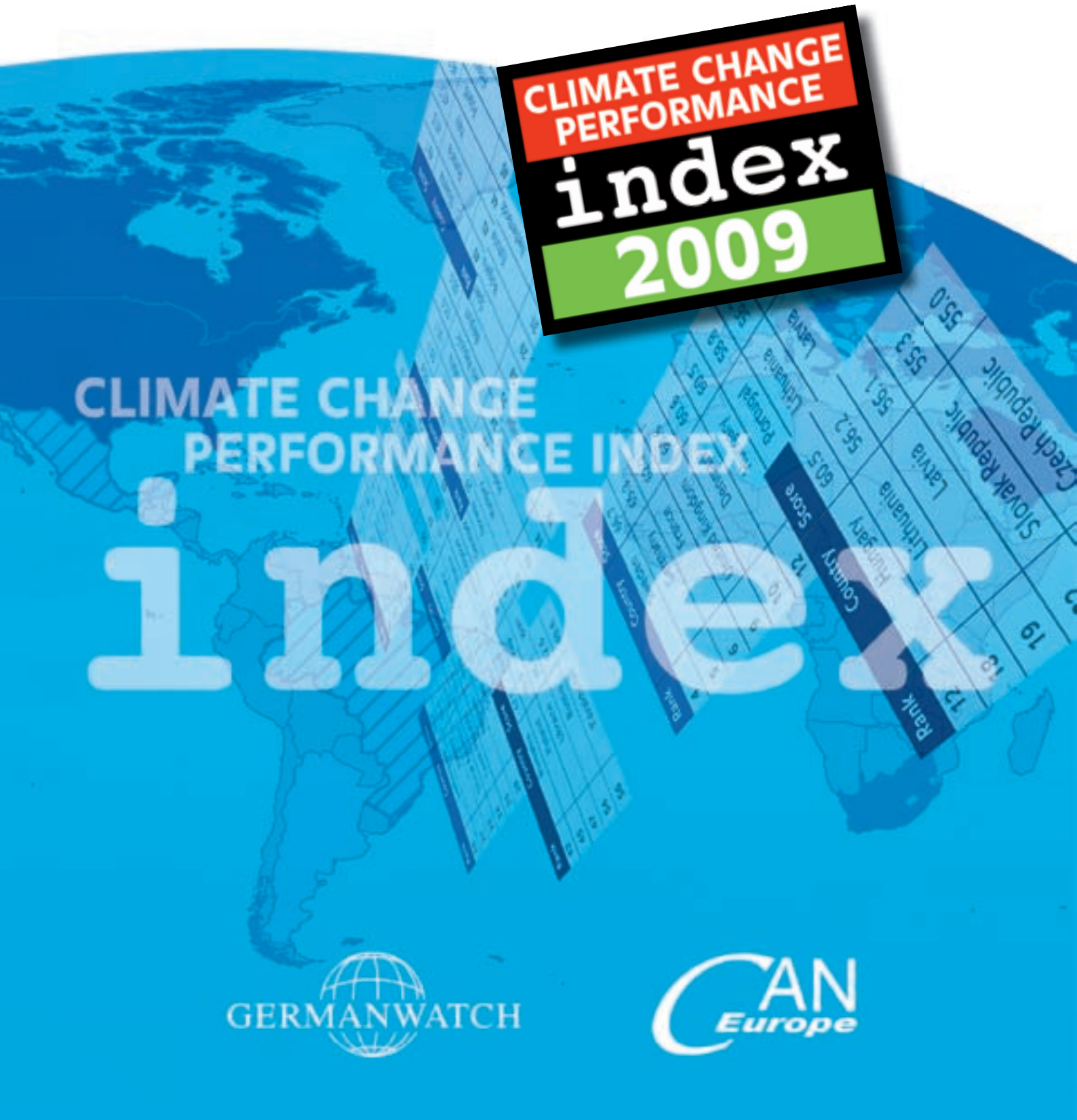
The Climate Change Performance Index

Results 2009



GERMANWATCH

CAN Europe

Germanwatch

Germanwatch - Bonn Office
Kaiserstrasse 201
53113 Bonn, Germany
Ph.: +49 (0) 228 - 60492-0
Fax: +49 (0) 228 - 60492-19

Germanwatch - Berlin Office
Vossstrasse 1
10117 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

CAN

Climate Action Network Europe
Rue de la Charite 48
1210 Brussels
Belgium

Ph.: +32 (0) 2 229 52 20
Fax: +32 (0) 2 229 52 29

E-Mail: info@climnet.org
www.climnet.org

Authors: Jan Burck, Christoph Bals,
Simone Ackermann

Editing: Thomas Spencer, Sean Heron,
Gerold Kier

Design: Dietmar Putscher, Cologne
www.dietmar-putscher.de

Printed on 100% recycled paper

December 2008

Purchase Order Number: 09-2-01e

ISBN: 978-3-939846-37-6

This publication can be downloaded at:
www.germanwatch.org/ccpi.htm

With financial support from the European Union
and
the Gertrud and Hellmut Barthel Foundation

Contents

1. Conclusion

Nobody on the Winners' Desk

The Climate Change Performance Index 2009 shows: Policy must get in gear for the two degrees limit

Be they located top or bottom, the Climate Change Performance Index 2009, presented by Germanwatch and CAN-Europe, shows that not a single country is to be judged as satisfactory with regard to protecting the climate. The specific criterion for this judgment is that, compared with 1990, no country is yet on the path that would be necessary to stay within the two degrees limit.

The Climate Change Performance Index therefore does not have any winners this year. Due to the lack of will to engage themselves more strongly to avoid dangerous climate change, none of the countries achieved positions one to three. Position four to ten of this year are made up by Sweden, Germany, France, India, Brazil, the United Kingdom and Denmark.

The other end of the index is to be taken note of as well. Especially Russia, the USA, Canada, and Austria have worrisome results. Crucially, they performed poorly in their current emissions level, emissions trend, and in the evaluation of their climate policy.

In future editions of the index, a more positive rating regarding national and international policy could lead to a jump of the USA in the index, if the country really shows the kind of climate leadership announced by president elect Barack Obama.

2. Introduction

Climate Protection: Who is Doing What?

The Climate Change Performance Index (CCPI) is an innovative instrument that enhances transparency in international climate politics. On the basis of standardised criteria the index evaluates and compares the climate protection performances of the 57 countries that, together, are responsible for more than 90 percent of global energy-related CO_2 emissions.[1]

The objective of the index is to increase the political and social pressure on those countries which up to now have failed to take initiatives on climate protection and which still neglect the importance of the issue.

The overall results (table 1) clearly show which countries have the longest way to go in order to catch up. But even 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 equally engaged as the forerunners, current efforts would still be insufficient to prevent dangerous climate change. If climate protection was an Olympic discipline, no country would deserve to climb the winners' podium. Moreover, some of them benefit from specific external circumstances that can be considered fortunate from a climate change perspective.

For example, **emissions reductions** in some countries have mainly been caused by the breakdown of ailing industries after the collapse of the USSR or the replacement of inefficient coal industries. And in some cases, as with Sweden, a country's energy supply mix is affected by its initial, advantageous position for the use of renewable energies.

Governments that rest on their laurels will have to face a drop in their position in next year's country ranking! Particularly alarming is the poor performance of most of the ten largest CO_2 emitters (table 2). These countries account for more than 60 percent of global CO_2 emissions. Their future willingness and ability to pursue a sustainable climate policy will therefore be an important requirement to avoid a highly dangerous level of climate change.

