Pilot 2006 Environmental Performance Index

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Pilot 2006 Environmental Performance Index

Appendix G: Sensitivity Analysis

Appendix G: Uncertainty and Sensitivity Analysis of the EPI

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To establish the robustness of the methodology used and the assumptions made in the construction of an index, it is useful to undertake an analysis of the sensitivity of the results to these choices. In the case of the Pilot 2006 EPI, several assumptions need to be tested, notably the selection of indicators, the aggregation approach used, and the weights of the indicators and categories used in computing the index.

The analysis that we have undertaken maps the effects of these uncertainties and assumptions on the EPI country scores and rankings. We also seek to use uncertainty and sensitivity analyses to assess whether useful conclusions can be drawn from the index given the construction methodology selected.

Sensitivity analysis is the study of how output variation in models such as the EPI can be apportioned, qualitatively or quantitatively, to different sources of variation in the assumptions. In addition, it measures the extent to which the composite index depends upon the information that composes it. Sensitivity analysis is closely related to uncertainty analysis, which aims to quantify the overall variation in the ranking resulting from uncertainties in the model input.

We note that the soundness (i.e., accuracy and precision) of the EPI depends on a number of factors including:

- the model chosen for estimating the measurement error in the data, which is based on available information on variance estimation;
- the mechanism for including or excluding variables in the index;
- the transformation of variables during the process of constructing the index;
- the type of normalization scheme, such as re-scaling or standardization, applied to remove scale effects from the variables;
- the amount of missing data;
- the choice of the weights, e.g. equal weights or weights derived from factor analysis or expert opinion models;
- the level of aggregation, e.g. at the indicator or at the sub-indices level;
- the choice of aggregation system, e.g. additive, multiplicative, or multi-criteria analysis.

All of these assumptions can heavily influence the output—and reliability—of an index. Using uncertainty and sensitivity analysis, we systematically evaluated the impact that the methodological and conceptual choices highlighted above have on the robustness of the EPI scoring and ranking.

Our study aimed to answer the following questions:

1. How do the EPI ranks compare to the most likely ranks under alternative scenarios?
2. What is the optimal set of assumptions for each country?
3. Which countries have the most volatile ranks and why?
4. What are the major sources of variability in the EPI rankings?
5. What are the confidence intervals for the country scores and ranks in the policy categories?

G.1. Our approach

We focus on three central methodological issues related to the construction of the 2006 EPI: (1) variability in the target values, (2) the weighting of the indicators, and (3) aggregation of the indicators as opposed to aggregation at the category level. There are 18 uncertain input factors in our analysis that are described in Table G1. The factors X_1 to X_{16} determine the target value for each of the 16 indicators.

These factors follow a uniform distribution in the range for each target, low or high 10th percentile of the relevant indicator. The target values are sampled independently of one another. Next, trigger X_{17} determines the set of weights, be it either the current set of weights based on principal components analysis, or equal weighting within each category. Finally, trigger X_{18} determines the level of aggregation, either at the current six categories, or at one category. In the latter case, the trigger X_{17} would result in equal weighting for all 16 indicators. In order to sample in the most representative way, within this space of uncertainties, we have selected an **LP**-τ sampling scheme (Sobol, 1967) of size N=19,456 for the purposes of the sensitivity analysis.

All these uncertainties are translated into a set of N combinations of scalar input factors, which are sampled from their distributions in a Monte Carlo simulation framework. The composite index is then evaluated N times, and the EPI scores and ranks obtained are associated with the corresponding draws of uncertain factors to appraise their influence. When several layers of uncertainty are simultaneously activated composite indicators turn out to be non-linear, possibly non-additive models, due to interactions between the uncertain input factors (Saisana et al. 2005). As a result, all EPI scores and ranks are non-linear functions of the uncertain input factors, and the purpose of the Uncertainty Analysis (UA) is the estimation of their probability distribution functions (PDF).

As argued by practitioners (Saltelli et al., 2000b, EPA, 2004), robust, "model-free" techniques for sensitivity analysis should be used for non-linear models. Variance-based techniques have been shown to yield useful results for sensitivity analysis. The discussion of their methodological formulation to compute sensitivity measures that account for the interaction between the input factors goes beyond the scope of this report (Saltelli et al., 2000a). Here we only display those additional properties of model-free variance-based techniques that are convenient for the present analysis:

- they allow an exploration of the whole range of variation of the input factors, instead of just sampling factors over a limited number of values, as done in other techniques, e.g. in fractional factorial design (Box et al., 1978);
- they are quantitative, and can distinguish main effects (first order) from interaction effects (second and higher order);
- they are easy to interpret and to explain;
- they allow for a sensitivity analysis in which uncertain input factors are treated in groups instead of individually.

1. How do the EPI ranks compare to the most likely ranks under all scenarios?

The Uncertainty Analysis results of the 133 country ranks are given in Figure G1. Countries are ordered by their original 2006 EPI rank. For ease of reading, the countries in Figure 1 are split into three groups according to original 2006 EPI rank: beginning with New Zealand (original EPI rank =1) to Bulgaria (rank = 50) in the top graph; Ukraine (rank = 51) to Cameroon (rank =100) in the center graph; and Swaziland (rank = 101) to Niger (rank =133) in the bottom graph.

The width of the 5th–95th percentile bounds and the generally small deviation of the median rank (black hyphen) from the original EPI rank (grey hyphen) demonstrate that there are only differences between the Monte Carlo and Pilot EPI ranks. For about 95 countries the difference between the original 2006 EPI rank and the median rank when considering different approaches/assumptions is less than 15 positions. This outcome implies a reasonably high degree of robustness for the EPI. In fact, for most of the countries, the range of possible ranks is very close to the actual 2006 EPI rank.

The dominant source for the observed deviations arises from the aggregation process and its combined effect with the selection of weights. For the countries in the top group this average difference is nine positions, which increases to 14 positions for the center group and seven for the bottom group. But given the potential degree of movement, these ranges are quite narrow.

The greatest differences between the 2006 EPI rank and the median rank in the simulations are for Jordan, Egypt, Uganda, Zambia, and Laos. Jordan and Egypt appear 25 positions higher in the 2006 EPI than their median rank in our modeling of alternative weighting. Uganda, Zambia and Laos are 25 positions lower than their median rank in our simulations.

As Figure G1 demonstrates, countries at the high end of the EPI ranking do not have wide variations in their ranks under alternative scenarios. The exceptions to this rule are Germany, Slovenia, Poland, and South Korea. In each of these cases the country could be ranked substantially lower under other assumptions. Among the middle tier countries, there is a somewhat higher degree of variability. Among the low-ranked countries, the variability is again quite small, with a few exceptions including Guinea, Congo, and Laos. This produces a quite high degree of confidence that most countries are ranked roughly in the correct place.

Table G1: EPI Ranking and Optimal Rank for Each Country Under All Tested Combinations of Uncertainty Inputs

