

# **The Democracy Ranking 2009 of the Quality of Democracy: Method and Ranking Outcome. Comprehensive Scores and Scores for the Dimensions.**

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## **1. Method of the Democracy Ranking 2009 of the Quality of Democracy**

The Democracy Ranking 2009 refers to a unique quantitative model. This model is being governed by the following methodic principles:

1. *Conceptual and methodic source:* The Democracy Ranking 2009 is based on the originally developed “Feasibility Study” (Campbell and Sükösd, 2002) and early experiences gained from the “Pilot Ranking 2000” (Campbell and Sükösd, 2003). The feasibility study developed the general framework and conceptual architecture of the “dimensions” that underlie the Democracy Ranking 2009 and suggested, furthermore, a specific assignment of quantitative indicators to the different dimensions. In the “Pilot Ranking 2000” this general framework was tested empirically for the first time. Emphasizing the need of a permanent learning process and in reflection of discussions and discourses, the Democracy Ranking 2009 moderately modified and adapted the set of assigned indicators and of their weighting. Future Democracy Rankings might continue this procedure of indicator and weight adjustment.<sup>1</sup> However, the past ranking years then always will be recalculated, thus enabling a steady and continuous comparison across time in a standardized format, reaching back to the first ranking years as initial benchmark. The “Basic Concept for the Democracy Ranking” (Campbell, 2008) provides further conceptual and theoretical evidence for the Democracy Ranking 2009 and the successively planned democracy rankings. The Democracy Ranking 2009, in addition, continues and updates the ranking data of the previous Democracy Ranking 2008/2009 (Campbell and Pölzlbauer, 2009).

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<sup>1</sup>) This also underscores the premise that a “perfect” model for democracy ranking does not exist. Or to phrase it differently: there never will be unanimous consensus about how such a perfect model should be designed. Modifications of indicator usage leverage the opportunity of creating alternative insights in democracy.

2. *Objectives:* The Democracy Ranking 2009 creates a comparative ranking of the quality of democracy for two two-year periods of all democracies (country-based democracies) world-wide. The scope and format of this ranking is global. As democracies all countries are classified that are “free” or at least “partly free”.<sup>2</sup> “Not free” countries are not considered as being democratic and thus are not included in the democracy ranking.<sup>3</sup> The Democracy Ranking 2009 is interested in displaying the (average) ranking scores for each two-year period specifically as well as in demonstrating ranking score increases and decreases by contrasting these two two-year periods. This encourages that in addition to the actual ranking placement also changes over time are reflected and acknowledged. The results and scores of the Democracy Ranking 2009 may be interpreted as a general orientation on how democracies compare and rank to each other in a global format based on their quality of democracy. The Democracy Ranking 2009 wants to encourage discussion and discourse. More focused country case studies can reveal how plausible or implausible these ranking scores are for specific democracies (for example, see in that respect Campbell and Barth, 2009).
  
3. *Country sample (covered democracies):* All countries are covered by the current ranking that fulfill the following criteria; (a) are classified by Freedom House as “free” or at least “partly free” during the whole years 2006-2008<sup>4</sup>; (b) have a population of at least one million; (c) and where a certain maximum number of indicators with missing

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<sup>2</sup>) This decision makes explicit that only free or partly free countries should be included in a democracy ranking. A democracy ranking is not a proper location for non-free countries.

<sup>3</sup>) For assessments on how free or not free countries (democracies) are, we refer to Freedom House as the key source (see Freedom House, 2010).

<sup>4</sup>) On January 12, 2010, Freedom House released the survey findings of “Freedom in the World 2010” that refer to the year 2009 (<http://www.freedomhouse.org/template.cfm?page=505>). By that time the groundwork for the so-called early release of the Democracy Ranking 2009 already was completed. This could have possibly the effect that some of the countries that Freedom House listed as free or partly free during 2006-2008 may be re-categorized as “not free” in 2009 or 2010 (see also Freedom House, 2010).

values<sup>5</sup> per dimension was not exceeded. Furthermore, not covered countries (because they are not systematically represented by the used sources) are: Hong Kong, Puerto Rico and Taiwan. In total, this results in a sample of 97 countries for the Democracy Ranking 2009.

4. *Covered years (2004-2005 and 2007-2008)*: The ranking consists of two rankings, focusing on average values of the two two-year periods 2004-2005 and 2007-2008. This factors in a dynamic component, allowing for a comparison and monitoring of changes and shifts of ranking positions over time.<sup>6</sup>
5. *The individual dimensions as a basis for the final comprehensive (aggregated) ranking*: In conceptual terms, the Democracy Ranking 2009 is based on the following six individual dimensions (one political dimension, five non-political dimensions); (a) politics (political system); (b) gender equality (socioeconomic and educational); (c) economy (economic system); (d) knowledge (knowledge society and economy, education and research); (e) health (health status and health system); and (f) environment (environmental sustainability).
6. *Assignment of indicators per dimension and the ranking aggregation procedure*: The following procedures are applied; (a) per dimension, a specific set of quantitative indicators has been assigned; (b) for 2004-2005 as well as 2007-2008 average indicator values are being calculated; (c) for the full period 2004-2008 (more specifically 2004-2005 and 2007-2008) all assigned indicators are “numerically proportionally” transformed into a value range of “1-100”. “1”

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<sup>5</sup>) Because of this “missing” rule it was decided not to integrate the following ten countries into the Democracy Ranking 2009: Benin, Botswana, Central African Republic, Gabon, Guinea-Bissau, Haiti, Liberia, Papua New Guinea, Sierra Leone, and Timor-Leste.

<sup>6</sup>) The previous Democracy Ranking 2008/2009 covered the years 2002-2003 and 2005-2006 (Campbell and Pözlbauer, 2009; compare also with Campbell and Pözlbauer, 2008).

represents the weakest (poorest) value<sup>7</sup>, and “100” the strongest (best) value, with regard to the quality of democracy; (d) per dimension, specific ranking scores are calculated for all the covered democracies for 2004-2005 and 2007-2008; (e) finally, on the basis of the ranking scores (indicator values) of the individual dimensions and in accordance with a specific weighting of those dimensions, the six dimensions are being aggregated to the comprehensive Democracy Ranking 2009.