[1] Included are industrialised countries and countries in transition to market economies (Annex I countries of the Framework Convention on Climate Change) and all countries that cause more than one percent of the global CO_2 emissions.

3. Overall Results

Climate Change Performance Index 2009

Table 1:

CCPI Rank	Country	Score**	Partial Score Trend	Level	Policy
1*	–	–			
2*	–	–			
3*	–	–			
4	Sweden	66.7			
5	Germany	65.3			
6	France	62.2			
7	India	62.1			
8	Brazil	61.4			
9	United Kingdom	60.6			
10	Denmark	60.6			
11	Norway	60.5			
12	Hungary	60.5			
13	Iceland	59.9			
14	Mexico	59.1			
15	Portugal	58.8			
16	Switzerland	58.2			
17	Argentina	57.1			
18	Lithuania	56.2			
19	Latvia	56.1			
20	Morocco	55.8			

** rounded

CCPI Rank	Country	Score**	Partial Score Trend	Level	Policy
21	Ireland	55.6			
22	Slovak Republic	55.3			
23	Malta	55.1			
24	Czech Republic	55.0			
25	Belgium	55.0			
26	Algeria	54.6			
27	Indonesia	53.8			
28	Spain	53.2			
29	Bulgaria	52.6			
30	Croatia	51.7			
31	Estonia	51.5			
32	Taiwan / China	51.5			
33	Netherlands	51.4			
34	South Africa	51.2			
35	Thailand	50.2			
36	Turkey	49.8			
37	Belarus	49.8			
38	Singapore	49.5			
39	Iran, Islamic Rep.	48.6			
40	Slovenia	48.1			

** rounded

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

CCPI Rank	Country	Score**	Partial Score Trend Level Policy
41	Korea, Rep.	48.1	
42	Romania	47.5	
43	Japan	47.1	
44	Italy	47.1	
45	Poland	46.9	
46	New Zealand	46.2	
47	Ukraine	46.1	
48	Finland	46.1	
49	China	45.9	
50	Austria	45.0	
51	Greece	44.7	
52	Malaysia	44.3	
53	Cyprus	43.2	
54	Russia	42.6	
55	Australia	41.7	
56	Kazakhstan	40.6	
57	Luxembourg	40.4	
58	United States	39.8	
59	Canada	38.9	
60	Saudi Arabia	32.8	

** rounded

Table 2:
Index ranking of the 10 largest CO_2 emitters

Country	Share of Global CO_2 Emissions*	CCPI Rank 2009	(2008)**
Germany	2.94 %	5	(5)
India	4.46 %	7	(8)
United Kingdom	1.92 %	9	(10)
Korea, Rep.	1.70 %	41	(54)
Japan	4.33 %	43	(45)
Italy	1.60 %	44	(44)
China	20.02 %	49	(43)
Russia	5.67 %	54	(53)
USA	20.34 %	58	(58)
Canada	1.92 %	59	(56)

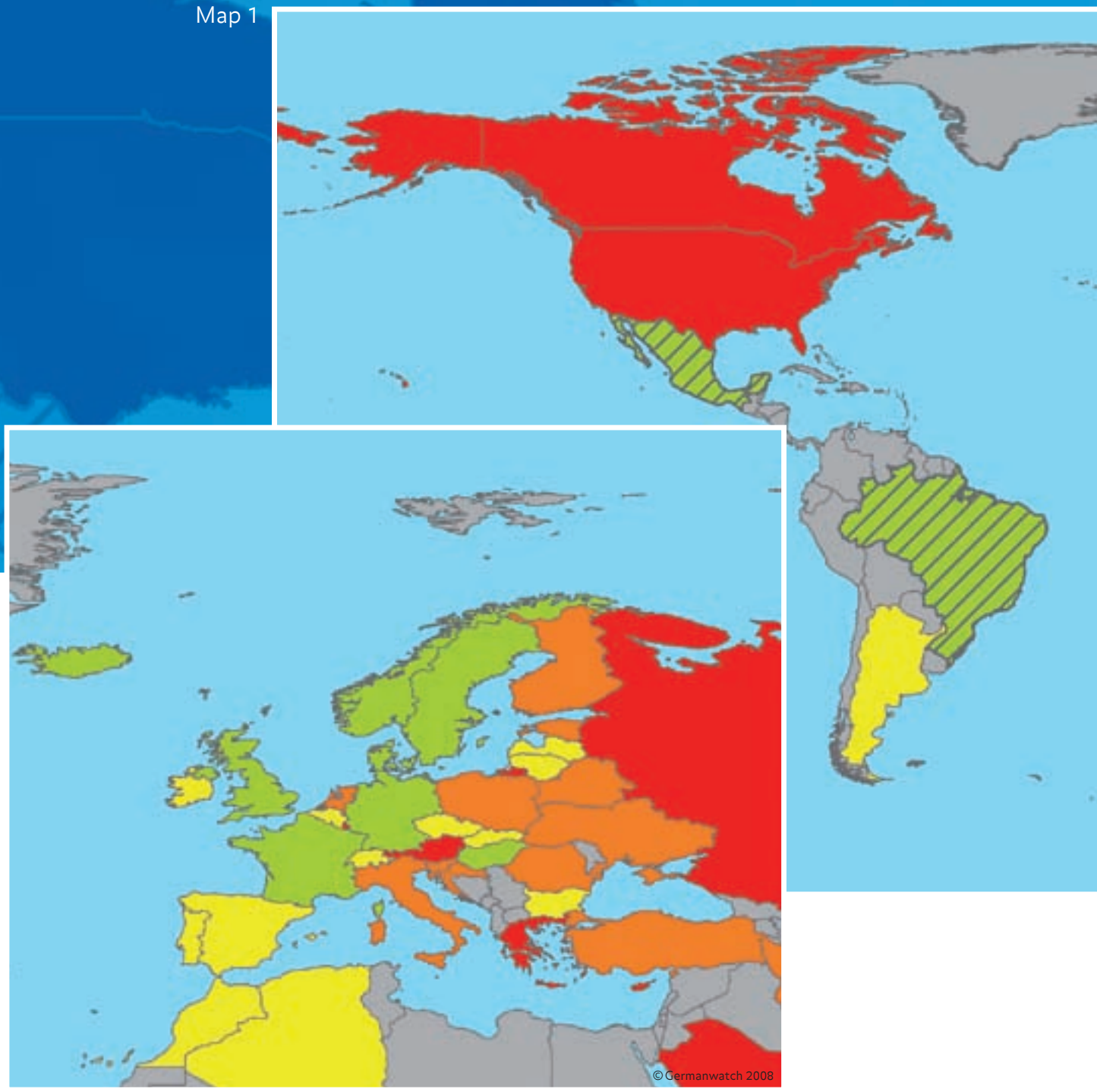
* energy related
**calculated with the most recent method

Emissions Trend (50% weighting)
Emissions Level (30% weighting)
Climate Policy (20% weighting)