Country	EPI Rank	Best Rank	Country	EPI Rank	Best Rank	Country	EPI Rank	Best Rank
New Zealand	1	1	Gabon	46	9	Malawi	91	30
Sweden	2	1	United Arab Em.	47	47	Namibia	92	54
Finland	3	2	Suriname	48	16	Kenya	93	73
Czech Rep.	4	4	Turkey	49	47	China	94	94
United Kingdom	5	4	Bulgaria	50	49	Azerbaijan	95	95
Austria	6	4	Ukraine	51	48	Papua New Guinea	96	78
Denmark	7	7	Honduras	52	15	Syria	97	97
Canada	8	5	Iran	53	53	Zambia	98	35
Malaysia	9	6	Dominican Rep.	54	39	Viet Nam	99	96
Ireland	10	9	Philippines	55	27	Cameroon	100	55
Portugal	11	11	Nicaragua	56	17	Swaziland	101	94
France	12	12	Albania	57	36	Laos	102	51
Iceland	13	10	Guatemala	58	25	Togo	103	90
Japan	14	13	Saudi Arabia	59	59	Turkmenistan	104	103
Costa Rica	15	1	Oman	60	60	Uzbekistan	105	105
Switzerland	16	12	Thailand	61	61	Gambia	106	106
Colombia	17	5	Paraguay	62	30	Senegal	107	104
Norway	18	15	Algeria	63	62	Burundi	108	95
Greece	19	19	Jordan	64	63	Liberia	109	93
Australia	20	20	Peru	65	61	Cambodia	110	76
Italy	21	19	Mexico	66	66	Sierra Leone	111	94
Germany	22	20	Sri Lanka	67	52	Congo	112	70
Spain	23	23	Morocco	68	68	Guinea	113	75
Taiwan	24	24	Armenia	69	69	Haiti	114	114
Slovakia	25	21	Kazakhstan	70	60	Mongolia	115	115
Chile	26	13	Bolivia	71	56	Madagascar	116	98
Netherlands	27	27	Ghana	72	45	Tajikistan	117	107
USA	28	26	El Salvador	73	62	India	118	118
Cyprus	29	25	Zimbabwe	74	38	Dem. Rep. Congo	119	87
Argentina	30	17	Moldova	75	68	Guinea-Bissau	120	101
Slovenia	31	26	South Africa	76	75	Mozambique	121	88
Russia	32	24	Georgia	77	66	Yemen	122	122
Hungary	33	33	Uganda	78	22	Nigeria	123	115
Brazil	34	7	Indonesia	79	74	Sudan	124	112
Trinidad & Tobago	35	21	Kyrgyzstan	80	63	Bangladesh	125	125
Lebanon	36	33	Nepal	81	53	Burkina Faso	126	102
Panama	37	10	Tunisia	82	82	Pakistan	127	127
Poland	38	35	Tanzania	83	29	Angola	128	111
Belgium	39	39	Benin	84	57	Ethiopia	129	120
Ecuador	40	19	Egypt	85	85	Mali	130	125
Cuba	41	32	Côte d'Ivoire	86	46	Mauritania	131	131
South Korea	42	41	Central Afr. Rep.	87	49	Chad	132	130
Jamaica	43	20	Myanmar	88	88	Niger	133	132
Venezuela	44	42	Rwanda	89	64			
Israel	45	45	Romania	90	89			

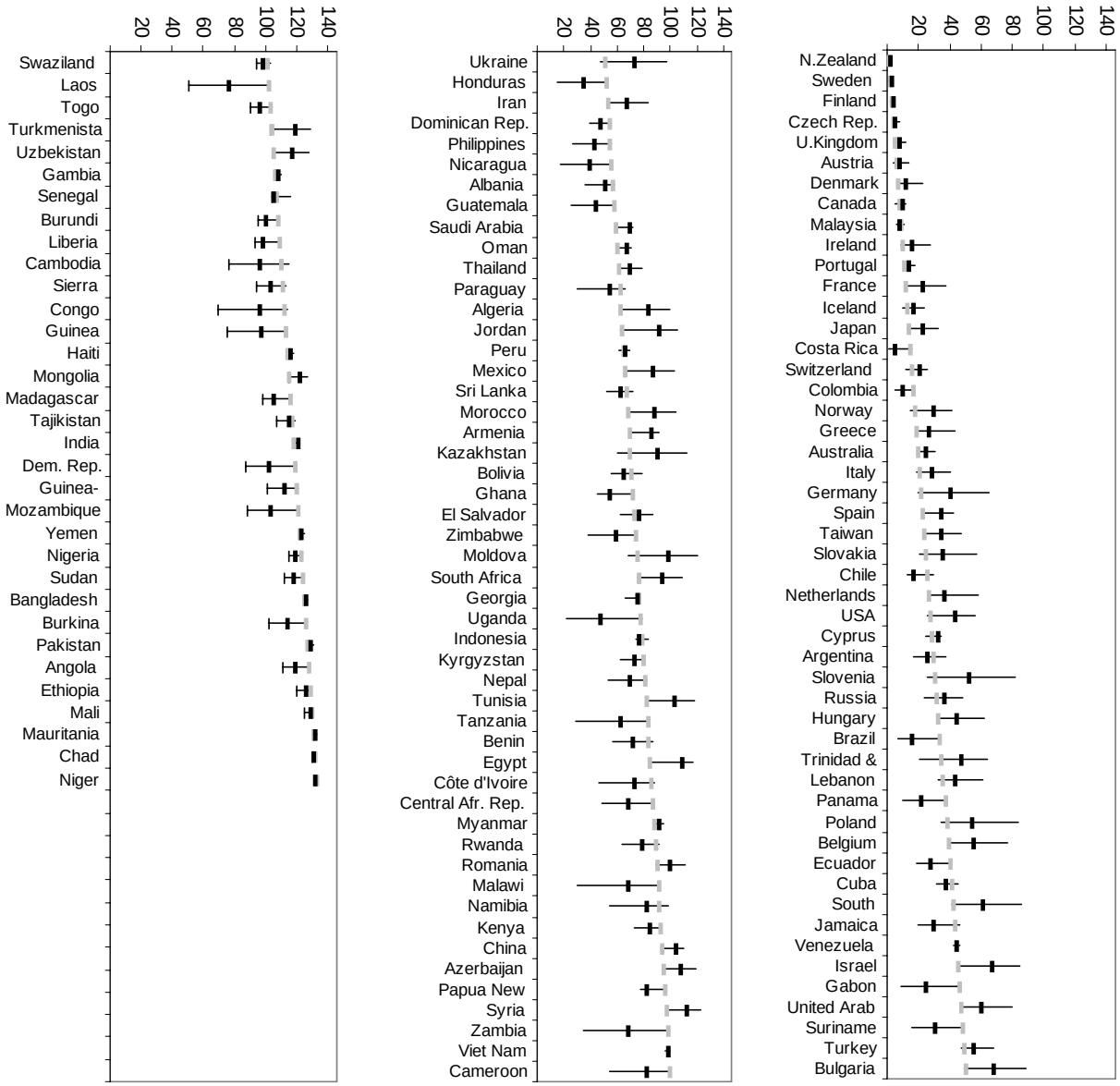

Figure G1: The Relationship between EPI Rank and Median Rank

Note: Grey marks correspond to actual EPI rank; black marks to median simulation rank. Whiskers show 5th and 95th percentiles (bounds) of simulation rank distribution.

2. What is the optimal scenario for each country?

Interpreting the fifth percentile of a country's rank distribution as its best rank under all assumptions made in the index, we generate Table G1, which shows the best possible rank for each country under alternative assumptions. The most pronounced improvement in performance among the top 50 countries is observed for Brazil, Panama, Ecuador, Jamaica, Gabon and Suriname, which gain some 21 to 37 positions in the ranking if the index were calculated according to a different structure (see Table G1). For example, Gabon greatly advances its rank from 46th to 9th if the targets are reset closer to the low or high 10th percentile and the aggregation takes place at the indicator level. Costa Rica could move up to the first position if aggregation takes place at the indicator level, irrespective of the changes in the other factors. In both cases, these shifts derive from the much greater weight on ecosystem issues when aggregation is undertaken at the indicator level.

Among the countries ranked between 51st and 100th in the EPI, the most pronounced improvement occurs for Uganda, Tanzania, Malawi and Zambia, which gain more than 50 positions in the ranking under alternative structures for the index. Uganda, for example, owes its improvement to the combined effect of less ambitious target values and aggregation at the indicators level.

Among the lowest-ranked 33 countries, Laos, Congo and Guinea display the most improvement, at 40 to 50 positions. For all three countries this is due to the combined effect of less ambitious target values and aggregation at the indicators level.

3. Which countries have the most volatile ranks and why?

We use the term "volatility" as a measure of the difference between a country's best and worst rank, given by its positions in the fifth and the 95th percentiles of the rank distribution simulations. For the first 10 countries in the 2005 ESI rankings, except for Guyana and Argentina, the volatility is very low, ranging from two to four positions. This limited volatility suggests that the EPI provides a robust measure of performance for those countries.

