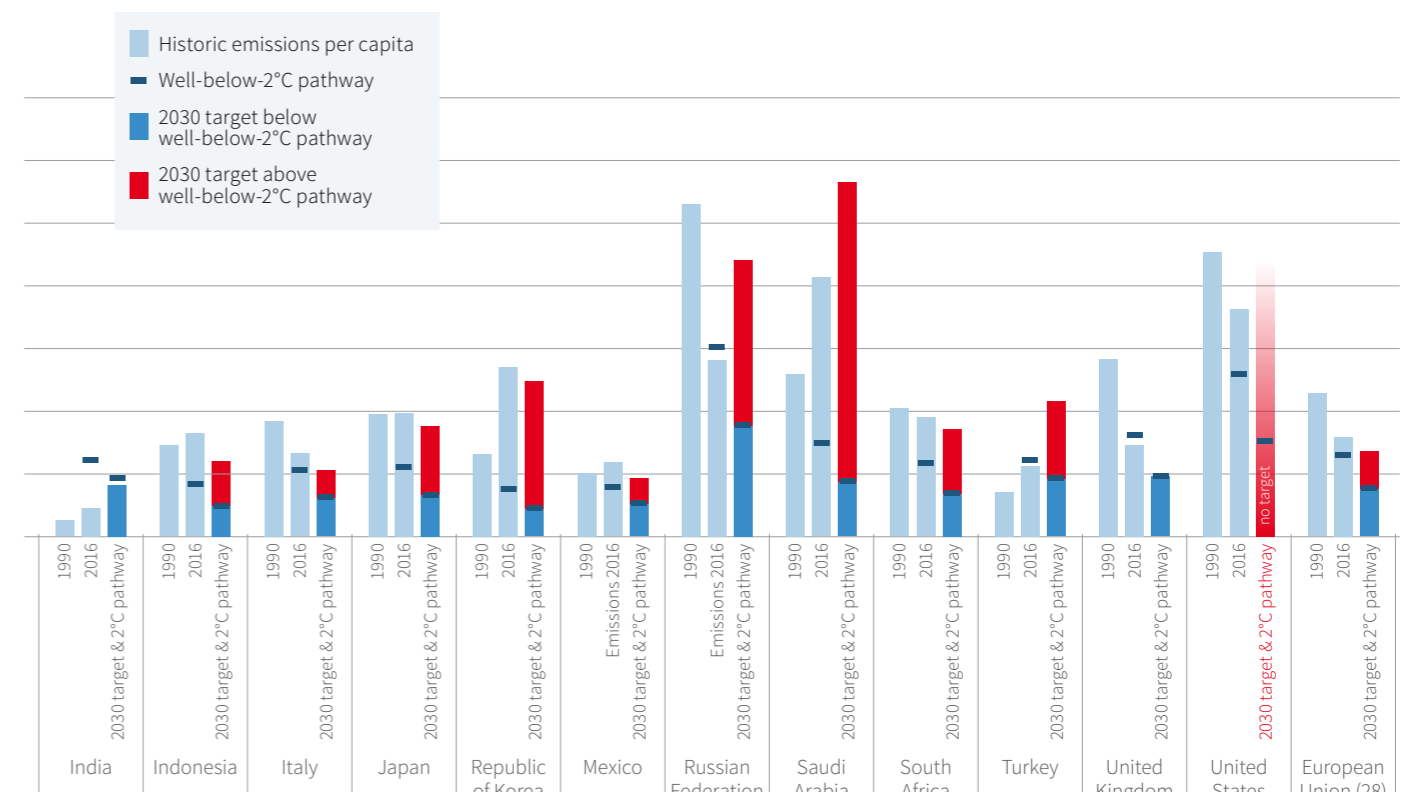
* Greenhouse Gas Emissions
** Land Use, Land-Use Change and Forestry

GHG Emissions (tCO₂-eq/capita, including LULUCF): historic values, targets and 2°C compatible benchmarks for G20 countries**

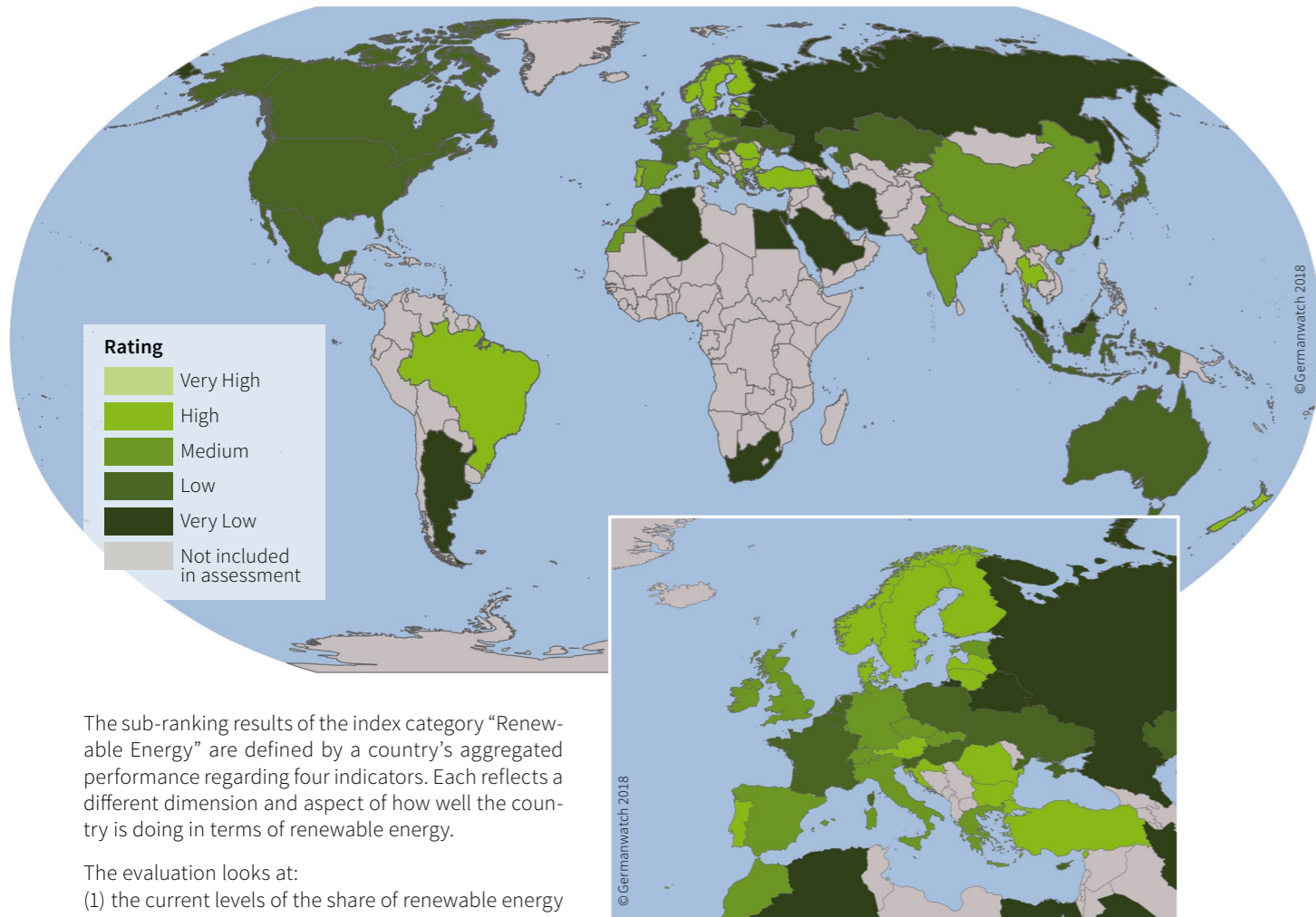


Greenhouse Gas Emissions – Rating Table for G20 countries*							
Rank	Country	Score	Overall Rating	GHG per Capita - current level (incl. LULUCF)	GHG per Capita - current trend (excl. LULUCF)	GHG per Capita - compared to a well-below-2°C pathway	GHG 2030 target - compared to a well-below-2°C pathway
7.	United Kingdom	75.9	High	Medium	High	Medium	High
12.	India	71.8	High	Very High	Very Low	Very High	High
18.	Italy	67.0	Medium	Medium	High	Medium	Medium
22.	France	62.1	Medium	Medium	Medium	Medium	Medium
23.	European Union (28)	61.6	Medium	Low	Medium	Medium	Medium
25.	Brazil	60.6	Medium	Medium	Low	Medium	Medium
28.	Indonesia	58.8	Medium	Low	High	Very Low	Low
29.	Mexico	58.7	Medium	Medium	Low	Low	Medium
34.	Germany	55.5	Low	Low	Low	Low	Medium
37.	Turkey	54.1	Low	Medium	Very Low	Medium	Low
39.	South Africa	52.7	Low	Low	High	Low	Low
44.	Russian Federation	49.1	Low	Very Low	Low	High	Low
46.	Argentina	46.4	Low	Low	Low	Very Low	Low
47.	Japan	46.1	Low	Low	Low	Very Low	Very Low
49.	Australia	44.2	Very Low	Very Low	Medium	Low	Medium
51.	China	43.6	Very Low	Low	Low	Low	Very Low
54.	Canada	32.5	Very Low	Very Low	Medium	Very Low	Low
57.	United States	21.4	Very Low	Very Low	Medium	Very Low	Very Low
59.	Republic of Korea	13.5	Very Low	Very Low	Low	Very Low	Very Low
60.	Saudi Arabia	2.3	Very Low	Very Low	Very Low	Very Low	Very Low

* The ratings for all 56 countries and the EU can be found here: www.climate-change-performance-index.org



3.2 Category Results – Renewable Energy



The sub-ranking results of the index category “Renewable Energy” are defined by a country’s aggregated performance regarding four indicators. Each reflects a different dimension and aspect of how well the country is doing in terms of renewable energy.

