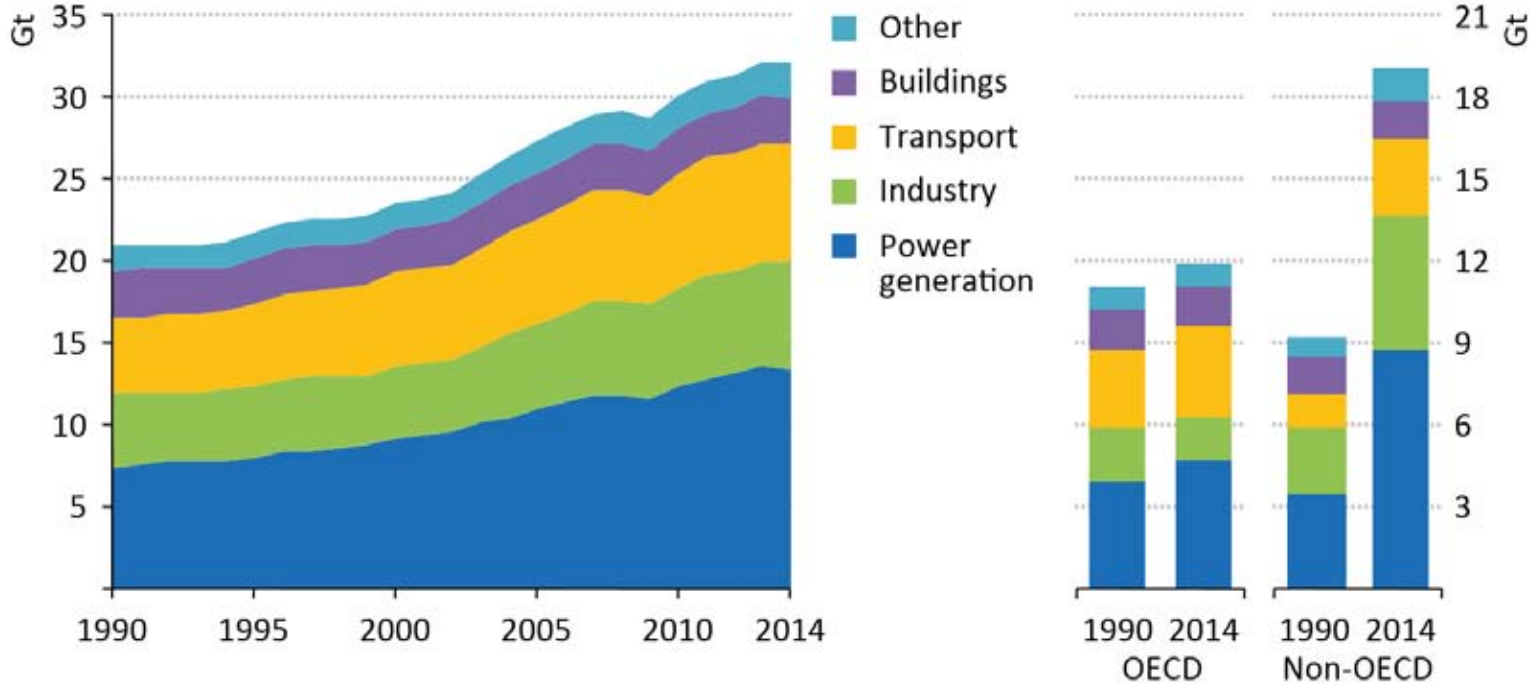
Emisyonların Azaltılmasına Giden Yol:
Enerji Yönetim Sistemlerinin Kurulması ve Yaygınlaştırılması

Dr. Hacer Şekerci
Elektrik ve Elektronik Mühendisliği Bölümü
Yaşar Üniversitesi

19 Ocak 2017 Peşembe 15:00
Yaşar Üniversitesi Bornova İZMİR

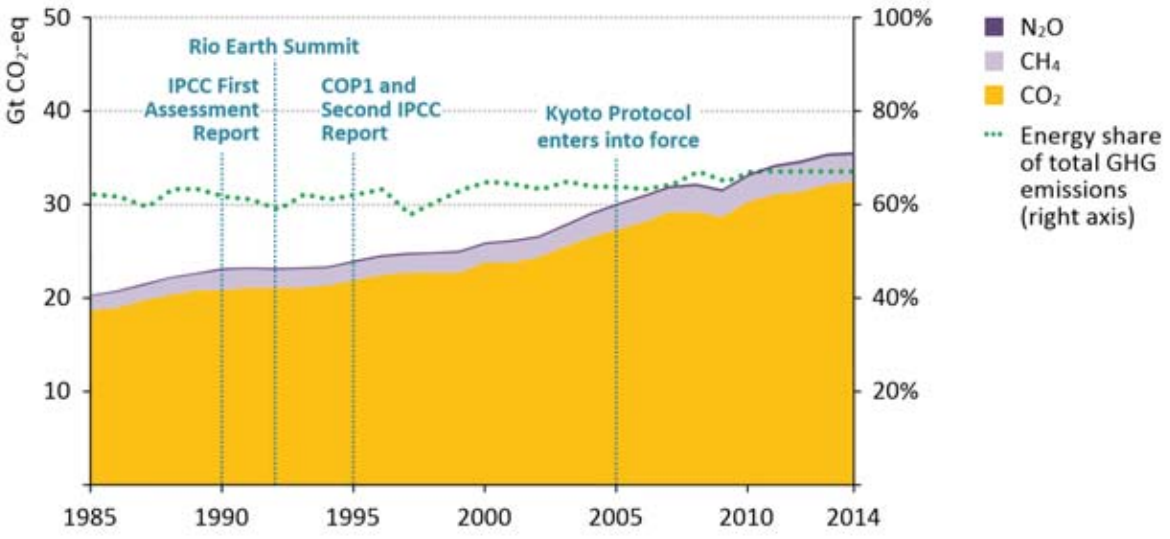
Figure 1.5 ▷ Global energy-related CO_2 emissions by sector and region



Notes: "Other" includes agriculture, non-energy use (except petrochemical feedstock), oil and gas extraction and energy transformation. International bunkers are included in the transport sector at the global level but excluded from the regional data.

Kaynak: Energy and Climate Change
World Energy Outlok Special Report
IEA 2015

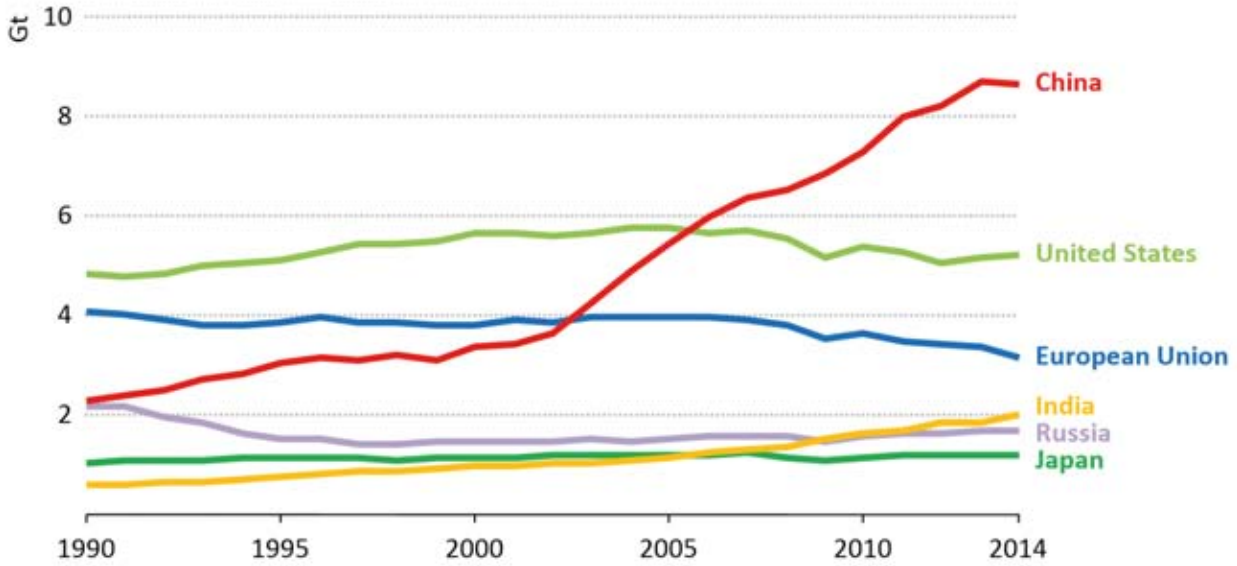
Figure 1.3 ▷ Global anthropogenic energy-related greenhouse-gas emissions by type



Notes: CO_2 = carbon dioxide, CH_4 = methane, N_2O = nitrous oxide. CH_4 has a global warming potential of 28 to 30 time that of CO_2, while the global warming potential of N_2O is 265 higher than that of CO_2.