7. *Documentation of the indicators assigned per dimension:* In the Appendix to this report, the indicators, which have been used and assigned per dimension, are being documented. In total, the Democracy Ranking 2009 is based on 43 indicators.
8. *Weighting of the individual dimensions:* The following weight measures are assigned to the dimensions for the procedure of comprehensive ranking aggregation for the periods 2004-2005 and 2007-2008; (a) politics 50%; (b) gender 10%; (c) economy 10%; (d) knowledge 10%; (e) health 10%; and (f) environment 10%.
9. *Weighting of indicators in context of the dimensions:* Possible weight measures of the indicators (for the ranking of democracies) within context of the individual dimensions are revealed in the Appendix. Weights should emphasize the potential influence of different indicators on the concept of the quality of democracy.
10. *Treatment of missing values for the indicators:* In case of missing values for indicators of the five non-political dimensions, the year 2003 was leveraged as an estimator for 2004-2005 and the year 2006 as an estimator for 2007-2008. For the political dimension the years 2003 and 2006 were not used as estimators, because normally there were no values for 2003 and 2006, when also no values were available

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<sup>7</sup>) The decision to use “1”, and not “0”, as the lowest value should deliver the symbolic message that in context of a democracy ranking every democracy ranks higher and above zero and thus falls into a “positive” value range.

for 2004-2005 and 2007-2008. Further specifications for the political dimension and five non-political dimensions are, with regard to the treatment of missing values for the individual country-based democracies: (a) in case of missing values for the whole period 2004-2005 (and 2003), the transformed (1-100) average value of 2007-2008 was taken; (b) in case of missing values for the whole period 2007-2008 (and 2006), the transformed (1-100) average value of 2004-2005 was taken; (c) in case of missing values for the total period 2003-2008, the transformed (1-100) average score of that country (democracy) for that specific dimension (2004-2005 and 2007-2008) defined the reference.

11. *Comprehensive gender dimension:* Because gender indicators with a political orientation are assigned to the political dimension, the political dimension already contains gender information. The gender dimension of the Democracy Ranking 2009 falls more in line with socioeconomic and educational gender equality, where the socioeconomic and educational status of women is being compared across different democracies. Out of an interest of wanting to know what a possible ranking pattern of a broader gender dimension might be, the Democracy Ranking 2009 calculates a “comprehensive gender dimension” (a so-called seventh dimension). The ranking scores of that comprehensive gender dimension are also documented, however, they do not impact the aggregated ranking of the Democracy Ranking 2009 (only the socioeconomic and educational gender dimension does). The comprehensive gender dimension is based on the dimension of socioeconomic and educational gender equality and on the political indicators PS1-PS4 (see the Appendix for an exact definition), with the following weight measures: “socioeconomic and educational gender equality” 50%, PS1 15%, PS2 15%, PS3 15%, and PS4 5%.
  
12. *Empirical source of the indicators for the Democracy Ranking 2009:* All indicators for the five non-political dimensions (gender [socioeconomic and educational gender equality], economy, knowledge, health, and environment) are taken from the online-

database “World Development Indicators” of the World Bank (see World Bank, 2009). In that context it should be mentioned that these World Development Indicators frequently are pooled by the World Bank from other renowned sources. For each indicator, the World Bank always cites precisely the original data source. Concerning the political dimension, reference is being made to Freedom House (most prominently the “Freedom in the World”<sup>8</sup> country ranking database) as the key source for political indicators. Additional sources for the political dimension are the United Nations Development Program (e.g., “Human Development Report 2009”<sup>9</sup>) and Transparency International (such as the “TI 2008 Corruption Perceptions Index”<sup>10</sup>). In the Appendix, the source for every indicator always is acknowledged.

13. *The ranking scores of the Democracy Ranking 2009 of the Quality of Democracy:* In Chapter 3, the ranking scores for the comprehensive Democracy Ranking and for the individual dimensions are documented in context of different scoreboards.

## 2. References

Campbell, David F. J. (2008). The Basic Concept for the Democracy Ranking of the Quality of Democracy. Vienna: Democracy Ranking. [[http://www.democracyranking.org/downloads/basic\\_concept\\_democracy\\_ranking\\_2008\\_A4.pdf](http://www.democracyranking.org/downloads/basic_concept_democracy_ranking_2008_A4.pdf) and [http://www.democracyranking.org/downloads/basic\\_concept\\_democracy\\_ranking\\_2008\\_letter.pdf](http://www.democracyranking.org/downloads/basic_concept_democracy_ranking_2008_letter.pdf)]

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<sup>8</sup>) See Freedom House (2010):  
<http://www.freedomhouse.org/template.cfm?page=439>

<sup>9</sup>) See:  
[http://hdr.undp.org/xmlsearch/reportSearch?y=\\*&c=\\*&t=\\*&k=&orderby=year](http://hdr.undp.org/xmlsearch/reportSearch?y=*&c=*&t=*&k=&orderby=year)

<sup>10</sup>) See: [http://www.transparency.org/publications/annual\\_report](http://www.transparency.org/publications/annual_report)

Campbell, David F. J. / Miklós Sükösd (eds.) (2002). Feasibility Study for a Quality Ranking of Democracies. Vienna: Global Democracy Award. [[http://www.democracyranking.org/downloads/feasibility\\_study-a4-e-01.pdf](http://www.democracyranking.org/downloads/feasibility_study-a4-e-01.pdf) and [http://www.democracyranking.org/downloads/feasibility\\_study-letter-e-01.pdf](http://www.democracyranking.org/downloads/feasibility_study-letter-e-01.pdf)]

Campbell, David F. J. / Miklós Sükösd (eds.) (2003). Global Quality Ranking of Democracies: Pilot Ranking 2000. Vienna: Global Democracy Award. [[http://www.democracyranking.org/downloads/folder\\_a4-e-03.pdf](http://www.democracyranking.org/downloads/folder_a4-e-03.pdf) and [http://www.democracyranking.org/downloads/folder\\_letter-e-03.pdf](http://www.democracyranking.org/downloads/folder_letter-e-03.pdf)]

Campbell, David F. J. / Georg Pözlbauer (2008). The Democracy Ranking 2008 of the Quality of Democracy: Method and Ranking Outcome. Vienna: Democracy Ranking.

Campbell, David F. J. / Georg Pözlbauer (2009). The Democracy Ranking 2008/2009 of the Quality of Democracy: Method and Ranking Outcome. Vienna: Democracy Ranking.

Campbell, David F. J. / Thorsten D. Barth (2009). Wie können Demokratie und Demokratiequalität gemessen werden? Modelle, Demokratie-Indices und Länderbeispiele im globalen Vergleich. [How Can Democracy and the Quality of Democracy be Measured? Models, Democracy Indices and Country-Based Case Studies in Global Comparison]. *SWS-Rundschau* 49 (2), 208-233. [[http://www.uni-klu.ac.at/wiho/downloads/campbell\\_u\\_barth-demokratiemessung-sws\\_rundschau-heft\\_2009\\_02-FINAL.pdf](http://www.uni-klu.ac.at/wiho/downloads/campbell_u_barth-demokratiemessung-sws_rundschau-heft_2009_02-FINAL.pdf)]

Freedom House (2010). Freedom in the World Comparative and Historical Data. Washington D.C. and New York: Freedom House. [<http://www.freedomhouse.org/template.cfm?page=439>]

World Bank (2009). World Development Indicators (Online-Database). Washington D.C.: World Bank. [<https://publications.worldbank.org/WDI>]