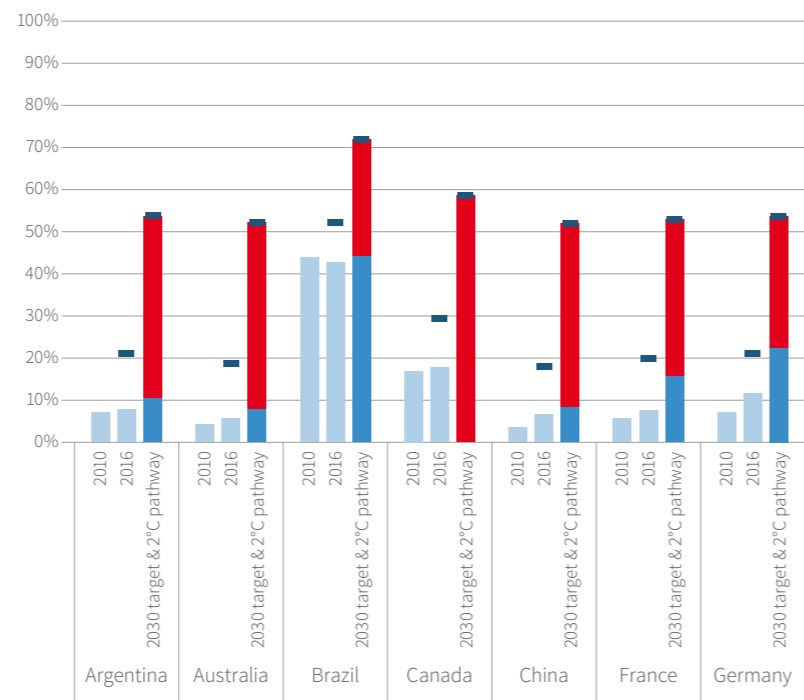
The evaluation looks at:

- (1) the current levels of the share of renewable energy in total primary energy supply
- (2) the developments of renewable energy in the past five years in absolute terms
- (3) the current levels of the share of renewable energy in total primary energy supply compared to a country specific well-below-2°C pathway
- (4) the country’s own 2030 renewable energy target compared to its well-below-2°C pathway

The world map shows the aggregated results and overall performance of countries in the category “Renewable Energy”. The table provides more detailed information on the performance of the G20 countries in the four indicators defining the category. The graph at the bottom indicates how renewable energy developed in those countries between 2010 and 2016, and visualises the 2°C compatibility of both a country’s current level and 2030 target.

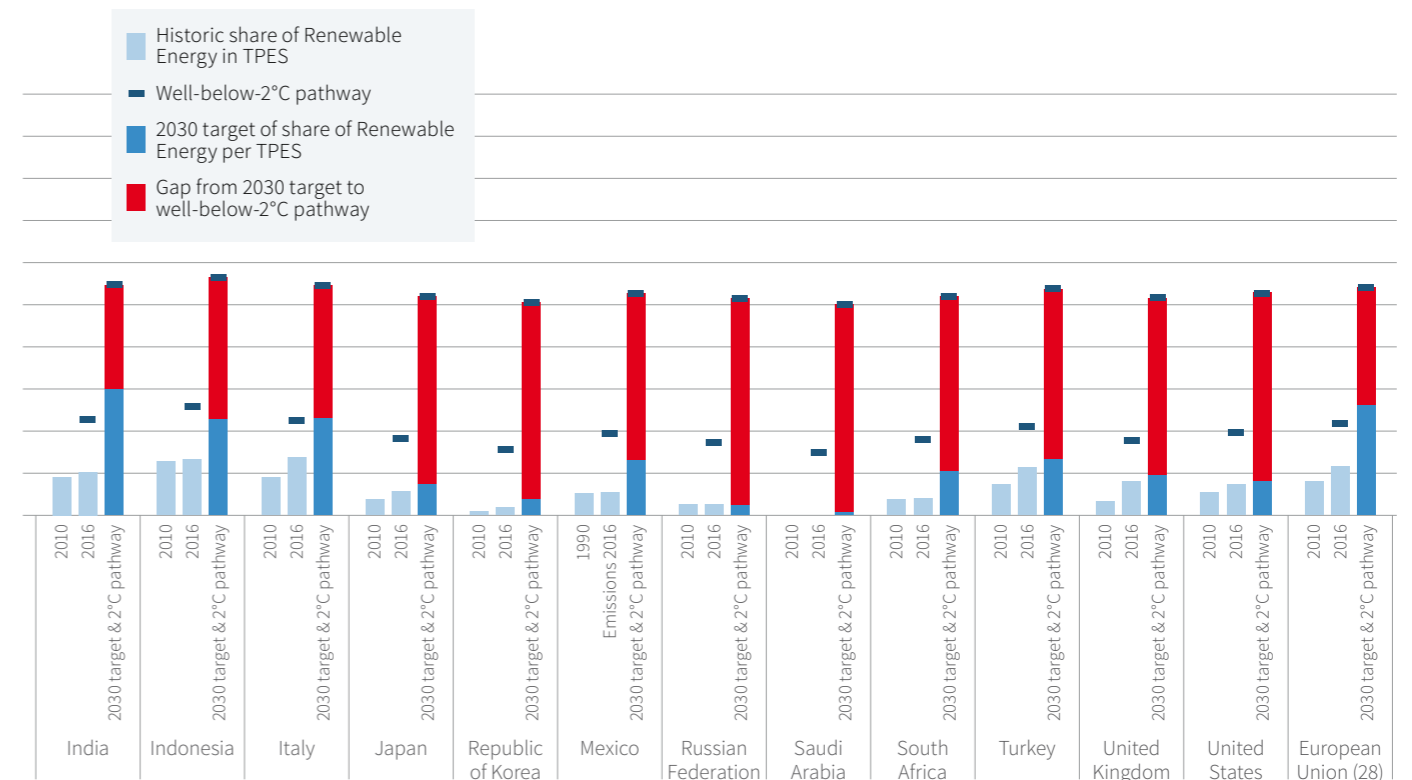
Since the energy sector contributes greatly to the CO₂ emissions of a country, renewable energy is a key driver for mitigating emissions. Traditionally, relatively well-performing countries in this category are those having a high share of renewables. As in 2018, Latvia leads the ranking of the category, followed by Sweden and New Zealand. Morocco, with the greatest improvement in this category, now joins the group of *medium*-performing countries. The Islamic Republic of Iran, Saudi Arabia and the Russian Federation rank *very low* as the Bottom three.

Renewable Energy (% of TPES*): historic values and 2°C compatibility benchmarks for G20 countries