Table G2 presents the 20 countries that are affected strongly by the methodological choices made during the construction of the EPI. These countries, with a difference in their best and worst rank (5th and 95th percentiles) of some 40 to 63 positions, are ranked between 22nd (Germany) and 112th (Democratic Republic of Congo). Quite a few of those countries, such as Germany, Slovenia, Trinidad and Tobago, Poland, South Korea, Israel, and Bulgaria, are ranked among the top 50 in the EPI. The volatility of those countries' ranks can be attributed mainly to the choice of aggregation level as indicated by Sobol's sensitivity measures (Sobol, 1993) in their improved version (Saltelli, 2002).

Table G2: Most Volatile Countries in the EPI

Country	EPI Rank	Range of Simulation Ranks	Country	EPI Rank	Range of Simulation Ranks
Germany	22	[20, 65]	Moldova	75	[68, 121]
Slovenia	31	[26, 82]	Uganda	78	[22, 79]
Trinidad and Tobago	35	[21, 64]	Tanzania	83	[29, 83]
Poland	38	[35, 84]	Côte d'Ivoire	86	[46, 88]
South Korea	42	[41, 86]	Malawi	91	[30, 91]
Israel	45	[45, 85]	Namibia	92	[54, 98]
Bulgaria	50	[49, 89]	Zambia	98	[35, 98]
Ukraine	51	[48, 97]	Cameroon	100	[55, 100]
Jordan	64	[63, 106]	Laos	102	[51, 102]
Kazakhstan	70	[60, 112]	Congo	112	[70, 114]

Table G3: Current and Alternative Targets Where at Least 10% of the Countries Meet Target

EPI Indicator	Current set of targets	Alternative set of targets	EPI Indicator	Current set of targets	Alternative set of targets
OZONE	15	20	ENEFF	1650	1885
PM10	10	23	CO2GDP	0	65
INDOOR	0	0	RENPC	100	43
NLOAD	1	7	OVRFSH	1	3
OVRSUB	0	0	WATSUP	100	100
HARVEST	3	3	ACSAT	100	100
AGSUB	0	0	PWI	90	42
MORTALITY	0	0.3	PACOV	1	1

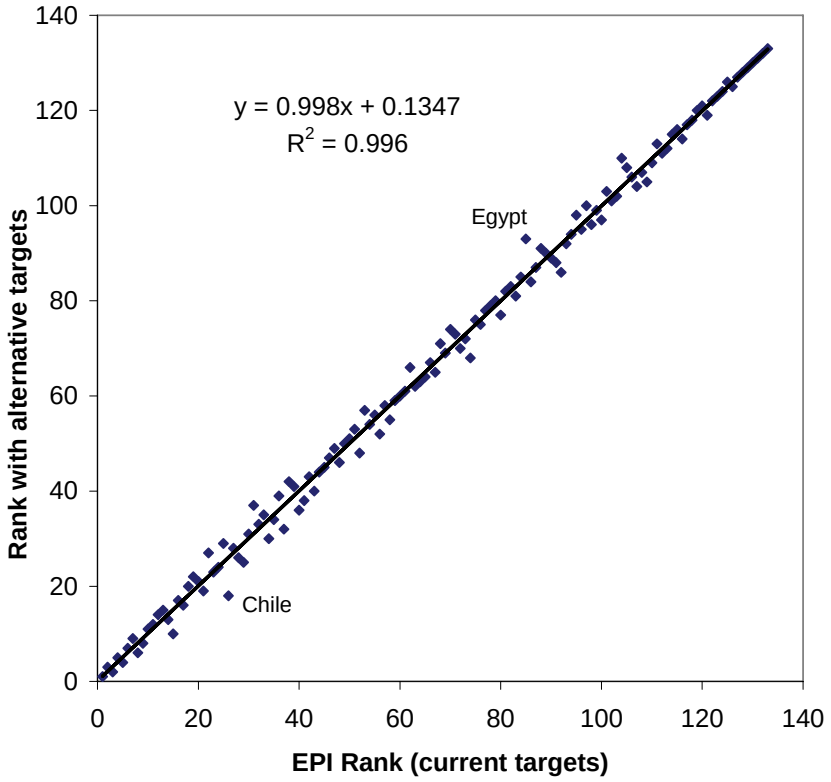

Figure G2: Current Targets v. Alternative Targets Where at Least 10% of Countries Meet Target

4. What are the sources of major impact on the variability of the EPI ranking?

At this point, we focus on the impact of each of the three assumptions independently. We undertake the following comparisons:

- current target values v. less strict target values (achieved by at least 10% of the countries);
- PCA-derived weights for the Environmental Health, Biodiversity and Habitat, and Sustainable Energy categories vs. equal weighting within each category;
- aggregation at the category level as opposed to indicator level.

Targets

It is reasonable to assume that less ambitious target values would mean that more countries meet the target. Tables G3 present the current target values and an alternative set chosen such that at least 10% of the countries reach or exceed the target (scaled back to 100 if target exceeded, per the EPI aggregation methodology). Note that the alternative target values for INDOOR, OVRSUB, HARVEST, AGSUB, WATSUP, ACSAT, and PACOV are equal to the current ones, as those indicators have at least 10% of the countries at the target already.

The countries most influenced by the choice of targets are Costa Rica, Chile, Panama, Zimbabwe, Namibia, Germany, Slovenia, Egypt, and Turkmenistan. But the alternative targets result in only moderate changes to their ranks, of between 5 to 8 places. Overall, as shown in Figure G2, the alternative set of target values has an average impact of 2 ranks and a very high rank-order correlation coefficient of 0.996. This strongly suggests that the choice of targets has very little effect on the rankings.

Principal components analysis-derived weights as opposed to equal weighting within categories

Equal weighting within each category would increase the weight of PM10 in the Environmental Health category, the weight of OVRSUB and HARVEST in the Biodiversity and Habitat category, and the weight of RENPC in the Sustainable Energy category. The countries whose EPI ranks are most affected by this change are given in Table G4.

The countries that improve their ranks the most are Russia, Trinidad and Tobago, Kazakhstan, Ghana, Uganda, Papua New Guinea, and Tajikistan. Spain, Jordan, Morocco, Armenia, and Egypt would fall most in the rankings. Overall, the weighting has an average impact of three ranks and a rank-order correlation coefficient of 0.987 (Figure G3). This modest effect suggests that the use of Principal Component Analysis weighting does not substantially affect EPI rankings.

Aggregation at the level of the policy categories as opposed to aggregation at the level of the indicators

Giving equal weights to the 16 indicators, instead of equal weights to the Environmental Health and Ecosystem Vitality broad objectives, offers another possible aggregation approach for the EPI.

Figure G4 compares the ranking obtained from both approaches. This analysis demonstrates that by changing the aggregation level the average shift of the top 30 and the bottom 30 countries of the EPI is about 10 positions. The shift of the remaining countries is about 23 positions on average.

As expected, middle-of-the-road performers display higher variability than the top and bottom countries. We find that by changing the aggregation level, the average impact is 18 ranks and the rank-order correlation coefficient is 0.707. Therefore, compared to the other two methodological choices in the development of the EPI, the choice of the aggregation level has the highest impact on the countries scores and respective ranks.

If aggregation is done at the level of indicators, Zambia and Uganda, for example, would improve their ranks by more than 50 positions (Table G5). On the contrary, countries such as Ukraine, Jordan, and Moldova would see their ranks decline by more than 40 positions.
The countries whose rankings move up the most under the indicator-based aggregation are those with relatively pristine conditions and low levels of economic development. The indicator-based aggregation scheme diminishes the emphasis placed on environmental health and lifts the weight given to ecosystem measures. Those whose ranks drop most significantly are in the opposite position, with relatively strong environmental health scores but degraded ecosystems.