Sources: IEA and EC/PBL (2014).

Figure 1.6 ▷ Energy-related CO_2 emissions by selected region



Kaynak: Energy and Climate Change
World Energy Outlok Special Report
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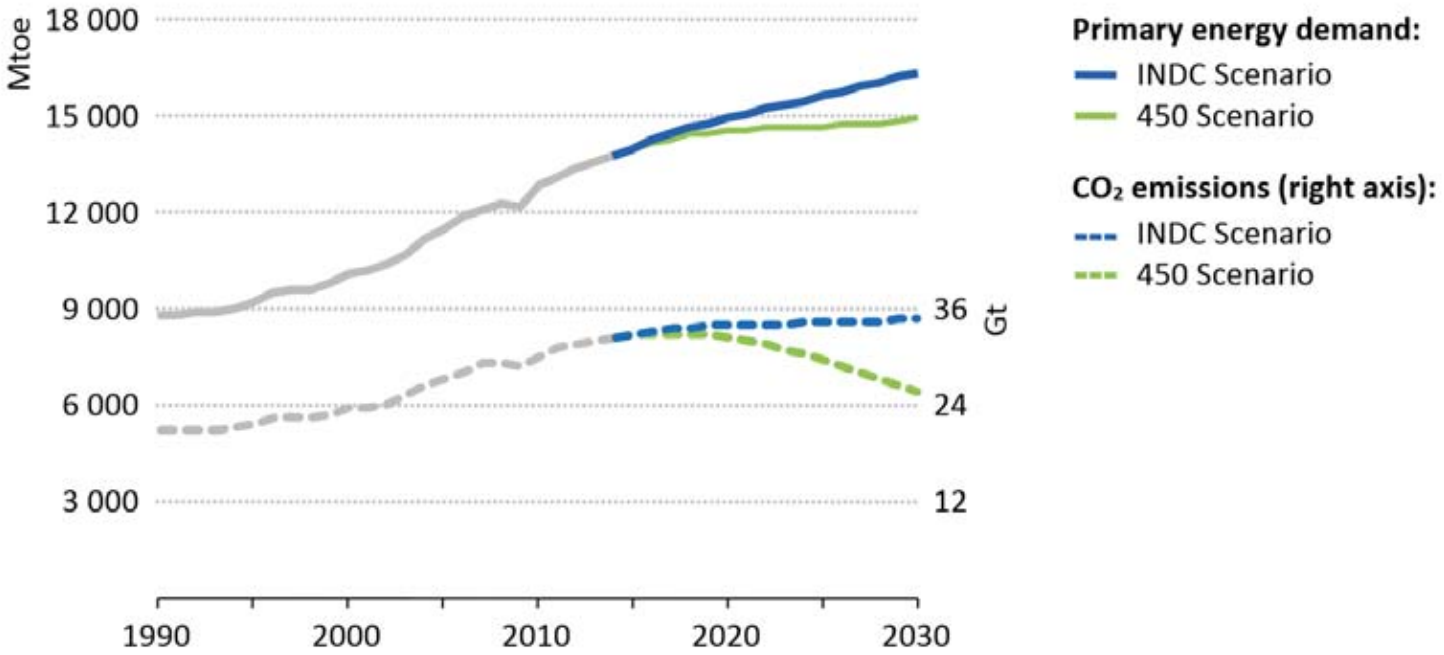
Figure 2.1 ▷ Global primary energy demand and related CO_2 emissions by scenario



Note: Mtoe = million tonnes of oil equivalent; Gt = gigatonnes.

INDC = Intended Nationally Determined Contributions

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4. Overall Results • CCPI 2015

CCPI: Climate Change Performance Index

Table 2

Rank		Country	Score**
1*	–	–	–
2*	–	–	–
3*	–	–	–
4	–	Denmark	77.76
5	▲	Sweden	71.44
6	▼	United Kingdom	70.79
7	–	Portugal	67.26
8	▲	Cyprus	66.99
9	▲	Morocco	65.73
10	▲	Ireland	65.15
11	▼	Switzerland	65.05
12	▼	France	64.11
13	–	Iceland	63.07
14	▼	Hungary	62.82
15	▲	Slovak Republic	62.50
16	▼	Belgium	61.89
17	▲	Italy	61.75
18	▲	Mexico	61.30
19	▲	Slovenia	60.99
20	▼	Malta	60.84
21	–	Lithuania	60.07
22	–	Germany	59.60
23	▲	Indonesia	59.57
24	▲	Egypt	59.19
25	▼	Romania	59.02
26	▲	Czech Republic	57.99
27	▼	Norway	57.88
28	▼	Spain	57.34
29	▼	Luxembourg	57.25
30	▲	Ukraine	57.10
31	▲	India	56.91
32	–	Finland	56.76
33	▼	Latvia	56.65
34	▲	Croatia	56.35
35	▲	Greece	55.89
36	▼	Austria	55.39
37	▲	South Africa	54.63
38	▼	Belarus	54.54
39	▲	Algeria	54.46
40	▲	Poland	54.36
41	▼	Bulgaria	54.05
42	▼	Netherlands	53.27
43	▼	New Zealand	52.56
44	–	United States	52.33
45	▲	China	51.77
46	▲	Estonia	51.58
47	▼	Thailand	50.61
48	▼	Argentina	49.61
49	▼	Brazil	48.51
50	▼	Singapore	47.27
51	▲	Turkey	46.95
52	▼	Malaysia	46.84
53	▼	Japan	45.07
54	▼	Chinese Taipei	45.03
55	–	Korea	44.15
56	–	Russian Federation	43.39
57	▲	Islamic Rep. of Iran	40.99
58	–	Canada	38.81
59	–	Kazakhstan	37.72
60	▼	Australia	35.57
61	–	Saudi Arabia	24.19

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

** comparison with previous year

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

Raynak: 'The Climate Change Performance Index Results 2015 Climate Action Network (CAN) Europa Belgium

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

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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			

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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			

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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			

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* 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

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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

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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

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Kaynak: '*The Climate Change Performance Index Results 2015*' Climate Action Network (CAN) Europa Belgium

Annex: Key data for all countries covered by the CCPI

Country	CCPI Rank* 2015	2014	Share of Global GDP	Share of World Population	Share of Global CO_2 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

