THE GLOBAL SUSTAINABLE COMPETITIVENESS INDEX

Acknowledgments

Acknowledgments

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About This Report

Research and compilation by SolAbility
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About SolAbility

SolAbility is a sustainability service provider based in Korea, providing sustainable management services to corporate clients and advanced sustainable investment research covering Pan-Asian equities for institutional investors.

Corporate clients who have implemented sustainability strategies and management systems developed and designed by SolAbility have been recognised as global sustainability leaders in their respective industry sector by various corporate sustainability indexes, including (but not limited to) the Dow Jones Sustainability Index and the FTSE4Good Index.

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Foreword

Dear Reader,

The performance of countries and their competitiveness is measured and compared by the Gross Domestic Product, expressed in a monetary value. However, it has been argued that financial indicators (such as the GDP) are not sufficient to fully and comprehensively express a national balance sheet. The GDP is based on economic factors and monetary earnings, and does not incorporate external costs such as the environment or social cohesion - both of which are significant factors for achieving economic success and sustained development. Annual changes in GDP growth rates are often used as an indicator for the economy's well-being and development, but the GDP describes a moment in time and does not allow to make judgments on the long-term potential and future outlook of countries in the perspective of sustainable development.

It is widely recognised that natural resources are finite, and that the impact of human activities on the natural environment do influence future prospects of societies and economies. There is also increasing evidence that managing companies by incorporating sustainability in decision making, and investing with sustainability principles yields significant long term financial benefits. Tools have been developed to measure the long-term sustainable growth potential of corporations. With the wealth of statistical data available on a global level and the power of computers to process this data, an alternative competitiveness measurement to the GDP that includes "non-financial" indicators can be calculated.

Based on our experiences in developing corporate sustainability measuring methodologies, we have developed a model to evaluate country sustainability. Key sustainability data series have been analysed with the aim to evaluate the current status and future outlook of nations-economies in a broader perspective based on key sustainability factors. Given the long-term perspective of sustainable development, country sustainability is equal to long-term competitiveness ("sustainable competitiveness"). This Report describes the methodology and the results of a Global Sustainable Competitiveness Comparison for 176 countries.

We hope you find this report informative and inspiring.