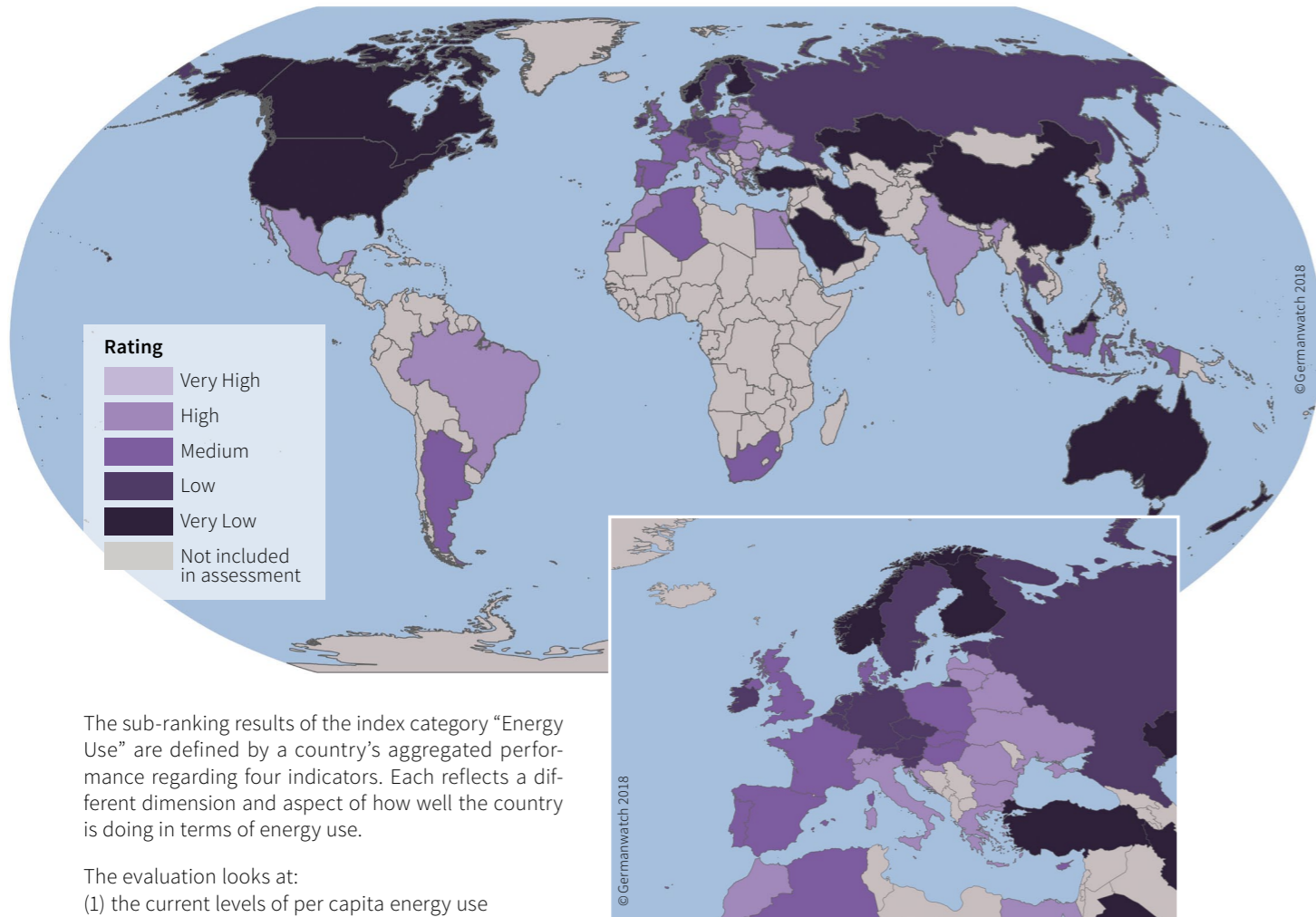


Renewable Energy (RE) – Rating Table for G20 Countries*							
Rank	Country	Score	Overall Ranking	Share of RE in Energy Use (TPES) - current level (incl. hydro)	Share of RE in Energy Use (TPES) - current trend (excl. hydro)	Share of RE in Energy Use (TPES) (excl. hydro) - compared to a well-below-2°C pathway	RE 2030 Target (incl. hydro) - compared to a well-below-2°C pathway
11.	Brazil	54.15	High	Very High	Low	Medium	Medium
15.	Turkey	47.24	High	Medium	Very High	Medium	Low
20.	Italy	38.71	Medium	High	Medium	High	Medium
21.	Germany	37.69	Medium	Medium	High	Medium	Medium
22.	European Union (28)	37.13	Medium	Medium	Medium	Medium	Medium
24.	United Kingdom	35.90	Medium	Medium	High	Medium	Very Low
27.	India	35.03	Medium	Medium	Medium	Medium	Medium
31.	China	33.89	Medium	Low	Very High	Low	Very Low
34.	Republic of Korea	30.34	Medium	Very Low	Very High	Very Low	Very Low
38.	Indonesia	28.18	Low	Medium	Low	Low	Low
41.	France	25.63	Low	Medium	High	Low	Low
44.	Canada	23.40	Low	High	Low	Low	Low
47.	United States	19.20	Low	Low	Medium	Low	Very Low
48.	Japan	18.30	Low	Low	Medium	Low	Very Low
49.	Australia	17.93	Low	Low	Medium	Low	Very Low
50.	Mexico	17.44	Low	Low	Medium	Very Low	Low
51.	Argentina	15.39	Very Low	Medium	Low	Very Low	Very Low
53.	South Africa	14.46	Very Low	Very Low	Low	Very Low	Very Low
59.	Saudi Arabia	2.86	Very Low	Very Low	Very Low	Very Low	Very Low
60.	Russian Federation	2.05	Very Low	Very Low	Very Low	Very Low	Very Low

* The ratings for all 56 countries and the EU can be found here: www.climate-change-performance-index.org



3.3 Category Results – Energy Use



The sub-ranking results of the index category “Energy Use” are defined by a country’s aggregated performance regarding four indicators. Each reflects a different dimension and aspect of how well the country is doing in terms of energy use.

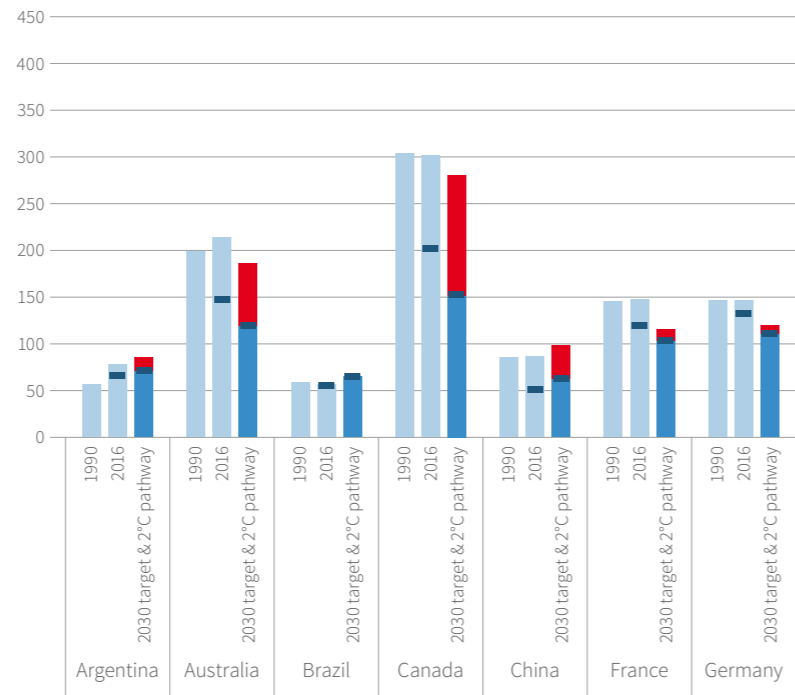
The evaluation looks at:

- (1) the current levels of per capita energy use
- (2) the developments of per capita energy use in the past five years in absolute terms
- (3) the current levels of per capita energy use compared to a country specific well-below-2°C pathway
- (4) the country’s own 2030 energy use target compared to its well-below-2°C pathway.

The world map shows the aggregated results and overall performance of countries in the category “Energy Use”. The table provides more detailed information on the performance of the G20 countries in the performance of the four indicators defining the category. The graph at the bottom indicates how energy use per capita developed in those countries between 2010 and 2016, and visualises the 2°C compatibility of both a country’s current level and 2030 target.

Ukraine, Malta and Morocco as well as Romania remain the frontrunners in the Energy Use category, mostly due to low current levels of energy use and relatively good ratings regarding a 2°C-compatible pathway in this category. New Zealand, Islamic Republic of Iran, Canada, Republic of Korea and Saudi Arabia are again worst-performing countries in this year’s index, scoring *low* or *very low* across nearly all indicators. While emerging economies tend to perform well in this category, Thailand, Turkey, Algeria, India and Indonesia have been rapidly increasing their energy use in the past few years.

Energy Use (TPES in GJ per capita): historic values, targets and 2°C compatible benchmarks for G20 countries