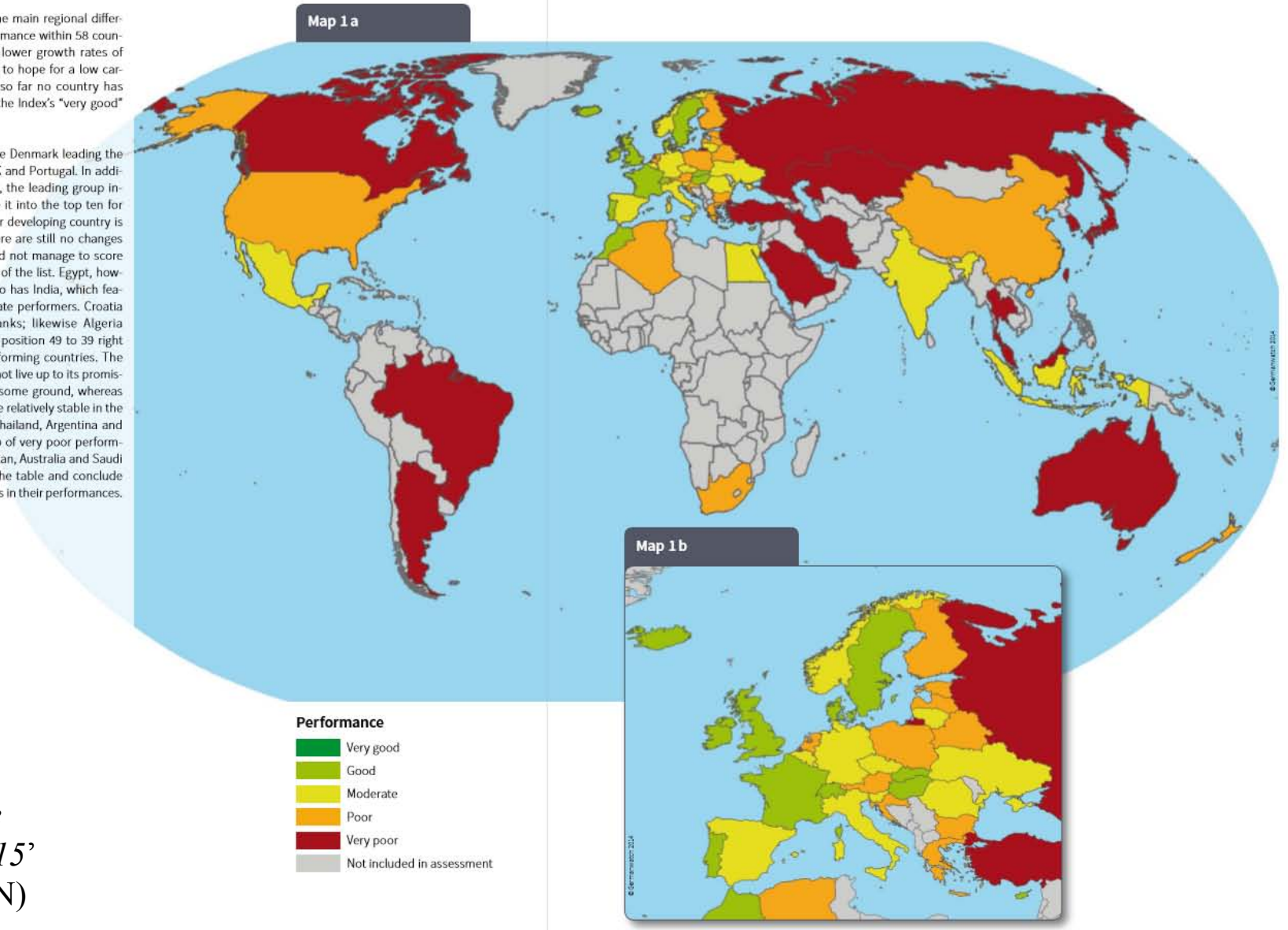
Performance: Very good | Good | Moderate | Poor | Very poor

Kaynak: *'The Climate Change Performance Index Results 2015'* Climate Action Network (CAN) Europa Belgium

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_2 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.



Kaynak: *'The Climate Change Performance Index Results 2015'*
Climate Action Network (CAN) Europa Belgium

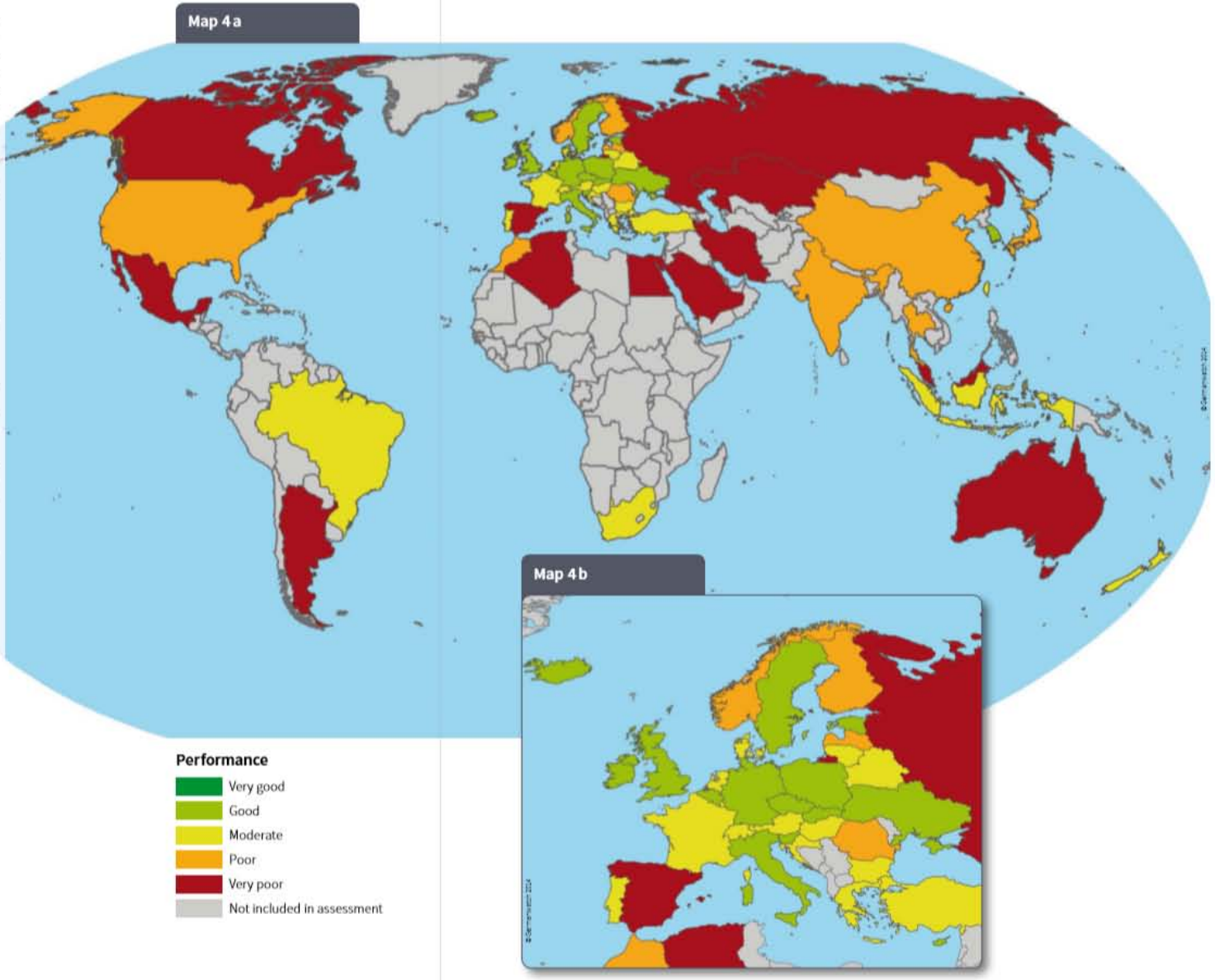
4.4 Partial Results • Renewable Energies

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.



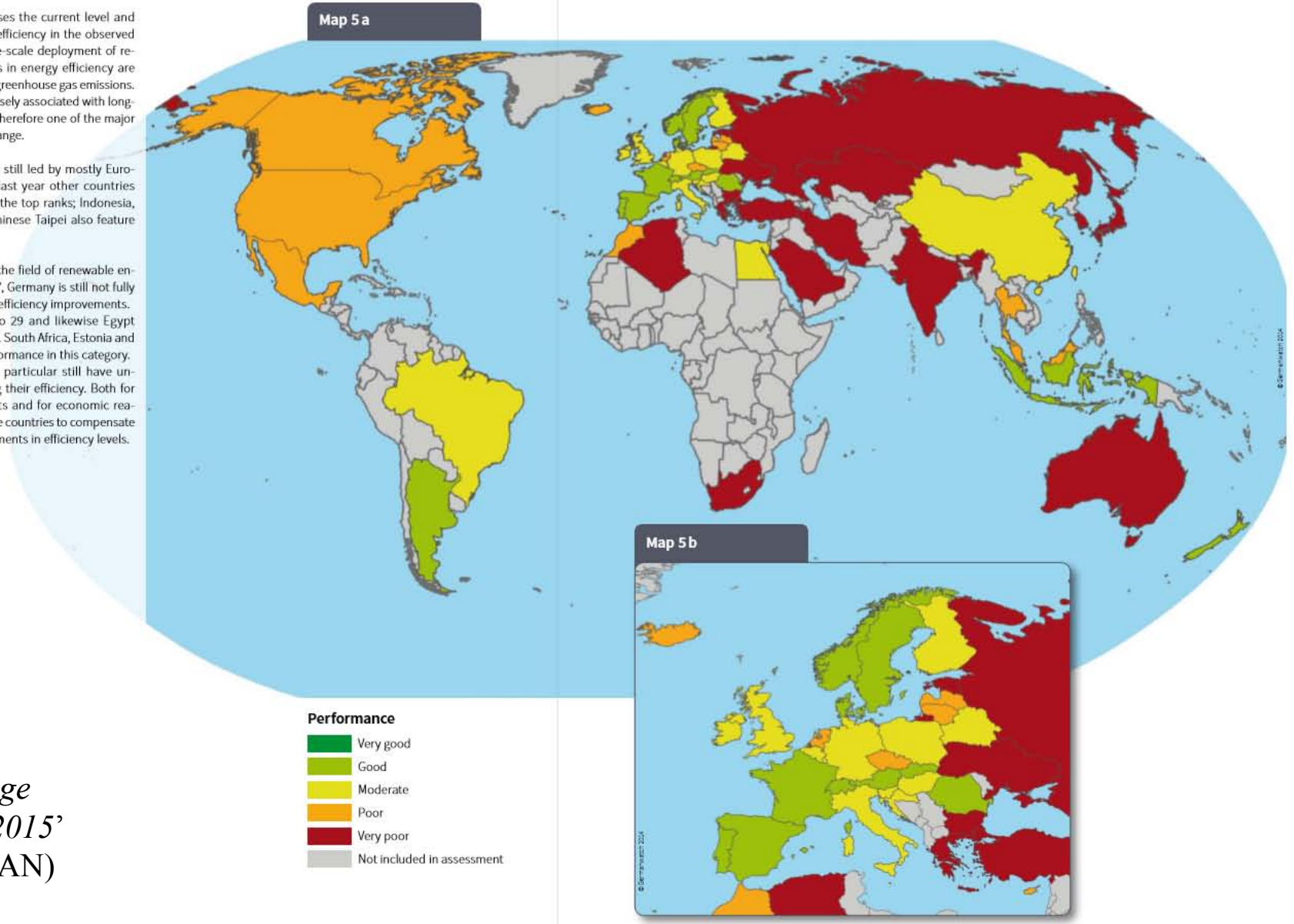
Kaynak: *'The Climate Change Performance Index Results 2015'*
Climate Action Network (CAN) Europa Belgium