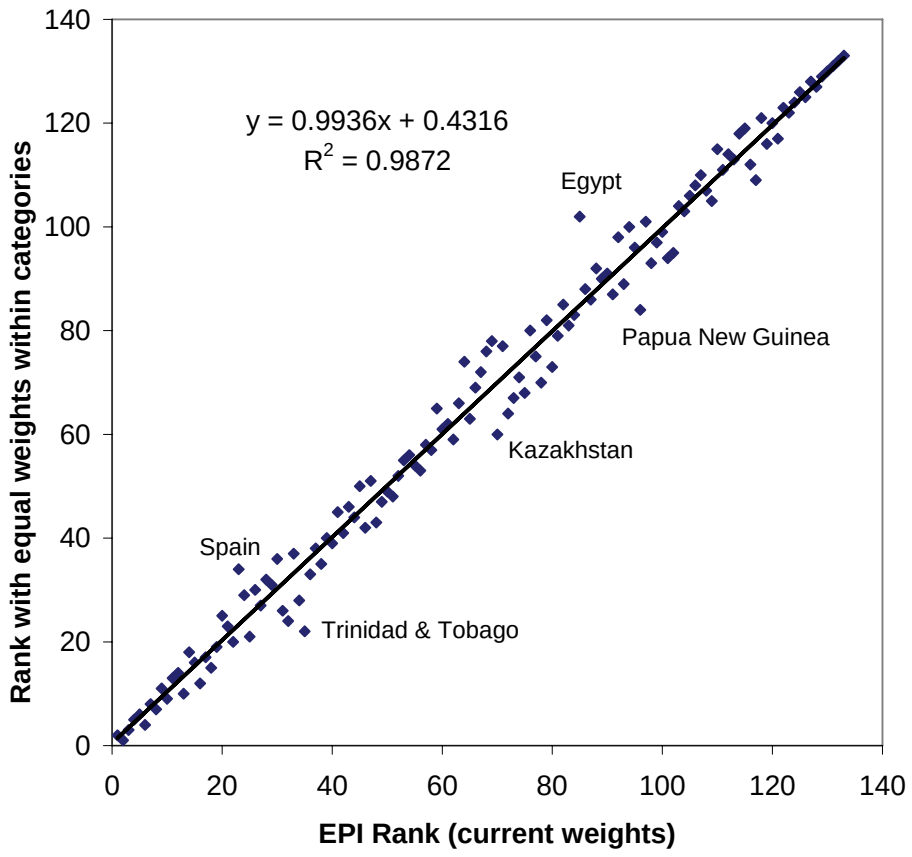

Figure G3: Current PCA-Derived Weights v. Equal Weights Within Categories

Table G4: Countries Most Affected by Choice of Level of Aggregation

		EPI Rank with Current Weights	Rank with Equal Weights	Change in Rank
Improvement	Russia	32	24	8
	Trinidad and Tobago	35	22	13
	Kazakhstan	70	60	10
	Ghana	72	64	8
	Uganda	78	70	8
	Papua New Guinea	96	84	12
	Tajikistan	117	109	8
Decline	Spain	23	34	-11
	Jordan	64	74	-10
	Morocco	68	76	-8
	Armenia	69	78	-9
	Egypt	85	102	-17
Average change over 133 countries				*3*

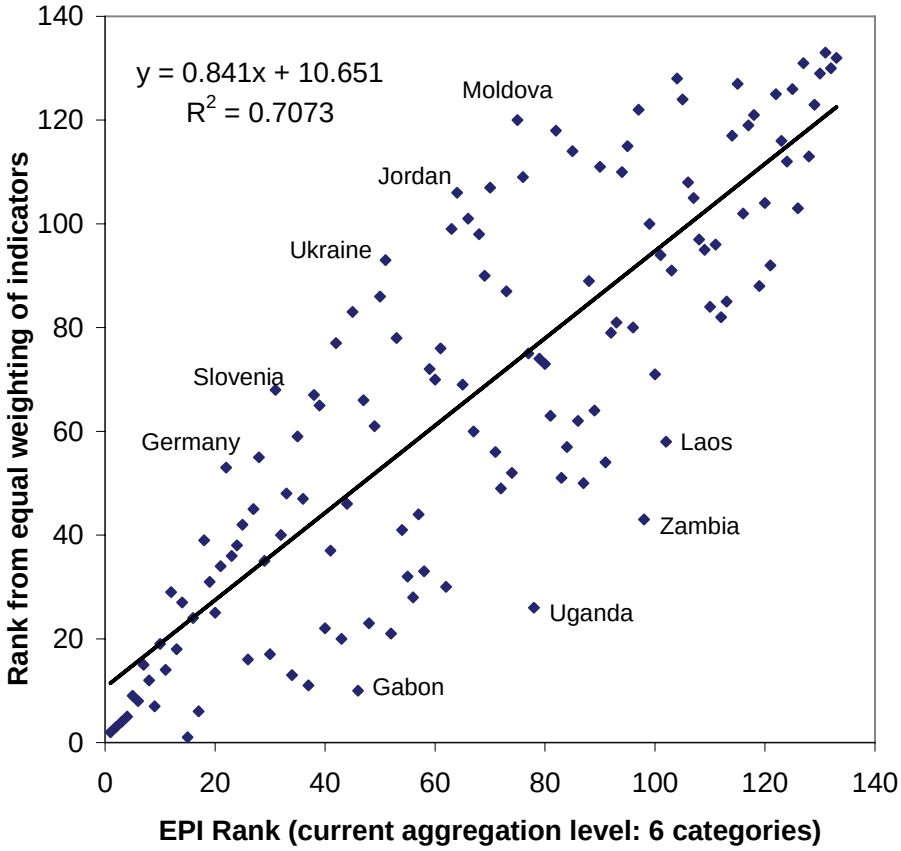

Figure G4: Aggregation at the Policy Category v. Indicator Level

Table G5: Most Impact with Aggregation at Policy Category v. Indicator Level

		EPI Rank with aggregation at category level	Rank with aggregation at indicator level	Change in Rank
Improvement	Gabon	46	10	36
	Paraguay	62	30	32
	Uganda	78	26	52
	Tanzania	83	51	32
	Central Afr. Rep.	87	50	37
	Malawi	91	54	37
	Zambia	98	43	55
	Laos	102	58	44
Decline	Slovenia	31	68	-37
	South Korea	42	77	-35
	Israel	45	83	-38
	Bulgaria	50	86	-36
	Ukraine	51	93	-42
	Algeria	63	99	-36
	Jordan	64	106	-42
	Mexico	66	101	-35
	Kazakhstan	70	107	-37
	Moldova	75	120	-45
	South Africa	76	109	-33
	Tunisia	82	118	-36
Average change over 133 countries				***18***

5. What are the confidence intervals for the countries scores and ranks in the policy categories?

We further assess the impact on the countries' scores and ranks within the EPI policy categories of the two remaining types of uncertainty: (1) the variability in the target values, and (2) the weighting of the indicators. The results are shown only for the three categories for which indicators were aggregated using PCA-derived weights, i.e. the Environmental Health (Table G6), the Biodiversity and Habitat (Table G7) and the Sustainable Energy (Table G8).

The top eight performing countries in the Environmental Health Category (Table G6) could all see their rank decline to the 8th or 9th position under alternative aggregation procedures. Most of the remaining country ranks' are very robust to the uncertainties with a shift of some 2 to 5 positions only, with a few notable exceptions for Albania, Bangladesh and Sudan whose rank could decline up to 8-9 positions. Overall, the average impact of the uncertainties on the median of the simulated ranks is just 1 position.

Compared to the previous policy category, country ranks are more volatile in the Biodiversity and Habitat Category (Table G7). Burkina Faso, for example, is ranked 8th in the EPI but could see its rank decline to 35th if less ambitious targets values are selected and with equally weight given to each indicators instead of using the PCA-derived weights. Jordan is another example of country that could see its Biodiversity and Habitat performance in a much lower position (from 56th to the 107th) for similar reasons. Overall, the average impact of the uncertainties on the median of the simulated ranks is 5 positions.

The top four performing countries in the Sustainable Energy category (Table G8) — Uganda, Mali, Democratic Republic of the Congo and Laos — can all occupy one of the two 2 ranks depending on the methodological choices. Interestingly, Mozambique could see its rank improve from 20th up to the 3rd if the indicators within this category receive equal weight.