### 3. Ranking Outcome of the Democracy Ranking 2009: Comprehensive Scores and Scores for the Dimensions

	Total Score	Rank	Total Score	Rank	Democracy Loss/Gain	Democracy Loss/Gain
	2004-2005	2004-2005	2007-2008	2007-2008	Rating	Score
Sweden	88.58	1	89.42	1	59	0.84
Norway	87.26	2	87.79	2	67	0.54
Denmark	86.03	3	86.23	3	77	0.20
Finland	84.47	5	86.15	4	37	1.68
Netherlands	83.40	6	85.43	5	33	2.04
Switzerland	85.15	4	85.41	6	74	0.26
New Zealand	80.86	8	81.89	7	53	1.04
Germany	80.65	9	80.97	8	70	0.32
Austria	81.11	7	80.81	9	81	-0.30
Belgium	80.03	10	80.63	10	65	0.60
Australia	79.92	11	80.14	11	75	0.21
Canada	78.49	13	79.54	12	52	1.05
United Kingdom	78.84	12	79.52	13	63	0.68
Ireland	78.22	14	78.97	14	61	0.75
Spain	75.76	16	78.45	15	18	2.69
United States	76.52	15	77.34	16	60	0.82
France	75.17	17	76.50	17	47	1.33
Portugal	73.97	18	75.18	18	50	1.21
Japan	72.38	19	73.28	19	58	0.90
Italy	69.26	21	71.75	20	24	2.50
Slovenia	70.40	20	71.71	21	49	1.31
Estonia	68.27	24	71.47	22	12	3.20
Israel	69.13	22	70.56	23	45	1.42
Costa Rica	68.52	23	69.99	24	43	1.47
Uruguay	67.27	25	69.69	25	27	2.42
Czech Republic	65.87	30	69.63	26	8	3.76
Lithuania	66.34	27	69.31	27	16	2.97
Greece	66.07	29	68.60	28	23	2.54
Korea, Rep.	64.74	32	67.72	29	15	2.98
Chile	66.99	26	67.68	30	62	0.68
Hungary	66.09	28	67.03	31	57	0.94
Poland	64.36	33	66.94	32	21	2.58
Slovak Republic	63.56	34	66.86	33	11	3.30
Latvia	65.48	31	66.55	34	51	1.08
Mauritius	62.32	35	64.80	35	25	2.48
Croatia	61.22	37	64.22	36	14	3.01
Argentina	61.89	36	61.49	37	83	-0.40
Panama	58.65	39	60.94	38	29	2.29
Bulgaria	61.17	38	60.48	39	86	-0.69
Peru	56.90	42	59.36	40	26	2.46

Singapore	56.96	41	58.42	41	44	1.46
Trinidad and Tobago	52.31	47	57.04	42	5	4.74
Romania	51.02	51	56.83	43	4	5.82
Jamaica	53.92	44	55.79	44	36	1.88
El Salvador	53.76	45	55.35	45	38	1.60
Dominican Republic	51.73	48	55.29	46	9	3.56
Mexico	57.60	40	55.27	47	93	-2.33
Brazil	54.94	43	55.20	48	73	0.26
Ecuador	51.09	50	53.63	49	22	2.55
South Africa	53.47	46	53.47	50	79	0.00
Serbia	50.60	52	52.95	51	28	2.35
Namibia	50.12	54	51.45	52	48	1.33
Botswana	50.46	53	50.93	53	68	0.47
Mongolia	49.19	56	49.74	54	66	0.55
Albania	47.08	58	49.15	55	31	2.07
Ghana	47.76	57	49.10	56	46	1.34
Colombia	46.27	62	48.90	57	19	2.63
India	46.89	59	48.40	58	41	1.51
Macedonia, FYR	45.11	65	48.29	59	13	3.18
Bolivia	49.31	55	48.24	60	90	-1.06
Ukraine	42.34	71	48.23	61	3	5.89
Turkey	45.21	64	47.79	62	20	2.59
Honduras	45.43	63	47.48	63	32	2.05
Philippines	51.19	49	46.91	64	97	-4.28
Paraguay	44.78	67	46.37	65	39	1.59
Nicaragua	46.82	60	46.23	66	84	-0.58
Mali	46.33	61	45.40	67	89	-0.93
Indonesia	41.88	73	44.73	68	17	2.84
Moldova	42.21	72	44.16	69	35	1.95
Senegal	44.82	66	42.94	70	92	-1.88
Malaysia	42.99	69	42.61	71	82	-0.37
Georgia	43.76	68	42.13	72	91	-1.63
Guatemala	38.55	76	41.99	73	10	3.44
Madagascar	40.48	74	40.52	74	78	0.04
Sri Lanka	42.97	70	40.25	75	94	-2.72
Kuwait	38.00	77	40.15	76	30	2.16
Venezuela, RB	40.18	75	39.27	77	88	-0.91
Tanzania	37.46	78	39.04	78	40	1.58
Lebanon	32.60	89	38.95	79	2	6.35
Malawi	35.29	80	36.26	80	55	0.98
Armenia	35.98	79	35.97	81	80	0.00
Nepal	26.34	93	35.54	82	1	9.20
Uganda	34.04	85	34.99	83	56	0.95
Niger	34.42	82	34.69	84	72	0.27
Morocco	33.97	86	34.60	85	64	0.63

Mozambique	32.57	90	34.58	86	34	2.00
Bangladesh	34.85	81	34.12	87	87	-0.73
Kyrgyz Republic	32.29	91	33.79	88	42	1.50
Jordan	34.29	83	33.66	89	85	-0.63
Burkina Faso	33.33	87	33.65	90	71	0.32
Zambia	28.21	92	31.97	91	7	3.76
Kenya	34.25	84	30.24	92	96	-4.01
Burundi	24.82	94	29.18	93	6	4.36
Gambia, The	33.00	88	29.16	94	95	-3.84
Ethiopia	24.23	95	24.43	95	76	0.21
Nigeria	22.69	96	23.71	96	54	1.02
Yemen, Rep.	19.12	97	19.56	97	69	0.44
	Green: Within the highest third of all countries	Green: Country is among the 10 best	Green: Within the highest third of all countries	Green: Country is among the 10 best	Green: Country is among the 10 best	Green: Gain of democracy score
	Blue: Within the medium third of all countries		Blue: Within the medium third of all countries			
	Red: Within the lowest third of all countries	Red: Country is among the 10 worst	Red: Within the lowest third of all countries	Red: Country is among the 10 worst	Red: Country is among the 10 worst	Red: Loss of democracy score

