

# The Climate Change Performance Index

## Results 2015



Jan Burck, Franziska Marten, Christoph Bals

**Embargoed  
until 8<sup>th</sup> of December  
10.30 am (Lima time)**



# Imprint

Germanwatch - Bonn Office

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

Germanwatch - Berlin Office

Schiffbauerdamm 15  
D-10117 Berlin, Germany  
Ph.: +49 (0) 30 - 28 88 356-0  
Fax: +49 (0) 30 - 28 88 356-1  
E-Mail: [info@germanwatch.org](mailto:info@germanwatch.org)  
[www.germanwatch.org](http://www.germanwatch.org)



Authors: Jan Burck, Franziska Marten,  
Christoph Bals

Editing: Birgit Kolboske, Lindy Devarti,  
Daniela Baum

Maps: Laura Krings

Design: Dietmar Putscher, Cologne  
[www.dietmar-putscher.de](http://www.dietmar-putscher.de)

Printed on 100% recycled paper

December 2014

Purchase Order Number: 15-2-03e

ISBN 978-3-943704-24-2

This publication can be downloaded at:  
[www.germanwatch.org/en/ccpi](http://www.germanwatch.org/en/ccpi)

With financial support from  
the Barthel Foundation



CAN

Climate Action Network Europe  
Rue d'Edimbourg 26  
B-1050 Brussels, Belgium  
Ph.: +32 (0) 28 94 46 70  
E-Mail: [info@caneurope.org](mailto:info@caneurope.org)  
[www.caneurope.org](http://www.caneurope.org)



## Contents

<b>Foreword</b>	<b>3</b>
<b>1. Key Developments: On the way to Paris, what has changed since Copenhagen?</b>	<b>4</b>
<b>2. Key Results</b>	<b>5</b>
<b>3. About the CCPI</b>	<b>7</b>
<b>4. Overall Results • CCPI 2015</b>	<b>8</b>
4.1 CCPI World Map 2015	10
4.2 Partial Results • Emissions Level	12
4.3 Partial Results • Development of Emissions	14
4.4 Partial Results • Renewable Energies	16
4.5 Partial Results • Efficiency	18
4.6 Partial Results • Climate Policy	20
<b>5. Country Example: Denmark</b>	<b>22</b>
<b>6. Climate Change Performance Index by Country Group</b>	<b>24</b>
<b>7. Sources and Further Reading Recommendations</b>	<b>26</b>

# Foreword

Dear Reader,

Our world is characterized by fast moving geopolitical and natural changes and the scenarios drawn by climate change specialists are alarming. If we want to avoid dangerous climate change and its ample consequences for creatures all over the world, it is necessary to take action right now. Awareness of the danger is growing and with the IPCC's Fifth Assessment Report, also evidence has grown once more that fossil fuels such as coal have to be left in the ground in order to minimize those threats. The Climate Change Performance Index (CCPI) since 10 years now, keeps on working to bring awareness forward. Since 2005, the CCPI has been contributing to a clearer understanding of national and international climate policy. The various initial positions, interests, and strategies of the numerous countries make it hard to distinguish their strengths and weaknesses. The CCPI is an important tool to address this.

To demonstrate existing measures more accurately and to encourage steps towards effective climate policy, the CCPI methodology was evaluated in 2012 and improvements have since been made. The integration of data on emissions from

deforestation was one of the major steps in this process, made possible due to the data provided by the FAO Global Forest Resource Assessment 2011. Alongside energy-based emissions, deforestation is another important source of anthropogenic CO<sub>2</sub>. By including emissions from deforestation, we can now present a more complete view of man-made impacts on the world's climate.


The following publication is issued by Germanwatch and Climate Action Network Europe. However, only the assistance of about 300 energy and climate experts from all over the world allows us to include a review of each country's national and international policies, with respect to their efforts to avoid climate change. We greatly appreciate these experts for taking the time and effort to contribute with their knowledge. Experts are mainly representatives of NGOs working within their respective countries, fighting for the implementation of the climate policy that we so desperately need.

Best regards,



  
Wendel Trio  
(Director of CAN-Europe)



  
Klaus Milke  
(Chairman of the Board, Germanwatch)

# 1. Key Developments: On the way to Paris, what has changed since Copenhagen?

This year, the Climate Change Performance Index shows a new “record” in global energy related CO<sub>2</sub> emissions. Similar records have been reported almost every year since the Index was started ten years ago. In the coming years, the atmospheric CO<sub>2</sub> concentration is also set to exceed the 400-ppm benchmark. Nevertheless, promising trends can also be reported. Both the rising emissions and a number of promising trends emphasize the need to reach an ambitious agreement at the COP21 in Paris. The new agreement should inspire confidence in investors and individuals alike to shift their investments to promote low and finally zero carbon emissions. Some of the developments that have taken place during the past five years highlight the differences in conditions before Copenhagen and raise hopes of reaching this agreement next year in Paris.

1. Emission growth rates are slowing and at the same time we can observe a global decoupling from CO<sub>2</sub> emissions and GDP growth as well as from CO<sub>2</sub> emissions and primary energy consumption.
2. The decoupling of emissions and primary energy consumption is in line with the rapidly developing renewable energy (RE) sector. 51 of the 58 Index states show a positive trend in the field of renewables and most have double-digit growth rates; the annual mean development of REs has shown a steady increase of about 15% over the last years (more than 16% in 2012). As part of this development, the price of REs is dropping rapidly and sometimes already outpaces that of fossil fuels.
3. The IPCC has made clear that four fifths of global fossil fuels need to stay in the ground and for the first time has published emission limits that must be observed in order to comply with the 2 °C guard rail.
4. In light of scientific studies, coal – as the number 1 top polluting energy source – must be phased out during the next decades if the target of remaining below the 2°C threshold is to be reached. And climate change is only one factor contributing to the phasing out of coal. A number of politicians and investors have understood the circumstances and, as a result, for the first time since the Industrial Revolution, the global coal industry finds itself on the defence. Anti-coal developments are now taking place in the world’s largest emitting countries: China and the US. In China, the Index data show declining growth rates of coal and a slow but steady decoupling of primary energy consumption and CO<sub>2</sub> emissions. About one third of Chinese provinces have already agreed to implement measures for a restriction of coal-fired power plants. And now, for the first time ever, China, in a joint

public statement by its President Xi Jinping and US President Barack Obama, has named a date for an emissions peak. The US government has also given strong signals for a restrictive coal policy, both internally and externally. In addition, many development banks worldwide have fulfilled the announcements made last year and started to divest themselves of coal. This led to a wave of divestment that has already caused public debate.

The joint declaration in November 2014 by the heads of state of the two largest emitters created the momentum for taking political action before Paris 2015. Now it is up to the EU to show its willingness to catch up and regain its former leading role in climate protection. Not only should all G20 countries announce their goals until spring, it is also up to them to act and to constantly adjust their goals to the challenge throughout the process. These promising political signs together with data showing, on the one hand, declining emission growth rates and, on the other, a decoupling of CO<sub>2</sub> emissions from GDP and primary energy consumption suggests that a real and stable plateau of overall emissions could be within reach in the coming years. Paris could be a turning point in this respect.

And we can report on yet another silver lining: Something exciting came up in this year’s CCPI: Denmark and Sweden surpassed their benchmark for the winner’s podium. At least for now, these countries are doing their share to keep the world below 2°C warming. However, since one year does not make a trend, we will have to see what happens in the future to be sure that this development is not due to short-term weather conditions or other fluctuations. But, if this promising development continues throughout the next years, these countries may be awarded with the 1<sup>st</sup> and 2<sup>nd</sup> places of the Index. For now, the first three places remain unoccupied to remind countries of how much still remains to be done to successfully prevent the dangerous impacts of climate change.

# 2. Key Results

- **Denmark** leads the CCPI table once again in 4<sup>th</sup> place (the first three positions remain empty) with ambitious renewable energy and emissions reduction policies. Even though emission levels are still relatively high, the country sets an example in how industrialised countries can not only promise, but also implement effective climate protection policies. The Index dedicates its country special this year to Denmark (more details in chapter 5).
- **Sweden** ranks 5<sup>th</sup> and shows an outstanding emissions development in the residential sector. Emissions have declined significantly by about 70% over the last five years. The country has also improved its score in the renewables sector. The result: up 19 places in this category.
- **Morocco** continued last year’s upward trend: the country again climbed up, this year by 6 positions and now for the first time ranks in the top ten. This is by far the best result for a developing country in the actual ranking. Especially noteworthy is that the kingdom has not only adopted ambitious renewable energy targets, but also supported its commitment with an increasing number of solar and wind projects as means to secure climate-compatible development. With its legal and institutional framework on renewable energy and efficiency, its cuts in gasoline and fuel oil subsidies and its pioneering role in constructing the world’s largest concentrated solar power plant in Ouarzazate (500 MW), Morocco emerges once again as one of the global forerunners in renewable energy policy making.
- **Ireland** is leading the category “Emissions”, ranking 5<sup>th</sup> in the category “Emissions’ Development” and 8<sup>th</sup> in renewable energy. National experts criticise the low incentive to generate renewable electricity from sources other than wind and observe growing opposition to wind energy in the country.
- **Mexico**, 18<sup>th</sup> in the overall ranking and still one of the poorest performers in the renewables sector and rather moderate in most other categories, has very good rating in international policy evaluations. In 2012 and 2013 Mexico adopted a general law on climate change as well as a national climate change strategy based on the Copenhagen targets, which include cutting CO<sub>2</sub> emissions (2020) and electricity production from non-renewable sources (2024) both by 30%. Effective implementation of these policies will move the country up in next years’ rankings.
- **Germany**, still unable to recover from last year’s fall, retains the same ranking as in the previous year (22<sup>nd</sup>). The new government gained a slightly better policy evaluation, but the share of renewables did not increase as

much as in former years when Germany almost always ranked at the top. After the slowdown of the energy transition, national experts remain disappointed even though the new government has put climate change back on the agenda. The decision of December 3 regarding a new climate action programme could not be considered in this year’s edition of this report.