3. Overall Results

CCPI World Map

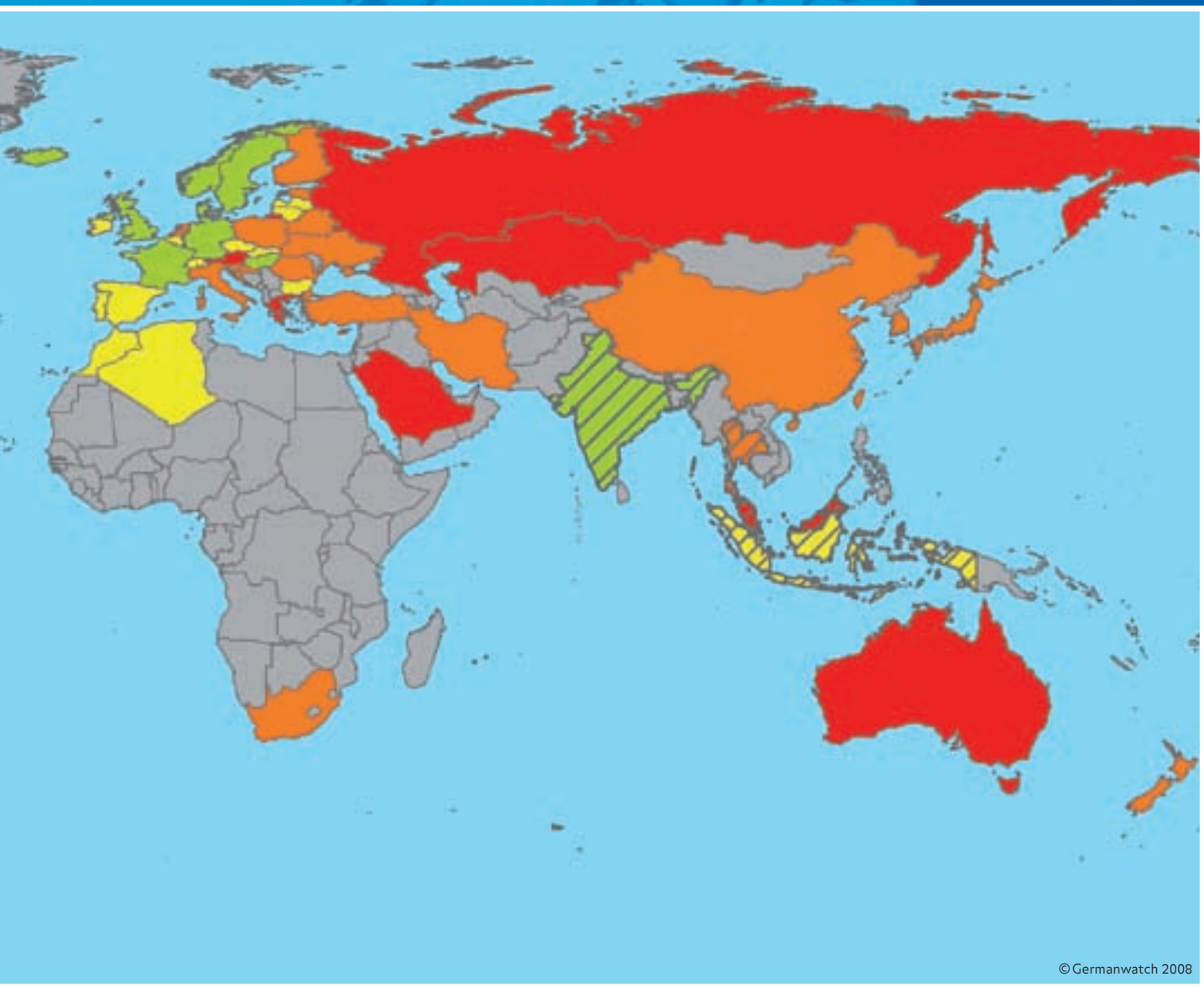
Map 1



The world map shows that the leaders in protecting the climate, as last year, are mostly to be found in Europe and among some newly industrialised nations: Mexico, Brazil and India are among the countries with good performance. None of these, however, earned the mark "very good", as even their efforts are insufficient to ensuring that we avert dangerous climate change.

Due to the lack of data for some of the relevant countries, the index excludes emissions from deforestation and land use. (In the context of an emerging policy for reducing emissions from deforestation and degradation, we hope this situation changes soon). Countries in which deforestation and land use account for more than 10% of their total emissions (striped countries on the map) have a responsibility to make additional reductions in that sector.

CLIMATE CHANGE PERFORMANCE index 2009



.

Especially countries like Brazil (share of 80%) and Indonesia (share of 45%) need to live up to their responsibility, but also need to be supported by the international community, to reduce land use change emissions. In any case, the fact that these emissions are largely driven by consumption patterns of industrialised and newly industrialised nations needs to be taken into account.

Furthermore, the map shows that in large parts of the world, including Canada, the USA and Russia, appropriate climate protection is contradicted by action and emission trends.

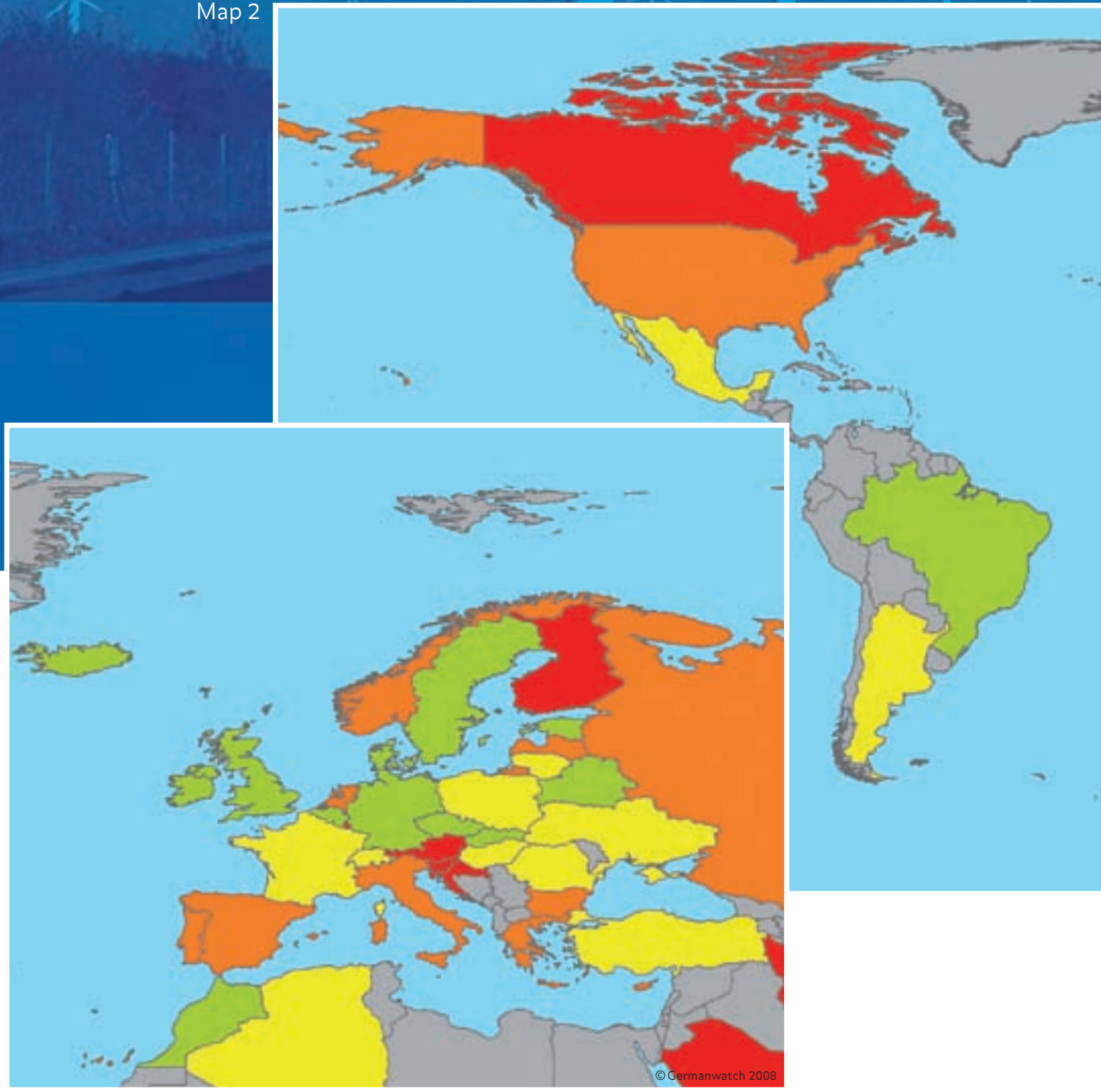
Performance

- **Very good**
- **Good**
- **Average**
- **Poor**
- **Very poor**
- **Not included in assessment**
- **More than 10% of total emissions from land use changes. They are not included in the index calculations.**