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.



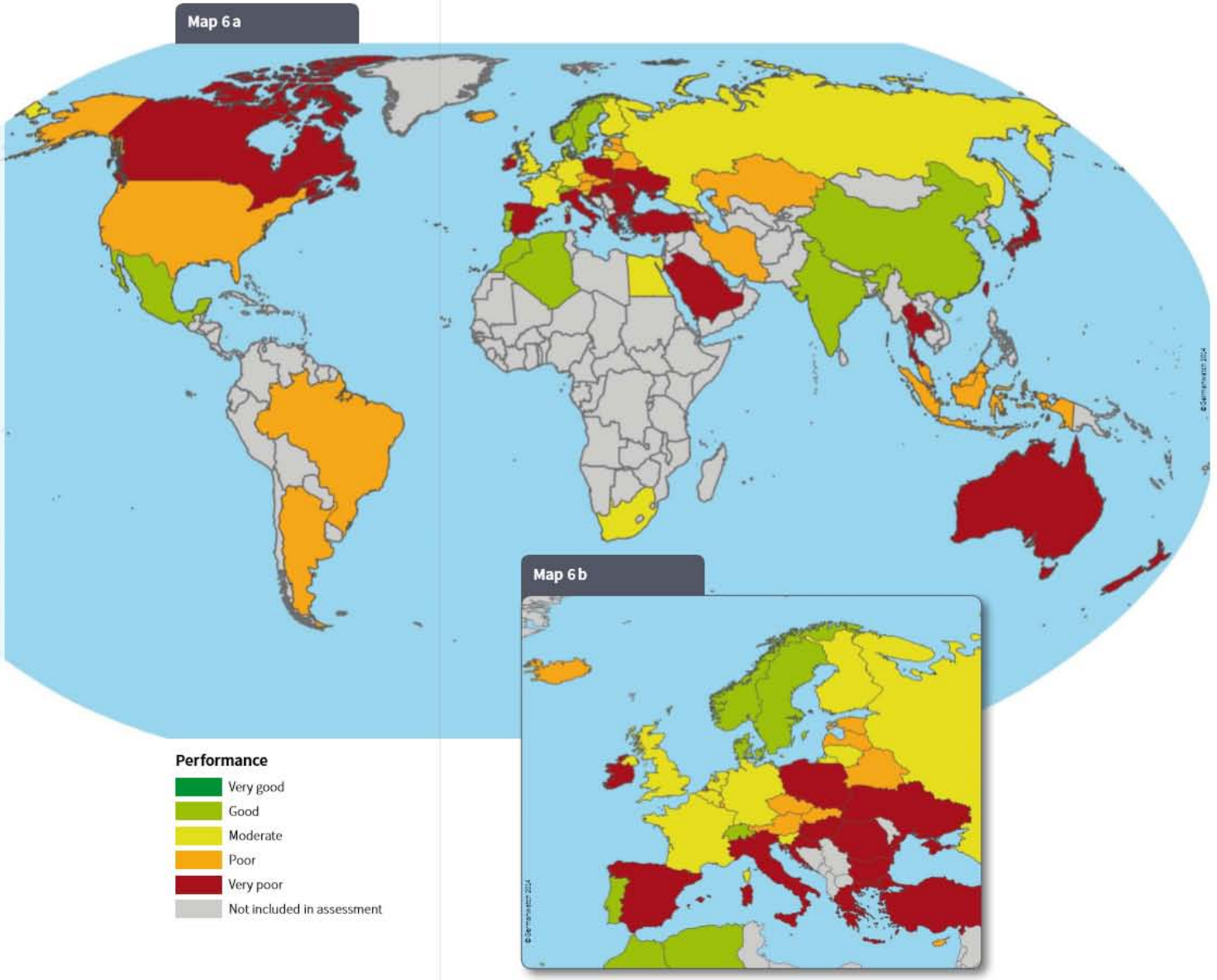
Kaynak: *'The Climate Change Performance Index Results 2015'*
Climate Action Network (CAN) Europa Belgium

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.

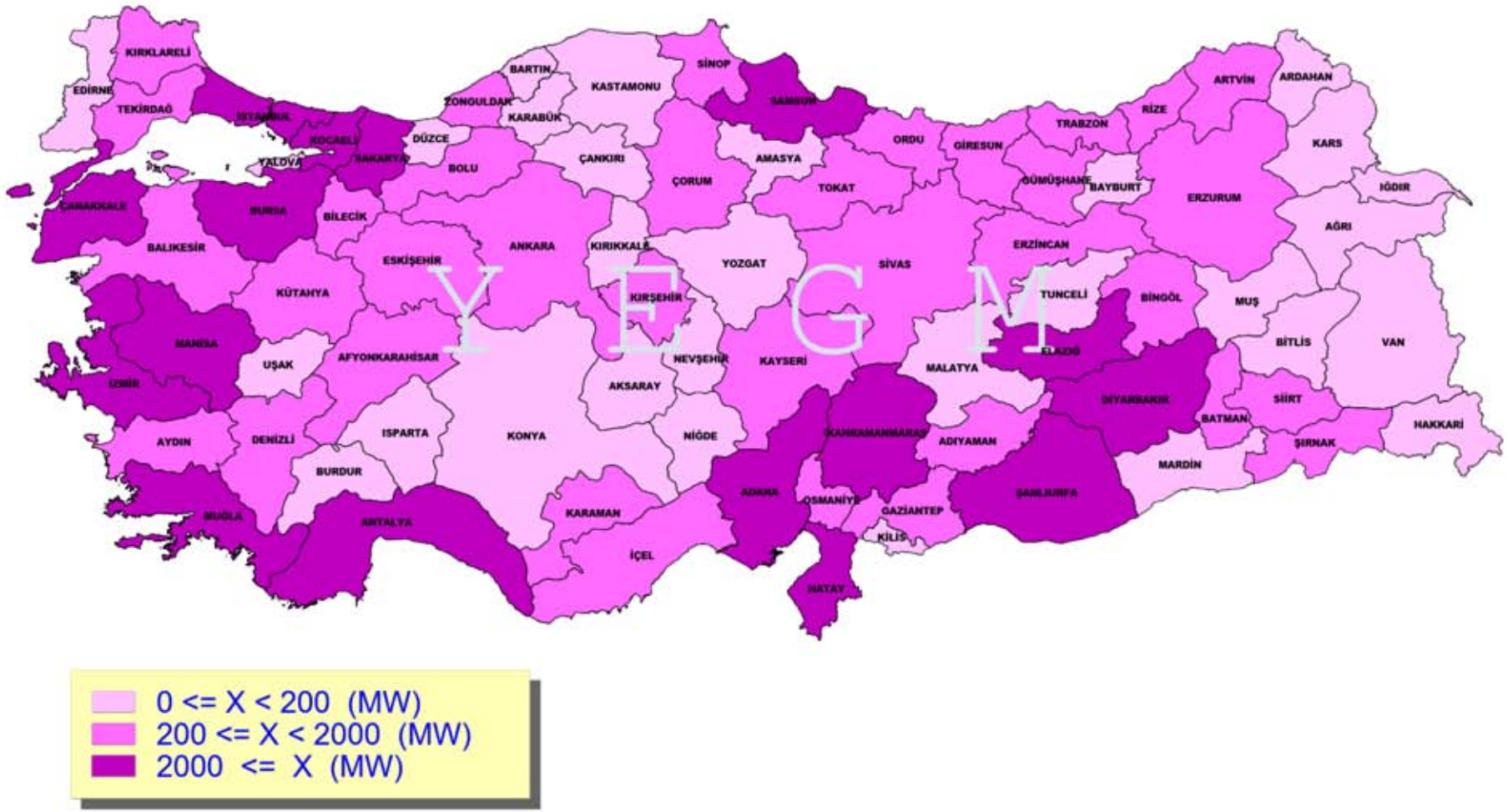
The policy data enables countries with an overall poor performance to be rewarded as soon as a shift in policies is observed (e.g. due to a change of government or of the current government's climate policy). If those trends prove to be correct, these countries are expected to improve even more in the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