- The **Czech Republic** climbed 13 places this year. The country improved its score in the renewables sector and gained a better policy evaluation than last year.
- **India** climbs five places and continues to profit from the very low level of per capita emissions, but overall CO<sub>2</sub> emissions have risen constantly over the past five years to about 40%. At the G20 summit, India’s president announced a new program promoting renewables. At the same time, the coal sector is experiencing immense growth.
- **Spain’s** downward trend continues throughout this CCPI edition. It fell again in the ranking, this year by 8 positions. Politically retroactive measures have ruined the dynamics in the renewables sector and, as a result, Spain slides down 37 places in this category. In addition, the country is opposing progressive measures on an international scale.
- In **Bulgaria**, national experts query the government’s approach to the renewables sector with its introduction of additional taxes and fees and the installation of administrative barriers. Bulgaria is politically unstable and with constantly changing governments, climate policies are never prioritised. The country’s ranking thus remains relatively steady, situated within the group of poor performing countries.
- For years now the **USA** has been reducing transport emissions, albeit from a very high level. Although the policy grade for the transport sector is relatively poor, emissions have been decreasing since 2008. National experts criticise the small number of new significant advancements made at federal level in regulating emissions from the transport sector and the continued extreme underdevelopment of public transportation. Since the Obama administration in its second term made climate issues a focus of its foreign policy, the tendencies in international policies are promising. But with an anti-climate majority in congress, it remains to be seen which positive developments will make it on the ground.
- **China’s** efficiency scores are improving rapidly. At the same time, a decline in emissions growth and similar decoupling processes on a global scale can be observed. CO<sub>2</sub> emissions per primary energy consumption are

starting to slowly decline and CO<sub>2</sub> per GDP is shrinking. Moreover, renewables are continuously increasing. About half of all global renewable energy investments are made in China. At the same time, the use of unsustainable renewables (e.g. unsustainable biomass) is decreasing. On the downside, China continues to invest in unsustainable large-scale waterpower projects and plans to build many new nuclear power stations.

- **Brazil's** performance in the past years seems to have hit rock bottom, losing a total of 14 places due to downward trends in almost every sector. However, there are signs to suggest that Brazil has managed to reduce deforestation significantly. The new FAO Report will be published next year. If Brazil really has reduced its emissions in the country's most important sector, this will also boost its placement in the next CCPI.
- According to **Turkey's** national climate experts, the country has no national strategic planning policy to explicitly address climate change. The fossil fuel industry is increasing rapidly and, at least in the energy sector, most policies that are in place lack implementation. As a result, the country ranks 51<sup>st</sup>. in the overall table.
- Good news from **Iran**. The new government that took over in summer has finally started to talk about climate protection and set some ambitious goals in the promotion of renewables. These developments are not yet reflected in

the data but national experts see a positive prospect for the future. Iran's ranking has slightly improved (3 places) but still remains "very poor".






- In **Canada** (58<sup>th</sup>) nothing has changed and nothing is going forward at state level. Canada is about to miss its 2020 emissions reduction target by about 20% and the only effective policies in place are provincial initiatives.
- The new conservative **Australian** government has apparently made good on last year's announcement and reversed the climate policies previously in effect. As a result, the country lost a further 21 positions in the policy evaluation compared to last year, thus replacing Canada as the worst performing industrial country.
- **Saudi Arabia's** high emission levels remain unchanged compared to previous years, placing the kingdom once again at the bottom of the rankings. Yet, it must be noted that the energy outlook of world's largest crude oil exporter hold out some hope. While the country's economy still runs almost entirely on hydrocarbon fossil fuel, it envisions the implementation of up to 41 GW of solar and 9 GW of wind power by 2032. Although these numbers are impressive and could signal a significant game changer in the Middle East, their means of implementation remain rather vague as the state's leaders seek to simultaneously free up even more of its oil and gas reserves for export.

Table 1: Key Data for the 10 Largest CO<sub>2</sub> Emitters

Country	CCPI Rank		Share of Global GDP	Share of World Population	Share of Global CO <sub>2</sub> Emissions*	Share of Global Primary Energy Supply
	2015	2014				
Germany	22	22	3.44%	1.16%	2.23%	2.34%
Indonesia	23	26	2.35%	3.51%	2.31%	1.60%
India	31	36	6.72%	17.57%	5.70%	5.89%
United States	44	44	17.17%	4.47%	14.69%	16.01%
China	45	46	16.03%	19.30%	23.43%	21.76%
Brazil	49	35	3.05%	2.82%	4.17%	2.11%
Japan	53	52	4.82%	1.81%	3.61%	3.38%
Korea	55	55	1.69%	0.71%	1.75%	1.97%
Russian Federation	56	56	2.63%	2.04%	4.87%	5.66%
Canada	58	58	1.56%	0.50%	1.57%	1.88%
Total			59.45%	53.89%	64.32%	62.59%

\*energy-related emissions and emissions from deforestation

© Germanwatch 2014

Performance  Very good  Good  Moderate  Poor  Very poor

### 3. About the CCPI

The Climate Change Performance Index 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, up until now, failed to take ambitious action on climate protection. It also aims 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 58 countries that together are responsible for more than 90% of global energy-related CO<sub>2</sub> emissions. There are other countries with good or even higher climate protection performance, but due to methodological reasons, their inclusion is not possible. As the CCPI is mainly emissions based, countries with extremely low emissions simply cannot be taken into account. However it would be interesting to have a closer look on their climate protection efforts, since some of them are very proactive. After 7 years of publication, the CCPI has been thoroughly evaluated. This evaluation has had two major outcomes. Now, it has been possible to include emissions from deforestation, albeit not with the same quality of data as energy-related emissions.<sup>1</sup> The second achievement is a new structure and weighting of the individual indicators with a much stronger focus on renewable energy and efficiency as the most prominent mitigation strategies.

The revised methodology is still primarily centred on objective indicators. Thereby, 80% of the evaluation is based on indicators of emissions (30% for emissions levels and 30% for recent development of emissions), efficiency (5% level of efficiency and 5% recent development in efficiency) and renewable energy (8% recent development and 2% share of total primary energy supply).<sup>2</sup> The remaining 20% of the CCPI evaluation is based on national and international climate policy assessments by approximately 300 experts from the respective countries. An example of the methodology of the CCPI can be found under section 5 "Country Example" and extensive explanations are available in the brochure "The Climate Change Performance Index: Background and Methodology".<sup>3</sup>

Similar to last year, the average scores for national and international policies remain to be weak. Most experts are definitely not satisfied with the efforts of their governments with regard to the 2 °C limit.

The CCPI ranking is qualified in relative terms (better – worse) rather than absolute terms. 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 involved as the current front-runners, efforts would not yet be sufficient to prevent dangerous climate change. Hence, this year once again, no country was awarded the rank of 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup>.

Since not only the CCPI methodology is in a continuous revision process, but also the underlying data that is provided by the International Energy Agency, it is important to notice there are retrospective changes that influence the comparability of the results between the different Index years. This year the data changes mostly affected the assessment of GDP values and therefore the indicators for efficiency are not comparable to older versions of the Index.<sup>4</sup>

<sup>1</sup> Data used in the CCPI includes only CO<sub>2</sub> emissions from living biomass. Emissions from soils and deadwood are not accounted for. Furthermore, the data from the FAO Global Forest Resources Assessment is only updated every 5 years

<sup>2</sup> Regarding the emissions trends, the CCPI 2013 compares the time period between 2005 and 2010. For the emissions level, data from the last three years with available data (2008 to 2010) is taken into account.

<sup>3</sup> [www.germanwatch.org/en/ccpi](http://www.germanwatch.org/en/ccpi)

<sup>4</sup> IEA (2014): Emissions from fuel combustion: Beyond 2020 Documentation. <http://wds.iea.org/WDS/tableviewer/document.aspx?FileId=1464>



4. Overall Results • CCPI 2015

Table 2

Rank	Country	Score**	
1*	-	-	
2*	-	-	
3*	-	-	
4	- Denmark	77.76	<div><div></div><div></div><div></div><div></div><div></div></div>
5	▲ Sweden	71.44	<div><div></div><div></div><div></div><div></div><div></div></div>
6	▼ United Kingdom	70.79	<div><div></div><div></div><div></div><div></div><div></div></div>
7	- Portugal	67.26	<div><div></div><div></div><div></div><div></div><div></div></div>
8	▲ Cyprus	66.99	<div><div></div><div></div><div></div><div></div><div></div></div>
9	▲ Morocco	65.73	<div><div></div><div></div><div></div><div></div><div></div></div>
10	▲ Ireland	65.15	<div><div></div><div></div><div></div><div></div><div></div></div>
11	▼ Switzerland	65.05	<div><div></div><div></div><div></div><div></div><div></div></div>
12	▼ France	64.11	<div><div></div><div></div><div></div><div></div><div></div></div>
13	- Iceland	63.07	<div><div></div><div></div><div></div><div></div><div></div></div>
14	▼ Hungary	62.82	<div><div></div><div></div><div></div><div></div><div></div></div>
15	▲ Slovak Republic	62.50	<div><div></div><div></div><div></div><div></div><div></div></div>
16	▼ Belgium	61.89	<div><div></div><div></div><div></div><div></div><div></div></div>
17	▲ Italy	61.75	<div><div></div><div></div><div></div><div></div><div></div></div>
18	▲ Mexico	61.30	<div><div></div><div></div><div></div><div></div><div></div></div>
19	▲ Slovenia	60.99	<div><div></div><div></div><div></div><div></div><div></div></div>
20	▼ Malta	60.84	<div><div></div><div></div><div></div><div></div><div></div></div>
21	- Lithuania	60.07	<div><div></div><div></div><div></div><div></div><div></div></div>
22	- Germany	59.60	<div><div></div><div></div><div></div><div></div><div></div></div>
23	▲ Indonesia	59.57	<div><div></div><div></div><div></div><div></div><div></div></div>
24	▲ Egypt	59.19	<div><div></div><div></div><div></div><div></div><div></div></div>
25	▼ Romania	59.02	<div><div></div><div></div><div></div><div></div><div></div></div>
26	▲ Czech Republic	57.99	<div><div></div><div></div><div></div><div></div><div></div></div>
27	▼ Norway	57.88	<div><div></div><div></div><div></div><div></div><div></div></div>
28	▼ Spain	57.34	<div><div></div><div></div><div></div><div></div><div></div></div>
29	▼ Luxembourg	57.25	<div><div></div><div></div><div></div><div></div><div></div></div>
30	▲ Ukraine	57.10	<div><div></div><div></div><div></div><div></div><div></div></div>
31	▲ India	56.97	<div><div></div><div></div><div></div><div></div><div></div></div>