	Political System Scores							
	2004-2005	2007-2008		2004-2005	2007-2008		2004-2005	2007-2008
Sweden	98.37	98.84	Panama	57.51	59.56	Venezuela, RB	30.91	25.04
Finland	96.55	97.54	Jamaica	55.55	58.50	Kuwait	19.91	23.51
Norway	96.06	94.88	Botswana	61.05	57.95	Burundi	15.58	23.45
Denmark	95.35	94.53	Serbia	55.90	57.24	Lebanon	12.48	23.22
Netherlands	92.92	93.95	Dominican Republic	54.70	56.72	Nigeria	21.35	22.22
New Zealand	89.95	90.81	Peru	54.55	56.62	Bangladesh	23.28	19.85
Belgium	90.20	89.90	Romania	47.24	55.92	Morocco	19.63	19.85
Switzerland	89.69	88.74	India	51.68	53.55	Jordan	19.99	18.18
Canada	87.62	88.15	Mongolia	54.36	53.29	Armenia	18.67	17.45
Australia	88.17	87.76	El Salvador	51.66	52.82	Kyrgyz Republic	13.70	17.20
Germany	89.39	87.73	Mexico	58.31	52.23	Gambia, The	25.54	15.80
Austria	88.99	86.72	Brazil	52.10	51.42	Ethiopia	13.53	14.54
Spain	82.01	84.82	Senegal	55.43	50.34	Yemen, Rep.	4.74	4.62
United Kingdom	84.06	84.56	Mali	53.09	50.10			
Portugal	81.26	82.60	Ecuador	46.10	49.75			
Ireland	82.45	81.73	Bolivia	48.97	47.33			
United States	79.91	80.15	Macedonia, FYR	41.68	45.55	Green: Within the		
Estonia	76.98	79.45	Mozambique	41.59	45.25	highest third of all		
Costa Rica	77.84	78.94	Ukraine	33.90	44.31	countries		
France	78.02	78.91	Singapore	41.79	42.73			
Czech Republic	70.85	75.48	Honduras	40.05	41.77	Blue: Within the		
Chile	74.23	74.73	Tanzania	39.58	41.59	medium third of		
Uruguay	71.90	74.40	Nicaragua	44.05	41.11	all countries		
Lithuania	70.10	73.45	Philippines	51.57	41.05			
Slovenia	72.75	73.00	Turkey	37.04	40.62	Red: Within the		
Slovak Republic	70.23	72.86	Indonesia	37.05	40.14	lowest third of all		
Poland	71.27	72.62	Albania	37.19	39.60	countries		
Italy	69.03	72.18	Colombia	35.43	37.88			
South Africa	72.69	71.68	Paraguay	35.54	37.19			
Japan	70.78	71.13	Moldova	34.09	35.30			
Hungary	69.69	70.40	Zambia	30.99	35.14			
Latvia	69.91	69.73	Niger	34.94	34.29			
Mauritius	64.83	69.33	Madagascar	35.92	34.02			
Greece	66.30	68.55	Malawi	32.82	33.11			
Israel	67.15	68.23	Guatemala	26.82	31.25			
Trinidad and Tobago	58.70	66.43	Burkina Faso	31.24	31.14			
Korea, Rep.	62.14	65.29	Uganda	30.01	31.02			
Croatia	61.38	64.44	Malaysia	30.42	30.04			
Bulgaria	67.14	63.89	Georgia	32.83	29.11			
Ghana	61.17	63.00	Nepal	11.55	28.18			
Argentina	65.25	61.98	Kenya	36.00	27.22			
Namibia	59.28	60.90	Sri Lanka	33.63	26.03			

	Gender Equality (Socioeconomic and Educational) Scores							
	2004-2005	2007-2008		2004-2005	2007-2008		2004-2005	2007-2008
Norway	88.14	89.02	Sri Lanka	69.38	72.07	Botswana	34.43	43.57
Finland	86.52	88.34	Costa Rica	69.05	71.64	Malawi	42.09	43.15
Australia	86.82	88.26	Mongolia	69.66	70.74	Kenya	40.76	43.11
New Zealand	86.99	87.45	Mexico	69.12	70.56	Namibia	42.48	43.06
Sweden	87.31	87.01	Brazil	69.73	70.42	Mali	38.02	40.57
Denmark	85.37	86.58	Colombia	66.53	70.31	Senegal	36.53	39.29
Japan	83.88	84.85	Venezuela, RB	64.08	70.04	Burundi	34.96	38.63
France	83.41	84.82	Panama	66.50	70.00	Zambia	30.09	35.03
Slovenia	83.67	84.50	Georgia	70.42	69.86	Burkina Faso	29.79	32.57
United States	83.56	84.43	Malaysia	69.22	69.81	Yemen, Rep.	28.63	29.85
Singapore	82.30	84.38	Kyrgyz Republic	69.56	69.70	Mozambique	27.01	26.99
Netherlands	81.97	84.10	Albania	68.92	69.36	Nigeria	23.29	24.07
Canada	82.89	84.06	El Salvador	67.47	69.10	Niger	20.42	22.30
Estonia	81.16	84.04	Jamaica	67.97	68.71			
United Kingdom	83.95	83.51	Ecuador	67.17	68.63			
Lithuania	81.11	83.26	Serbia	65.20	67.99			
Ireland	82.45	83.08	Philippines	65.84	67.93			
Spain	80.35	82.88	Paraguay	65.96	67.70	Green: Within the highest third of all countries		
Italy	79.92	82.48	Trinidad and Tobago	63.69	65.95			
Belgium	81.13	82.48	Mauritius	64.56	64.87			
Korea, Rep.	80.32	82.41	Bolivia	64.70	64.68	Blue: Within the medium third of all countries		
Israel	80.60	82.22	Nicaragua	60.43	63.55			
Germany	80.23	82.08	Kuwait	62.78	62.81			
Austria	80.72	81.87	Honduras	62.01	62.41			
Switzerland	80.91	81.86	Guatemala	59.31	62.09	Red: Within the lowest third of all countries		
Latvia	79.52	80.93	Indonesia	58.47	61.84			
Portugal	80.00	80.08	Lebanon	58.84	60.47			
Poland	74.86	79.96	Dominican Republic	57.72	60.11			
Greece	77.24	79.87	Turkey	57.72	59.14			
Hungary	78.34	78.87	Macedonia, FYR	56.27	57.91			
Czech Republic	74.73	78.38	Bangladesh	55.79	57.85			
Ukraine	76.73	78.26	Jordan	56.25	57.80			
Uruguay	75.22	75.89	Madagascar	53.03	54.88			
Romania	73.69	75.89	Morocco	50.04	51.55			
Bulgaria	74.30	75.88	India	50.57	51.49			
Argentina	74.09	75.87	Nepal	45.26	49.39			
Moldova	73.76	75.87	Uganda	45.21	47.68			
Croatia	73.57	75.80	Gambia, The	44.37	46.25			
Chile	73.22	74.32	Ghana	43.58	45.95			
Slovak Republic	69.65	74.11	Ethiopia	41.88	45.66			
Peru	69.79	73.08	Tanzania	43.25	45.59			
Armenia	72.14	72.81	South Africa	44.81	45.01			