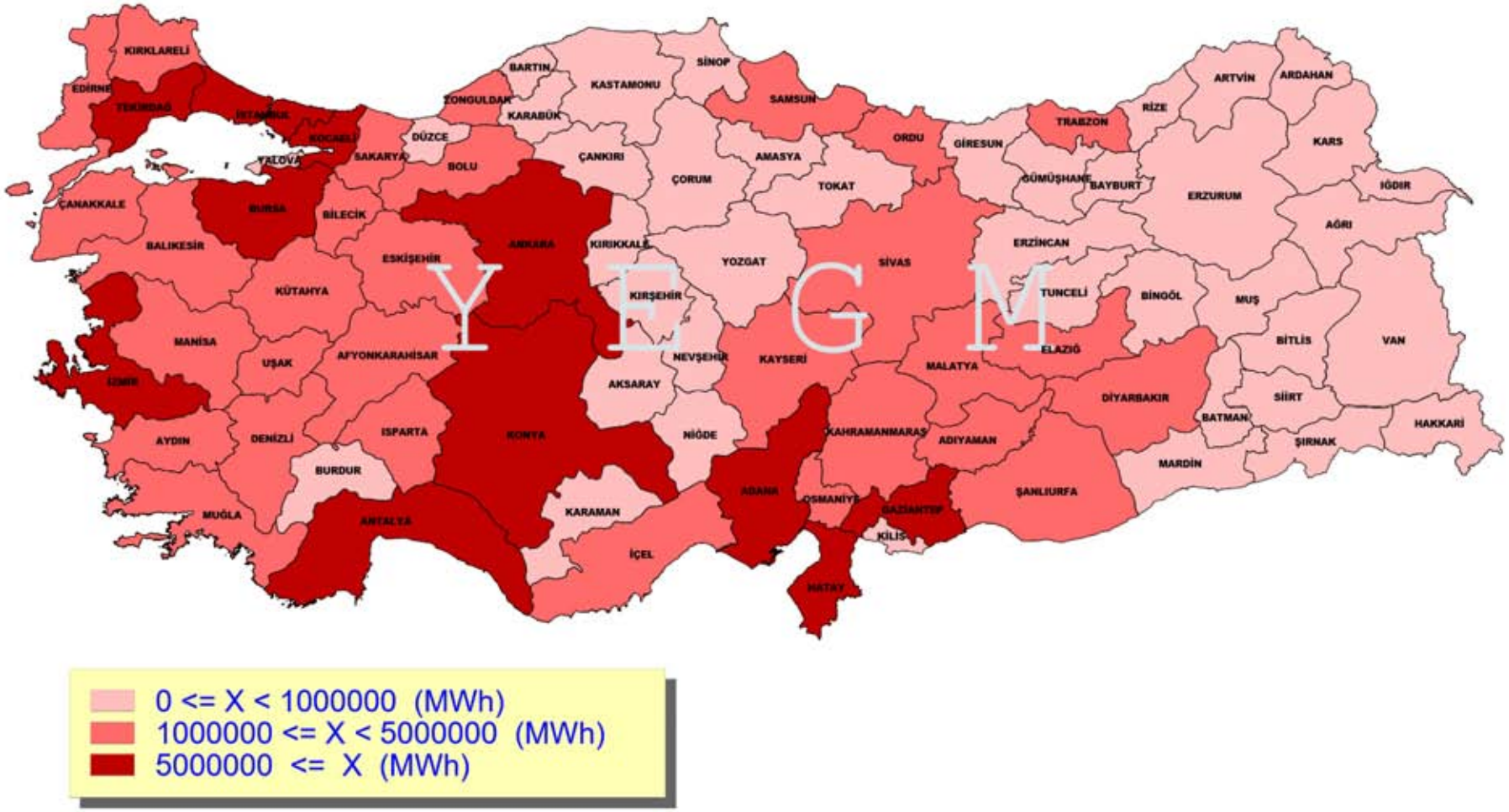
Kaynak: *'The Climate Change Performance Index Results 2015'*
Climate Action Network (CAN) Europa Belgium

TOPLAM KURULU GÜCE GÖRE ENERJİ ÜRETİMİ



* Üretim değerleri 2015 yılı TEİAŞ verileridir.
* Tüketim değerleri 2014 yılı TEDAŞ verileridir.

YILLIK ENERJİ TÜKETİMİ



* Üretim değerleri 2015 yılı TEİAŞ verileridir.
* Tüketim değerleri 2014 yılı TEDAŞ verileridir.

Enerji Verimliliği Mevzuatı

ENERJ VERİMLİLİĞİ KANUNU (Kanun No: 5627 RG 2 Mayıs 2007)

Amaç: Enerjinin etkin kullanılması, israfın önlenmesi, enerji maliyetlerinin ekonomi üzerindeki yükünün hafifletilmesi, **çevrenin korunması** için enerji kaynaklarının ve enerji kullanımında verimliliğin artırılmasıdır.

Hedef: Birim milli gelir basına tükettiğimiz enerjiyi (enerji yoğunluğunu), **2020 yılına kadar en az %15 azaltmak**.

Enerji Verimliliği Strateji Belgesi
25.02.2012 RG 28215

Enerji ve Tabii Kaynaklar Bakanlığı: Resmi Gazete Yayını: 25 Ekim 2008
"***Enerji Kaynaklarının ve Enerjinin Kullanımında Verimliliğin Artırılmasına Dair Yönetmelik***"

Bayındırlık ve İskan Bakanlığı: Resmi Gazete: 05.12.2008 Yürürlülük: 05.12.2009
"***Binalarda Enerji Performansı Yönetmeliği***"

Bayındırlık ve İskan Bakanlığı: Resmi Gazete Yayını: 14/04/2008
"***Merkezi Isıt. ve Sıhhi Sıcak Su Sist.de Isınma ve Sıhhi Sıcak Su Giderlerinin Paylaştırılmasına İlişkin Yönetmelik***"

Sanayi ve Ticaret Bakanlığı: Resmi Gazete Yayını: 08/10/2007
"***Tanıtma ve Kullanma Kılavuzu Uygulama Esaslarına Dair Yönetmelikte Değişiklik Yapılması Hak. Yönetmelik***"

Ulaştırma Bakanlığı: Resmi Gazete Yayını: 09/06/2008
"***Ulaşımda Enerji Verimliliğinin Artırılmasına İlişkin Usul ve Esaslar Hak. Yönetmelik***"

Milli Eğitim Bakanlığı: Resmi Gazete Yayını: 17/04/2009
"***Milli Eğitim Bakanlığına bağlı okullarda enerji yöneticisi görevlendirilmesine ilişkin Yönetmelik***"