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

\*\* rounded

└ comparison with previous year

© Germanwatch 2014

Rank	Country	Score**	
32	- Finland	56.76	<div><div></div><div></div><div></div><div></div><div></div></div>
33	▼ Latvia	56.65	<div><div></div><div></div><div></div><div></div><div></div></div>
34	▲ Croatia	56.35	<div><div></div><div></div><div></div><div></div><div></div></div>
35	▲ Greece	55.89	<div><div></div><div></div><div></div><div></div><div></div></div>
36	▼ Austria	55.39	<div><div></div><div></div><div></div><div></div><div></div></div>
37	▲ South Africa	54.63	<div><div></div><div></div><div></div><div></div><div></div></div>
38	▼ Belarus	54.54	<div><div></div><div></div><div></div><div></div><div></div></div>
39	▲ Algeria	54.46	<div><div></div><div></div><div></div><div></div><div></div></div>
40	▲ Poland	54.36	<div><div></div><div></div><div></div><div></div><div></div></div>
41	▼ Bulgaria	54.05	<div><div></div><div></div><div></div><div></div><div></div></div>
42	▼ Netherlands	53.27	<div><div></div><div></div><div></div><div></div><div></div></div>
43	▼ New Zealand	52.56	<div><div></div><div></div><div></div><div></div><div></div></div>
44	- United States	52.33	<div><div></div><div></div><div></div><div></div><div></div></div>
45	▲ China	51.77	<div><div></div><div></div><div></div><div></div><div></div></div>
46	▲ Estonia	51.58	<div><div></div><div></div><div></div><div></div><div></div></div>
47	▼ Thailand	50.61	<div><div></div><div></div><div></div><div></div><div></div></div>
48	▼ Argentina	49.61	<div><div></div><div></div><div></div><div></div><div></div></div>
49	▼ Brazil	48.51	<div><div></div><div></div><div></div><div></div><div></div></div>
50	▼ Singapore	47.27	<div><div></div><div></div><div></div><div></div><div></div></div>
51	▲ Turkey	46.95	<div><div></div><div></div><div></div><div></div><div></div></div>
52	▼ Malaysia	46.84	<div><div></div><div></div><div></div><div></div><div></div></div>
53	▼ Japan	45.07	<div><div></div><div></div><div></div><div></div><div></div></div>
54	▼ Chinese Taipei	45.03	<div><div></div><div></div><div></div><div></div><div></div></div>
55	- Korea	44.15	<div><div></div><div></div><div></div><div></div><div></div></div>
56	- Russian Federation	43.39	<div><div></div><div></div><div></div><div></div><div></div></div>
57	▲ Islamic Rep. of Iran	40.99	<div><div></div><div></div><div></div><div></div><div></div></div>
58	- Canada	38.81	<div><div></div><div></div><div></div><div></div><div></div></div>
59	- Kazakhstan	37.72	<div><div></div><div></div><div></div><div></div><div></div></div>
60	▼ Australia	35.57	<div><div></div><div></div><div></div><div></div><div></div></div>
61	- Saudi Arabia	24.19	<div><div></div><div></div><div></div><div></div><div></div></div>

└ comparison with previous year

© Germanwatch 2014

Index Categories

- Emissions Level (30% weighting)
- Emissions Development (30% weighting)
- Renewable Energy (10% weighting)
- Efficiency (10% weighting)
- Policy (20% weighting)

Rating

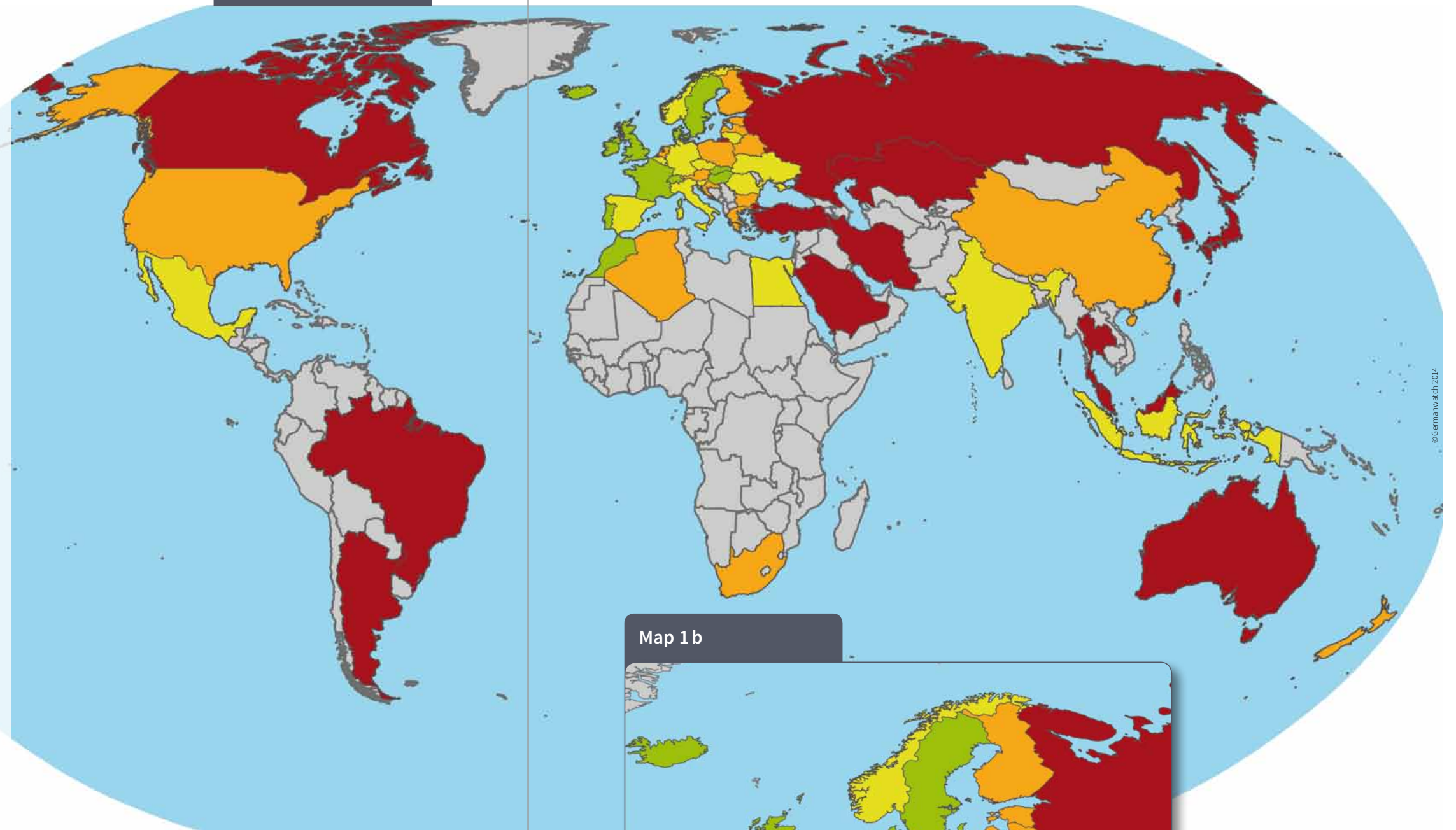
- Very good
- Good
- Moderate
- Poor
- Very poor

## 4.1 CCPI World Map 2015

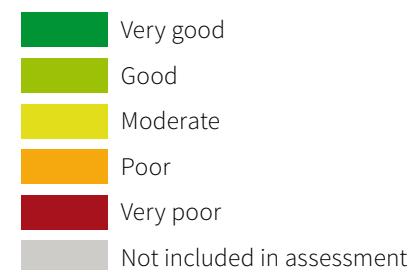
The CCPI 2015 results illustrate the main regional differences in climate protection performance within 58 countries across the world. Although lower growth rates of global CO<sub>2</sub> emissions give reason to hope for a low carbon development in the future, so far no country has performed well enough to reach the Index's "very good" category.

For the third time in a row, we see Denmark leading the table, followed by Sweden, the UK and Portugal. In addition to these European countries, the leading group includes Morocco, which has made it into the top ten for the first time. With Mexico another developing country is now listed in the top twenty. There are still no changes in position for Germany, which did not manage to score high enough to climb back to top of the list. Egypt, however, has improved its position. So has India, which features this year among the moderate performers. Croatia and Greece climbed several ranks; likewise Algeria made quite a leap, jumping from position 49 to 39 right to the middle of "only" poor performing countries. The Netherlands, on the contrary, did not live up to its promising position of last year and lost some ground, whereas New Zealand, the US and China are relatively stable in the lower third of poor performers. Thailand, Argentina and Brazil moved down into the group of very poor performers. Russia, Iran, Canada, Kazakhstan, Australia and Saudi Arabia remain at the bottom of the table and conclude the ranking with only slight changes in their performances.