4. Partial Results

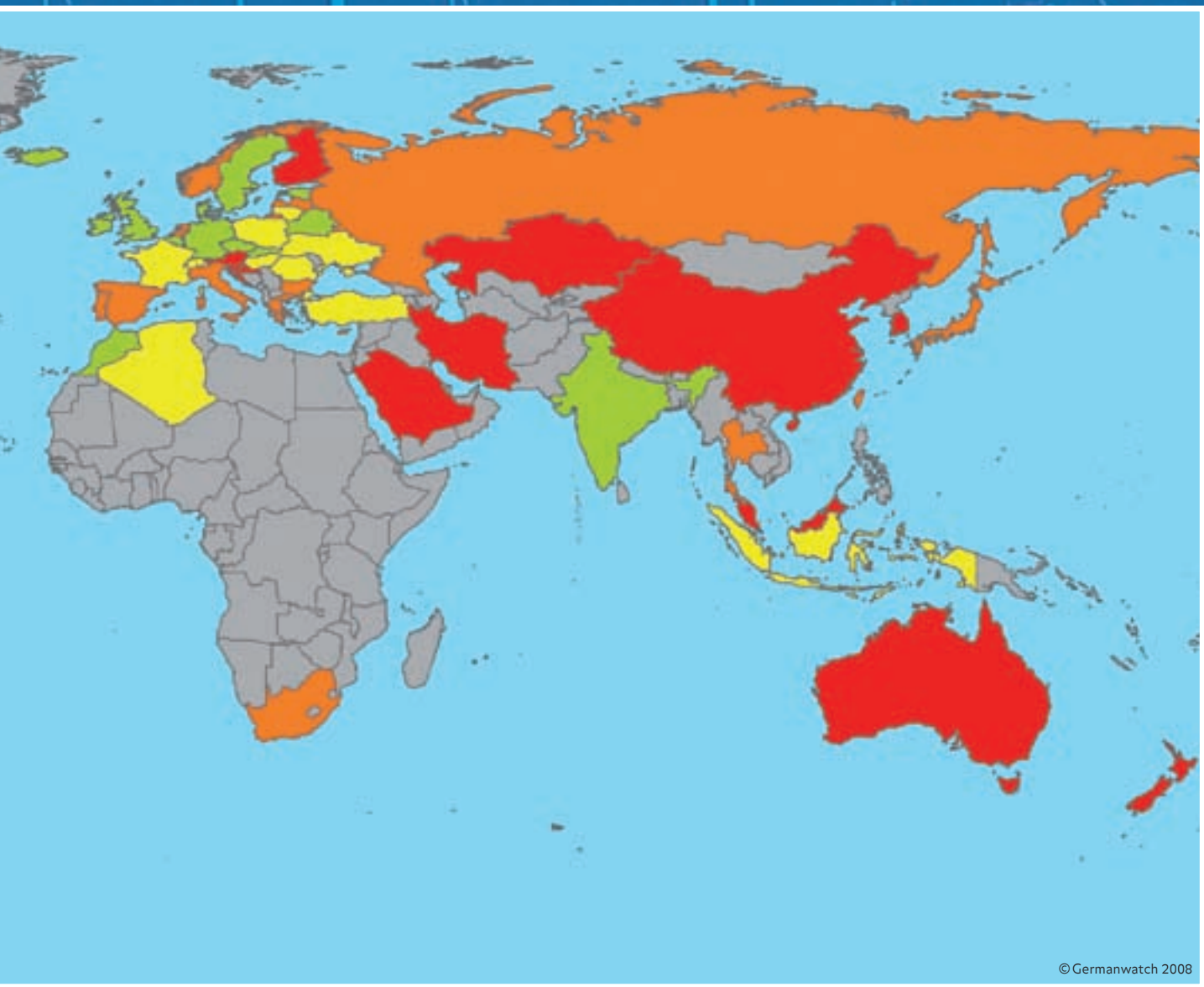
4.1 Emissions Trend

Map 2



The analysis of the trend indicators shows that not one country has reduced its emissions sufficiently to stop dangerous climate change. However, some countries, such as e.g. Sweden, Germany and the United Kingdom, are showing successful approaches, for example in raising the share of renewable energies in their country. The emissions trends in Canada, Australia, China and Saudi Arabia are especially worrisome.