	Economy Scores							
	2004-2005	2007-2008		2004-2005	2007-2008		2004-2005	2007-2008
Norway	86.96	93.45	Mauritius	46.24	46.56	Senegal	21.89	19.05
Kuwait	84.78	87.25	El Salvador	45.41	46.41	Bolivia	22.52	19.01
United States	80.40	84.03	Costa Rica	41.75	46.25	Gambia, The	15.81	19.00
Singapore	77.60	83.81	Uruguay	39.25	45.66	Burkina Faso	19.79	18.53
Ireland	79.92	83.72	Argentina	41.61	45.49	Nigeria	12.26	17.74
Switzerland	78.76	83.20	Brazil	42.48	44.82	Niger	18.48	17.52
Netherlands	74.61	80.08	Bulgaria	41.35	44.71	Yemen, Rep.	15.67	17.26
Denmark	74.91	79.07	Colombia	41.30	44.06	Uganda	17.64	16.01
Australia	73.88	77.09	Ukraine	45.18	43.79	Mozambique	14.84	15.49
Austria	71.85	76.06	Ecuador	42.93	42.81	Zambia	10.26	14.74
Japan	72.75	75.98	Bangladesh	42.30	42.14	Ghana	13.09	13.54
Canada	73.60	75.89	Moldova	37.87	42.07	Kenya	15.18	10.97
Germany	69.41	73.54	India	41.87	41.94	Burundi	12.97	10.37
Finland	68.63	73.34	Guatemala	40.69	41.70			
Sweden	70.00	73.32	Indonesia	38.36	40.68			
United Kingdom	71.89	73.01	Honduras	39.82	40.07			
Spain	63.78	68.58	Paraguay	39.15	39.76	Green: Within the		
France	65.16	68.41	Venezuela, RB	33.43	39.54	highest third of all		
New Zealand	65.91	67.89	Morocco	39.53	39.26	countries		
Korea, Rep.	63.10	67.70	Philippines	36.67	39.24			
Belgium	65.19	67.58	Madagascar	36.18	39.23	Blue: Within the		
Slovenia	62.12	67.41	Lebanon	37.62	39.13	medium third of		
Czech Republic	60.40	65.66	Georgia	37.65	38.85	all countries		
Israel	60.75	64.60	Botswana	30.39	37.22			
Estonia	57.51	62.85	Nicaragua	36.54	35.83	Red: Within the		
Italy	58.39	61.61	Sri Lanka	33.35	34.29	lowest third of all		
Lithuania	54.22	59.99	Mongolia	30.10	34.15	countries		
Trinidad and Tobago	54.53	58.50	Serbia	29.34	34.07			
Slovak Republic	47.90	58.49	Armenia	32.63	33.37			
Portugal	57.02	58.04	Jamaica	30.41	31.97			
Greece	52.19	57.99	Kyrgyz Republic	37.40	31.80			
Mexico	52.47	54.19	Jordan	32.39	31.40			
Poland	44.28	53.28	Dominican Republic	18.58	31.11			
Malaysia	51.69	53.26	South Africa	29.36	31.02			
Hungary	52.59	53.10	Albania	27.78	29.13			
Croatia	46.22	52.13	Tanzania	30.76	28.97			
Latvia	47.30	51.42	Mali	30.56	28.73			
Peru	46.83	49.35	Malawi	24.31	27.19			
Chile	49.05	48.16	Namibia	29.09	27.18			
Turkey	45.46	48.02	Nepal	25.14	26.33			
Romania	41.60	47.34	Macedonia, FYR	22.49	24.44			
Panama	42.87	47.25	Ethiopia	34.39	23.10			

	Knowledge Scores							
	2004-2005	2007-2008		2004-2005	2007-2008		2004-2005	2007-2008
Sweden	83.70	83.96	Dominican Republic	34.18	40.67	Yemen, Rep.	14.15	14.80
Switzerland	74.95	76.60	Moldova	35.05	39.86	Zambia	10.06	14.52
Finland	74.73	74.68	Lebanon	35.92	39.83	Nigeria	12.91	13.07
Denmark	72.43	71.01	Mauritius	37.30	39.32	Mali	7.64	10.48
Israel	70.06	70.43	Argentina	34.75	39.13	Madagascar	7.13	9.96
United States	69.61	70.35	Bolivia	38.66	38.49	Niger	7.53	9.24
Netherlands	64.84	68.25	Trinidad and Tobago	32.49	37.36	Tanzania	6.65	8.64
United Kingdom	65.96	67.18	Malaysia	34.84	36.93	Burkina Faso	7.03	8.21
Norway	65.42	66.37	Romania	32.31	36.89	Uganda	6.88	7.25
Singapore	63.89	66.20	Chile	33.90	36.42	Malawi	6.06	6.88
Korea, Rep.	61.84	65.35	Panama	32.56	35.91	Burundi	6.64	6.61
Australia	64.79	65.06	Brazil	33.77	35.54	Ethiopia	4.56	5.87
Germany	61.49	64.84	El Salvador	28.57	35.31	Mozambique	2.59	3.91
Japan	62.17	63.41	Mongolia	31.85	34.23			
Canada	60.27	62.91	Kyrgyz Republic	31.41	34.03			
Belgium	59.77	61.58	Colombia	27.19	33.65	Green: Within the highest third of all countries		
France	58.81	60.96	South Africa	31.20	33.45			
Austria	58.32	60.15	Ecuador	26.93	32.32			
New Zealand	58.20	60.08	Venezuela, RB	25.52	31.97	Blue: Within the medium third of all countries		
Ireland	54.53	58.87	Armenia	27.80	31.15			
Estonia	52.35	58.32	Turkey	26.92	30.96			
Slovenia	53.10	57.35	Georgia	28.78	30.84	Red: Within the lowest third of all countries		
Spain	52.52	56.53	Honduras	20.41	29.77			
Italy	54.19	55.81	Namibia	25.05	29.58			
Greece	48.79	51.59	Mexico	26.52	29.24			
Hungary	46.30	50.36	Peru	24.99	28.84			
Lithuania	45.56	48.90	Nicaragua	24.86	28.65			
Portugal	45.69	48.43	Paraguay	25.20	28.45			
Czech Republic	45.33	47.42	Botswana	25.67	27.89			
Croatia	43.83	47.02	Indonesia	21.96	27.53			
Jamaica	44.17	46.31	Costa Rica	24.81	27.41			
Poland	42.51	45.96	Morocco	21.67	25.58			
Macedonia, FYR	38.19	44.90	Guatemala	18.99	24.85			
Uruguay	39.34	44.67	Philippines	22.48	24.07			
Ukraine	39.06	43.67	Sri Lanka	18.46	22.06			
Bulgaria	39.37	43.31	Gambia, The	18.30	21.98			
Serbia	36.09	43.05	Nepal	18.25	19.76			
Latvia	39.11	42.95	Kenya	15.68	19.09			
Jordan	39.62	41.72	Ghana	15.08	18.78			
Kuwait	39.69	41.02	Bangladesh	13.08	17.93			
Slovak Republic	38.18	40.79	Senegal	13.16	17.85			
Albania	36.17	40.71	India	14.21	16.29			