Map 1 a



### Performance



Map 1 b



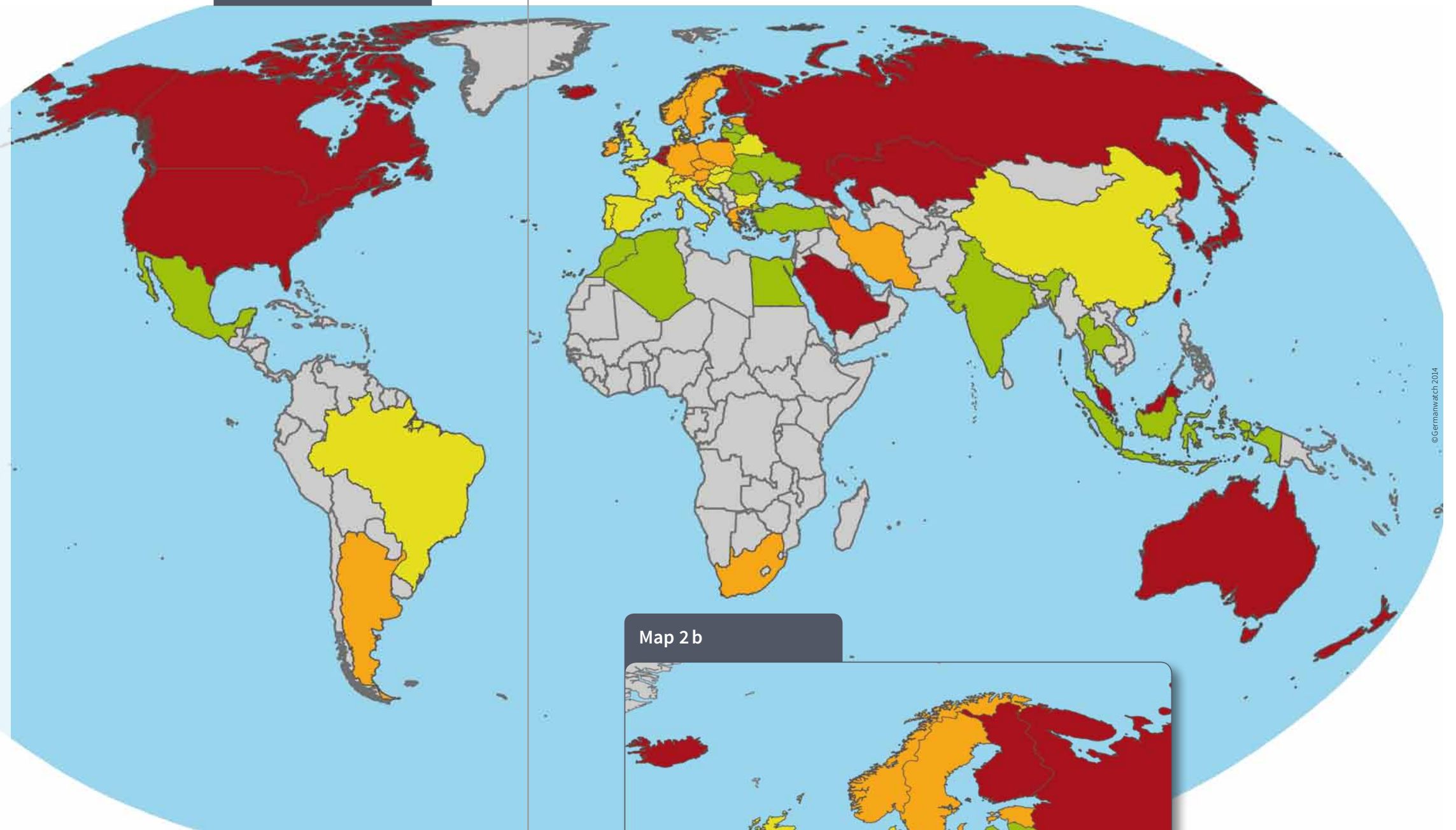


## 4.2 Partial Results • Emissions Level

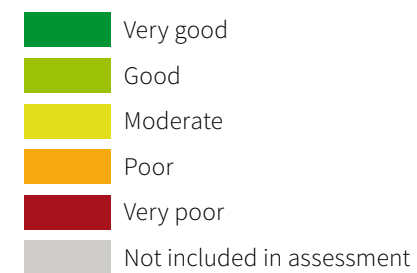
Besides the slowdown in emissions, last year's tendencies towards a decoupling of CO<sub>2</sub> emissions from GDP are slowly emerging in the data. A very interesting development is the trend that primary energy consumption is rising faster than CO<sub>2</sub> emissions, thus indicating an energy system that is increasingly independent from fossil fuels. The rapid development of renewable energies around the world could have had a positive effect.

Morocco is leading in the category "Emissions Level", closely followed by India, which continues to profit from its low per capita emissions. Since this category is the most sluggish, there are only few changes to report. Denmark's progressive policy seems to be gradually reflected in the country's emissions data as it moves up five places into the moderate performing country group. The UK, however, took some retrograde steps losing its fifth rank in the overall tableau. Within the group of poor performers, Cyprus improved its score. There are as few changes at the bottom of the tableau as there are at the top with Canada, Australia and Saudi Arabia still coming in last.

Map 2 a



### Performance



Map 2 b



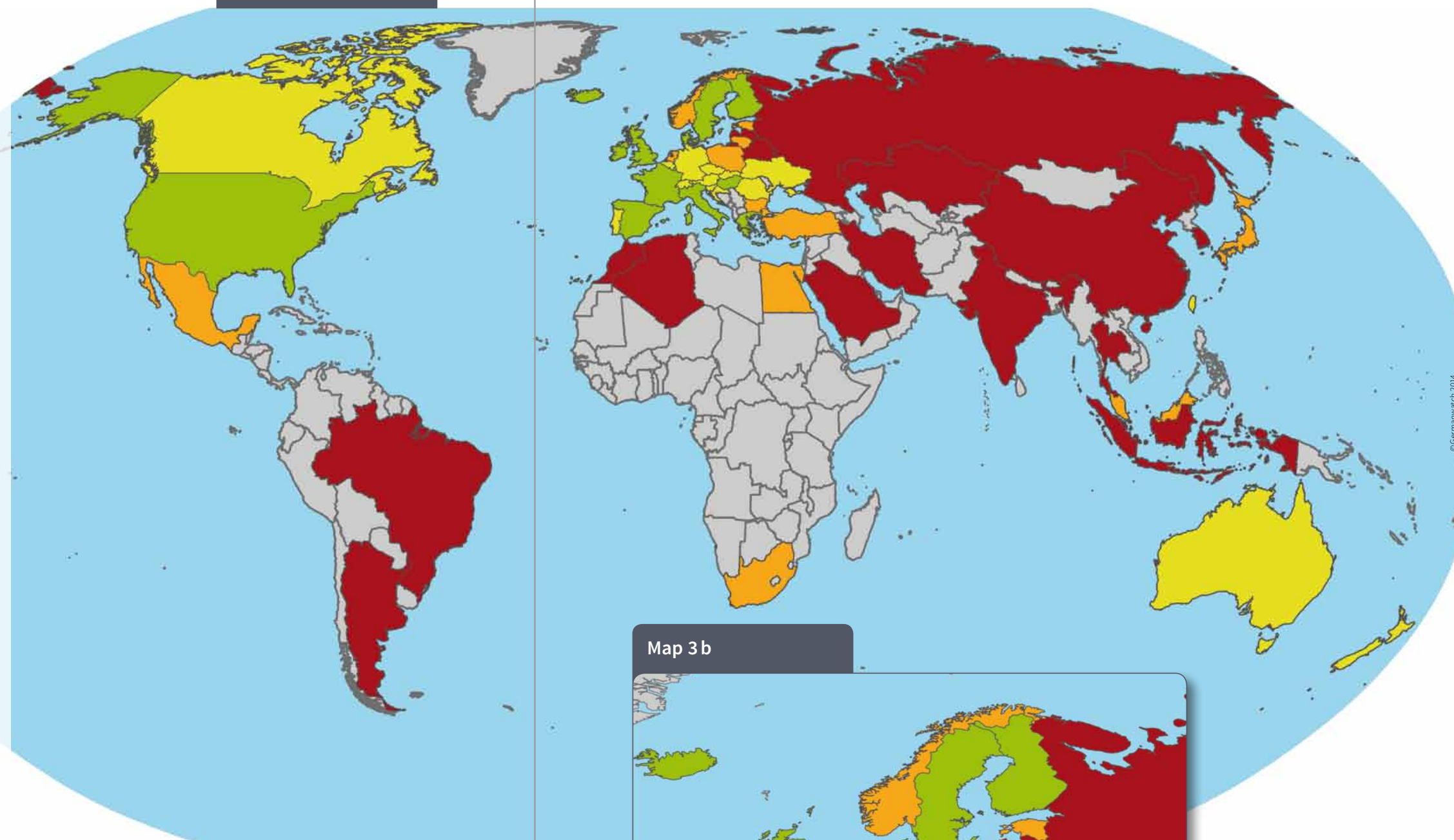


## 4.3 Partial Results • Development of Emissions

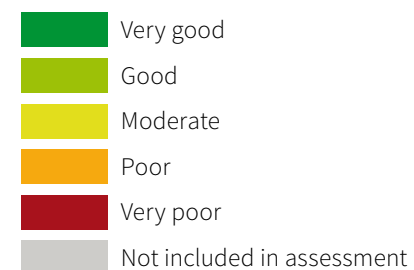
The section measuring the development of emissions remains one of the Index's key indicators, as it is relatively sensitive to effective climate policy measures. One of the best examples for this is Denmark, which continued its upward trend in this category to rank seventh after effectively implementing important policies.