The most volatile countries in this category are Iceland, Paraguay, Georgia and Zambia. These countries' ranks could fluctuate more than 50 positions. For example, countries that could improve their rank under a different methodological scenario are Zambia and Paraguay which could be ranked 8 or 9th position if the indicators that belong to this category receive equal weight. Overall, the average impact of the uncertainties on the median of the simulated ranks is 6 positions

Overall, the average impact of the uncertainties on the median of the simulated ranks is six positions. Media and policymakers look with increasing interest at composite indices as appealing tools to attract the attention of the global community, build narratives around issues of concern, and focus policy debates. Methodological gaps or fragilities in the design and construction of an index can lead to simplistic or misleading conclusions. Careful scrutiny of the methodological assumptions and construction design of any composite index is essential.

In this analysis, we assessed the validity of the EPI scoring and respective ranking by evaluating how sensitive the ranks are to the assumptions that underpin the EPI's structure: (1) variability in the target values selected, (2) the weighting of the indicators in each policy category, and (3) the choice of the aggregation level.

The main findings can be summarized as follows:

How do the EPI ranks compare to the most likely ranks under all scenarios?

The most likely (median) rank of a country considering all combinations of assumptions in the sensitivity analysis rarely deviates substantially from its actual EPI rank. For 95 out of 133 countries the difference between the EPI rank and the most likely (median) rank is less than 15 positions. This modest sensitivity of the EPI ranking to the choice of the targets, indicator weighting, and aggregation level implies a quite high degree of robustness of the index.

Which countries are most volatile and why?

The top four ranking countries in the EPI all have modest volatility (one to two positions). This small degree of sensitivity implies a robust evaluation of performance for those countries. The countries that present the highest volatility (between 50 and 63 positions) are between Slovenia (rank: 31) and Laos (rank: 102). Slovenia's volatility is due to the combined effect of all three assumptions. Laos's high volatility is mainly attributable to the effect of the choice of aggregation level.

What if alternative target values for the indicators are used?

The selection of less ambitious target values (up to levels that are met by 10% of the countries) plays a minor role in the sensitivity of the EPI ranking. For the set of 133 countries, the assumption of target values has an average impact of only 2 ranks.

What if equal weighting of the indicators within each category were used, instead of the PCA-derived weights?

An equal weighting approach within each of the six policy categories only affects the indicators within Environmental Health, Biodiversity and Habitat, and Sustainable Energy for which PCA weights were applied. Using equal weights within each category has a pronounced positive effect on the rank of only a few countries. Overall, the analysis shows only a small sensitivity to the weighting assumption with an average impact of three ranks.

What if aggregation is applied at the indicator level, instead of the category level?

An alternative weighting scheme that places equal weights on the 16 indicators, as opposed to equal weights on the two broad objectives, alters the EPI scores and ranks more than any other assumption. Because this choice makes a big difference in the ranks, it must be evaluated according to its analytical rationale, policy relevance, and implied value judgments.

Table G6: Ranges (Confidence Intervals) for the Scores and Ranks in the Environmental Health Policy Category

Rank	Rank Range	Country	Score	Score Range	Rank	Rank Range	Country	Score	Score Range	Rank	Rank Range	Country	Score	Score Range
1	[1, 8]	Sweden	99.4	[99.1, 100]	51	[50, 51]	Mexico	80.6	[79.8, 81.8]	101	[99, 101]	Tajikistan	38.0	[38.0, 41.4]
2	[2, 8]	France	99.2	[98.8, 100]	52	[52, 58]	Oman	79.5	[75.7, 80.1]	102	[97, 102]	Tanzania	37.3	[37.3, 42.4]
3	[3, 9]	Australia	99.0	[98.5, 100]	53	[50, 53]	Brazil	79.3	[79.3, 81.5]	103	[103, 104]	Côte d'Ivoire	34.8	[34.8, 38.1]
4	[4, 8]	Un. Kingdom	98.9	[98.5, 100]	54	[52, 54]	Ecuador	78.2	[78.2, 81.0]	104	[102, 104]	Pap. N. Guin.	34.1	[34.1, 40.2]
5	[5, 8]	Finland	98.8	[98.3, 100]	55	[55, 63]	Albania	77.7	[71.4, 77.9]	105	[104, 105]	Benin	33.1	[33.1, 37.9]