	Health Scores							
	2004-2005	2007-2008		2004-2005	2007-2008		2004-2005	2007-2008
Switzerland	89.20	89.69	Malaysia	66.86	67.74	Gambia, The	28.50	29.67
Japan	87.53	88.31	Armenia	66.35	67.02	Ethiopia	25.44	27.59
Sweden	87.05	87.91	Mexico	65.85	66.99	South Africa	28.41	27.27
France	85.95	87.32	Lithuania	66.83	66.57	Botswana	24.87	27.26
United States	85.76	86.63	Latvia	65.97	66.39	Kenya	24.49	26.52
Norway	84.77	85.98	Jordan	65.77	66.35	Uganda	21.80	25.39
Austria	84.40	85.75	Brazil	65.11	66.23	Mali	21.68	23.76
Australia	84.71	85.66	Venezuela, RB	65.17	66.09	Malawi	18.99	22.52
Belgium	84.07	85.42	Lebanon	64.58	65.37	Burkina Faso	20.54	21.53
Germany	83.93	85.25	Georgia	64.64	65.35	Burundi	17.19	20.41
Italy	83.67	84.99	Peru	63.65	65.14	Nigeria	11.71	12.00
Netherlands	82.73	84.49	Romania	63.80	65.05	Zambia	9.02	11.84
New Zealand	83.16	84.16	Colombia	63.45	64.26	Mozambique	5.19	4.61
Greece	82.29	83.97	Paraguay	63.54	64.23			
Israel	82.63	83.18	Honduras	62.62	63.97			
Canada	82.14	83.16	Nicaragua	62.11	63.92			
Spain	82.24	82.98	Sri Lanka	62.61	63.75	Green: Within the		
Denmark	81.77	82.92	Dominican Republic	62.58	63.28	highest third of all		
Finland	80.70	82.21	Mauritius	62.64	62.41	countries		
Ireland	81.49	81.65	Turkey	61.12	61.89			
United Kingdom	79.04	80.08	Philippines	60.29	61.87	Blue: Within the		
Portugal	79.33	79.82	Jamaica	61.26	61.48	medium third of		
Korea, Rep.	76.01	78.08	Moldova	60.10	61.42	all countries		
Costa Rica	76.41	77.21	El Salvador	60.63	61.16			
Slovenia	76.85	77.09	Ukraine	60.33	60.99			
Singapore	75.75	76.75	Guatemala	58.23	59.76	Red: Within the		
			Trinidad and			lowest third of all		
Czech Republic	75.15	76.41	Tobago	58.73	59.18	countries		
Argentina	75.15	76.14	Morocco	57.29	58.60			
Croatia	71.43	73.50	Indonesia	56.69	58.55			
Uruguay	72.47	73.24	Kyrgyz Republic	56.92	56.80			
Chile	72.72	73.12	Mongolia	53.61	55.47			
Panama	70.54	71.30	Bolivia	49.79	51.01			
Slovak Republic	70.67	71.24	Bangladesh	47.24	49.92			
Kuwait	70.70	71.07	Nepal	45.36	47.33			
Albania	69.98	70.63	India	44.32	45.56			
Hungary	70.10	70.44	Yemen, Rep.	40.88	42.40			
Poland	70.13	70.43	Madagascar	33.90	36.01			
Macedonia, FYR	68.93	69.42	Tanzania	27.61	31.80			
Bulgaria	68.61	68.78	Ghana	32.13	31.24			
Ecuador	67.90	68.72	Namibia	28.74	30.68			
Serbia	67.41	68.22	Senegal	28.93	30.15			
Estonia	67.21	67.96	Niger	26.89	29.78			

Environmental Sustainability Scores								
	2004-2005	2007-2008		2004-2005	2007-2008		2004-2005	2007-2008
Mali	99.97	99.97	Greece	68.65	69.89	Canada	47.87	48.67
Burkina Faso	99.97	99.97	Honduras	69.20	69.72	Jordan	48.95	48.45
Burundi	98.51	98.51	Spain	68.68	69.46	Malaysia	55.14	48.18
Uganda	98.83	98.44	Ethiopia	68.33	69.39	United States	46.34	47.24
Malawi	97.33	97.33	France	68.25	68.93	Australia	48.18	46.48
Niger	96.20	96.58	Norway	66.98	68.69	Moldova	44.90	45.87
Gambia, The	95.32	95.69	United Kingdom	67.28	68.66	Estonia	39.62	44.29
Madagascar	94.99	94.99	Lebanon	66.57	68.62	South Africa	37.50	39.56
Peru	90.99	94.15	Mozambique	68.14	68.50	Mongolia	34.92	36.42
Mauritius	88.38	88.17	Argentina	67.09	68.37	Ukraine	32.58	34.00
Colombia	87.07	87.35	Yemen, Rep.	68.20	68.17	Serbia	28.51	30.00
Panama	86.48	87.18	Armenia	67.50	68.13	Kuwait	22.44	21.84
Uruguay	86.91	85.46	Zambia	67.72	67.92	Trinidad and Tobago	20.12	17.29
Albania	81.99	83.71	Sweden	65.86	67.83			
Botswana	84.00	83.65	Netherlands	65.19	67.66			
Costa Rica	83.96	82.70	Tanzania	68.46	67.45			
Sri Lanka	77.73	80.18	Lithuania	65.15	67.11	Green: Within the highest third of all countries		
Namibia	79.48	79.51	Kenya	66.42	66.64			
Switzerland	79.27	79.00	Ghana	67.86	66.46			
Brazil	77.82	77.89	Slovenia	64.54	65.74			
Paraguay	76.27	77.62	Hungary	65.11	65.53	Blue: Within the medium third of all countries		
El Salvador	77.21	77.44	Germany	64.47	65.36			
Guatemala	74.21	75.29	New Zealand	64.58	65.31			
Latvia	73.31	75.18	Nicaragua	64.02	64.83			
Ecuador	75.47	75.14	Japan	63.55	64.55			
Turkey	75.67	74.85	Israel	61.57	64.04	Red: Within the lowest third of all countries		
Dominican Republic	70.77	74.17	Romania	62.58	63.57			
Bangladesh	73.64	74.09	India	59.50	60.96			
Ireland	71.59	73.72	Venezuela, RB	59.02	59.86			
Bolivia	72.56	72.57	Belgium	59.17	59.74			
Portugal	71.40	72.42	Slovak Republic	58.03	59.64			
Morocco	73.02	71.78	Kyrgyz Republic	59.10	59.50			
Nepal	71.65	71.73	Singapore	61.16	59.46			
Italy	71.28	71.72	Nigeria	60.01	59.12			
Croatia	70.22	71.57	Macedonia, FYR	56.83	58.43			
Senegal	70.52	71.34	Indonesia	58.10	57.98			
Chile	69.88	71.07	Korea, Rep.	55.44	57.18			
Georgia	71.96	70.79	Jamaica	57.58	56.96			
Philippines	68.81	70.74	Poland	55.42	56.65			
Austria	70.91	70.69	Finland	51.39	55.23			
Mexico	70.47	70.57	Bulgaria	52.37	52.66			
Denmark	69.06	70.10	Czech Republic	48.81	50.98			