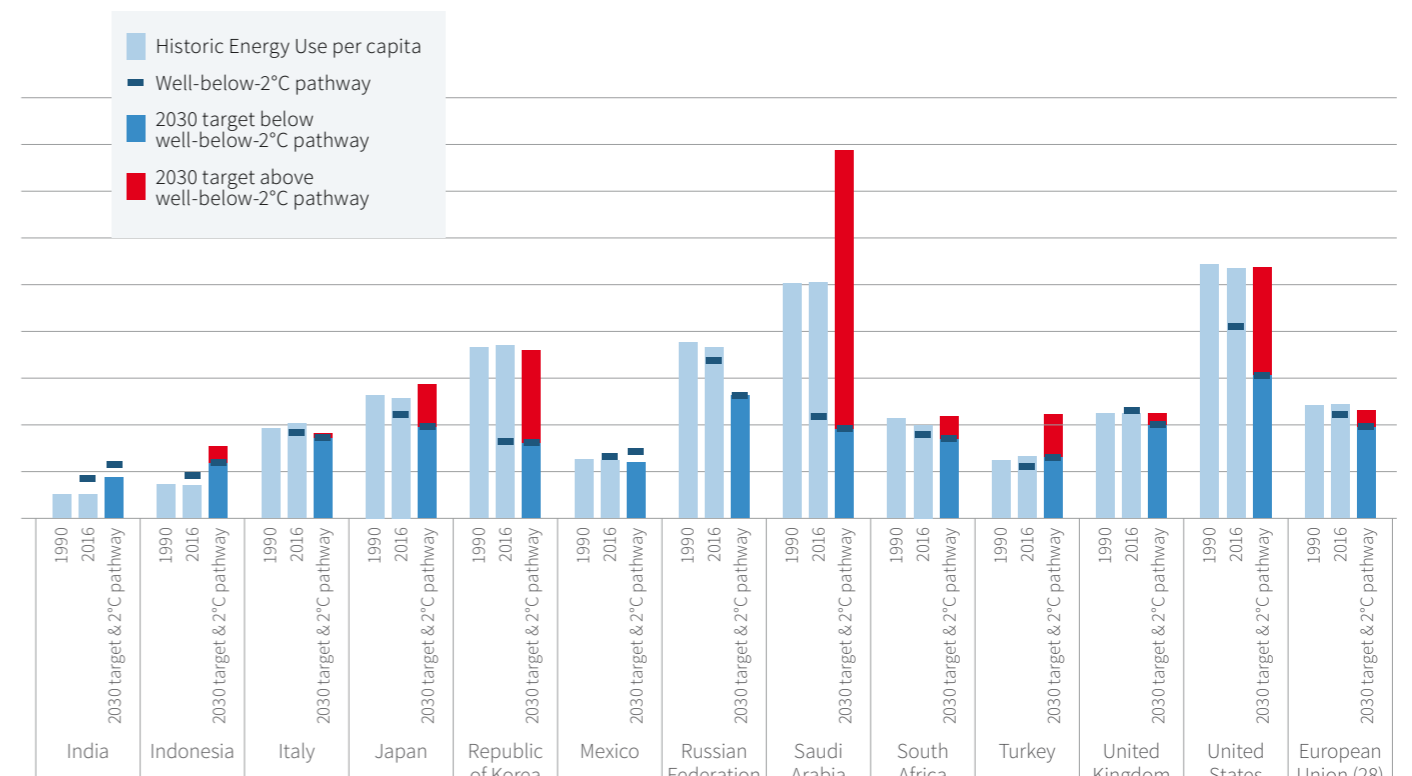


Energy Use – Rating Table for G20 Countries*							
Rank	Country	Score	Overall Rating	Energy Use (TPES)** per Capita - current level	Energy Use (TPES) per Capita - current trend	Energy Use (TPES) per Capita - compared to a well-below-2°C pathway	Energy Use 2030 Target - compared to a well-below-2°C pathway
10.	India	72.3	High	Very High	Very Low	Very High	High
11.	Mexico	71.7	High	High	High	High	High
18.	Italy	65.0	High	Medium	High	Medium	Medium
19.	Brazil	65.0	High	Very High	Low	Medium	Medium
20.	United Kingdom	64.7	Medium	Medium	High	High	Medium
26.	Indonesia	61.1	Medium	Very High	Very Low	High	Low
28.	South Africa	59.5	Medium	Medium	High	Low	Low
30.	European Union (28)	57.6	Medium	Low	Medium	Medium	Low
31.	Argentina	57.1	Medium	High	Low	Low	Low
32.	France	55.6	Medium	Low	High	Low	Medium
35.	Germany	54.7	Low	Low	Medium	Medium	Medium
36.	Japan	54.3	Low	Low	High	Low	Very Low
42.	Russian Federation	51.2	Low	Very Low	Medium	Medium	Medium
48.	China	42.2	Very Low	High	Very Low	Very Low	Very Low
49.	Turkey	41.8	Very Low	High	Very Low	Low	Very Low
52.	Australia	38.1	Very Low	Very Low	High	Very Low	Very Low
55.	United States	32.0	Very Low	Very Low	Medium	Low	Very Low
58.	Canada	25.2	Very Low	Very Low	Low	Very Low	Very Low
59.	Republic of Korea	14.7	Very Low	Very Low	Low	Very Low	Very Low
60.	Saudi Arabia	8.8	Very Low	Very Low	Very Low	Very Low	Very Low

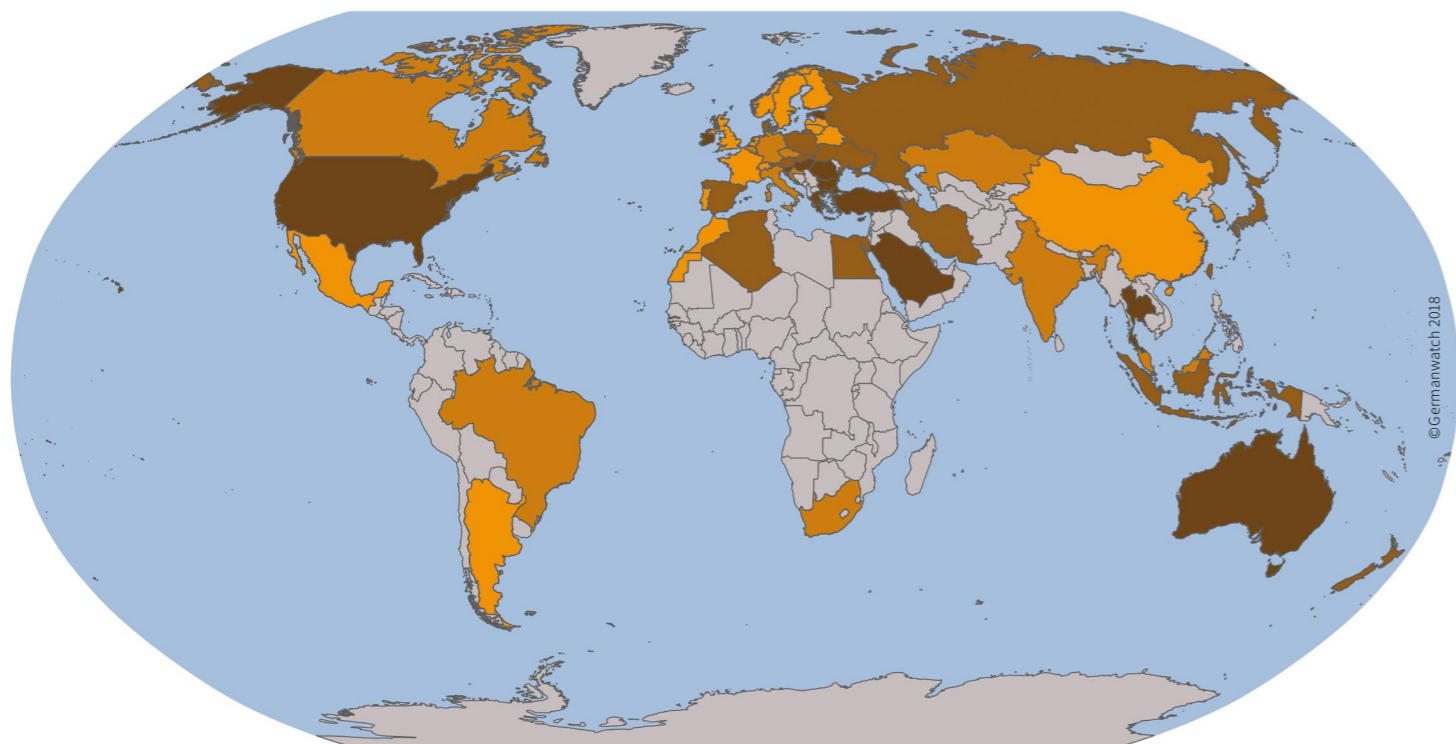
* The ratings for all 56 countries and the EU can be found here: www.climate-change-performance-index.org

** Total Primary Energy Supply

© Germanwatch 2018



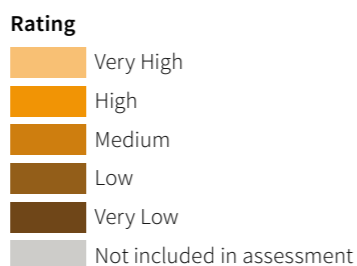
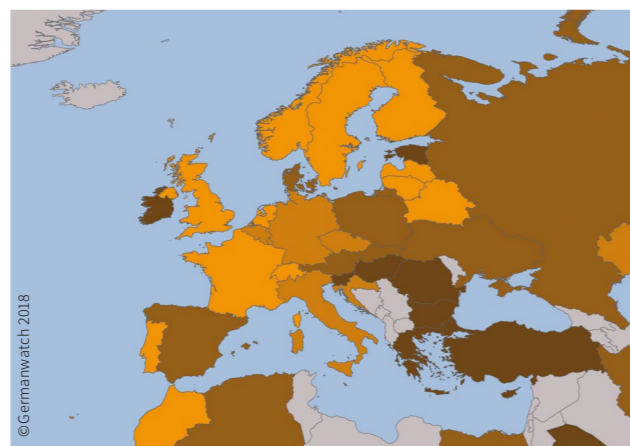
3.4 Category Results – Climate Policy



The index category “Climate Policy” considers the fact that measures taken by governments to reduce GHG often take several years to show their effect on the emissions, renewable energy and energy use indicators. Furthermore, the most current GHG emissions data provided by PRIMAP and the International Energy Agency (IEA) are about two years old. The CCPI’s climate policy assessment includes very recent developments – thereby minimising the situation where a current government’s record on climate benefits or suffers from the consequences of the preceding administration’s climate actions.

The qualitative data of the indicators in this category is assessed annually in a comprehensive research study. It is based on the performance rating awarded by around 350 climate change experts mainly from civil society within the countries being evaluated. Using a questionnaire, the experts give a judgement and rating on the most important policies and concrete measures of their governments as well as its implementation status and effects on the country’s decarbonisation progress.