6	[6, 8]	Iceland	98.8	[98.3, 100]	56	[54, 56]	Tunisia	77.2	[76.9, 78.6]	106	[103, 106]	Uganda	31.7	[31.7, 37.8]
7	[7, 8]	Norway	98.8	[98.3, 100]	57	[56, 57]	Jamaica	76.4	[75.8, 77.5]	107	[107, 112]	Cameroon	31.4	[31.4, 33.6]
8	8	Germany	98.6	[98.0, 100]	58	[55, 58]	Morocco	75.7	[75.7, 78.6]	108	[106, 108]	Rwanda	31.1	[31.1, 36.8]
9	[8, 9]	Canada	98.6	[98.0, 100]	59	[57, 59]	Panama	75.6	[75.2, 76.7]	109	[107, 109]	Burundi	30.6	[30.6, 36.2]
10	10	Ireland	98.6	[98.0, 100]	60	[59, 60]	Suriname	75.1	[74.8, 76.4]	110	[109, 110]	Swaziland	30.0	[30.0, 35.5]
11	11	Denmark	98.5	[97.9, 100]	61	[61, 67]	Egypt	74.6	[68.6, 74.8]	111	[110, 111]	Malawi	29.6	[29.6, 34.6]
12	[12, 14]	Switzerland	98.3	[97.5, 99.7]	62	[62, 65]	Syria	72.3	[69.4, 73.0]	112	[112, 116]	Mauritania	28.4	[28.3, 28.9]
13	[12, 13]	Un. States	98.3	[97.6, 99.7]	63	[60, 63]	South Africa	71.8	[71.8, 75.2]	113	[111, 113]	Togo	28.3	[28.3, 33.7]
14	[12, 16]	N. Zealand	97.9	[97.7, 98.9]	64	[64, 65]	Thailand	71.0	[69.5, 71.9]	114	[113, 114]	Cent. Afr. R.	26.6	[26.6, 31.7]
15	[14, 15]	Austria	97.7	[96.6, 99.0]	65	[61, 65]	Kazakhstan	70.8	[70.8, 74.1]	115	[115, 123]	Sudan	24.5	[22.6, 24.6]
16	[15, 16]	Japan	97.6	[96.5, 98.9]	66	[66, 67]	Armenia	70.2	[68.4, 71.1]	116	[115, 117]	Zambia	24.0	[24.0, 27.6]
17	17	Portugal	97.4	[96.2, 98.7]	67	[62, 67]	Dominican R.	69.2	[69.2, 71.8]	117	[114, 118]	Liberia	23.3	[23.3, 29.2]
18	[18, 21]	Czech Rep.	97.3	[95.9, 98.4]	68	68	Honduras	66.1	[66.1, 68.3]	118	[115, 118]	Madagascar	23.3	[23.3, 29.0]
19	[18, 19]	Slovenia	97.3	[96.0, 98.6]	69	[69, 70]	Peru	64.8	[64.7, 66.2]	119	[119, 120]	Nigeria	23.0	[23.0, 24.4]
20	[19, 20]	Netherlands	97.1	[95.8, 98.4]	70	[70, 71]	Guatemala	64.4	[64.4, 66.0]	120	[118, 120]	Laos	21.3	[21.3, 27.2]
21	[21, 23]	Spain	97.0	[95.5, 98.2]	71	[69, 71]	El Salvador	64.1	[64.1, 66.9]	121	[119, 121]	Sierra Leone	20.4	[20.4, 25]
22	[19, 22]	Belgium	96.6	[95.8, 97.9]	72	[72, 75]	Paraguay	63.7	[61.7, 64.4]	122	[122, 124]	Congo	19.4	[19.4, 22.4]
23	[22, 23]	Slovakia	96.4	[95.4, 97.7]	73	[72, 73]	Philippines	63.5	[63.5, 65.9]	123	[121, 123]	Cambodia	18.3	[18.3, 22.9]
24	[24, 25]	Greece	96.3	[94.4, 97.5]	74	[73, 74]	Nicaragua	62.5	[62.5, 65.5]	124	[124, 125]	Guinea	17.2	[17.2, 21.8]
25	[25, 27]	Israel	95.9	[93.8, 97.0]	75	[75, 78]	Georgia	61.8	[59.9, 62.6]	125	[125, 126]	Guinea-Bis.	17.1	[17.1, 20.2]
26	[24, 26]	Italy	95.3	[94.4, 96.6]	76	[76, 79]	Sri Lanka	61.3	[59.6, 62.0]	126	[122, 126]	Mozambique	16.7	[16.7, 22.8]
27	[27, 28]	Poland	95.0	[93.5, 96.3]	77	[76, 77]	Romania	61.2	[60.9, 62.2]	127	127	D. R. Congo	12.8	[12.8, 18.8]
28	[28, 29]	Hungary	94.2	[93.1, 95.5]	78	[74, 78]	Gabon	61.0	[61.0, 65.3]	128	128	Ethiopia	10.4	[10.4, 14.1]
29	[26, 29]	Trin. & Tob.	94.1	[93.7, 95.8]	79	[77, 79]	China	61.0	[59.8, 61.8]	129	129	Burk. Faso	9.9	[9.9, 12.2]
30	30	Ukraine	93.8	[92.8, 95.1]	80	[80, 81]	Azerbaijan	59.2	[57.5, 59.9]	130	[130, 131]	Mali	8.6	[7.9, 8.6]
31	[31, 34]	Bulgaria	93.7	[91.6, 94.8]	81	[81, 82]	Uzbekistan	57.7	[56.9, 58.5]	131	[130, 131]	Angola	7.8	[7.8, 9.0]
32	[32, 35]	Taiwan	93.5	[91.1, 94.6]	82	[80, 82]	Turkmenistan	57.4	[57.4, 59.0]	132	132	Niger	1.0	[0.9, 1.0]
33	[31, 33]	S. Korea	93.5	[92.2, 94.7]	83	[83, 84]	Indonesia	53.9	[52.5, 54.6]	133	133	Chad	0.0	[0, 0]
34	[33, 34]	Lebanon	93.4	[92.0, 94.7]	84	[83, 84]	Kyrgyzstan	53.7	[53.7, 57.5]					
35	[35, 37]	Un. Arab Em.	92.7	[89.4, 93.5]	85	[85, 86]	Bolivia	53.6	[51.9, 54.2]					
36	[31, 36]	Russia	92.3	[92.0, 94.0]	86	[86, 87]	Zimbabwe	49.9	[49.9, 52.3]					
37	[37, 38]	Cyprus	90.4	[88.5, 91.5]	87	[85, 87]	Ghana	48.8	[48.8, 53.3]					
38	[36, 38]	Malaysia	88.7	[88.7, 90.9]	88	88	Mongolia	47.8	[47.8, 49.9]					
39	[39, 40]	Chile	87.2	[85.1, 88.2]	89	[89, 90]	Myanmar	47.3	[47.0, 48.0]					
40	[40, 41]	Argentina	86.7	[84.3, 87.7]	90	[90, 96]	Pakistan	46.1	[42.4, 46.3]					
41	[41, 44]	Iran	85.7	[83.3, 86.6]	91	[91, 92]	Viet Nam	44.4	[44.4, 46.6]					
42	[42, 46]	Jordan	85.5	[82.9, 86.5]	92	[89, 92]	Nepal	44.1	[44.1, 48.1]					
43	[43, 47]	Algeria	85.1	[82.6, 86.0]	93	[91, 93]	Namibia	43.9	[43.9, 47.5]					
44	[39, 44]	Cuba	85.1	[85.1, 87.4]	94	[93, 94]	India	43.8	[43.8, 44.9]					
45	[43, 45]	Turkey	84.6	[83.3, 85.7]	95	[95, 98]	Yemen	40.7	[40.6, 41.5]					
46	[46, 53]	Saudi Ar.	83.6	[79.5, 84.3]	96	[96, 100]	Senegal	39.9	[39.9, 40.9]					
47	[42, 47]	Colombia	82.4	[82.4, 84.9]	97	[97, 101]	Gambia	39.3	[39.3, 40.3]					
48	[45, 49]	Venezuela	81.8	[81.8, 84.0]	98	[95, 98]	Haiti	38.4	[38.4, 42.7]					
49	[48, 49]	Moldova	81.7	[81.7, 83.7]	99	[99, 108]	Bangladesh	38.2	[35.4, 38.4]					
50	[49, 50]	Costa Rica	81.1	[81.1, 82.9]	100	[94, 100]	Kenya	38.0	[38.0, 42.7]					