	Gender Comprehensive Scores							
	2004-2005	2007-2008		2004-2005	2007-2008		2004-2005	2007-2008
Sweden	92.91	93.36	Serbia	64.60	66.03	Nepal	26.71	39.51
Finland	90.57	92.82	Mexico	66.06	64.30	Mozambique	36.70	38.67
Norway	91.98	92.36	Jamaica	61.55	63.82	Zambia	32.97	37.96
Denmark	89.40	89.87	Ukraine	57.54	63.45	Jordan	37.30	37.66
Netherlands	87.10	88.83	Mongolia	62.80	62.75	Kenya	41.29	36.73
New Zealand	86.39	87.94	Ecuador	58.60	62.49	Burundi	27.12	35.36
Australia	86.59	87.87	El Salvador	60.09	62.24	Morocco	34.38	35.08
Belgium	86.01	86.95	Brazil	61.28	61.97	Gambia, The	36.97	33.51
Spain	81.63	85.47	Dominican Republic	58.22	60.75	Ethiopia	28.59	32.53
Germany	85.14	85.31	South Africa	60.84	60.37	Niger	29.21	30.43
Canada	84.44	85.31	Singapore	57.08	59.89	Burkina Faso	28.75	30.40
Austria	85.17	84.41	Moldova	56.78	58.88	Nigeria	22.24	22.60
Switzerland	83.16	83.71	Philippines	60.40	56.73	Yemen, Rep.	14.21	15.72
United Kingdom	82.40	83.15	Bolivia	57.62	55.94			
Portugal	80.15	81.49	Albania	54.61	55.65			
France	79.40	81.29	Ghana	53.13	55.23			
United States	80.20	81.26	Colombia	52.35	55.23	Green: Within the highest third of all countries		
Estonia	78.42	81.20	Paraguay	52.73	55.02			
Ireland	81.12	80.86	Honduras	52.49	54.68			
Lithuania	75.72	79.18	Macedonia, FYR	51.60	54.09			
Italy	75.73	78.80	Nicaragua	53.79	53.88	Blue: Within the medium third of all countries		
Costa Rica	75.93	77.64	India	52.85	53.26			
Poland	74.72	77.54	Namibia	52.08	53.08			
Slovenia	77.09	77.45	Indonesia	49.91	52.95			
Czech Republic	73.70	77.05	Venezuela, RB	50.68	51.48	Red: Within the lowest third of all countries		
Japan	74.75	75.50	Malaysia	50.46	50.26			
Latvia	75.23	75.38	Botswana	46.50	50.08			
Israel	73.17	75.07	Georgia	53.09	49.61			
Greece	72.57	74.96	Guatemala	45.94	49.28			
Uruguay	72.93	74.41	Turkey	47.06	49.26			
Argentina	74.33	74.27	Sri Lanka	49.95	47.64			
Slovak Republic	70.91	74.15	Senegal	48.24	47.27			
Hungary	73.53	74.13	Tanzania	43.76	46.09			
Chile	71.63	73.71	Armenia	45.44	45.42			
Korea, Rep.	70.85	73.69	Kyrgyz Republic	42.35	45.04			
Croatia	69.91	72.21	Mali	45.07	44.82			
Bulgaria	73.29	71.98	Madagascar	44.42	44.31			
Trinidad and Tobago	62.04	68.56	Uganda	38.66	41.66			
Peru	63.80	67.94	Lebanon	34.51	41.51			
Panama	64.26	67.69	Kuwait	38.46	41.06			
Romania	62.14	67.38	Bangladesh	41.49	40.27			
Mauritius	64.90	67.30	Malawi	38.80	39.84			

#### **4. Appendix: Overview and Definition of the Indicators Assigned per Dimension for the Democracy Ranking 2009<sup>11</sup>**

##### **4.1 Dimension of Politics (Political System): Definition of Assigned Indicators<sup>12</sup>**

**PS1:** Political rights (aggregated scores): Freedom House (minimum = 1, maximum = 100), source: Freedom House (<http://www.freedomhouse.org/template.cfm?page=439>).<sup>13</sup>

**PS2:** Civil liberties (aggregated scores): Freedom House (minimum = 1, maximum = 100), source: Freedom House (<http://www.freedomhouse.org/template.cfm?page=439>).<sup>14</sup>

**PS3:** Gender Empowerment Measure/GEM (UNDP HDI) (minimum = 1, maximum = 100), source: United Nations Development Program (Human Development Report Office)

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<sup>11</sup>) We want to acknowledge all organizations that provided the databases, from which the indicators were taken to input the quantitative model for the Democracy Ranking 2009. Without these fine and distinguished sources, the computation of this democracy ranking would not have been possible. The fact that these organizations make their data sources public and transparent, and thus globally available to all communities, demonstrates mature responsibility and leadership.

<sup>12</sup>) In case of missing values, for the political dimension, the year 2003 did not serve as an estimator for 2004-2005 and 2006 was not used as an estimator for 2007-2008. Missing values thus were treated differently for the political and the five non-political dimensions. Reasoning for this was pragmatic; because of the data structure of the used sources, missing values for politics for 2004-2005 and 2007-2008 mostly implied that data for 2003 and 2006 also were not available. There is a tendency for political indicators to cover more countries with every new year.

<sup>13</sup>) For the years 2004-2005 the scores of Serbia and Montenegro are taken as an equivalent for the scores only for Serbia.

<sup>14</sup>) For the years 2004-2005 the scores of Serbia and Montenegro are taken as an equivalent for the scores only for Serbia.

[http://hdr.undp.org/xmlsearch/reportSearch?y=\\*&c=\\*&t=\\*&k=&orderby=year](http://hdr.undp.org/xmlsearch/reportSearch?y=*&c=*&t=*&k=&orderby=year)). Comment: For the year 2004 was taken the “Human Development Report 2006”, for 2005 the “Human Development Report 2007/2008” and for 2007 the “Human Development Report 2009”. The reason for this is that there exists at least a two-year time lag of the most recently available data for 3 of the 4 key indicators of GEM when compared with the release date of the report.

**PS4:** Seats in parliament held by women (UNDP HDI) (minimum = 1, maximum = 100), source: United Nations Development Program (Human Development Report Office) ([http://hdr.undp.org/xmlsearch/reportSearch?y=\\*&c=\\*&t=\\*&k=&orderby=year](http://hdr.undp.org/xmlsearch/reportSearch?y=*&c=*&t=*&k=&orderby=year)). Comment: For the year 2004 was taken the “Human Development Report 2004”, for 2005 the “Human Development Report 2005” and for 2007 the “Human Development Report 2007/2008”.

**PS5:** Press Freedom: Freedom House (minimum = 100, maximum = 1), source: Freedom House (<http://www.freedomhouse.org/template.cfm?page=274>).<sup>15</sup>

**PS6:** Corruption Perceptions Index (CPI): Transparency International (TI) (minimum = 1, maximum = 100), source: Transparency International ([http://www.transparency.org/publications/annual\\_report](http://www.transparency.org/publications/annual_report)). Comment: For the year 2002 was taken the “TI 2002 Corruption Perceptions Index”, for 2003 the “TI 2003 Corruption Perceptions Index”, for 2005 the “TI 2005 Corruption Perceptions Index”, and for 2006 the “TI 2006 Corruption Perceptions Index”.<sup>16</sup>

Weighting of the indicators in context of the dimension of politics (political system): The following weight measures are assigned; PS1 = 25%, PS2 = 25%, PS3 = 12.5%, PS4 = 12.5%, PS5 = 12.5%, and PS6 = 12.5%.