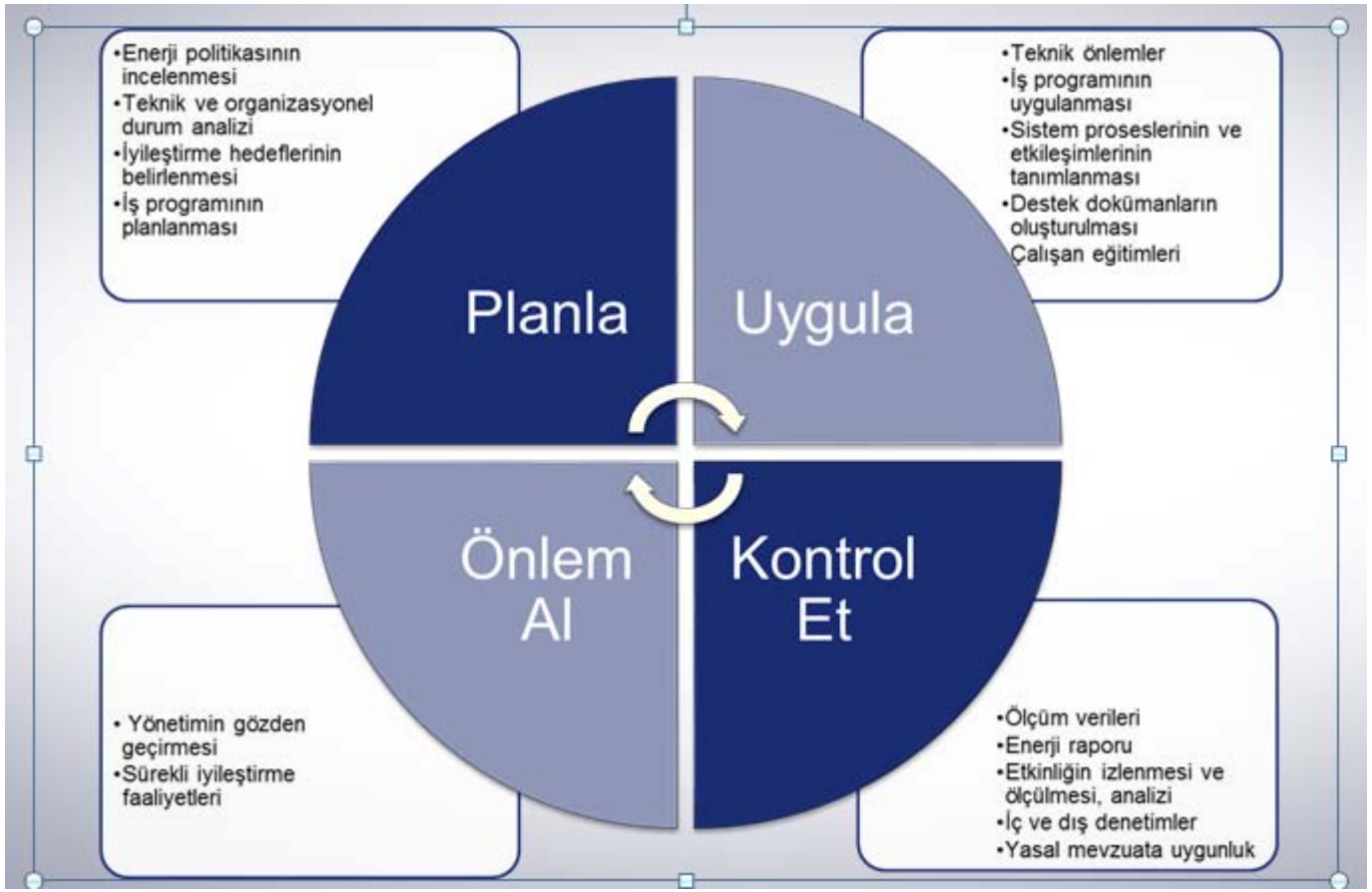
KOSGEB: Resmi Gazete Yayını: 18/10/2008
"***KOBİ'lerde Enerji Verimliliği Eğitim, Etüt ve Danışmanlık Hizmetlerinin Desteklenmesi Hak. Yönetmelik***"

Genelge: Başbakanlık Genelgesi Resmi Gazete Yayını: 15/02/2008
Ulusal Enerji Verimliliği Hareketi 2008; **EnVer Yılı**

Sanayi ve Ticaret Bakanlığı: Resmi Gazete Tarihi:14/12/2006
Ev Tipi Klimaların Enerji Etiketlemesine İlişkin Yönetmelik

Kaynak: http://www.yegm.gov.tr/verimlilik/v_mevzuat.aspx

TS EN ISO 50001 Enerji Yönetim Sistem Standardı



Kaynak: ENERVIS, Türkiye ve Almanya'da Enerji Yönetim Sisteminin Önemi, Enerji Verimliliği Forumu, 14-17 Ocak 2015, İstanbul.

In terms of methodology, the ISO 50001 standard follows the PDCA method for continual improvement which can be briefly describe as:

i) Plan: conduct the energy review and establish the baseline, energy performance indicators, objectives, targets and action plan necessary to deliver results in accordance with opportunities to improve energy performance and the organization's energy policy;

ii) Do: implement the energy management action plans;

iii) Check: monitor and measure processes and the key characteristics of its operations that determine energy performance against the energy policy and objectives and report the results; and,

iv) Act: take actions to continually improve energy performance and the energy management system.

Kaynak: 'Guidelines For Greenhouse Gas Management For Industrial Emitters In New Brunswick' July 2015
New Brunswick Department of Environment and Local Government Canada

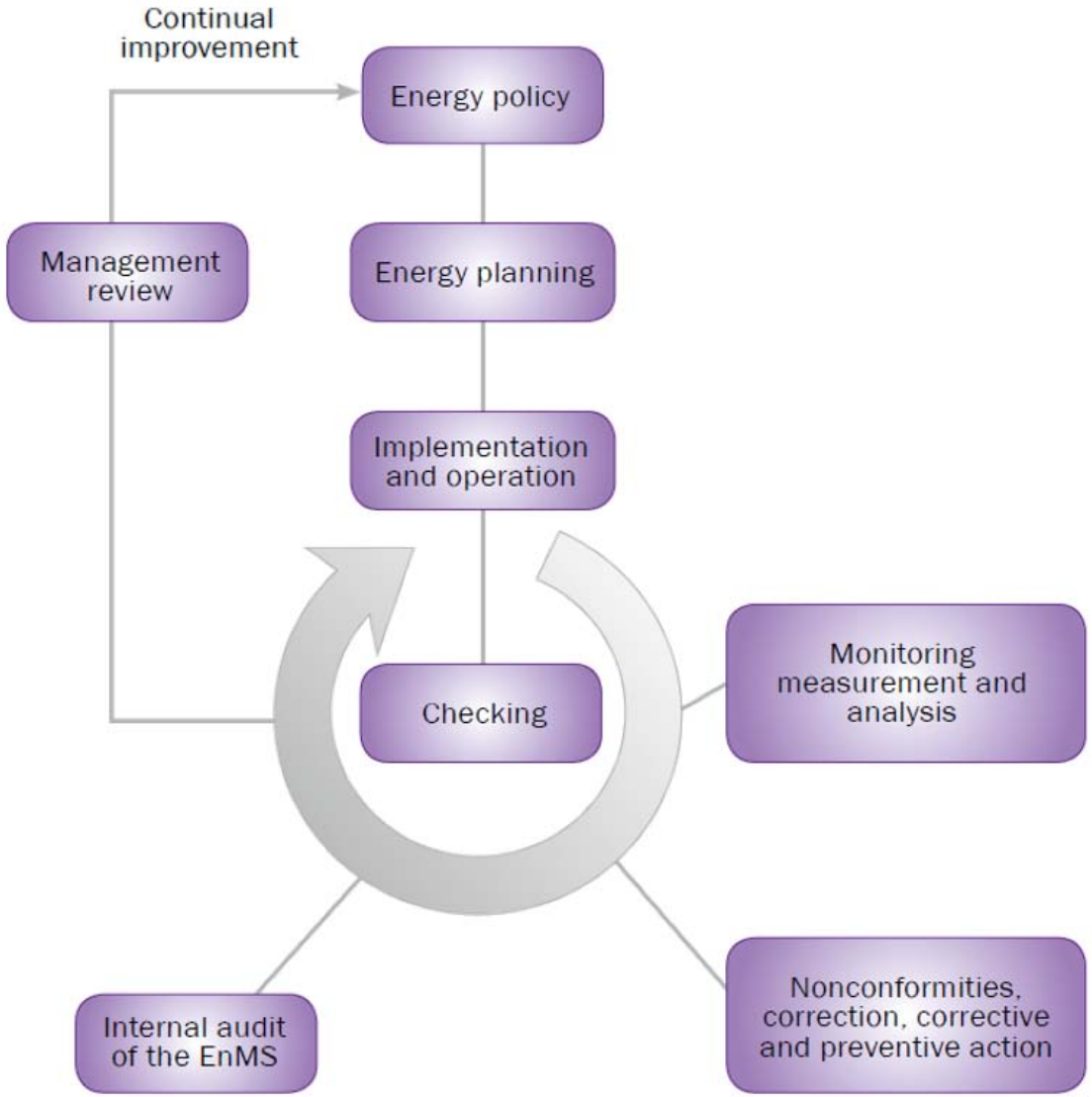
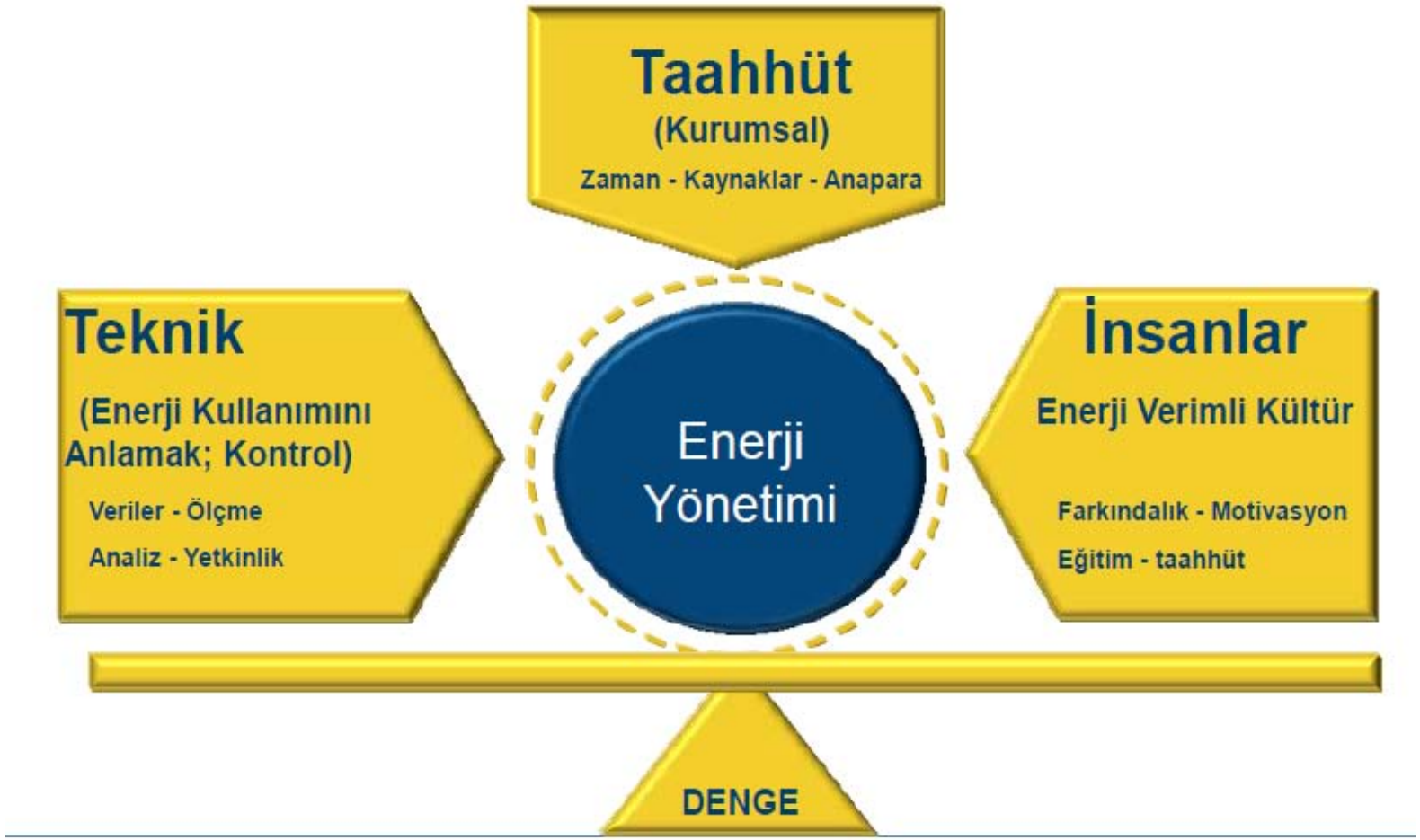