This year the climate policy category of the CCPI is led by Portugal, France, the Netherlands, Sweden and Morocco which all score *high* regarding national and international climate policy. Australia, Turkey and the United States form the group of the worst-performing countries – not only performing *low* on national climate policy but also often hindering progress in international negotiations. It is noteworthy that many countries, including Germany, Canada and the United Kingdom for example, are performing relatively well on the international stage, yet seem to be failing to implement policy measures sufficiently at the national level.



Climate Policy – Rating Table for all Countries					
Rank	Country	Score	Overall Rating	National Climate Policy Performance	International Climate Policy Performance
4.	Portugal	98.4	High	High	Very High
5.	France	90.9	High	High	Very High
6.	Netherlands	90.8	High	High	High
7.	Sweden	88.3	High	High	Very High
8.	Morocco	87.6	High	High	High
9.	European Union (28)	85.2	High	Medium	Very High
10.	China	84.9	High	High	High
11.	Lithuania	82.5	High	High	Medium
12.	Switzerland	81.7	High	High	Medium
13.	Norway	81.7	High	Medium	High
14.	Finland	80.1	High	High	Medium
15.	Argentina	79.7	High	High	Medium
16.	Latvia	78.5	High	High	Medium
16.	Belarus	78.5	High	High	Medium
18.	Mexico	77.5	High	Medium	High
19.	United Kingdom	77.0	High	Medium	High
20.	Germany	72.4	Medium	Medium	High
21.	Republic of Korea	70.6	Medium	Medium	Medium
22.	Kazakhstan	66.5	Medium	High	Medium
23.	Luxembourg	64.8	Medium	Medium	Medium
24.	India	63.7	Medium	Medium	Medium
25.	Belgium	63.4	Medium	Medium	Medium
26.	South Africa	60.9	Medium	Low	Medium
27.	Canada	57.7	Medium	Low	High
28.	Brazil	55.9	Medium	Low	Medium
29.	Malaysia	55.9	Medium	Medium	Low
30.	Italy	55.5	Medium	Medium	Medium
31.	New Zealand	54.5	Medium	Medium	Low
32.	Islamic Republic of Iran	53.0	Low	High	Very Low
33.	Denmark	52.1	Low	Low	Medium
34.	Croatia	51.9	Low	Low	Medium
35.	Slovak Republic	51.9	Low	Medium	Low
36.	Czech Republic	51.5	Low	Low	Medium
37.	Poland	46.1	Low	Low	Low
38.	Chinese Taipei	44.6	Low	Very Low	Medium
39.	Algeria	44.0	Low	Low	Low
40.	Ukraine	43.8	Low	Very Low	Medium
41.	Cyprus	42.8	Low	Low	Low
42.	Austria	41.2	Low	Low	Low
43.	Spain	39.3	Low	Very Low	Medium
44.	Japan	38.2	Low	Low	Low
45.	Egypt	37.6	Low	Low	Low
46.	Ireland	36.7	Very Low	Very Low	Medium
47.	Indonesia	36.5	Very Low	Very Low	Low
48.	Russian Federation	36.4	Very Low	Very Low	Low
49.	Malta	35.9	Very Low	Low	Low
49.	Thailand	35.9	Very Low	Low	Low
51.	Hungary	33.0	Very Low	Low	Very Low
52.	Slovenia	30.7	Very Low	Very Low	Low
53.	Saudi Arabia	27.7	Very Low	Medium	Very Low
54.	Greece	26.5	Very Low	Very Low	Low
55.	Romania	25.8	Very Low	Very Low	Very Low
56.	Estonia	16.8	Very Low	Very Low	Very Low
57.	Bulgaria	12.0	Very Low	Very Low	Very Low
58.	Australia	11.8	Very Low	Very Low	Very Low
59.	Turkey	4.0	Very Low	Very Low	Very Low
60.	United States	0.0	Very Low	Very Low	Very Low

4. Key Country Results

After achieving the historic milestone of the Paris Agreement in 2015, the measure of its success must now be judged by the implementation of mitigation targets at a national level. As in all past editions of the CCPI, the first three places in the ranking remain unoccupied. This is because no country has yet done enough in terms of consistent performance across all the indicators required to limit global warming to well below 2°C, as agreed in the Paris Agreement. The following overview highlights the performance of 33 selected countries and the EU. The colored boxes indicate a country's rank in this year's CCPI, while the grey boxes refer to its rank last year.

Sweden

4 4

Like last year, Sweden is leading the group of *high*-performing countries in the CCPI, ranking fourth. The country continues to perform relatively *high* in the Renewable Energy as well as the GHG Emissions categories. However, GHG emissions are decreasing at a much slower pace when emissions from LULUCF* are excluded. Net forest growth and natural fluctuations in emissions from the agricultural sector explain the falling LULUCF emissions. Sweden has adopted a long-term target to reach net zero emissions by 2045. However, national experts criticise the lack of a clear strategy for achieving the targets. They highlight that, to be in line with a well-below-2°C pathway, Sweden's emissions would need to reach net zero by 2030 and particularly require a decrease in consumption-based emissions.

Morocco

5 6

Morocco moves up one place to become the second best-performing country in this year's CCPI, ranking fifth. The country has significantly increased the share of renewables over the past five years and has increased new renewable energy capacity. With the connection of the world's largest solar plant and multiple new wind farms to the grid, the country is well on track for achieving its target of 42% installed renewable energy capacities by 2020 and 52% by 2030. In addition, its *low* GHG emission level and ambitious NDC** cumulate to a *high* rating in the GHG emissions category. Morocco has also maintained its *high* ranking in the Climate Policy category. While national experts observe some delay in the implementation of national policies, they acknowledge the consultative process of developing a long-term strategy for 2050, which among other initiatives could make the country a policy frontrunner on the international level.

Lithuania

6 5

Once again reaching the top 10 of the CCPI, Lithuania ranks sixth in the 2019 edition. The country is consistently rated *high* in all categories, performing especially well on renewables. Despite a sharply increasing trend in energy use per capita, Lithuania's current level and 2030 target are contributing to a *high* rank for the Energy Use category overall. Assessment by national experts results in a *high* rating regarding national policy efforts, however the country's international performance only receives a *medium* rank.

United Kingdom

8 8

The United Kingdom stays in eighth place for the CCPI 2019, same as last year. The country is performing particularly well in the GHG Emissions category where it receives a *high* rating. The UK managed to reduce its per capita emissions considerably in recent years. In the Energy Use and Renewable Energy categories, the UK only gets a *medium* rating. Although energy use per capita has dropped, the level still remains relatively *high*, and renewable energy still only accounts for a small share of the energy mix. National experts give only a *medium* rating to the UK's national climate policy. They attribute recent emission reductions mainly to the coal phase-out but fear that other sectors are not being sufficiently addressed to meet the UK's carbon budgets. They criticise the country for freezing its carbon price and not sufficiently supporting small-scale renewable energy. In addition, the experts criticise that the UK's transport emissions rose last year and the carbon intensity of new cars in the UK is rising as well. The government's approach to low carbon transport is very poor, given the opportunities it has. On the other hand, experts give a *high* rating to the UK's international climate policy. The country could take a leading role in upgrading its 2050 target to net zero.

Switzerland

9 12

Switzerland ranks among the *high*-performing countries, building on a relatively *high* rating in the GHG Emissions and Energy Use categories. This is based on the minus 50% GHG reduction target by 2030 which can be achieved also with reductions outside of Switzerland. If only the domestic target of minus 30% were used (which is currently under debate), Switzerland's overall rank would be one position lower and the 2030 GHG target would have been rated *low*. In the Renewable Energy category, Switzerland ranks *medium*. According to national experts, the support scheme for renewable energies currently has long waiting lists, putting the achievement of the 2030 renewable energy target in question. While calling for a more proactive role in international climate negotiations and more commitment in terms of climate finance, experts commend the Swiss government for putting in place a strong public transport scheme.

India

11 14

India ranks 11th in this year's CCPI, improving its standing by three places compared to the previous edition. Most notably India improved its performance in the Renewable Energy category, joining the group of *medium* performers. However, national experts argue that plans to build new coal-fired power plants may pose a risk of offsetting positive developments in the renewable energy sector. Comparatively *low* levels of per capita GHG emissions and a relatively ambitious mitigation target for 2030 give India an overall *high* rating in the emissions category.

Norway

12 7

Falling five places compared to the previous edition, Norway ranks 12th in the CCPI 2019. Due to *high* performances in the

Renewable Energy and Climate Policy categories, the country still ranks among the group of *high*-performing countries. National experts praise Norway for its active and ambitious role in international political processes such as UNFCCC, CCAC and REDD+. Despite having a *medium* ranking in the GHG Emissions category, national experts criticise their country for not having concrete strategies for either long-term GHG emissions development or reducing subsidies for fossil fuels. They also note that Norway has no mandatory energy efficiency measures for industry, which led again to rising emissions after several years of declines. These developments are also reflected in a *very low* overall score in the Energy Use category. National experts also criticize that Norway has no exit strategy for the exploitation of oil and gas and is still investing in this field.