Table G7: Ranges (Confidence Intervals) for the Scores and Ranks in the Biodiversity and Habitat Policy Category

Rank	Rank Range	Country	Score	Score Range	Rank	Rank range	Country	Score	Score Range	Rank	Rank Range	Country	Score	Score Range
1	[1, 3]	Benin	88.1	[88.1, 100]	51	[38, 57]	Thailand	60.2	[60.2, 77]	101	[93, 108]	Algeria	37.8	[37.8, 52.8]
2	[2, 9]	Venezuela	88.0	[88, 98.8]	52	[43, 52]	Un. Kingdom	58.8	[58.8, 78.8]	102	[88, 112]	Burundi	37.2	[37.2, 50.3]
3	[2, 5]	Jamaica	86.1	[86.1, 99.9]	53	[53, 58]	Peru	57.4	[57.4, 71.3]	103	[88, 103]	Romania	36.8	[36.8, 58.4]
4	[4, 6]	Panama	83.2	[83.2, 99.7]	54	[44, 65]	Sri Lanka	56.5	[56.5, 71.8]	104	[73, 104]	Liberia	36.7	[36.7, 63.9]
5	[3, 5]	Cambodia	82.7	[82.7, 100]	55	[42, 62]	Sierra Leone	56.2	[56.2, 75.1]	105	[76, 105]	Norway	35.8	[35.8, 61.3]
6	[4, 6]	Zambia	81.6	[81.6, 100]	56	[56, 107]	Jordan	56.0	[48.3, 63.3]	106	[81, 107]	Pap. N. Guin	34.3	[34.3, 58]
7	[3, 7]	Costa Rica	80.3	[80.3, 100]	57	[43, 61]	Sweden	55.6	[55.6, 75.6]	107	[85, 107]	Trin. & Tob.	32.0	[32, 58.6]
8	[8, 35]	Burkina Faso	80.0	[75.1, 91]	58	[58, 93]	Un. Arab.Em.	55.6	[55.6, 56]	108	[94, 110]	Georgia	31.8	[31.8, 55]
9	[7, 9]	Honduras	78.1	[78.1, 98.5]	59	[47, 65]	Canada	55.2	[55.2, 73.7]	109	[102, 109]	Turkey	31.8	[31.8, 52.4]
10	[8, 10]	Laos	76.1	[76.1, 96]	60	[50, 104]	Armenia	55.0	[50.5, 67.2]	110	[108, 120]	Bulgaria	30.9	[30.9, 44.2]
11	[11, 18]	Tanzania	74.1	[74.1, 91.2]	61	[61, 100]	Morocco	54.7	[53.2, 55.7]	111	[111, 116]	Turkmenistan	30.3	[30.3, 45.1]
12	[12, 15]	Uganda	73.6	[73.6, 91.1]	62	[56, 63]	Portugal	54.6	[54.6, 70.5]	112	[98, 114]	Poland	29.1	[29.1, 53.2]
13	[10, 13]	New Zealand	73.5	[73.5, 94]	63	[45, 63]	Finland	54.3	[54.3, 77.6]	113	[92, 113]	Austria	28.8	[28.8, 56.2]
14	[11, 21]	Central Afr. R.	72.9	[72.9, 91.5]	64	[45, 64]	D. R. Congo	54.3	[54.3, 75.9]	114	[93, 115]	Switzerland	28.5	[28.5, 55.2]
15	[15, 25]	Mongolia	71.7	[71.7, 89.2]	65	[59, 65]	Kenya	54.1	[54.1, 70.4]	115	[100, 116]	Greece	27.4	[27.4, 53.1]
16	[12, 24]	Malaysia	71.5	[71.5, 90.2]	66	[49, 66]	Cameroon	54.0	[54, 76.6]	116	[101, 118]	Ireland	26.3	[26.3, 52.8]
17	[13, 25]	Czech Rep.	71.4	[71.4, 89]	67	[61, 77]	France	50.9	[50.9, 67.6]	117	[116, 117]	Netherlands	26.1	[26.1, 44.8]
18	[18, 36]	Dominican R.	70.9	[70.9, 85.4]	68	[53, 68]	Brazil	50.5	[50.5, 72]	118	[111, 124]	Bangladesh	25.3	[25.3, 37.7]
19	[11, 19]	Côte d'Ivoire	70.7	[70.7, 93.7]	69	[69, 87]	Azerbaijan	50.1	[50.1, 59.7]	119	[119, 127]	Egypt	23.9	[23.9, 28.2]
20	[20, 29]	Japan	70.4	[70.4, 86.7]	70	[60, 78]	Ghana	50.1	[50.1, 68.5]	120	[103, 121]	Slovenia	23.5	[23.5, 51.1]
21	[11, 21]	Nicaragua	69.4	[69.4, 93.8]	71	[71, 77]	Argentina	49.8	[49.8, 61.7]	121	[120, 130]	Pakistan	23.0	[22.9, 25.7]
22	[13, 22]	Guatemala	69.0	[69, 91.9]	72	[70, 105]	Australia	49.5	[49.5, 55.8]	122	[106, 122]	Albania	22.2	[22.2, 50.4]
23	[22, 34]	Philippines	69.0	[69, 85.4]	73	[70, 76]	Italy	48.8	[48.8, 64.1]	123	[114, 124]	Gambia	21.2	[21.2, 44.7]
24	[24, 32]	Togo	68.5	[68.5, 84.3]	74	[65, 74]	Tajikistan	48.7	[48.7, 67.3]	124	[117, 124]	Germany	21.1	[21.1, 43.8]
25	[17, 38]	Chile	68.4	[68.4, 89.1]	75	[74, 90]	Mexico	48.5	[48.5, 59.2]	125	[119, 125]	Lebanon	20.2	[20.2, 42.1]
26	[22, 40]	China	68.2	[68.2, 86.6]	76	[76, 83]	Iran	48.0	[48, 60.6]	126	[122, 126]	El Salvador	18.9	[18.9, 40.4]
27	[18, 41]	Kyrgyzstan	68.1	[68.1, 88.3]	77	[67, 82]	Hungary	47.7	[47.7, 63.4]	127	[125, 127]	Haiti	17.4	[17.4, 31.7]
28	[26, 71]	Namibia	68.0	[60, 84]	78	[64, 81]	Angola	47.3	[47.3, 67.3]	128	128	Syria	17.1	[17.1, 26.7]
29	[29, 38]	Senegal	67.6	[67.6, 80.6]	79	[64, 110]	Israel	47.3	[45.6, 59.8]	129	129	Moldova	16.8	[16.8, 26.4]
30	[20, 44]	Zimbabwe	67.5	[67.5, 87.2]	80	[55, 80]	Guin.-Bissau	47.3	[47.3, 72.5]	130	[126, 130]	Belgium	16.7	[16.7, 27.9]
31	[19, 32]	Taiwan	67.3	[67.3, 87.7]	81	[80, 118]	South Africa	47.2	[43.2, 52.3]	131	131	Yemen	13.7	[13.7, 22.5]
32	[21, 39]	Suriname	66.9	[66.9, 83.6]	82	[62, 86]	Slovakia	45.8	[45.8, 66.8]	132	132	Mauritania	5.9	[5.9, 18.6]
33	[30, 46]	United States	66.9	[66.9, 81.1]	83	[72, 90]	Mali	45.0	[45, 60.5]	133	133	Tunisia	5.1	[5.1, 7.5]
34	[24, 37]	Bolivia	66.6	[66.6, 84.4]	84	[84, 95]	Paraguay	43.8	[43.8, 56]					
35	[23, 41]	Indonesia	66.0	[66, 83.1]	85	[82, 121]	Ethiopia	43.5	[41.9, 50.2]					
36	[31, 54]	Cuba	66.0	[66, 80.7]	86	[73, 86]	Viet Nam	42.8	[42.8, 63]					
37	[28, 39]	Malawi	64.6	[64.6, 83.9]	87	[66, 87]	Myanmar	42.7	[42.7, 65.8]					
38	[33, 51]	Ecuador	64.6	[64.6, 80.1]	88	[72, 88]	Nigeria	42.0	[42, 64]					
39	[26, 45]	Guinea	64.3	[64.3, 81.3]	89	[79, 96]	Sudan	41.3	[41.3, 59.8]					
40	[24, 40]	Congo	64.1	[64.1, 85.3]	90	[89, 109]	Oman	41.0	[41, 51.3]					
41	[28, 48]	Iceland	63.7	[63.7, 80.7]	91	[69, 91]	Denmark	41.0	[41, 64.8]					
42	[40, 52]	Rwanda	63.2	[63.2, 76.6]	92	[92, 99]	Ukraine	40.0	[40, 54.5]					
43	[29, 55]	Gabon	62.5	[62.5, 77.7]	93	[93, 115]	India	39.8	[39.8, 47.5]					
44	[44, 68]	Spain	62.1	[61.8, 70.4]	94	[80, 94]	Mozambique	39.7	[39.7, 60.2]					
45	[30, 45]	Cyprus	62.0	[62, 82.7]	95	[84, 100]	Madagascar	39.5	[39.5, 58.3]					
46	[33, 52]	Russia	61.0	[61, 77.5]	96	[80, 98]	South Korea	39.4	[39.4, 60.1]					
47	[35, 47]	Nepal	60.5	[60.5, 80.5]	97	[97, 124]	Niger	39.0	[35, 40.5]					
48	[48, 62]	Chad	60.5	[60.5, 69.7]	98	[78, 105]	Swaziland	38.8	[38.8, 58.9]					
49	[37, 49]	Colombia	60.3	[60.3, 79.7]	99	[97, 102]	Kazakhstan	38.4	[38.4, 54.4]					
50	[50, 91]	Saudi Arabia	60.2	[55.2, 66.9]	100	[100, 113]	Uzbekistan	38.3	[38.3, 46.7]					

Table G8: Ranges (Confidence Intervals) for the Scores and Ranks in the Sustainable Energy Policy Category