CLIMATE CHANGE PERFORMANCE index 2009



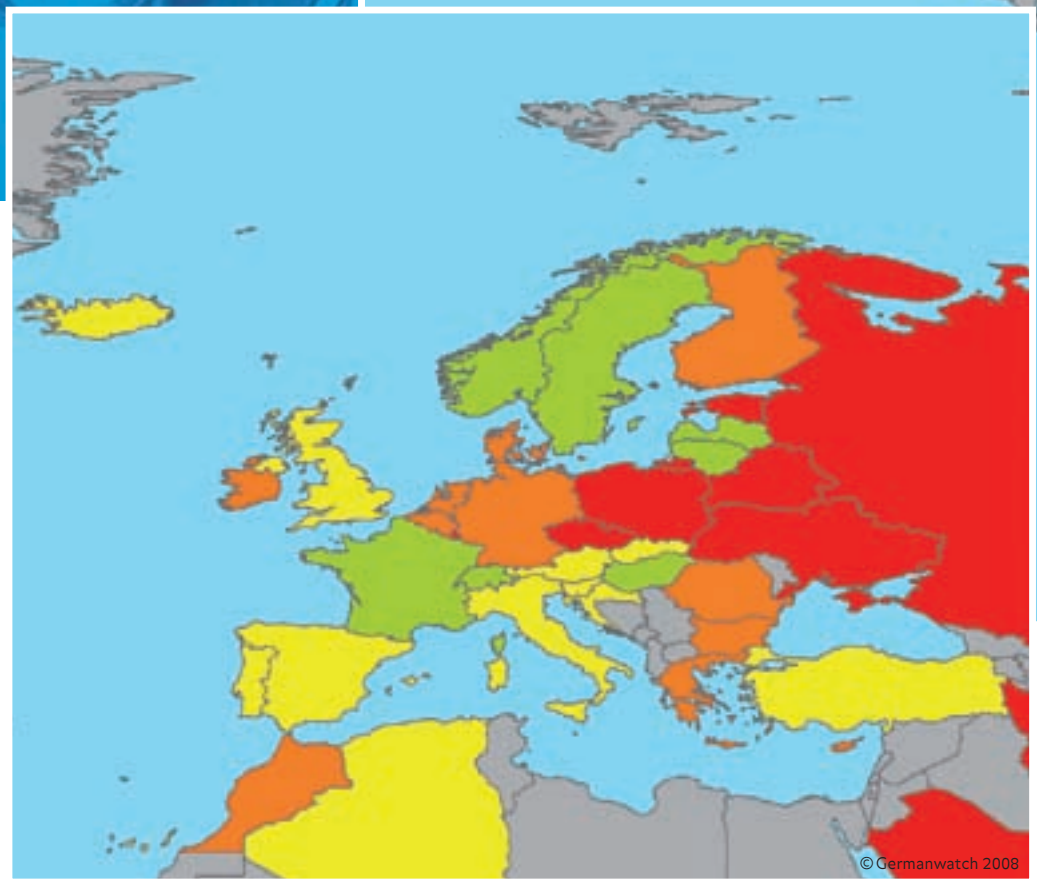
Performance

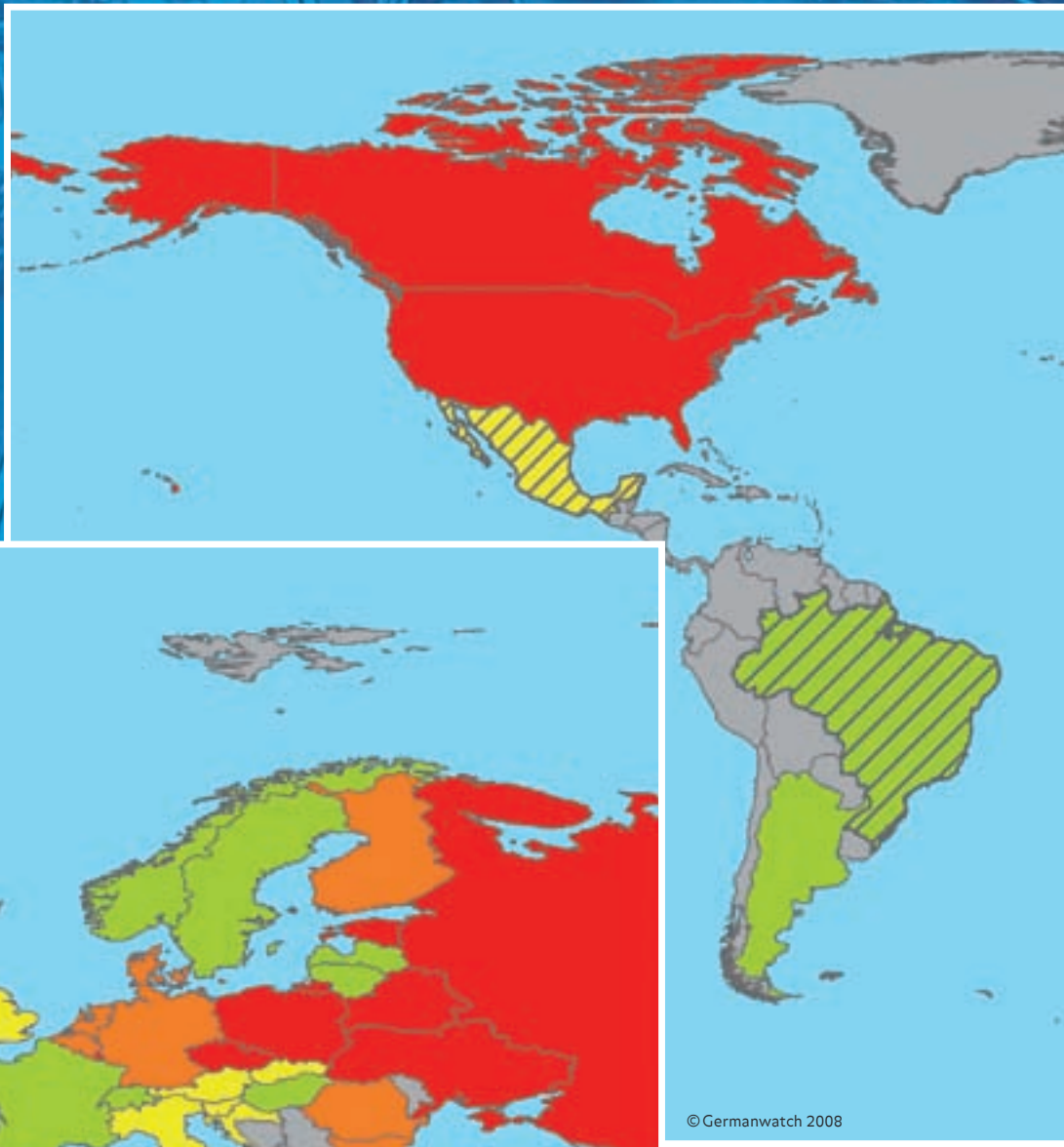
- Very good
- Good
- Average
- Poor
- Very poor
- Not included in assessment

4. Partial Results

4.2 Emissions Level

Map 3





The emissions level indicators show in red the countries that have the greatest amount of catching up to do. Negative outliers are especially the USA, Canada and Australia. These countries have a particularly large responsibility and a large potential to reduce their emissions. No country has a "very good" emissions level. Countries in which land use change accounts for more than 10 percent of overall emissions are striped.

Performance

- Very good
- Good
- Average
- Poor
- Very poor
- Not included in assessment
- More than 10% of total emissions from land use changes. They are not included in the index calculations.