Luxembourg, Ireland and Iceland remain on top of the list. While Denmark improved its ranking, the USA and the UK show a poorer development of emissions compared to the previous year. Within the group of "moderate" performing countries, New Zealand lost some ground; the same applies to Belgium, Austria and Germany. Japan slipped from rank 26 to 34, thus giving a rather "poor" performance. Also in this group: Egypt (49 to 44) and Malaysia (46). Featuring in the "very poor" group are, e.g., Argentina, Kazakhstan, Russia, Thailand, Algeria, Iran, Brazil and India. Still at the bottom are China and Saudi Arabia.

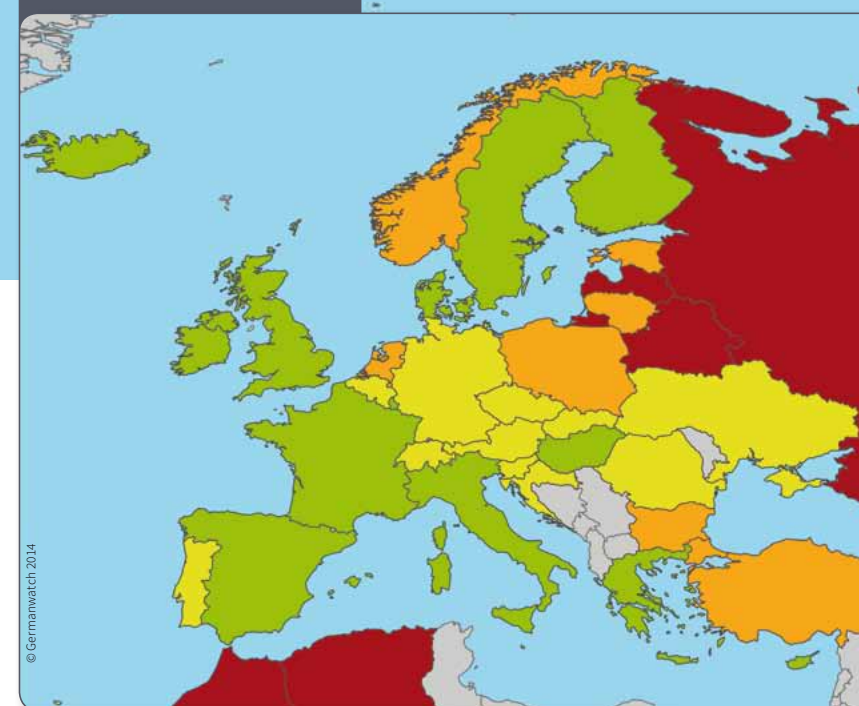
Map 3 a



### Performance



Map 3 b





## 4.4 Partial Results • Renewable Energies

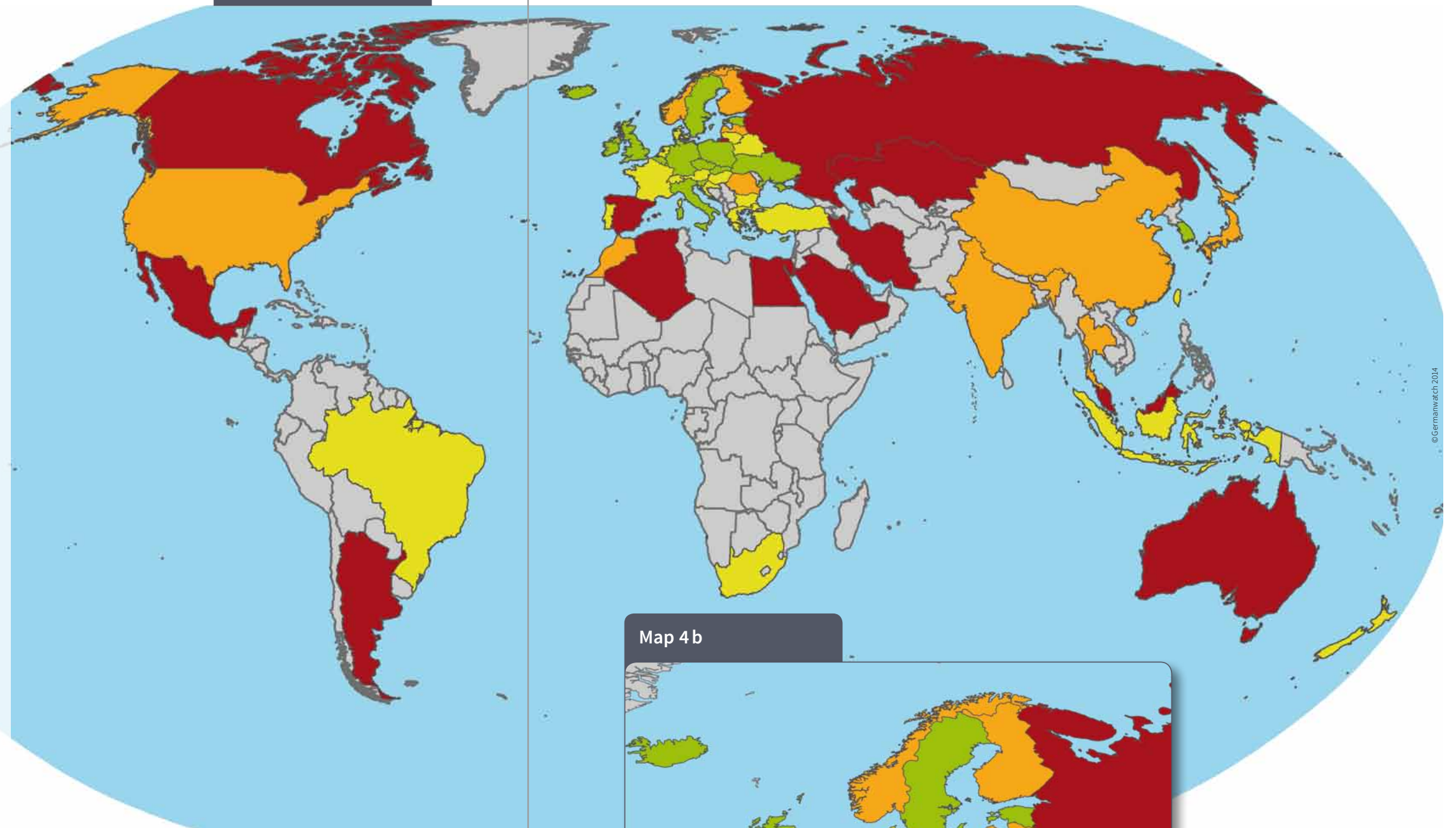
Because the energy sector is the most carbon intensive, renewable energy is the key driver for a transition to a sustainable world. Addressing energy production is therefore of paramount importance for climate protection measures. Shifting energy production to renewables also is an important way of decoupling economic development from increasing emissions.

In general, we observe massive growth rates in the renewables sector. Only seven of the 58 countries show a backward trend; most states show enormous development with double-digit growth rates.

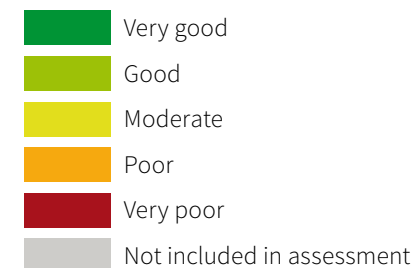
Belgium leads the ranking in the field of renewables this year with a growth of 88% in the last five years. Sweden made a major leap from rank 27 to 8. Italy, Slovenia and the Czech Republic also improved their scores. Germany lost four places and is now the lowest-ranking country with a “good” performance, not managing to recover from last year’s fall in this field.

South Africa climbed from place 48 into the “moderate” group (26) and also Greece, Chinese Taipei, Turkey, France, Croatia and Switzerland improved their scores. The data shows fewer changes for China, the USA and Morocco in the group of “poor” performers; the massive investments in renewables in these countries will probably boost their position in the coming years. Thailand lost 14 and India 9 places, whereas Spain fell dramatically 37 places and joined the “very poor” performers. The other countries in this group remain relatively stable at the bottom with only minor changes in rank.