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<sup>15</sup>) For the years 2004-2005 and 2007-2008 the scores of Serbia and Montenegro are taken as an equivalent for the scores only for Serbia.

<sup>16</sup>) For the years 2004-2005 the scores of Serbia and Montenegro are taken as an equivalent for the scores only for Serbia.

#### **4.2 Dimension of Gender Equality (Socioeconomic and Educational): Definition of Assigned Indicators**

**GE1:** Labor force, female (% of total labor force) (minimum = 1, maximum = 100).

**GE2:** Unemployment, female (% of female labor force) (minimum = 100, maximum = 1).

**GE3:** Primary education, pupils (% female) (minimum = 1, maximum = 100).

**GE4:** School enrollment, secondary, female (% gross) (minimum = 1, maximum = 100).

**SEGE5:** School enrollment, secondary, female (% net) (minimum = 1, maximum = 100).

**GE6:** School enrollment, tertiary, female (% gross) (minimum = 1, maximum = 100).

**GE7:** Life expectancy at birth, female (years) (minimum = 1, maximum = 100).

Source for all indicators of the dimension of gender equality (socioeconomic and educational): World Bank (2009). World Development Indicators (Online-Database). Washington D.C.: World Bank (<https://publications.worldbank.org/WDI>).

Weighting of the indicators in context of the dimension of gender equality (socioeconomic and educational): The following weight measures are assigned to three clusters of indicators; “labor force” (GE1-GE2) = 33.33%, “education” (GE3-GE6) = 33.33%, and “life expectancy” (GE7) = 33.33%.

Within these three clusters, no indicator-specific weighting is being applied to the indicators.

#### **4.3 Dimension of the Economy (Economic System): Definition of Assigned Indicators**

**EC1:** GDP per capita, PPP (constant 2005 international \$) (minimum = 1, maximum = 100).

**EC2:** GDP per capita, PPP (current international \$) (minimum = 1, maximum = 100).

**EC3:** Central government debt, total (% of GDP) (minimum = 100, maximum = 1).

**EC4:** Inflation, consumer prices (annual %) (minimum = 100, maximum = 1).

**EC5:** Unemployment, total (% of total labor force) (minimum = 100, maximum = 1).

**EC6:** Unemployment, youth total (% of total labor force ages 15-24) (minimum = 100, maximum = 1).

Source for all indicators of the dimension of the economy (economic system): World Bank (2009). World Development Indicators (Online-Database). Washington D.C.: World Bank (<https://publications.worldbank.org/WDI>).

Weighting of the indicators in context of the dimension of the economy (economic system): The following weight measures are assigned; EC1 = 25%, EC2 = 25%, and all the other indicators (EC3-EC6) are weighted equally with 12.5%.

#### **4.4 Dimension of Knowledge (Knowledge Society and Economy, Education and Research): Definition of Assigned Indicators**

**K1:** School enrollment, secondary (% gross) (minimum = 1, maximum = 100).

**K2:** School enrollment, secondary (% net) (minimum = 1, maximum = 100).

**K3:** School enrollment, tertiary (% gross) (minimum = 1, maximum = 100).

**K4:** Pupil-teacher ratio, primary (minimum = 100, maximum = 1).

**K5:** Telephone lines (per 100 people) (minimum = 1, maximum = 100).

**K6:** Personal computers (per 100 people) (minimum = 1, maximum = 100).

**K7:** Internet users (per 100 people) (minimum = 1, maximum = 100).

**K8:** Mobile cellular subscriptions (per 100 people) (minimum = 1, maximum = 100).

**K9:** Information and communication technology expenditure (% of GDP) (minimum = 1, maximum = 100).

**K10:** Research and development expenditure (% of GDP) (minimum = 1, maximum = 100).

**K11:** Scientific and technical journal articles (per 1,000 people) (minimum = 1, maximum = 100).

Source for all indicators of the dimension of knowledge (knowledge-based information society, education and research): World Bank (2009). World Development Indicators (Online-Database). Washington D.C.: World Bank (<https://publications.worldbank.org/WDI>).

Weighting of the indicators in context of the dimension of knowledge (knowledge society and economy, education and research): The following weight measures are assigned to three clusters of indicators; “education” (K1-K4) = 33.33%, “technology” (K5-K9) = 33.33%, and “research” (K10-K11) = 33.33%. Within these three clusters, no indicator-specific weighting is being applied to the indicators.

#### **4.5 Dimension of Health (Health Status and Health System): Definition of Assigned Indicators**

**H1:** Life expectancy at birth, total (years) (minimum = 1, maximum = 100).

**H2:** Health expenditure per capita (current US\$) (minimum = 1, maximum = 100).

**H3:** Health expenditure, public (% of GDP) (minimum = 1, maximum = 100).

**H4:** Health expenditure, private (% of GDP) (minimum = 1, maximum = 100).

**H5:** Hospital beds (per 1,000 people) (minimum = 1, maximum = 100).

**H6:** Physicians (per 1,000 people) (minimum = 1, maximum = 100).

**H7:** Mortality rate, infant (per 1,000 live births) (minimum = 100, maximum = 1).

**H8:** Mortality rate, under-5 (per 1,000) (minimum = 100, maximum = 1).

Source for all indicators of the dimension of health (health status and health system): World Bank (2009). World Development Indicators (Online-Database). Washington D.C.: World Bank (<https://publications.worldbank.org/WDI>).

Weighting of the indicators in context of the dimension of health (health status and health system): The following weight measures are assigned; H1 = 65%, and all the other indicators (H2-H8) are weighted equally with 5%.

#### **4.6 Dimension of the Environment (Environmental Sustainability): Definition of Assigned Indicators**

**EN1:** CO2 emissions (kg per 2005 PPP \$ of GDP) (minimum = 100, maximum = 1).

**EN2:** CO2 emissions (metric tons per capita) (minimum = 100, maximum = 1).

**EN3:** GDP per unit of energy use (constant 2005 PPP \$ per kg of oil equivalent) (minimum = 1, maximum = 100).

**EN4:** Electric power consumption (kWh per capita) (minimum = 100, maximum = 1).

**EN5:** Electricity production from hydroelectric sources (% of total) (minimum = 1, maximum = 100).

Source for all indicators of the dimension of the environment (environmental sustainability): World Bank (2009). World Development Indicators (Online-Database). Washington D.C.: World Bank (<https://publications.worldbank.org/WDI>).

Weighting of the indicators in context of the environment (environmental sustainability): The following weight measures are assigned; EN1 = 30%, EN2 = 30%, EN3 = 30%, EN4 = 5%, and EN5 = 5%.

#### **4.7 Dimension of Gender “Comprehensive”: Definition of Assigned Indicators**

For the conceptual and methodic design of the comprehensive gender dimension, see again paragraph 11 in Chapter 1.