Finland

13 9

In the 2019 edition of the CCPI, Finland falls four places compared to last year and ranks 13th. The country's performance in the GHG Emissions category is rated *high*, mainly due to relatively *high*-rated GHG emission reductions over the past years. Finland also receives a *high* rating for its performance in the Renewable Energy category. However, the country ranks under the *very-low*-performing countries on Energy Use. National experts comment that for the parliamentary elections in April 2019, climate change appears to be an election issue. In late November 2018, the Finnish parliament announced a working group to outline more ambitious climate goals and measures to achieve these.

EU

16 21

The European Union (EU) – the only supranational entity evaluated in the index – is ranked under *high* performing countries at 16th place in this year's CCPI. As a whole, the EU accounts for about 9% of global GHG emissions. With relatively *high* per capita emissions and currently not on track to achieve its under-ambitious 2030 target, the EU is rated *medium* in the category GHG Emissions. On both Renewable Energy and Energy Use, the EU's performance is rated *medium*. The improved overall rating of the EU is mainly due to its *high* rating in the Climate Policy category. Experts commend that especially since the withdrawal of the United States of America from the Paris Agreement, the EU needs to take a proactive role at the international level and come forward with improved GHG targets. Therefore, the adoption of measures to reach 2030 targets, first discussions on lifting the 2030 GHG target and a proposal of a EU's long-term strategy with a climate neutrality goal by 2050 are seen important, not only for progress within the EU's member states, but also for the Union's role in international climate diplomacy. As the EU consists of 28 Member States, the ranking reflects accumulated different national performances.

Portugal

17 18

Portugal moved up one to 17th place in this year's CCPI. With a relatively *high* share in renewable energies and an ambitious 2030 renewables target, the country rates *high* in the Renewable Energy category. For the Energy Use category the country is rated *medium*. National experts criticise weak performance concerning the transport sector and call for more investments in public

transport and e-mobility. However, overall the country ranks *high* in the Climate Policy category with national experts praising the country's plan to become carbon neutral by 2050 and to achieve coal phase-out in 2030. Among EU nations, Portugal is also among a group backing an EU 2050 net zero emissions goal.

Ukraine

18 20

In this year's edition of the CCPI Ukraine moved up to 18th place. Its position among *high* performing countries is mainly a result of a relatively *high* rating for GHG Emissions as well as a *high* to *very high* performance in all indicators in the Energy Use category. Experts stress that the country's *high* overall rating is more a result of the economic crisis, due to the ongoing conflict in the Donbass region, than of effective climate policy. They criticise the lack of ambition in national climate policy. This is also reflected in a *very low* rating for national climate policy as well as a *low*-rated well-below-2°C compatibility of both its emissions reduction and renewables target for 2030.

France

21 15

France did not maintain its position and dropped to 21st place, putting it in the group of *medium*-performing countries in this year's index. The country continues to rank *high* in the Climate Policy category. National experts commend France for its constructive and leading role in international climate diplomacy, giving a *very high* rating to the country's international climate policy. On national policy, country experts acknowledge the implementation of a carbon taxation and the decision on coal phase-out by 2022 but criticise the lack of tangible action to reduce emissions especially in transport and building sectors. This lack of action on both counts is also reflected in the country's *medium* ranking in the GHG Emissions and Energy Use categories. Despite an increased share of renewables over the past five years, France's overall performance in the Renewable Energy category is rated relatively *low* with the country's 2030 target for renewables not being in line with a well-below-2°C trajectory.

Brazil

22 19

Brazil ranks 22nd in this year's CCPI with a *medium* overall rating. Brazil's performance in the GHG Emissions category is rated *medium*. On Energy Use, Brazil performs *high* as it is among the countries with the lowest energy use per capita. Brazil also receives a *high* rating for Renewable Energy due to the *very high* share of renewables in the energy mix – although the share has hardly increased in recent years. National experts emphasise that Brazil played an active role in international negotiations in the past but that the newly elected President Jair Bolsonaro could undermine this. Experts give a *low* rating to national climate policy because they consider emission targets as insufficient and are alarmed about rapid deforestation rates, driven by President Bolsonaro's lax stance on the issue.

Italy

23 16

Italy could not maintain its rank among *high*-performing countries and drops to 23rd place in this year's CCPI. The country receives a *medium* rating for its performance in the GHG Emissions

and Renewable Energy categories. Italy has managed to reduce its energy use per capita considerably over recent years and rates *high* on Energy Use. National experts criticise the lack of ambition in the targets for emission reductions, renewables and energy efficiency set out in Italy's 2017 National Energy Strategy. They commend Italy for its decision to phase out coal power by 2025 but note that implementation measures are lacking, and that cuts to incentives and regulatory uncertainty are hampering the renewable energy sector. Given that Italy has joined the High Ambition Coalition statement of several EU countries on the IPCC's Special Report on 1.5°C, experts hope that this will lead to a more proactive approach in international climate negotiations. Overall, this results in a *medium* rating for the country's Climate Policy performance.

Mexico

25 27 ▲

Mexico ranks 25th in the CCPI 2019 with an overall *medium* performance. The country receives a *high* rating for the Energy Use category – Mexico has managed to further reduce its relatively *low* level of energy use per capita over recent years. In the GHG Emissions category, Mexico only receives a *medium* rating, and on Renewable Energy it gets a *low* rating reflecting inter alia the comparably *low* share of renewables in Mexico's energy mix. In the Climate Policy category, national experts give a *high* rating to Mexico's performance on the international stage, emphasising the government's proactive role in international negotiations and its participation in different international and regional partnerships. However, this positive picture does not completely match climate policy at the national level where experts rate Mexico only as a *medium* performer. They highlight that Mexico's emissions targets are not ambitious enough and lack implementation. However, experts welcome the decision to translate Mexico's long-term climate strategy into sectoral and interim targets and also praise the successful auctioning scheme for renewable energy.

Germany

27 22 ▼

This year, Germany falls back to 27th place to the middle of the group of *medium*-performing countries. The relatively *low* performance in the GHG Emissions category can mainly be traced to Germany still being the world's biggest user of lignite. Nevertheless, a decision by the government on a coal phase-out is due in 2019. An ambitious decision may therefore boost Germany's performance in next year's index. Germany is rated *medium* in the Renewable Energy category. While the country continued to increase its share of renewable energies over the past five years, a decrease in investments in renewable energy after switching from a feed-in system to an auctioning system in 2017 was observed. Germany continues to receive a *high* rating for its international climate policy. However, national experts criticise Germany's restraint over a strategy for carbon neutrality by 2050 within the EU. They observe that the government still lacks integrated policies to implement the promises made in Paris, such as a carbon tax. Experts also criticise the lack of strategy to decarbonise the transport sector and fear that Germany may miss out on important future markets. This leads to a *medium* rating in the Climate Policy category.

China

33 41 ▲

Ranking 33rd in this year's CCPI, China moves up to the bottom of the *medium*-performing countries group for the first time. This is mainly a result of China's GHG emissions trend, as its emission levels did not increase between 2014 and 2016. However, latest data show that GHG emissions started to increase again in 2017 and 2018. Therefore China may fall back again in next year's edition of the index. Performance in the Energy Use category is rated *very low*, mainly due to a *very-low*-rated trend in energy use per capita. In terms of Renewable Energy, China is rated *medium*: renewables still only account for a relatively small share of the energy mix but have boomed in recent years. China keeps its overall high rating in the Climate Policy category, reflecting inter alia the government's progress on regulating industrial emissions, building emissions and a successful renewables support scheme. National experts highlight that successful implementation of the national Emissions Trading Scheme holds the potential to achieve the country's emissions targets.

Argentina

34 46 ▲

In this year's index, Argentina is ranked 34th with the country's overall performance rated as *low*. Minor improvements can be seen in the Energy Use category where the country is now among the *medium* performers. Argentina showed some improvement (from *very low* to *low*) in the GHG Emissions category but still *very low* on Renewable Energy. Country experts give a relatively *high* rating to Argentina's national climate policy, highlighting the new carbon tax and a new renewable energy law. In contrast, they criticise the government for not putting a carbon price on natural gas, the main source of energy in Argentina, for failing to achieve its not very ambitious 2017 renewable energy targets and for increasingly shifting financial resources towards the use of fossil fuels. Experts give only a *medium* rating for Argentina's international climate policy and stress that during its G20 presidency the government did not take the opportunity to push for more ambitious climate policy.

Spain

35 38 ▲

Spain ranks 35th in this year's CCPI, improving by three places. However, its overall rating remains *low*. On GHG Emissions, Spain is a *medium* performer. Even though the country performs relatively well at the current level and on its recent trend of GHG emissions per capita, Spain is still far from reaching a level and a 2030 target compatible with a well-below-2°C pathway. Spain performs *medium* in the Renewable and Energy Use categories. Experts emphasise the positive developments initiated by the new government – Spain is currently preparing a Climate Change and Energy Transition Law and the National Energy and Climate Plan under the EU's newly developed framework for Member States. Furthermore, experts highlight the government's launch of new energy projects, but criticise the lack of possible participation for smaller community projects.