Map 4 a



### Performance



Map 4 b





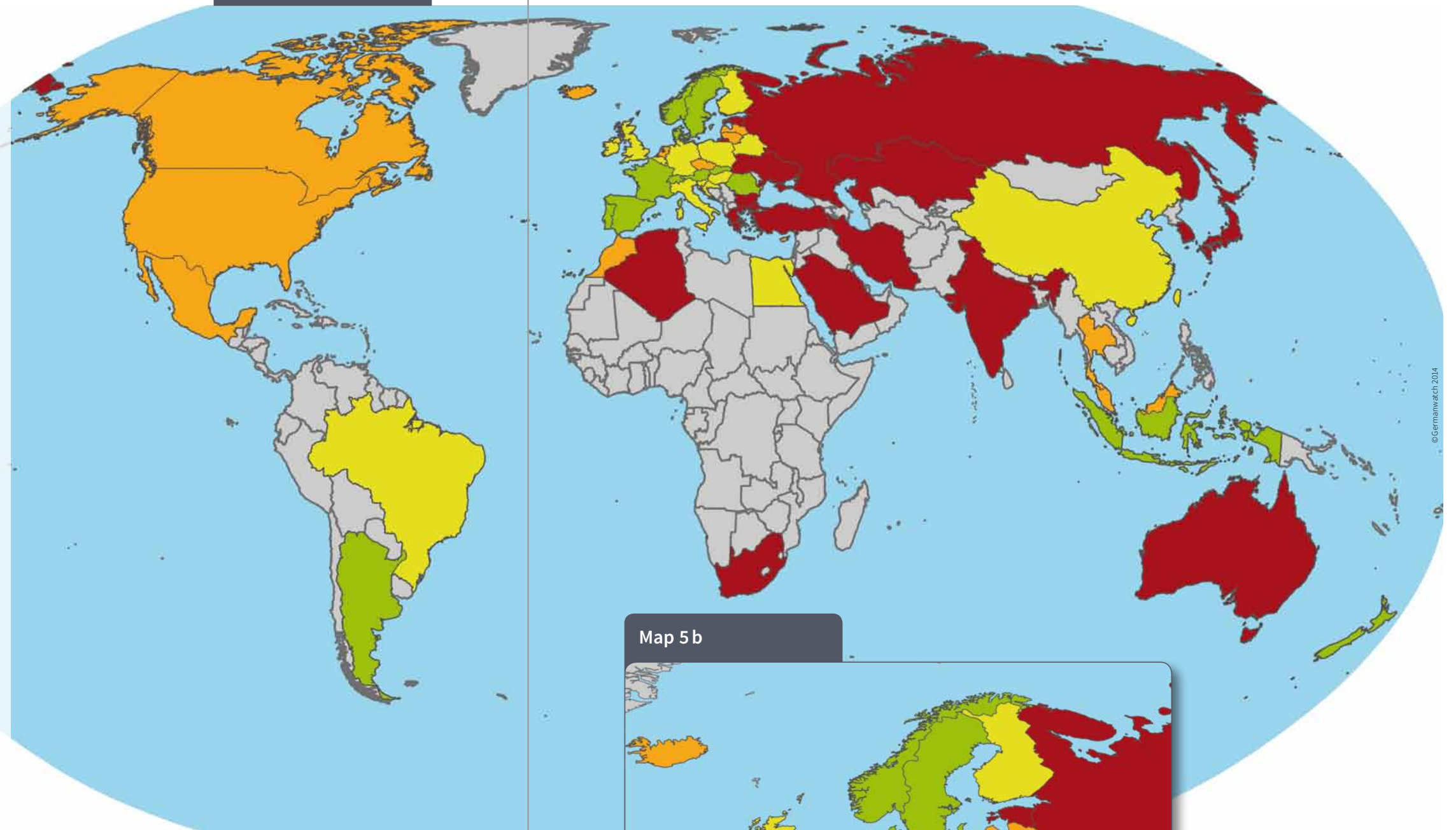
## 4.5 Partial Results • Efficiency

This section of the CCPI assesses the current level and recent development of energy efficiency in the observed countries. Together with a large-scale deployment of renewable energy, improvements in energy efficiency are crucial for a global reduction of greenhouse gas emissions. Enhancing efficiency levels is closely associated with long-term economic benefits and is therefore one of the major strategies in tackling climate change.

Although the efficiency table is still led by mostly European countries, compared to last year other countries have also managed to get into the top ranks; Indonesia, Argentina, New Zealand and Chinese Taipei also feature in the first 27.

Despite its role as a pioneer in the field of renewable energy with the "energy transition", Germany is still not fully exploiting its huge potential for efficiency improvements. China climbed from rank 36 to 29 and likewise Egypt jumped in the "moderate" group. South Africa, Estonia and Kazakhstan have the worst performance in this category. Asian and African countries in particular still have untouched potential for improving their efficiency. Both for global climate protection efforts and for economic reasons, it would be crucial for these countries to compensate economic growth with improvements in efficiency levels.

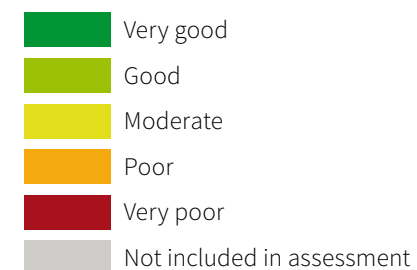
Map 5 a



Map 5 b



### Performance





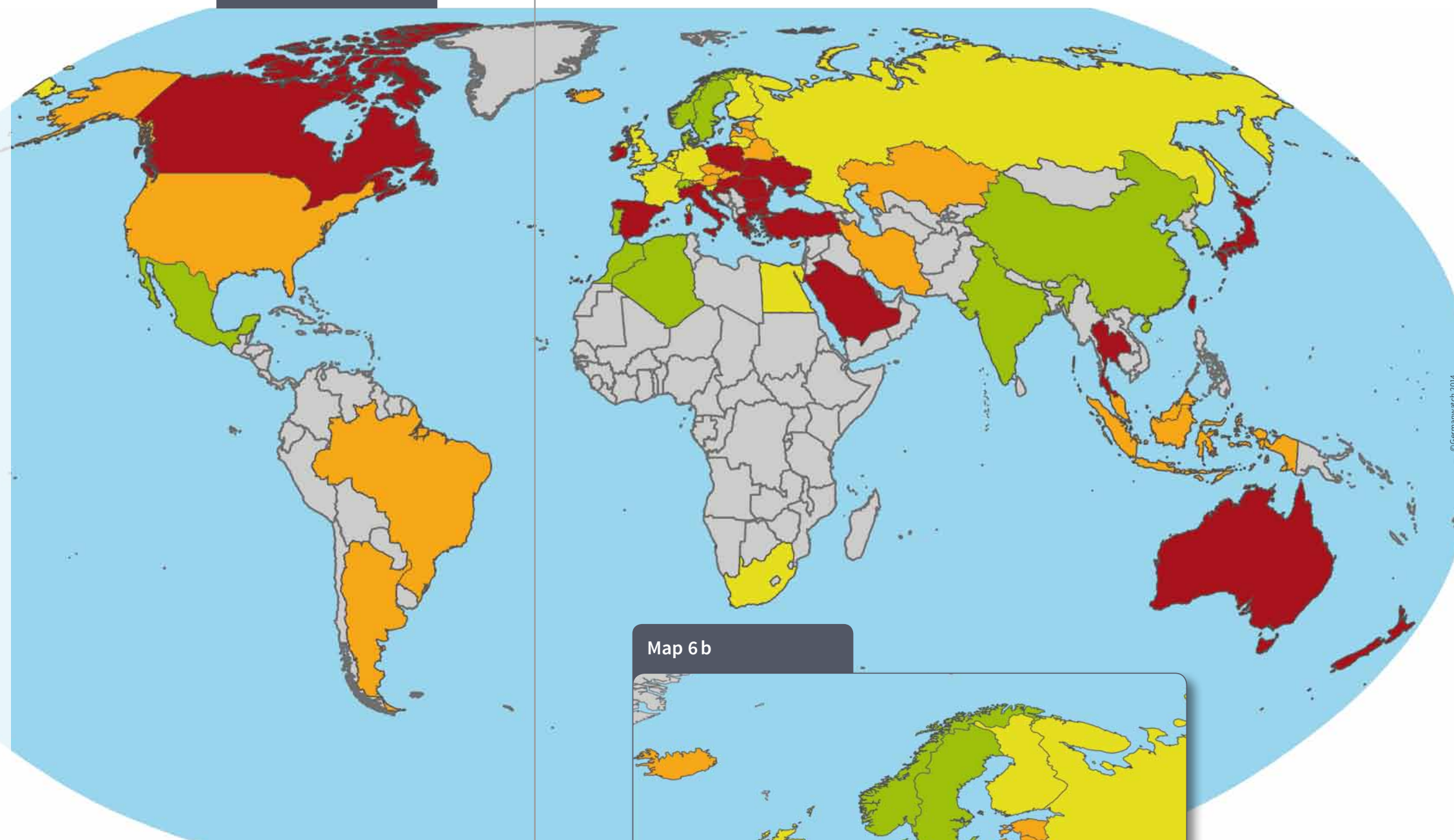
## 4.6 Partial Results • Climate Policy

Reflecting efforts towards an efficient and low-carbon society, this map portrays the evaluation and results of climate policy within the observed countries. About 300 experts from non-governmental organisations contributed to the CCPI 2015 with an evaluation of those policies. While all recent underlying data of the other categories are from 2012 or even earlier (FAO deforestation data), the expert evaluations reflect up-to-date developments.

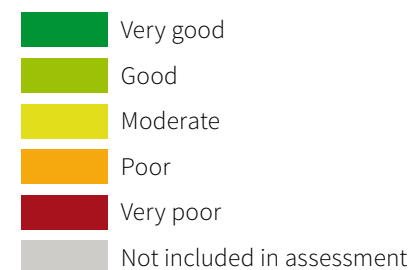
The policy data enables countries with an overall poor performance to be rewarded as soon as a shift in policies is observed (e.g. due to a change of government or of the current government's climate policy). If those trends prove to be correct, these countries are expected to improve even more in the next years and their ambitions should be reflected in the emissions data.

As in the past years, Denmark leads in the policy section, followed by Morocco and Norway. India made some progress this year and also Germany's score slightly improved after the government changed at the end of 2013. In the Netherlands, where the new government benefited last year from the experts' initial trust, policy evaluations are going down again. While Russia entered the moderate performing group, Iran escaped the very poor performers. Iran's new government elected in summer brings new developments indicating that policies are improving considerably at the moment. Since joining the "very poor" group last year, Australia has lost even more ground and now comes in last together with Canada and Turkey.

Map 6 a



### Performance



Map 6 b





5. Country Example: Denmark

To demonstrate the CCPI’s methodology, every year we describe the score of one of the 58 countries in which interesting developments have taken place or which merits closer inspection. This year, Denmark’s outstanding performance (in comparison with the other countries) will be described sector by sector.

With positive trends in all of the Index categories and with the leading position in the policy sector, Denmark is once again listed at top of the overall table for the third consecutive year. The fact that an industrialised country is the most progressive regarding climate protection holds out hope for global developments, especially with regard to a new agreement next year in Paris.