Figure A1: ISO 50001 Energy Management System Model[18].

Kaynak: 'Guidelines For Greenhouse Gas Management For Industrial Emitters In New Brunswick' July 2015
New Brunswick Department of Environment and Local Government Canada



Kaynak: ENERVIS, Türkiye ve Almanya'da Enerji Yönetim Sisteminin Önemi, Enerji Verimliliği Forumu, 14-17 Ocak 2015, İstanbul.

Dünya'da ISO 50001 Kurulumu Dağılımı

ISO 50001 Sertifikasyonu (Mayıs 2013 Sonu)			
Sıralama	Ülke	Belge	Kuruluş
1	Almanya	985	1.624
2	Birleşik Krallık	55	315
3	İsveç	64	143
4	İspanya	108	122
5	İtalya	90	121
6	Hindistan	55	71
7	İrlanda	33	63
8	Güney Kore	29	54
9	Tayvan	38	52
10	Avusturya	26	45
11	Fransa	29	36
12	**Türkiye**	**23**	**33**
13	Danimarka	32	32
14	Japonya	20	31
15	ABD	20	20
	Toplam	**1.821**	**3.001**

ISO 50001 Sertifikasyonu (Aralık 2013 Sonu)			
Sıralama	Ülke	Belge	Kuruluş
1	Almanya	1.424	2.671
2	Birleşik Krallık	68	335
3	İspanya	142	184
4	İsveç	79	181
5	İtalya	135	173
6	Hindistan	89	122
7	Güney Kore	36	112
8	İrlanda	43	91
9	**Türkiye**	**69**	**89**
10	Avusturya	54	76
11	Tayvan	53	70
12	Fransa	47	58
13	Danimarka	53	56
14	ABD	34	52
15	Japonya	24	35
	Toplam	**2.703**	**4.730**

ISO 50001 Sertifikasyonu (Ocak 2014 Sonu)			
Sıralama	Ülke	Belge	Kuruluş
1	Almanya	1.533	2.917
2	Birleşik Krallık	68	335
3	İspanya	148	190
4	İsveç	81	196
5	İtalya	142	180
6	Hindistan	94	128
7	Güney Kore	40	116
8	**Türkiye**	**73**	**97**
9	İrlanda	43	91
10	Avusturya	57	79
11	Tayvan	58	74
12	Fransa	50	61
13	Danimarka	54	58
14	ABD	36	54
15	Japonya	24	35
	Toplam	**2.874**	**5.055**

Kaynak: ENERVIS, Türkiye ve Almanya'da Enerji Yönetim Sisteminin Önemi, Enerji Verimliliği Forumu, 14-17 Ocak 2015, İstanbul.

EN ISO 50001 alan ilk firmalar

- Arçelik *Kasım 2012*
- Vestel *Kasım 2012*
- Hayat Kimya *Mayıs 2013*
- Tofaş *Eylül 2013*
- …
- Pınar Su *Ekim2015*
- Viking Kâğıt *Aralık 2015*

Alanında İlkler

- Gaziantep Büyük Şehir Belediyesi *Mayıs 2015*
- Enervis *Enerji Verimliliği Danışmanlık Şirketi 2015*
- **Yaşar Üniversitesi** *Aralık 2015*
- Güral Premier Tekirova Tatil Köyü *Ekim 2016*

- Reliance Infrastructure Ltd. *Haziran 2011*

Termal Enerji Santralı, Dahanu Hindistan

Kaynak: http://www.bureauveritas.com/home/news/business-news/iso+50001-+2011, Erişim Tarihi: 13.01.2016

- University College Cork (UCC), *2011*

İrlanda

Kaynak: http://enerit.com/wp-content/uploads/2012/08/1.1-UCC-Case-Study-Final-Version-2012.pdf, Erişim Tarihi: 13.01.2016

5 Ocak 2016 Tarihinde YAŞAR ÜNİVERSİTESİ

TSE

ENERJİ YÖNETİM SİSTEMİ BELGESİ
ENERGY MANAGEMENT SYSTEM CERTIFICATE

Partner of IQNet
THE INTERNATIONAL CERTIFICATION NETWORK

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bu belge ile

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YAŞAR ÜNİVERSİTESİ ÖĞRENCİ YURDU: KAZIM
DİRİK MAH. 367/2 SOK. NO:9/2 35100 BORNOVA -
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Belge kapsamı Ek'te verilmiştir

TÜRK STANDARDLARI ENSTİTÜSÜ
TURKISH STANDARDS INSTITUTION
SİSTEM BELGELENDİRME GRUP BAŞKANI
HEAD of SYSTEM CERTIFICATION GROUP

GÖKCAN BİRCAN DEĞERLİYURT

Bu belge belgelendirme şartlarına
uygunluk sağlandığı sürece geçerlidir.