Indonesia

38 37 ▼

In the 2019 edition of the CCPI, Indonesia is ranked 38th and is thus classified as a *low*-performing country. Indonesia receives a *medium* rating for the GHG Emissions and Energy Use categories: energy use per capita is still *very low* but has increased rapidly in recent years. The country is rated *low* on Renewable Energy. National experts criticise the fact that there is yet no effective support mechanism for renewables, which is also reflected in a comparably low increase in the share of renewable energy in recent years. This is one of the main reasons why national experts give a *very low* rating to Indonesia's national climate policy. They also deplore the alarmingly high rates of deforestation, mainly driven by the pulp and palm oil industry and they call for more stringent national policies.

South Africa

39 48 ▲

Improving nine ranks on last year's index, South Africa takes the 39th spot of the CCPI 2019. The country is still rated *very low* in the Renewable Energy category and *low* in the GHG Emissions category. Currently, renewables account only for a *very-low*-rated share of the energy mix and GHG emissions per capita are still high although they have been decreasing in recent years. Over the past five years South Africa managed to quickly reduce energy use per capita, resulting in a *medium* rating for the Energy Use category. However, national experts rate national climate policy efforts as *low*. They criticise South Africa for lacking a clear emissions reduction strategy, for heavily subsidising fossil fuels and for still lacking a coal phase-out plan. They note, however, that a number of processes are currently under way to address some of these shortcomings. Experts also see a comparably better performance on the international stage leading to a *medium* rating for the country's international climate policy performance.

Poland

41 40 ▼

Poland, the host country of this year's UN Climate Change Conference (COP 24), ranks 41st and receives an overall *low* rating. Poland performs *low* in all categories, except in the Energy Use category where it is rated slightly better and receives a *medium* rating. National experts highlight that the white certificate system introduced by the government succeeded in reducing energy consumption and they acknowledge the introduction of an electro-mobility plan. However, transport emissions are rising fast and coal still dominates the country's energy mix. Poland ranks *low* in the Renewable Energy category. Experts criticise the lack of any coordinated long-term policy strategies for reducing the high dependency on coal and for advancing the development of renewable energy.

New Zealand

44 33 ▼

New Zealand falls 11 places and ranks 44th in this year's CCPI. Despite a *high* rating in the Renewable Energy category, the country is rated among the *low*-performing countries based on its *very low* performance in the Energy Use and GHG Emissions category of the index. National experts criticise the lack of policies to reduce GHG emissions and the absence of a systematic plan for further expanding renewable energy. However, they

acknowledge the government's decision to ban new permits for oil and gas exploration offshore as a significant step forward. A national climate law – the Zero Carbon Act – is under negotiation, through which the government intends to set a 2050 emissions reduction target and develop a strategy for achieving it. Whether this law would enable the country to be on track for a well-below-2°C pathway remains to be seen. For now, New Zealand is ranked *medium* in the Climate Policy category.

Algeria

47 45 ▼

Algeria slips two places from the previous edition down to 47th place in this year's CCPI. The country performs *low* in the GHG Emissions as well as the Climate Policy category of the index. Even though Algeria is rated *medium* for Energy Use, national experts emphasise that the current *low* level of energy consumption is more a result of the country's economic situation than effective policies on energy efficiency. With a *very low* rating for the Renewable Energy category, Algeria ranks among the bottom five countries on this.

Ireland

48 49 ▲

Still rated as the worst-performing EU country in the CCPI, Ireland reaches position 48 and remains in the group of *very-low*-performing countries. The performance in the GHG Emissions category is rated *very low* and the country is also occupying a spot among the *low*-ranking performers in the Energy Use category. Due to its increased renewable energy share over the past five years, and forthcoming support schemes for renewable heat and renewable electricity which recognise the value of citizen and community participation, Ireland is rated *medium* in the Renewable Energy category. National experts commend the Irish Parliament for its leadership in deciding to pass the Fossil Fuel Divestment Bill, which is the first of its kind in the world, and for the innovative Citizens' Assembly process which produced far-reaching recommendations for climate action now being considered by a special parliamentary committee working on the development of Ireland's National Energy and Climate Plan. Therefore, the performance on international climate policy is rated *medium*. However, existing climate mitigation efforts will not enable Ireland to achieve either its EU 2020 or 2030 targets domestically. The long-standing lack of implementation of substantive measures to put the country on a well-below-2°C pathway results in a *very low* rating for Ireland's national policy performance.

Japan

49 50 ▲

Japan ranks 49th in the CCPI 2019 as the country is rated *low* in all four categories of the index – GHG Emissions, Renewables, Energy Use and Climate Policy. The country's 2030 targets for emission reductions, renewables and energy use are not compatible with a well-below-2°C trajectory and thus receive a *very low* rating. However, the country has managed to reduce its energy use and increase the share of renewables over the past five years. Japan's national experts give a *low* rating for its national and international climate policy. They criticise the government for not providing clear signals on climate policy, especially for renewable energy, but welcome the current discussions on a long-term climate strategy.

Turkey

50 47

Turkey ranks 50th in this year's CCPI and belongs to the *very-low* performing countries. The country performs *low* in the category GHG Emissions and *very low* in the Energy Use category. It has a relatively high rating in the Renewable Energy category, driven by the rapid growth of renewables in recent years. However, national experts caution that the renewable energy support scheme will expire by 2020 making investors more hesitant about investing in renewables. They also criticise the government for supporting coal power and postponing the implementation of building emission standards. Experts thus rate Turkey's national climate policy as *very low*. Turkey has not yet ratified the Paris Agreement which contributes to a *very low* rating for its international climate policy.

Russian Federation

52 53

The Russian Federation is ranked 52nd in this year's index and remains in the group of *very-low*-performing countries. The country is rated *low* for the categories GHG Emissions and Energy Use, mostly because Russia has one of the highest levels of GHG emissions per capita and a *very-low*-rated performance with regard to energy use per capita. Additionally, Russia is the worst-performing country in the Renewable Energy category, scoring *very low* on all four indicators of this category. National experts criticise insufficient national policy efforts with regard to Russia's 2030 GHG emissions targets while renewable energy targets are rated *very low*. Moreover, the country has still not ratified the Paris Agreement, all of which combines to result in a comparably *low* rating in the Climate Policy category.

Canada

54 51

Canada remains in the group of *very-low*-performing countries. The country is still one of the largest emitters of greenhouse gases, both in absolute and per capita terms, and is rated *very low* for its performance in the categories GHG Emissions, Renewable Energy and Energy Use. The Government of Canada continues to receive a high rating for its international climate diplomacy – national experts commend Canada for its leading role in the Powering Past Coal Alliance. However, experts observe an increased gap between policy directions at federal and provincial levels, leading to a *low* rating for national climate policy. Recent provincial elections seem to have made it increasingly difficult to implement climate policies across jurisdictional levels, which would be needed to put the country on a well-below-2°C pathway.

Australia

55 57

With an overall *very low* performance, Australia ranks 55th in this year's CCPI. The country continues to receive *very low* ratings in the categories GHG Emissions, Energy Use and Climate Policy. The country ranks at the bottom of *low* performers in the Renewable Energy category with national experts criticising the government for not putting forward any plans for renewable energy beyond 2020. Experts argue that national climate policy has continued to worsen – the government has no comprehensive emission reduction policy, no regulation of transport emissions

and no plans to phase out coal. Experts observe that the government has become an increasingly regressive force in international negotiations, attempting to weaken climate finance obligations and dismissing the IPCC 1.5°C report.

Republic of Korea

57 58

The Republic of Korea ranks 57th and is among the worst-performing countries of the CCPI 2019. This is a result of *very low* ratings in the GHG Emissions and Energy Use category. The Republic of Korea is among the countries with the highest level of per capita emissions and per capita energy use, both of which are increasing. A positive development, however, can be seen in the renewables section with an overall *medium* rating: although the share of renewables in the energy mix is still *very low*, the country shows one of the highest growth rates. For its climate policy, the Republic of Korea receives a *medium* rating. The government released new plans for renewables and electric vehicles.

Islamic Republic of Iran

58 59

The Islamic Republic of Iran again ranks in the bottom three of this year's CCPI, performing *low* or *very low* in all index categories. National experts note that economic and trade sanctions imposed by the United States will not only have a dampening effect on Iran's emissions levels in the next few years but will also slow down investments in renewable energy. Geopolitical tensions, which serve to push climate down the political agenda, are also reflected in the *very low* rating given for the country's international policy performance.

United States

59 56

The United States fall by three positions to 59th place, ranking *low* or *very low* for the index categories GHG Emissions, Renewable Energy and Energy Use. This continues the downwards trend after the country's withdrawal from the Paris Agreement. The refusal of President Trump to acknowledge climate change being human-caused, and his dismantling of regulation designed to reduce carbon emissions, result in the United States also being rated *very low* for its national and international climate policy performance. However, national experts continue to highlight positive signals at the subnational level, with cities and states pushing for ambitious climate action such as with the US Climate Alliance. The Democrats, after winning the majority in the House of Representatives, have pledged to place climate policy on the political agenda. But this hasn't yielded tangible results yet.

Saudi Arabia

60 60

Saudi Arabia remains at the bottom of the CCPI. The country continues to be a *very low* performer in all index categories and on every indicator for Emissions, Energy Use and Renewable Energy. On climate policy, experts give Saudi Arabia a *very low* rating. Although the government is taking steps to expand renewable energy, it has not adopted emission reduction targets. Experts also continue to criticise the country's *very low* performance in international negotiations.