Denmark’s emissions have been more or less steadily declining since 1997, and its downward trend of emissions has grown rapidly by about 19% over the last five years. Though per capita emissions have also been reduced since 2006, they are still high and, together with per the capita consumption of primary energy, this is Denmark’s worst category by far (38).

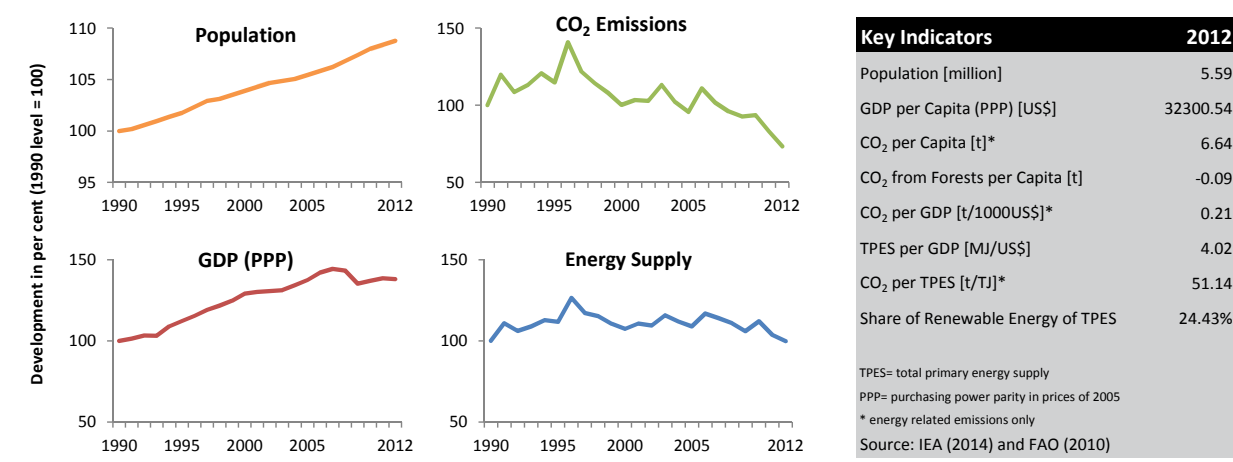
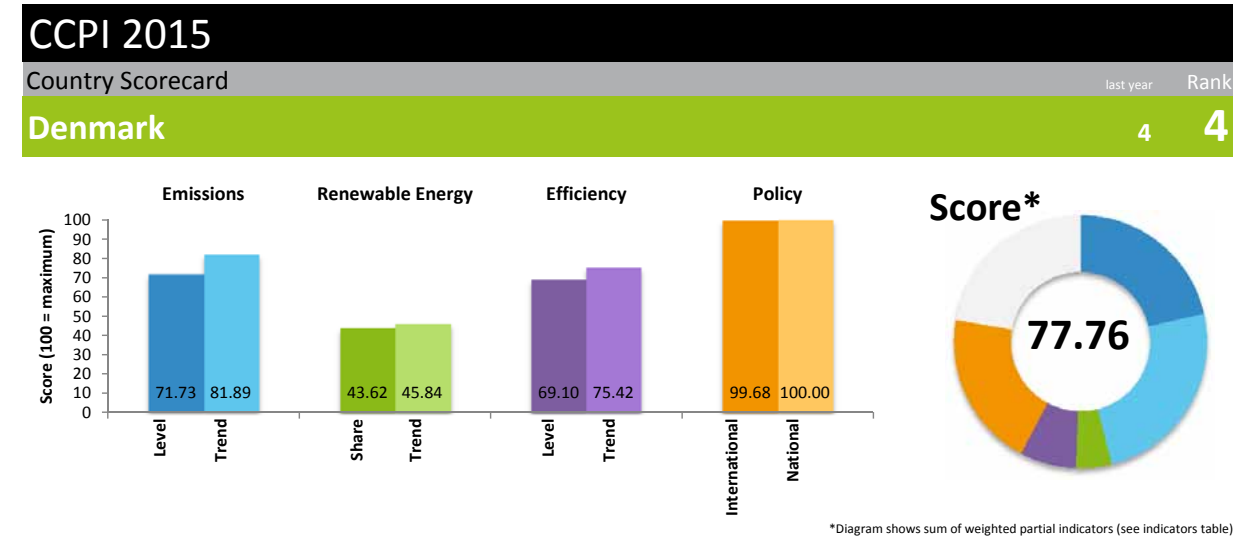
In contrast, Denmark is the best performer when it comes to CO<sub>2</sub> emissions from electricity and heat production. With a feed-in tariff and an “open door policy” to integrate new renewables into the grid, Denmark has a very progressive electricity sector. Further, there is an energy agreement which demands that 50% of all electricity consumption must come from wind energy by 2020; the same applies to all renewables combined, which is targeted at 70%. Denmark has also installed an energy saving obligation for energy companies as well as for the industry and manufacturing and construction companies. These ambitious policies are reflected in an outstanding policy evaluation of national energy and climate experts and result in Denmark holding the fourth position in the field of national climate policies. An appropriate implementation of these policies is mirrored step by step in the renewable energy and emissions data of the Index.

Denmark’s trend in rising efficiency levels caused a remarkable jump in the overall efficiency indicator, moving from last year’s 21<sup>st</sup> to 12<sup>th</sup> place in the actual ranking.

It was described in the Key Developments in chapter one how Denmark, for the first time, is on track to do its share to stay below the 2 °C threshold. In the decisive indicator, the Target-Performance-Indicator, the country has managed to improve its score because of the positive developments in per capita emissions. If this development proves stable throughout the next years and its policies endure, Denmark could climb up to the first position in the ranking.

Both the national and international policies of Denmark are graded “good”. National experts underline the country’s positive attitude in the UNFCCC negotiations and other international processes.

Table 3: Country Scorecard Denmark



Indicators	Weighting	Score	Rank
<strong>Emissions Level</strong>			
Primary Energy Supply per Capita	7.5%	68.06	37
CO <sub>2</sub> Emissions per Capita	7.5%	67.64	38
Target-Performance Comparison	10%	77.56	22
Emissions from Deforestation per Capita	5%	70.51	27
<strong>Development of Emissions</strong>			
CO <sub>2</sub> Emissions from Electricity and Heat Production	10%	100.00	4
CO <sub>2</sub> Emissions from Manufacturing and Industry	8%	77.04	16
CO <sub>2</sub> Emissions from Road Traffic	4%	74.50	9
CO <sub>2</sub> Emissions from Residential Use and Buildings	4%	64.17	20
CO <sub>2</sub> Emissions from Aviation	4%	71.42	12
<strong>Renewable Energy</strong>			
Share of Renewable Energy in Total Primary Energy Supply	2%	43.62	14
Development of Energy Supply from Renewable Energy Sources	8%	45.84	24
<strong>Efficiency</strong>			
Efficiency Level	5%	69.10	18
Efficiency Trend	5%	75.42	13
<strong>Policy</strong>			
International Climate Policy	10%	99.68	5
National Climate Policy	10%	100.00	4

# 6. Climate Change Performance Index by Country Group

The following tables show countries categorised by groups which enables a comparison of emitters with more or less similar basic conditions.

Table 4: Climate Change Performance Index for OECD Member Countries

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
4	Denmark	77.76	16	Belgium	61.89	36	Austria	55.39
5	Sweden	71.44	17	Italy	61.75	40	Poland	54.36
6	United Kingdom	70.79	18	Mexico	61.30	42	Netherlands	53.27
7	Portugal	67.26	22	Germany	59.60	43	New Zealand	52.56
10	Ireland	65.15	26	Czech Republic	57.99	44	United States	52.33
11	Switzerland	65.05	27	Norway	57.88	51	Turkey	46.95
12	France	64.11	28	Spain	57.34	53	Japan	45.07
13	Iceland	63.07	29	Luxembourg	57.25	55	Korea	44.15
14	Hungary	62.82	32	Finland	56.76	58	Canada	38.81
15	Slovak Republic	62.50	35	Greece	55.89	60	Australia	35.57

© Germanwatch 2014

Table 5: Climate Change Performance Index for EU Member Countries

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
4	Denmark	77.76	17	Italy	61.75	33	Latvia	56.65
5	Sweden	71.44	19	Slovenia	60.99	34	Croatia	56.35
6	United Kingdom	70.79	20	Malta	60.84	35	Greece	55.89
7	Portugal	67.26	21	Lithuania	60.07	36	Austria	55.39
8	Cyprus	66.99	22	Germany	59.60	40	Poland	54.36
10	Ireland	65.15	25	Romania	59.02	41	Bulgaria	54.05
12	France	64.11	26	Czech Republic	57.99	42	Netherlands	53.27
14	Hungary	62.82	28	Spain	57.34	46	Estonia	51.58
15	Slovak Republic	62.50	29	Luxembourg	57.25			
16	Belgium	61.89	32	Finland	56.76			

© Germanwatch 2014

Table 6: Climate Change Performance Index for G8 Countries

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
6	United Kingdom	70.79	22	Germany	59.60	56	Russian Federation	43.39
12	France	64.11	44	United States	52.33	58	Canada	38.81
17	Italy	61.75	53	Japan	45.07			

© Germanwatch 2014

Table 7: Climate Change Performance Index for G20 Countries\*

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
6	United Kingdom	70.79	37	South Africa	54.63	55	Korea	44.15
12	France	64.11	44	United States	52.33	56	Russian Federation	43.39
17	Italy	61.75	45	China	51.77	58	Canada	38.81
18	Mexico	61.30	48	Argentina	49.61	60	Australia	35.57
22	Germany	59.60	49	Brazil	48.51	61	Saudi Arabia	24.19
23	Indonesia	59.57	51	Turkey	46.95			
31	India	56.97	53	Japan	45.07			

© Germanwatch 2014

\* Not included: European Union  
(The European Union is part of the G20 Countries.)