TURKISH STANDARDS INSTITUTION
hereby certifies that the organization

YAŞAR ÜNİVERSİTESİ
ÜNİVERSİTE CAD. NO:35-37 BORNOVA - İZMİR
YAŞAR ÜNİVERSİTESİ ÖĞRENCİ YURDU: KAZIM
DİRİK MAH. 367/2 SOK. NO:9/2 35100 BORNOVA -
İZMİR / TÜRKİYE

Scope of the certificate is given in annex

Belge No / Certificate No
EYB-85/16

Belge Tarihi / Date of Certificate
05.01.2016

Geçerlilik Tarihi / Valid Until
05.01.2019

Revizyon Tarihi / Date of Revision
05.01.2016

İlk Belge Tarihi / Initial Certification Date
05.01.2016

This certificate is valid provided that compliance
with the certification requirement is maintained.

Bu belge, Türk Standardları Enstitüsü'nün kuruluşu hakkındaki 132 sayılı kanun uyarınca verilmiştir.
This certificate is issued in accordance with the Law No. 132 establishing Turkish Standards Institution.

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A Clean Energy Ministerial Campaign

The Clean Energy Ministerial is a global forum to promote policies and share best practices to accelerate the global transition to clean energy.

CEM initiatives help reduce emissions, improve energy security, provide energy access, and sustain economic growth.

2016 Energy Management Leadership Awards

This booklet highlights first-hand business experiences, insights, and benefits resulting from use of ISO 50001 around the world.

The Clean Energy Ministerial's Energy Management Working Group (EMWG) has been driving the global dialogue on quality ISO 50001 implementation since 2010.

To showcase and share energy management successes and best practices of early adopters, the EMWG launched the Energy Management Leadership Awards program.

To qualify for these awards, organizations with ISO 50001 certification prepared case studies to share a high-quality and replicable description of their ISO 50001 implementation, resulting business benefits, and useful advice on lessons learned and keys to success. An independent panel of international experts selected the winners.

Thirty-five businesses in 20 countries have been selected for global recognition. Three companies earned top honors, the Award of Excellence in Energy Management: Cummins Inc. (USA), LG Chem Ltd. (Republic of Korea), and New Gold Inc. (Canada). Another 32 companies received Energy Management Insight Awards for helping to build global insight on the benefits of energy management systems in industrial and commercial facilities.

Clean Energy Ministerial

The Clean Energy Ministerial (CEM) is a high-level international forum that promotes policies and programs to advance clean energy.

Through the CEM's EMWG, government officials worldwide share best practices and leverage their collective expertise to accelerate the use of EnMS in industry and commercial buildings.

Governments participating in the EMWG include Australia, Canada, Chile, China, the European Commission, Finland, Germany, India, Indonesia, Japan, Mexico, the Republic of Korea, Saudi Arabia, South Africa, Sweden, and the United States. The EMWG was launched in 2010 by the CEM and International Partnership for Energy Efficiency Cooperation.

For full details, the award-winning case studies are available online:
www.cleanenergyminsterial.org/energymanagement

CLEAN ENERGY MINISTERIAL
Accelerating the Transition to Clean Energy Technologies

2016 Energy Management Award of Excellence

- Cummins, Inc.
- LG Chem, Ltd.
- New Gold Inc.

2016 Energy Management Insight Award

- 3M Company
- Abbott Diagnostics Division
- AbbVie Ireland NL BV
- Aberdare Cables
- Catalyst Paper
- Central Termoeléctrica Genelba
- Curtiss-Wright Electro-Mechanical Corporation
- Dairygold Food Ingredients
- Detroit Diesel Corporation
- F-TECH Inc.
- HARBEC Inc.
- Hitachi, Ltd. Infrastructure Systems Company
- JK Lakshmi Cement Limited
- Map Ta Phut Olefins Company Limited
- Mutua Madrileña Automovilista
- Nissan North America, Inc.
- PT. Indah Kiat Pulp and Paper
- PT. Amerta Indah Otsuka
- PT. Apac Inti Corpora
- PT. KMK Global Sports
- PT. Nippon Shokubai Indonesia
- PT. PHE ONWJ
- Raymond Limited
- Saint-Gobain Construction Products
- Schneider Electric
- Scott Safety and Tyco Projects
- Shree Cement Ltd.
- Sidi Kerir Petrochemicals Co. (SIDPEC)
- TNT Chile Limitada
- Vedanta Limited

2016 Energy Management Award of Excellence

Cummins, Inc.

Nine sites certified to ISO 50001

US$3.5 million annual savings

1-year payback

India

- Jamshedpur, Jharkhand

United Kingdom

- Huddersfield, West Yorkshire
- Daventy, Northhamptonshire
- Darlington County, Durham
- Stamford, Lincolnshire

United States of America

- Columbus, IN laboratory
- Columbus, IN Technical Ctr.*
- Lakewood, NY
- Whitakers, NC*

* Also certified to Superior Energy Performance

Rolling out ISO 50001 at nine sites helped us exceed our goals. Establishing clear procedures, roles, and responsibilities at corporate, business unit, and site levels helps facilitate implementation.

CLEAN ENERGY MINISTERIAL
Accelerating the Transition to Clean Energy Technologies

2016 Energy Management Award of Excellence

At LG Chem Ochang, switching the focus from operational improvements to energy management helped double annual energy cost savings (5% to 10%).

LG Chem, Ltd.

Ochang plant: Certified to ISO 50001 and Korea Superior Energy Performance

$9 million in savings

4.3-month payback (2014)

2016 Energy Management Award of Excellence

Energy is our second greatest expense, amounting to 13% of operational costs, so even a 1% improvement in energy performance is worth hundreds of thousands of dollars.

The mine used an energy management system to drive down energy use and improved its energy performance by 11.4%.

New Gold Inc.

New Afton Mine: ISO 50001 certified

CAD$643,000 savings, 1.1-year payback (2014)

CAD$444,000 savings, 0.6-year payback (2015)

Sonuç

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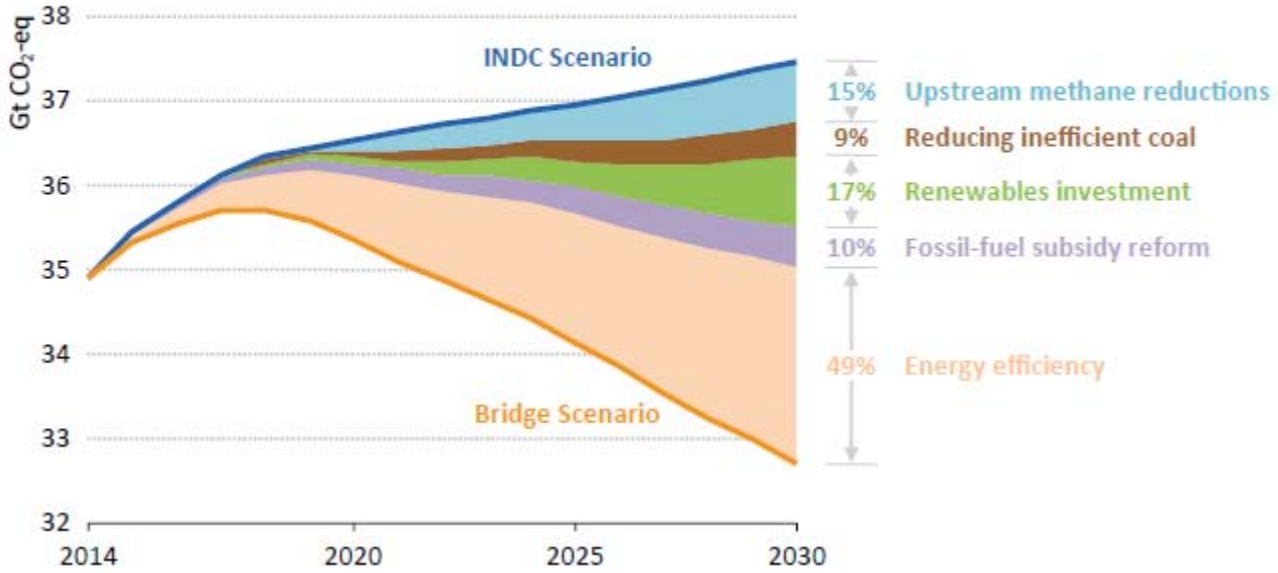
Figure 3.2 ▷ Global energy-related GHG emissions reduction by policy measure in the Bridge Scenario relative to the INDC Scenario



Kaynak: Energy and Climate Change World Energy Outlok Special Report IEA 2015

Katılımınız İçin Teşekkürler