5. CCPI Website

Visit the Climate Change Performance Index Website at www.climate-change-performance-index.org to learn more about countries' performance in the CCPI:

- Interactive maps and tables showing the results for all 56 countries + EU
- Performance at a glance: country-specific scorecards

The screenshot displays the CCPI 2019 website interface. At the top, there's a navigation bar with 'Overall Results', 'Category Results', and 'Country Results'. The main content area features a 'Country Scorecard' for Poland, showing a score of 40 (down from 41 last year) and a rank of 41. Below this, there are four charts: GHG Emissions (CO₂-eq/capita), Renewable Energy (% of TPES), Energy Use (TPES in GJ per capita), and Climate Policy Score. A 'Key Indicators' table for 2016 is also visible, listing metrics like Population, GDP per capita, CO₂ per capita, and TPES per GDP. At the bottom, an 'Indicators' table provides a detailed breakdown of scores and weights for various metrics, such as GHG per Capita (Score: 28.3, Rank: 38) and Renewable Energy (Score: 20.0, Rank: 44).

www.climate-change-performance-index.org

6. Sources and Further Reading Recommendations

- Burck, Marten, Höhne, Bals (2018): The Climate Change Performance Index: Background and Methodology. Available at: www.germanwatch.org/en/ccpi_bame
- BP (2018): BP Statistical Review of World Energy 2018. Available at: www.bp.com/content/dam/bp/en/corporate/pdf/energy-economics/statistical-review/bp-stats-review-2018-full-report.pdf [accessed: 22.11.2018]
- CBC (2018): 50,000 people march in Montreal to demand more climate action. Available at: www.cbc.ca/news/canada/montreal/climate-march-montreal-1.4900916
- Climate Transparency (2018): G20 Brown to Green Report 2018. Available at: www.climate-transparency.org/g20-climate-performance/g20report2018 [accessed: 26.11.2017]
- Data Driven Yale, NewClimate Institute, PBL Environmental Assessment Agency (2018): Global Climate Action from Cities, Regions and Businesses. Available at: http://datadriven.yale.edu/wp-content/uploads/2018/08/YALE-NCI-PBL_Global_climate_action.pdf [accessed: 26.11.2017]
- Freudenberg (2003): Composite Indicators of Country Performance: A Critical Assessment. STI Working Paper 2003/16. Paris.
- Gütschow, Johannes; Jeffery, Louise; Gieseke, Robert; Gebel, Ronja (2018): The PRIMAP-hist national historical emissions time series (1850-2016). V. 2.0. Update of: Gütschow, Johannes; Jeffery, Louise; Gieseke, Robert; Gebel, Ronja (2018): The PRIMAP-hist national historical emissions time series (1850-2015). V. 1.2. GFZ Data Services. <http://doi.org/10.5880/PIK.2018.003>.
- Gütschow, J., Jeffery, M. L., Gieseke, R., Gebel, R., Stevens, D., Krapp, M., and Rocha, M.: The PRIMAP-hist national historical emissions time series, Earth Syst. Sci. Data, 8, 571-603, <https://doi.org/10.5194/essd-8-571-2016>, 2016.
- Howarth; Santoro; Ingraffea (2011): Methane and the Greenhouse-Gas Footprint of Natural Gas from Shale Formations. In: Climatic Change, 106/4, 679-690.
- IEA (2018b): CO₂ Emissions from Fuel Combustion. Paris.
- IEA (2018c): Renewables Information. Paris.
- IEA (2018a). World Energy Outlook 2018. Paris.
- IPCC (1997): Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. Available at: www.ipcc-nggip.iges.or.jp/public/gl/invs1.html [accessed: 09.11.2017]
- IPCC (2018): Global Warming of 1.5°C. Available at: http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf [accessed: 20.11.2018]
- IRENA (2018a): Renewable capacity highlights. Available at: http://irena.org/-/media/Files/IRENA/Agency/Publication/2018/Mar/RE_capacity_highlights_2018.pdf?la=en&hash=21795787DA9BB41A32D2FF3A9C0702C43857B39C [accessed: 22.11.2018]
- IRENA (2018b): Renewable Power Generation Costs in 2017. Available at: http://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Jan/IRENA_2017_Power_Costs_2018.pdf [accessed: 22.11.2018]
- Meinshausen et al. (2009): Greenhouse-gas emission targets for limiting global warming to 2 °C. Nature 458/7242: 1158.
- New York Magazine (2018): Voters Are Ready for a Green New deal. Are Democrats? Available at: <http://nymag.com/intelligencer/2018/09/climate-change-polls-voters-are-ready-for-a-green-new-deal-are-democrats.html?gtm=top>m=top> [accessed: 22.11.2018]
- REN21 (2018): Renewables 2018 Global Status Report. Paris: REN21 Secretariat.
- The Guardian (2018a): Thousands of anti-coal protestors celebrate German forest's reprieve. Available at: www.theguardian.com/environment/2018/oct/06/thousands-of-anti-coal-protesters-celebrate-german-forests-reprieve [accessed: 22.11.2018]
- The Guardian (2018b): Can climate litigation save the world? Available at: www.theguardian.com/environment/2018/mar/20/can-climate-litigation-save-the-world [accessed: 22.11.2018]

- The Guardian (2018c): Wentworth becomes test bed for how federal election will treat climate change. Available at: www.theguardian.com/australia-news/2018/oct/19/wentworth-becomes-test-bed-for-how-federal-election-will-treat-climate-change [accessed: 22.11.2018]
- The Guardian (2018d): Climate polls shows Morrison politically vulnerable as more voters back action. Available at: www.theguardian.com/environment/2018/sep/12/climate-poll-shows-morrison-politically-vulnerable-as-more-voters-back-action [accessed: 22.11.2018]
- UNEP (2018). The Emissions Gap Report 2018. United Nations Environment Programme (UNEP), Nairobi.
- YLE (2018). Thousands gather in Helsinki to demand swift action on climate change. Available at: https://yle.fi/uutiset/osasto/news/thousands_gather_in_helsinki_to_demand_swift_action_on_climate_change/10467382 [accessed: 22.11.2018]

Disclaimer on comparability to previous CCPI editions

The CCPI 2019 (for 56 selected countries and the EU) is based on a methodological design that has been progressively introduced in 2017 over the CCPI G20 Edition and CCPI 2018 editions. The index now is even better suited to measure how well countries are on track to meet the global goals of the Paris Agreement. It covers all greenhouse gas emissions* and includes the 2030 targets and the 2°C compatibility of countries' current levels and targets in the categories "GHG Emissions", "Renewable Energies" and "Energy Use". For this reason, there is only limited comparability between this year's results and versions of the index prior to the CCPI 2018. However, this year's results are comparable to both the CCPI G20 Edition as well as to the CCPI 2018.

* All Kyoto Gases (CO₂, CH₄, N₂O, HFKW, PFKW and SF₆) plus the emissions coming from Land Use, Land Use Change and Forestry (LULUCF)

Copyright

The content and works on these pages created by the operators of these pages are subject to German copyright law. The reproduction, processing, dissemination and all kinds of use outside the limits of copyright require the written consent of each author or creator. Downloads or copies of this site are for private, non-commercial use only. If the content on this site was not created by the operator, the rights in copyright of third parties were respected. In particular, content of third parties is marked as such. Nevertheless, should you notice a breach of copyright, you are requested to let us know. If we become aware of a breach of the law, we will remove this content immediately.

Germanwatch

Following the motto of *Observing. Analysing. Acting.* Germanwatch has been actively promoting global equity and livelihood preservation since 1991. We focus on the politics and economics of the Global North and their worldwide consequences. The situation of marginalised people in the Global South is the starting point for our work. Together with our members and supporters, and with other actors in civil society, we strive to serve as a strong lobbying force for sustainable development. We aim at our goals by advocating for prevention of dangerous climate change and its negative impacts, for guaranteeing food security, and for corporate compliance with human rights standards.

Germanwatch is funded by membership fees, donations, programme funding from Stiftung Zukunftsfaehigkeit (Foundation for Sustainability), and grants from public and private donors.

You can also help us to achieve our goals by becoming a member or by making a donation via the following account:

Bank fuer Sozialwirtschaft AG
BIC/Swift: BFSWDE33BER
IBAN: DE33 1002 0500 0003 2123 00

www.germanwatch.org

NewClimate Institute

The NewClimate Institute for Climate Policy and Global Sustainability is a Germany-based research institute generating ideas on climate change and driving their implementation. They do research, policy design and knowledge sharing on raising ambition for action against climate change and supporting sustainable development. Their core expertise lies in the areas of climate policy analysis, climate action tracking, climate finance, carbon markets, and sustainable energy.

www.newclimate.org

Climate Action Network

CAN members work to achieve this goal through information exchange and the coordinated development of NGO strategy on international, regional, and national climate issues. CAN has regional network hubs that coordinate these efforts around the world.

CAN members place a high priority on both a healthy environment and development that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Commission). CAN’s vision is to protect the atmosphere while allowing for sustainable and equitable development worldwide.

www.climatenetwork.org