Table 8: Climate Change Performance Index for Countries in Transition

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
14	Hungary	62.82	26	Czech Republic	57.99	40	Poland	54.36
15	Slovak Republic	62.50	30	Ukraine	57.10	41	Bulgaria	54.05
19	Slovenia	60.99	33	Latvia	56.65	46	Estonia	51.58
21	Lithuania	60.07	34	Croatia	56.35	56	Russian Federation	43.39
25	Romania	59.02	38	Belarus	54.54	59	Kazakhstan	37.72

© Germanwatch 2014

Table 9: Climate Change Performance Index for Newly Industrialised Countries

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
9	Morocco	65.73	37	South Africa	54.63	49	Brazil	48.51
18	Mexico	61.30	39	Algeria	54.46	50	Singapore	47.27
23	Indonesia	59.57	45	China	51.77	51	Turkey	46.95
24	Egypt	59.19	47	Thailand	50.61	52	Malaysia	46.84
31	India	56.97	48	Argentina	49.61	54	Chinese Taipei	45.03

© Germanwatch 2014

Table 10: Climate Change Performance Index for ASEAN Member Countries plus India, China, Japan and Korea

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
23	Indonesia	59.57	47	Thailand	50.61	53	Japan	45.07
31	India	56.97	50	Singapore	47.27	54	Chinese Taipei	45.03
45	China	51.77	52	Malaysia	46.84	55	Korea	44.15

© Germanwatch 2014

# 7. Sources and Further Reading Recommendations

- Burck; Hermwille; Bals (2014): The Climate Change Performance Index: Background and Methodology. [www.germanwatch.org/en/ccpi\\_bame](http://www.germanwatch.org/en/ccpi_bame)
- FAO (2010): Global Forest Resource Assessment 2010 – Main Report. Rome. [www.fao.org/forestry/fra/fra2010/en/](http://www.fao.org/forestry/fra/fra2010/en/)
- Freudenberg (2003): Composite Indicators of Country Performance: A Critical Assessment. STI Working Paper 2003/16. Paris.
- Howarth; Santoro; Ingraffea (2011): Methane and the Greenhouse-Gas Footprint of Natural Gas from Shale Formations. In: Climatic Change, 106/4, p. 679-690.
- IEA (2014a): CO<sub>2</sub> Emissions from Fuel Combustion. Paris.
- IEA (2014b): Renewables Information. Paris.
- IPCC (1997): Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. [www.ipcc-nggip.iges.or.jp/public/gl/invs1.html](http://www.ipcc-nggip.iges.or.jp/public/gl/invs1.html)
- Meinshausen (2005): On the risk of Overshooting 2 °C. Paper presented at Scientific Symposium “Avoiding Dangerous Climate Change”, MetOffice, Exeter, 1-3 February 2005. [http://stabilisation.metoffice.com/14\\_Malte\\_Meinshausen.pdf](http://stabilisation.metoffice.com/14_Malte_Meinshausen.pdf)
- Meinshausen et al. (2009): Greenhouse-gas emission targets for limiting global warming to 2 °C. Nature 458(7242): 1158.
- UNEP (2014): The Emissions Gap Report 2014. United Nations Environment Programme (UNEP), Nairobi.
- World Meteorological Organisation (2014): Greenhouse Gas Concentrations in Atmosphere Reach New Record. [http://www.wmo.int/pages/mediacentre/press\\_releases/pr\\_1002\\_en.html](http://www.wmo.int/pages/mediacentre/press_releases/pr_1002_en.html)

Annex: Key data for all countries covered by the CCPI

Country	CCPI Rank*		Share of Global GDP	Share of World Population	Share of Global CO <sub>2</sub> Emissions**	Share of Global Primary Energy Supply
Denmark	4	4	0.22%	0.08%	0.11%	0.13%
Sweden	5	6	0.40%	0.14%	0.12%	0.38%
United Kingdom	6	5	2.50%	0.91%	1.35%	1.44%
Portugal	7	7	0.27%	0.15%	0.13%	0.16%
Cyprus	8	27	0.02%	0.01%	0.02%	0.02%
Morocco	9	15	0.24%	0.46%	0.15%	0.14%
Ireland	10	12	0.20%	0.07%	0.10%	0.10%
Switzerland	11	8	0.38%	0.11%	0.12%	0.19%
France	12	9	2.36%	0.93%	0.94%	1.89%
Iceland	13	13	0.01%	0.00%	0.01%	0.04%
Hungary	14	11	0.20%	0.14%	0.12%	0.18%
Slovak Republic	15	16	0.14%	0.08%	0.09%	0.12%
Belgium	16	14	0.44%	0.16%	0.31%	0.42%
Italy	17	18	1.94%	0.87%	1.05%	1.19%
Mexico	18	19	1.90%	1.66%	1.34%	1.41%
Slovenia	19	25	0.06%	0.03%	0.04%	0.05%
Malta	20	10	0.01%	0.01%	0.01%	0.01%
Lithuania	21	21	0.07%	0.04%	0.03%	0.06%
Germany	22	22	3.44%	1.16%	2.23%	2.34%
Indonesia	23	26	2.35%	3.51%	2.31%	1.60%
Egypt	24	30	0.93%	1.15%	0.58%	0.58%
Romania	25	17	0.29%	0.29%	0.20%	0.26%
Czech Republic	26	39	0.30%	0.15%	0.31%	0.32%
Norway	27	24	0.29%	0.07%	0.07%	0.22%
Spain	28	20	1.47%	0.66%	0.74%	0.93%
Luxembourg	29	23	0.04%	0.01%	0.03%	0.03%
Ukraine	30	33	0.41%	0.65%	0.81%	0.92%
India	31	36	6.72%	17.57%	5.70%	5.89%
Finland	32	32	0.21%	0.08%	0.15%	0.25%
Latvia	33	28	0.04%	0.03%	0.01%	0.03%
Croatia	34	47	0.08%	0.06%	0.05%	0.06%
Greece	35	48	0.28%	0.16%	0.22%	0.20%
Austria	36	31	0.37%	0.12%	0.19%	0.25%
South Africa	37	40	0.67%	0.74%	1.11%	1.05%
Belarus	38	29	0.17%	0.13%	0.18%	0.23%
Algeria	39	49	0.53%	0.55%	0.34%	0.35%
Poland	40	45	0.85%	0.55%	0.84%	0.73%
Bulgaria	41	37	0.11%	0.10%	0.10%	0.14%
Netherlands	42	34	0.74%	0.24%	0.51%	0.59%
New Zealand	43	41	0.14%	0.06%	0.11%	0.14%
United States	44	44	17.17%	4.47%	14.69%	16.01%
China	45	46	16.03%	19.30%	23.43%	21.76%
Estonia	46	51	0.03%	0.02%	0.05%	0.04%
Thailand	47	38	0.98%	0.95%	0.75%	0.95%
Argentina	48	42	0.79%	0.58%	0.83%	0.60%
Brazil	49	35	3.05%	2.82%	4.17%	2.11%
Singapore	50	43	0.41%	0.08%	0.15%	0.19%
Turkey	51	54	1.22%	1.06%	0.80%	0.87%
Malaysia	52	50	0.69%	0.42%	0.73%	0.61%
Japan	53	52	4.82%	1.81%	3.61%	3.38%
Chinese Taipei	54	53	0.97%	0.33%	0.76%	0.78%
Korea	55	55	1.69%	0.71%	1.75%	1.97%
Russian Federation	56	56	2.63%	2.04%	4.87%	5.66%
Islamic Republic of Iran	57	60	1.27%	1.09%	1.57%	1.64%
Canada	58	58	1.56%	0.50%	1.57%	1.88%
Kazakhstan	59	59	0.39%	0.24%	0.67%	0.56%
Australia	60	57	1.05%	0.33%	1.14%	0.96%
Saudi Arabia	61	61	1.54%	0.40%	1.35%	1.50%
Total			88.07%	71.01%	85.68%	86.47%

\* The underlying data that is provided by the International Energy Agency has been changed retrospectively. That influences the comparability of the results between the different Index years. This year the data changes mostly affected Australia, China and Thailand.  
\*\* energy-related emissions and emissions from deforestation



## Germanwatch

**Following the motto “Observing, Analysing, Acting”,** Germanwatch has been actively promoting global equity and the preservation of livelihoods since 1991. In doing so, we focus on the politics and economics of the North and their worldwide consequences. The situation of marginalised people in the South is the starting point of our work. Together with our members and supporters as well as with other actors in civil society, we intend to represent a strong lobby for sustainable development. We attempt to approach our goals by advocating for the prevention of dangerous climate change, food security and compliance of companies with human rights.

Germanwatch is funded by membership fees, donations, grants from the "Stiftung Zukunftsfähigkeit" (Foundation for Sustainability) as well as grants from various other public and private donors.

You can also help achieve the goals of Germanwatch by becoming a member or by donating to:

Bank fuer Sozialwirtschaft AG

BIC/Swift: BFSWDE33BER

IBAN: DE33 1002 0500 0003 212300

## CAN Europe

**Climate Action Network Europe (CAN-E)** is recognised as Europe's leading network working on climate and energy issues. With over 100 members in 25 European countries, CAN-E unites to work to prevent dangerous climate change and promote sustainable energy and environment policy in Europe.

**The Climate Action Network (CAN)** is a worldwide network of over 700 Non-Governmental Organizations (NGOs) working to promote government, private sector and individual action to limit human-induced climate change to ecologically sustainable levels.

**The vision of CAN** is a world striving actively towards and achieving the protection of the global climate in a manner that promotes equity and social justice between peoples, sustainable development of all communities, and protection of the global environment. CAN unites to work towards this vision.

**CAN's mission** is to support and empower civil society organisations to influence the design and development of an effective global strategy to reduce greenhouse gas emissions and ensure its implementation at international, national and local levels in the promotion of equity and sustainable development.