Rank	Rank Range	Country	Score	Score Range	Rank	Rank Range	Country	Score	Score Range	Rank	Rank Range	Country	Score	Score Range
1	[1, 4]	Uganda	92.4	[80.8, 100]	51	[51, 77]	Sierra Leone	78.3	[58.3, 81]	101	[101, 105]	Yemen	59.2	[44, 61.3]
2	[2, 5]	Mali	92.1	[79.6, 100]	52	[45, 52]	Côte d'Ivoire	78.2	[62.5, 83.1]	102	[40, 102]	Georgia	58.2	[56.8, 73.9]
3	[1, 3]	Dem. R. Congo	90.1	[86.8, 96.7]	53	[53, 58]	Spain	78.0	[60.2, 82.2]	103	[103, 106]	Oman	57.6	[42.7, 59.7]
4	[2, 4]	Laos	89.8	[86.1, 95.9]	54	[50, 54]	Argentina	77.8	[61.3, 82.6]	104	[102, 104]	Egypt	57.2	[44.1, 59.9]
5	[5, 42]	Cambodia	89.1	[68, 91.3]	55	[55, 75]	U. Kingdom	77.8	[58, 80.8]	105	[104, 106]	Slovakia	56.0	[42.7, 58.6]
6	[6, 31]	Cent. Afr. Rep.	88.8	[69.9, 93.3]	56	[56, 78]	Senegal	77.6	[57.8, 80.3]	106	[106, 108]	Cuba	55.2	[41.1, 57.8]
7	[7, 53]	Chad	88.8	[66, 89.7]	57	[12, 57]	Norway	76.5	[72, 87.2]	107	[107, 110]	Poland	54.7	[41.1, 56.5]
8	[7, 24]	Burundi	88.8	[70.8, 94]	58	[33, 58]	Kenya	76.5	[63.7, 82.6]	108	[108, 114]	South Africa	53.3	[39.8, 55.1]
9	[8, 22]	Guinea	88.6	[71, 93.9]	59	[59, 82]	Israel	76.0	[56.4, 78.8]	109	[109, 115]	Czech Rep.	51.9	[39.1, 53.8]
10	[10, 32]	Myanmar	88.3	[69.5, 92.5]	60	[49, 60]	Finland	75.7	[60.2, 80.8]	110	[110, 116]	Jordan	51.7	[38.6, 53.5]
11	[11, 44]	Rwanda	87.3	[66.8, 91]	61	[15, 61]	Albania	75.6	[66.7, 86.8]	111	[107, 111]	China	50.8	[39.9, 53]
12	[5, 12]	Malawi	86.5	[77.9, 95.7]	62	[62, 83]	Tunisia	75.3	[56.1, 78]	112	[112, 117]	Mauritania	50.3	[37.9, 51.9]
13	[13, 47]	Burk. Faso	86.5	[66.1, 90.1]	63	[63, 80]	Netherlands	75.3	[56, 78.4]	113	[109, 113]	Romania	47.3	[38.1, 50]
14	[6, 14]	Nepal	86.4	[73.8, 94.1]	64	[64, 79]	Morocco	75.1	[56.5, 78]	114	[113, 115]	Armenia	45.2	[35.9, 48.3]
15	[6, 15]	Costa Rica	86.0	[77.3, 95.3]	65	[61, 65]	Angola	74.9	[58.3, 78.8]	115	[115, 119]	Jamaica	42.7	[32, 44.5]
16	[7, 16]	Cameroon	85.3	[73.4, 93.4]	66	[66, 85]	Togo	74.8	[56, 77.3]	116	[86, 116]	Kyrgyzstan	38.3	[38.3, 57.2]
17	[17, 43]	Haiti	84.8	[65.7, 89]	67	[67, 76]	Greece	74.7	[56.6, 78.1]	117	[117, 120]	Iran	36.6	[27.9, 37.9]
18	[17, 18]	Switzerland	84.7	[70.3, 90.4]	68	[39, 68]	Chile	74.6	[61.5, 80.5]	118	[118, 121]	U. Arab Em.	34.3	[24.6, 36.4]
19	[19, 21]	Ethiopia	84.1	[69.7, 90.1]	69	[9, 69]	Zambia	74.2	[74.2, 84.1]	119	[119, 123]	Saudi Arabia	33.1	[24.4, 34.5]
20	[3, 31]	Mozambique	84.0	[84, 90.6]	70	[70, 88]	Cyprus	73.9	[54.8, 76.6]	120	[117, 120]	Venezuela	32.1	[28.7, 39.1]
21	[21, 48]	Swaziland	83.9	[64.6, 88.2]	71	[23, 71]	N. Zealand	73.4	[63.3, 81.1]	121	[121, 124]	Bulgaria	28.1	[21.8, 29.2]
22	[22, 46]	Sudan	83.8	[64.9, 88]	72	[52, 72]	Honduras	73.2	[59, 78.1]	122	[122, 124]	Syria	22.0	[20.2, 25.9]
23	[23, 65]	Niger	83.6	[62.3, 86.1]	73	[73, 89]	Belgium	73.2	[54.3, 76.2]	123	[111, 123]	Suriname	19.1	[19.1, 42]
24	[13, 24]	Peru	83.5	[70.6, 90.9]	74	[69, 74]	Slovenia	72.6	[56.6, 76.8]	124	[112, 124]	Tajikistan	16.9	[16.9, 41.5]
25	[25, 66]	Gambia	83.5	[62.2, 85.9]	75	[75, 92]	Guin.-Bissau	72.1	[53.7, 74.6]	125	125	Russia	15.5	[13, 16.9]
26	[18, 26]	Namibia	83.4	[69.4, 90.2]	76	[59, 76]	Nicaragua	71.3	[57, 75.5]	126	[126, 128]	Mongolia	8.7	[6.7, 8.8]
27	[25, 30]	Pap. N. Guin.	83.3	[67.2, 89]	77	[77, 91]	Taiwan	70.7	[53, 73.6]	127	[126, 127]	Kazakhstan	8.5	[7.7, 9.8]
28	[11, 28]	Ghana	83.3	[71.5, 91]	78	[8, 82]	Paraguay	69.9	[69.9, 78.9]	128	[127, 128]	Azerbaijan	8.0	[7.2, 9]
29	[10, 29]	Tanzania	82.9	[71.4, 90.8]	79	[73, 79]	Turkey	69.7	[54.7, 73.7]	129	129	Ukraine	3.7	[3.3, 4]
30	[30, 38]	Madagascar	82.7	[65.5, 87.6]	80	[80, 90]	Un. States	69.7	[52.6, 72.9]	130	[130, 131]	Trin. & Tob.	3.4	[2.5, 3.6]
31	[31, 39]	Sri Lanka	82.6	[65.4, 87.5]	81	[68, 81]	Panama	69.5	[55.1, 74.1]	131	[130, 131]	Uzbekistan	0.4	[0.4, 2.7]
32	[19, 32]	El Salvador	82.5	[69, 89.3]	82	[82, 87]	Dominican R.	69.3	[53, 72.2]	132	132	Moldova	0.2	[0.2, 1.6]
33	[16, 33]	Colombia	82.4	[69.5, 89.6]	83	[83, 97]	Hungary	69.2	[51.5, 71.7]	133	133	Turkmenistan	0.0	[0, 0]
34	[26, 34]	Austria	82.2	[67.3, 88.5]	84	[25, 84]	Iceland	68.9	[68.9, 80.5]					
35	[34, 37]	Guatemala	82.1	[65.5, 87.3]	85	[81, 86]	Nigeria	68.6	[53.2, 72.2]					
36	[36, 64]	Bangladesh	81.7	[61.3, 84.7]	86	[86, 94]	Australia	68.4	[51.6, 71.5]					
37	[37, 51]	Denmark	81.5	[62.8, 85.5]	87	[87, 96]	Thailand	68.1	[51.6, 71]					
38	[38, 71]	Liberia	81.3	[60.6, 84.1]	88	[88, 98]	S. Korea	68.1	[50.6, 70.8]					
39	[39, 67]	Ireland	81.2	[60.8, 84.4]	89	[89, 93]	Mexico	67.6	[51.5, 70.7]					
40	[12, 40]	Brazil	80.6	[69.3, 88.6]	90	[90, 95]	Indonesia	67.1	[51.2, 70.1]					
41	[41, 55]	Italy	80.3	[61.3, 84.1]	91	[74, 91]	Pakistan	66.6	[53.3, 70.7]					
42	[28, 42]	Gabon	79.8	[65.9, 86.1]	92	[63, 92]	Ecuador	66.4	[54.2, 71.3]					
43	[43, 57]	Japan	79.7	[60.7, 83.2]	93	[60, 94]	Viet Nam	64.1	[53.6, 68.9]					
44	[44, 72]	Benin	79.5	[59.2, 82.3]	94	[84, 96]	Bolivia	63.7	[50.8, 67.7]					
45	[41, 46]	Portugal	79.1	[62.9, 84.2]	95	[58, 95]	Zimbabwe	63.0	[53.3, 68.2]					
46	[34, 46]	Congo	79.0	[64.7, 84.8]	96	[56, 96]	Canada	62.8	[52.9, 69]					
47	[47, 62]	France	78.9	[59.9, 82.3]	97	[97, 99]	Lebanon	61.2	[46.6, 64.1]					
48	[27, 48]	Sweden	78.9	[65.6, 84.9]	98	[98, 101]	Malaysia	60.8	[45.8, 63.4]					
49	[35, 49]	Philippines	78.9	[64.4, 84.5]	99	[99, 103]	Algeria	60.1	[44.9, 62]					
50	[50, 70]	Germany	78.3	[59, 81.8]	100	[99, 100]	India	59.7	[46.2, 62]					