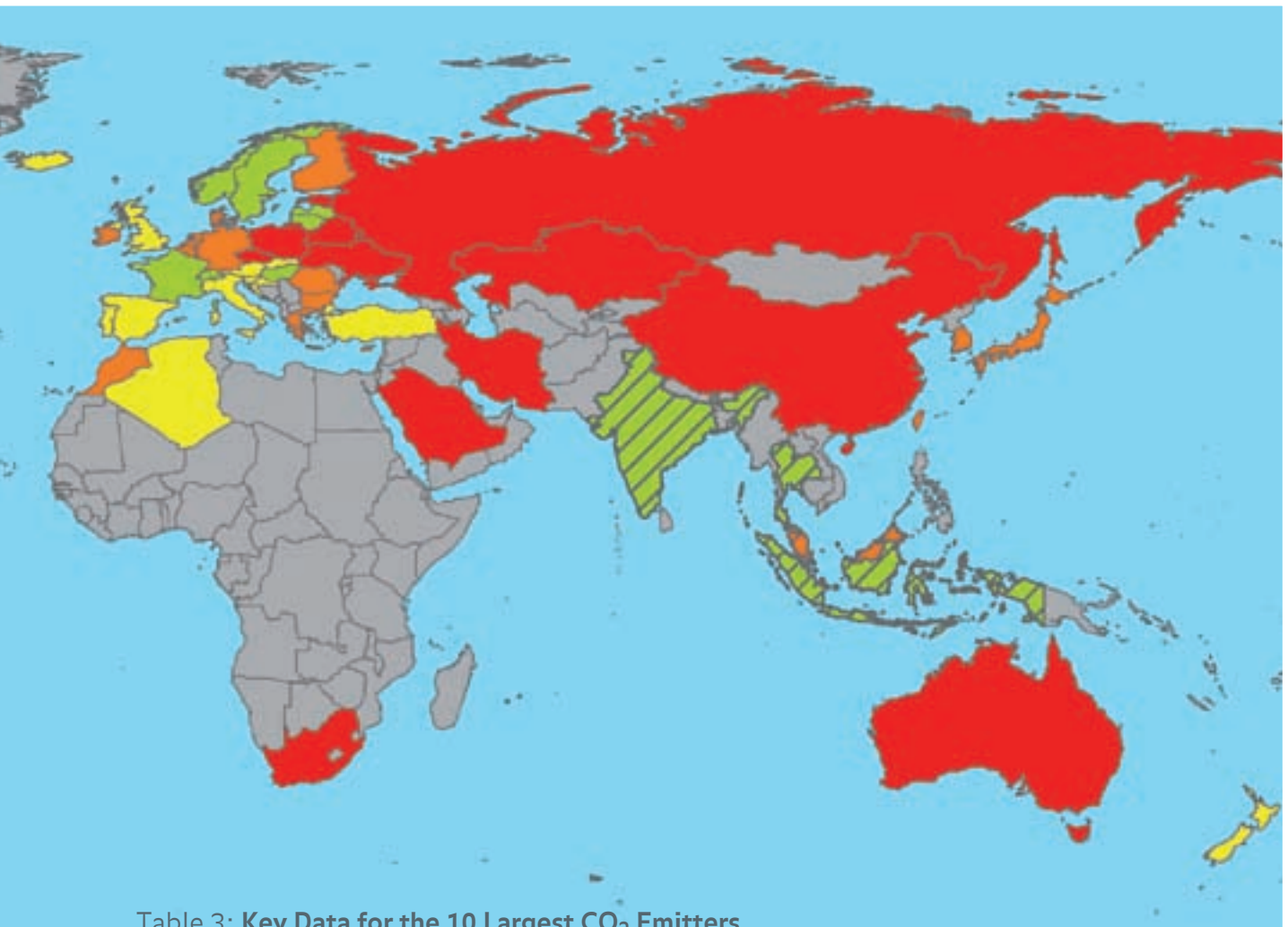


Table 3: **Key Data for the 10 Largest CO_2 Emitters**

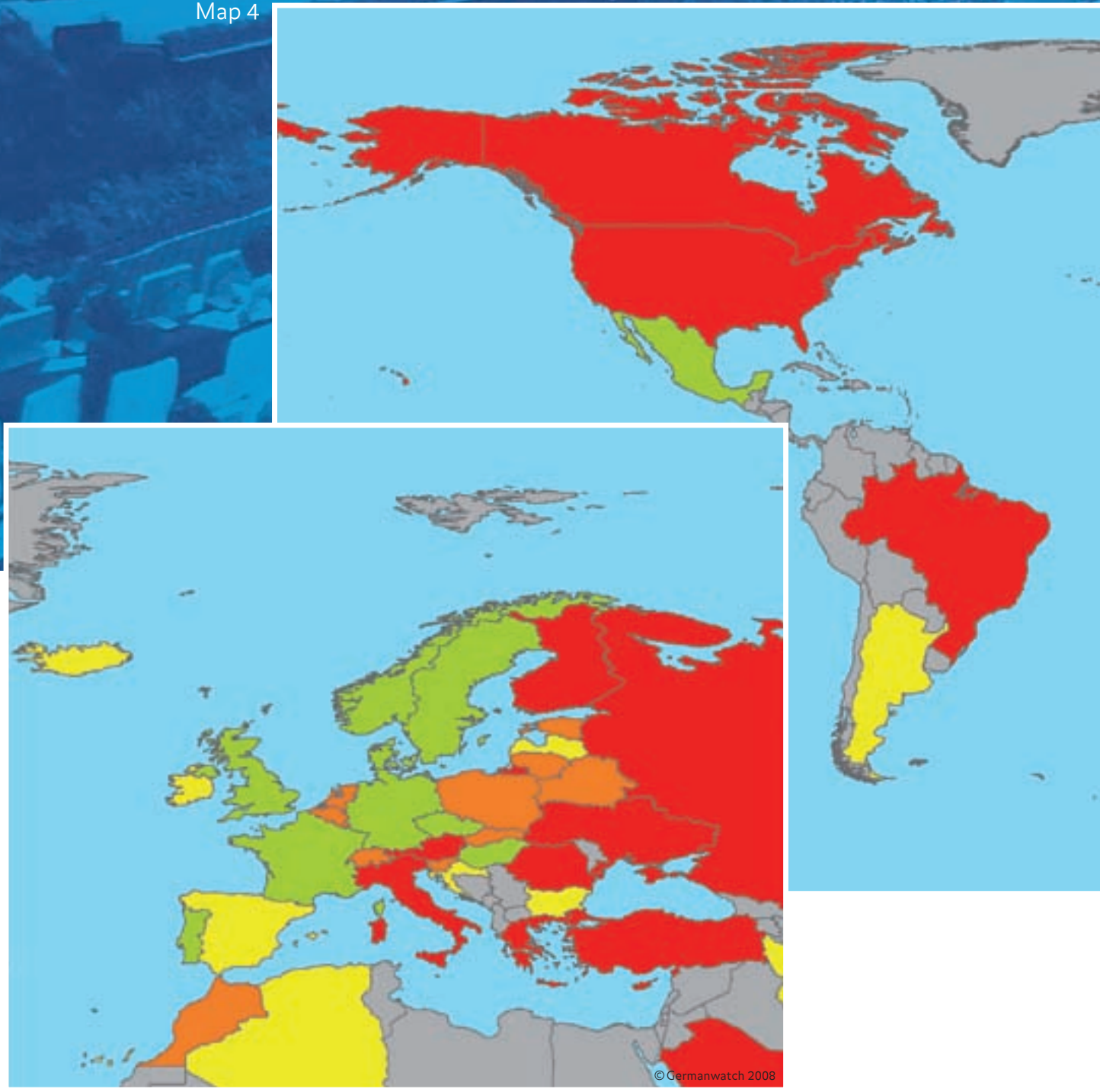
Country	CCPI Rank 2009	(2008)*	Share of Global CO_2 Emissions**	Share of Global Primary Energy Supply	Share of Global GDP	Share of Global Population
Germany	**5**	(5)	2.94%	2.97%	3.92%	1.26%
India	**7**	(8)	4.46%	4.82%	6.38%	16.98%
United Kingdom	**9**	(10)	1.92%	1.97%	3.04%	0.93%
Korea, Rep.	**41**	(54)	1.70%	1.84%	1.76%	0.74%
Japan	**43**	(45)	4.33%	4.49%	6.15%	1.95%
Italy	**44**	(44)	1.60%	1.57%	2.67%	0.90%
China	**49**	(43)	20.02%	16.00%	15.09%	20.07%
Russia	**54**	(53)	5.67%	5.76%	2.56%	2.18%
USA	**58**	(58)	20.34%	19.77%	19.57%	4.59%
Canada	**59**	(56)	1.92%	2.30%	1.77%	0.50%
Total			64.96%	61.49%	62.91%	50.10%

*calculated with the most recent method **energy related

4. Partial Results

4.3 Climate Policy

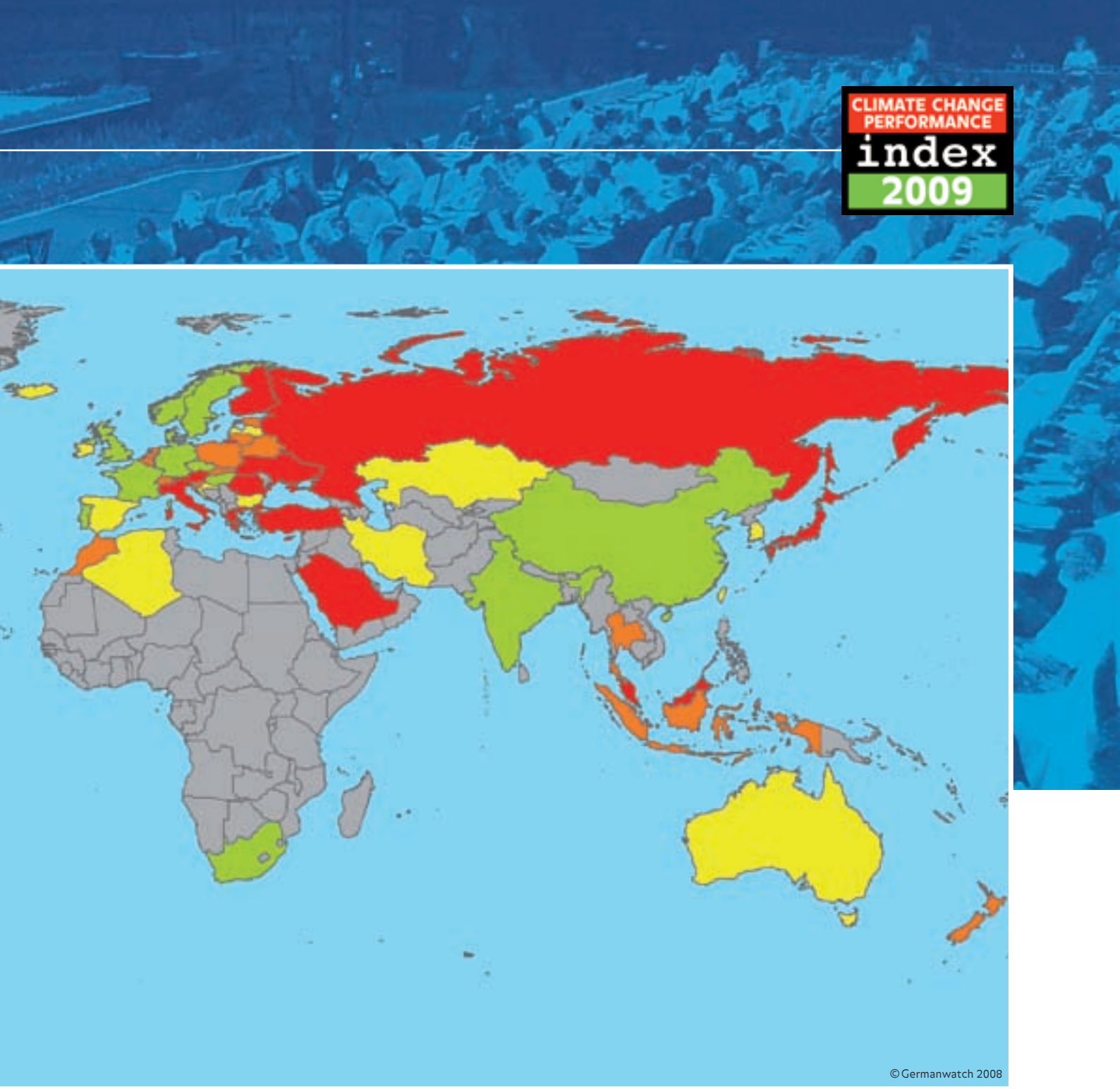
Map 4



The map shows how the 120 national NGO experts surveyed rated the national and international climate policies of their countries.

Among other rankings of China, its climate change policy is remarkable but it is not yet enough to halt its emissions trends to prevent dangerous climate change. China is already taking meaningful domestic actions[2] for addressing climate change, nonetheless it needs to be better integrated into the international context in order to make its effort recognised internationally and to get the necessary international support for its future additional activities. Hereby it needs to and can play a more proactive

[2] taking into account of its domestic targets, for instance, to reduce energy intensity per unit of GDP by 20% by 2010 and to increase its renewable energy supply to 10% by 2010



role at the international climate change negotiations which will also support China to achieve its domestic targets. Facing the two crises, the global financial crisis and more existentially the climate change challenge, China can lead a way out from the stalemating climate policy crisis by steering and enforcing a determinate low-carbon development path supported by international cooperation. As stressed by its state leader in the context of the financial crisis, commitments to tackling climate change must not waver and actions must not slow down.

The US experts rated the recent policy of the Bush administration. It will be very interesting to see how the new US administration will change the national and international climate politics.

5. Country comparison

Sweden and Japan as an example

Table 4: **Sweden**

Indicator			Score*	Rank**	Weight	Rank**
Emissions Levels		CO_2 per Primary Energy Unit	83.3	5	15.0%	
		Primary Energy per GDP Unit	80.8	34	7.5%	**5**
		Primary Energy per Capita	56.9	50	7.5%	
Sectoral Emissions Trends	Energy	Electricity	66.8	30	8.0%	
		Renewables	5.6	55	8.0%	
	Transport	International Aviation	86.5	8	4.0%	**10**
		Road Traffic	73.6	23	4.0%	
	Residential	Private Households	100.0	4	4.0%	
	Industry	Manufacturing and Construction	73.6	10	7.0%	
Target Performance Comparison since 1990			52.5	25	15.0%	
Climate Policies		International	67.6	18	10%	**10**
		National	77.3	9	10%	
Total			66.7		**100%**	**4**

*Minimum: 0, maximum: 100 **(4-60) None of the countries achieved positions one to three. © Germanwatch 2008

The following country comparison gives an example of a differentiated analysis of the 12 partial indicators. The weighted sum of each country's scores in the separate indicators makes up the country's overall score which determines the country's position on the index list. The latter does not state how much its performance differed from those ranked closest to it. To see how much better or worse the individual results were one must examine the scores. Very high or low scores in one or two separate categories can have a profound influence on the overall score. Quite often we also see large deviations between the position in individual rankings and that in the overall ranking. Sweden is one example: For the third time in a row, Sweden has achieved the comparatively highest score. However it hasn't been leader in all areas. In fact, for none of the single indicators it was among the top three. And, for example, in the emissions level indicator "primary energy per capita" it has only 56.9 points and thus ranks 50th. An example for single scores that have a high impact is the low value for Japan's national climate policy (21.6 points, 53rd rank). Japan ranks in the lowest third with position 43 in the overall ranking, rising 2 places compared to last year.[3]

A closer look at the evaluation of Sweden's and Japan's individual indicators brings some interesting aspects to light: both countries perform very badly on the development of renewable energy. In Japan, the use of this method of energy generation was expanded by only 2 percent in the time period[4] assessed, and no increase was to be observed in Sweden. Compared with other countries (e.g. Germany with a 92% rise of renewable energy production) this is a very poor performance, especially for Japan with its low initial value. The country has a great potential in the renewable energy sector, but does not make anywhere near optimal use of it. Instead, due to Japan's resource scarcity, it imports large volumes of nuclear and fossil fuels.

Further, regarding this category, Japan's trend in road traffic stands out. The emissions from the transport sector were reduced by 4% in the time periods compared, placing Japan as the second best industrial nation (after Germany) at 7th position in this partial indicator. Of the countries evaluated, only 7, of which 4 are industrial nations, reduced emissions in the transport sector. The top-runner program seems to be showing its effect in this result. The program is meant to give manufacturers incentives to achieve improvements in the energy efficiency of cars and other vehicles.

[3] The methodology and calculation of the Climate Change Performance Index is explained in the booklet „The Climate Change Performance Index - Background und Methodology". It can be found online at www.germanwatch.or/ccpi.htm

[4] Average of 1999-2001 compared with the average of 2004-2006

Table 5: **Japan**

Indicator			Score*	Rank**	Weight	Rank**
Emissions Levels		CO_2 per Primary Energy Unit	34.9	35	15.0%	**32**
		Primary Energy per GDP Unit	88.8	17	7.5%	
		Primary Energy per Capita	70.1	41	7.5%	
Sectoral Emissions Trends	Energy	Electricity	67.3	27	8.0%	**37**
		Renewables	7.3	48	8.0%	
	Transport	International Aviation	73.8	24	4.0%	
		Road Traffic	87.1	7	4.0%	
	Residential	Private Households	55.7	23	4.0%	
	Industry	Manufacturing and Construction	58.5	31	7.0%	
Target Performance Comparison since 1990			35.4	44	15.0%	
Climate Policies		International	36.8	47	10%	**53**
		National	21.6	53	10%	
Total			47.1		**100%**	**43**

*Minimum: 0, maximum: 100 **(4-60) None of the countries achieved positions one to three.

Interestingly Sweden is right at the front in the private sector with a score of 100 points. The country reduced residential emissions by 57%. The geographic location of Sweden and the heating intensity of housing that follows from this certainly need to be considered in this regard. State incentives for refitting from conventional (oil, coal, gas) to renewable energies for private households certainly also played a great role. It remains to be seen how emissions will develop with the planned nuclear power phase out, as a large number of residential buildings are still heated electrically.

The industrial sector in Sweden continued the positive trend towards energy efficiency. This places the country respectable 10th in this area. Energy related emissions in the industrial sector were reduced by 16.7% in the time analysed. According to Swedish experts (WWF), Sweden has had a low energy price for a long time, so that there are still a lot of inefficiencies in the industry. On the other hand this means a high potential for reductions in future.

It is astounding that Japan, a highly developed and innovative industrial nation, forced by scarcity of conventional energy sources to develop an efficient economy, is below average in the category emissions level (rank 32). While it is in the mid range for the category primary energy use per unit of GDP, this is in contrast with primary energy use per capita and CO_2 per primary energy unit. But as the world's 5th largest CO_2 emitter, a country as highly industrialised as Japan should be expected to make far greater efforts in protecting the climate.

Sweden by comparison shows a relatively good performance in its emissions level, and is putting its potential in renewable energy to far better use. Experts evaluate Japan's national climate policy as "very poor". The exception is its transport policy. Here the top-runner program received a positive review: Shippers and carriers have to measure their energy consumption and report it to the government. Furthermore, they have to submit their own energy saving plan. Nevertheless, Japan needs to increase its effort to implement binding policies and measures to reduce its emissions.

Sweden's policy evaluation can be described as above average, while not exceptional. Sweden's results show once again that an average overall performance is enough to achieve the best score. Put simply: the other countries are even worse.

6. Climate Change Performance Index

by Country Group

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

Table 6: **Climate Change Performance Index for OECD Member Countries**

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
4	Sweden	66.7	16	Switzerland	58.2	44	Italy	47.1
5	Germany	65.3	21	Ireland	55.6	45	Poland	46.9
6	France	62.2	22	Slovak Republic	55.3	46	New Zealand	46.2
9	United Kingdom	60.6	24	Czech Republic	55.0	48	Finland	46.1
10	Denmark	60.6	25	Belgium	55.0	50	Austria	45.0
11	Norway	60.5	28	Spain	53.2	51	Greece	44.7
12	Hungary	60.5	33	Netherlands	51.4	55	Australia	41.7
13	Iceland	59.9	36	Turkey	49.8	57	Luxembourg	40.4
14	Mexico	59.1	41	Korea, Rep.	48.1	58	USA	39.8
15	Portugal	58.8	43	Japan	47.1	59	Canada	38.9

Members of the Kyoto Protocol | Without Kyoto Commitment | Refused to Ratify the Kyoto Protocol

Table 7: **Climate Change Performance Index for EU Member Countries**

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
4	Sweden	66.7	21	Ireland	55.6	40	Slovenia	48.1
5	Germany	65.3	22	Slovak Republic	55.3	42	Romania	47.5
6	France	62.2	23	Malta	55.1	44	Italy	47.1
9	United Kingdom	60.6	24	Czech Republic	55.0	45	Poland	46.9
10	Denmark	60.6	25	Belgium	55.0	48	Finland	46.1
12	Hungary	60.5	28	Spain	53.2	50	Austria	45.0
15	Portugal	58.8	29	Bulgaria	52.6	51	Greece	44.7
18	Lithuania	56.2	31	Estonia	51.5	53	Cyprus	43.2
19	Latvia	56.1	33	Netherlands	51.4	57	Luxembourg	40.4

Table 8: **Climate Change Performance Index for ASEAN Member Countries plus India, China, Japan and Korea, Republic**

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
7	India	62.1	35	Thailand	50.2	43	Japan	47.1
27	Indonesia	53.8	38	Singapore	49.5	49	China	45.9
32	Taiwan/China	51.5	41	Korea, Rep.	48.1	52	Malaysia	44.3

Table 9: **Climate Change Performance Index for Countries in Transition**

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
12	Hungary	60.5	29	Bulgaria	52.6	42	Romania	47.5
18	Lithuania	56.2	30	Croatia	51.7	45	Poland	46.9
19	Latvia	56.1	31	Estonia	51.5	47	Ukraine	46.1
22	Slovak Republic	55.3	37	Belarus	49.8	54	Russia	42.6
24	Czech Republic	55.0	40	Slovenia	48.1	56	Kazakhstan	40.6

Table 10: **Climate Change Performance Index for Newly Industrialising Countries**

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
7	India	62.1	26	Algeria	54.6	38	Singapore	49.5
8	Brazil	61.4	27	Indonesia	53.8	39	Iran	48.6
14	Mexico	59.1	32	Taiwan/China	51.5	49	China	45.9
18	Argentina	57.1	34	South Africa	51.2	52	Malaysia	44.3
20	Morocco	55.8	35	Thailand	50.2			

7. Additional Literature and Data Sources

- BMU (2007): Renewable Energy Sources in Numbers – national and international development (in German). http://www.bmu.de/allgemein/doc/2720.php
- Energy Information Administration (2008): International Energy Outlook 2008. http://www.eia.doe.gov/oiaf/ieo/pdf/0484(2007).pdf
- Freudenberg (2003): Composite Indicators of Country Performance: A Critical Assessment. STI Working Paper 2003/16. Paris.
- IEA (2008a): CO_2 Emissions from Fuel Combustion. Paris.
- IEA (2008b): Renewables Information. Paris.
- IPCC (1997): Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. http://www.ipcc-nggip.iges.or.jp/public/public.htm
- Höhne; Phylipsen; Ullrich; Blok. (2005): Options for the second commitment period of the Kyoto Protocol. Climate Change. Nr. 02/2005. Umweltbundesamt. http://www.umweltdaten.de/publikationen/fpdf-l/2847.pdf
- 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://www.pik-potsdam.de/~mmalte/simcap/publications/meinshausenm_risk_of_overshooting_final_webversion.pdf
- WBGU (2003b): Climate Protection Strategies for the 21st Century. Kyoto and Beyond, Special Report, Berlin. http://www.wbgu.de/wbgu_sn2003_engl.html
- Stern, N. (2006): Stern Review on the economics of climate change. UK Treasury. http://www.hm-treasury.gov.uk/independent _reviews/stern_review_economics _climate_change/stern_review_report.cfm.

Germanwatch

Following the motto "Observing, Analysing, Acting", Germanwatch has been actively promoting North-South equity and the preservation of livelihoods since 1991. In doing so, we focus on the politics and economics of the North with 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 endeavour to approach our aims by advocating fair trade relations, responsible financial markets, compliance with human rights, and the prevention of dangerous climate change.

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

You can also help to achieve the goals of Germanwatch and become a member or support our work with your donation:

Bank fuer Sozialwirtschaft AG
BIC/Swift: BFSWDE31BER
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 365 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.