Andy Gebhardt, CEO
Lee Mi-Hyang, Managing Director

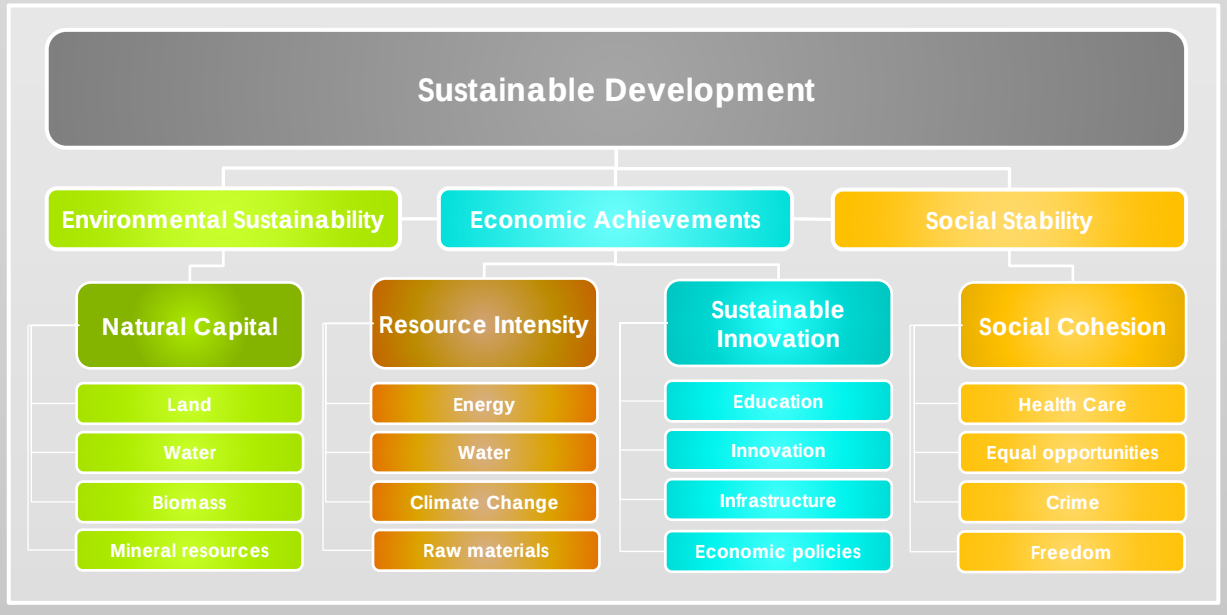
Executive Summary

Executive summary
The National Sustainability Model

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

The definition of sustainable development was formulated by the Brundtland Commission in preparation for the Rio Conference in 1992. In the 20 years since then, many businesses have realised that there are economic opportunities and benefits to sustainability - in the form of cost savings and new business opportunities (every challenge is an opportunity). A number of corporate sustainability indexes have been developed, aimed at harvesting these benefits in the realm of stock investments. However, there is no agreed form of measuring sustainability of nations. Advancements in information technology have facilitated the collection of an immense wealth of statistical data and time series across all sustainability issues - the economy, society, the environment. Further more, computing power allows for analysing and comparing these data series.

Adapting corporate sustainability evaluation methodology for national sustainability assessment requires adjustments to the corporate sustainability model, leading to a sustainability model based on four pillars: natural capital, resource intensity, sustainable innovation & competitiveness, and social cohesion:

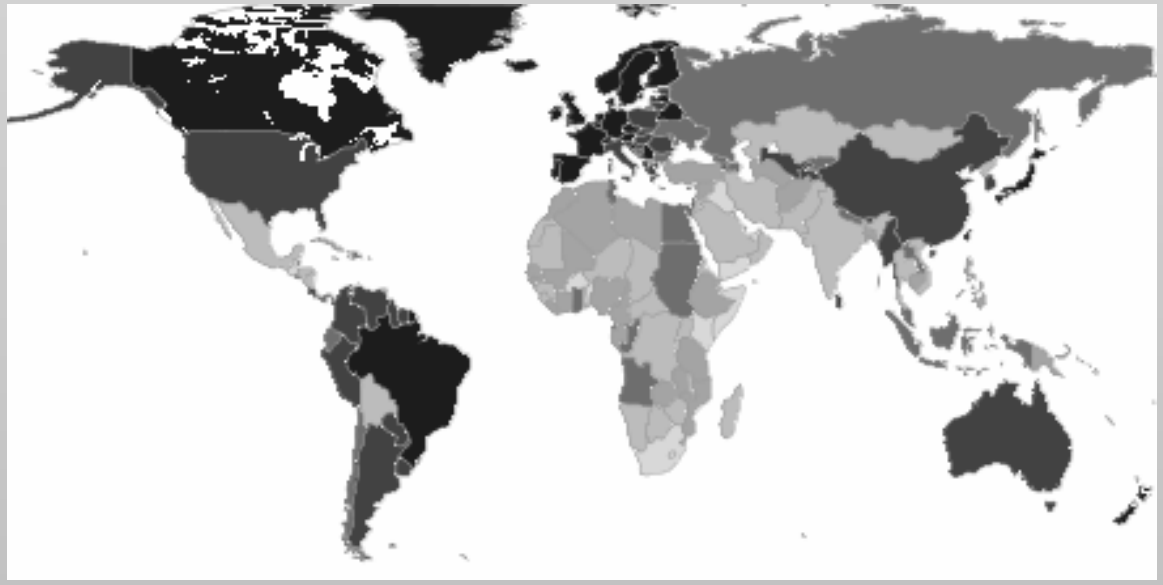


Implementation of intelligent policies in support of those four pillars will allow countries to achieve sustained and sustainable development.

The Sustainable Competitiveness World Map
69 data series, 176 countries

69 key sustainability indicators chosen based on relevance and data availability have been analysed to calculate a quantitative national sustainable performance score, grouped in 4 sustainable development themes: resource efficiency, natural capital depletion, sustainable innovation & competitiveness, and social cohesion. The score is based on scoring the current data as well as the trend (increase/decrease) over the past 5 years. The combination of absolute comparison and trend analysis reflects a momentary picture as well as being an indication of the long-term sustainable development potential of countries. The Sustainable Competiveness Ranking reveals some surprising, and other not-so-surprising results:

- The Sustainable Competitiveness Index is topped by the Scandinavian countries, followed by North-Western European Nations.
- The Natural Capital and Resource Intensity rankings are topped by countries with a rich biodiversity, favourable climate and sufficient water resources. Clear distinctions are visible between the more industrialised countries, indicating that some countries will face lower obstacles with the coming raw material and energy scarcity
- Asian nations (Singapore, China, Japan, South Korea) top the Sustainable Innovation Competitiveness ranking. However, achieving sustained prosperity in these countries might be compromised by Natural Capital constraints and current high resource intensity/low resource efficiency
- The Social Cohesion ranking is headed by Northern European countries, indicating that Social Cohesion is the result of economic growth combined with social consensus
- The Worlds largest economy, the USA, is ranked 30th. Of the booming emerging economies, Brazil is ranked 25th, South Korea 33rd, China 36th, Russia 56th, and India 100th



The Sustainable Competitiveness Map: dark colour indicates high ,light colour limited competitiveness

Sustainable Competitiveness
Executive summary

The Sustainable Competitiveness Score is composed of the four sustainability pillars – Natural Capital, Resource Intensity, Sustainable Innovation & Competitiveness, and Social Cohesion. Individual indicators and the four pillars have been weighted according to their relevance, the human leverage factor, and the accuracy of the underlying data used. The "human leverage factor" refers to the time and resource allocation required to change or improve the momentary status of the indicator in question. The Sustainable Competitiveness is, to a small extent, based on natural capital (beyond the influence of human leverage), but to a significant larger extent on human activities and policies. Provided sufficient political will and collaboration of the involved players - authorities, communities, economic entities - coupled with pragmatic policies beyond ideology or economic theories, a nation is able and capable of significantly improving its Sustainable Competitiveness over time.

However, the absence of intelligent policies and incentives will lead to diminishing potential of achieving sustainable development with all its tangible and intangible benefits. Countries with a current high income (GDP per capita) but comparable low Sustainable Competitiveness are facing the potential of decline. Lower income countries with low Sustainable Competitiveness are likely to face serious obstacles to improve there current status and the livelihoods (living standard) of its populations.

For additional information and detailed analysis please refer to the Sustainable Competitiveness section or the full ranking tables for all 176 countries.

SUSTAINABLE COMPETETIVENESS (selection)		
Country	**Rank**	**Score**
Denmark	1	58.8
Sweden	2	58.5
Norway	3	57.6
Austria	4	57.6
Finland	5	57.6
Switzerland	6	56.5
Germany	7	56.2
Netherlands	8	56.2
Japan	9	56.0
Canada	12	55.6
New Zealand	14	54.4
France	15	54.4
Portugal	20	50.3
Singapore	21	50.0
Spain	22	49.9
Australia	23	49.9
Brazil	25	49.5
United Kingdom	26	49.5
Italy	28	49.2
USA	30	48.4
South Korea	33	47.7
Argentina	34	47.5
China	36	47.3
Greece	40	46.8
Poland	42	46.6
Guyana	43	46.2
Sri Lanka	54	44.7
Russia	56	43.9
Egypt	59	43.7
Indonesia	61	43.4
Chile	64	42.9
Malaysia	76	40.3
Turkey	80	39.9
Kuwait	85	39.1
Philippines	86	39.0
Algeria	89	38.9
Vietnam	93	38.6
India	100	38.3
Morocco	116	37.2
Saudi Arabia	120	36.6
Jordan	128	35.6
Bangladesh	129	35.6
Mexico	131	35.4
Nigeria	132	35.4

Natural Capital
Executive summary

Natural Capital Ranking (selection)		
Country	Rank	Score
Suriname	1	63.3
Guyana	2	63.0
Latvia	3	61.0
New Zealand	4	61.0
Canada	5	60.5
Colombia	6	60.3
Belarus	7	60.0
Brazil	8	59.7
Laos	9	58.7
Finland	10	58.4
Denmark	11	58.2
USA	15	55.9
Russia	18	54.9
Sweden	22	54.0
Norway	27	52.9
France	29	52.7
Argentina	31	51.6
Indonesia	33	50.8
Australia	36	50.0
Egypt	45	48.3
Netherlands	55	46.5
Japan	59	45.0
Malaysia	67	44.1
Germany	70	43.9
Italy	72	43.3
Vietnam	74	42.5
Portugal	78	42.1
Austria	81	41.4
Greece	83	40.7
Bangladesh	84	40.6
South Korea	92	40.4
Philippines	98	39.8
South Africa	101	39.6
Switzerland	104	39.1
Saudi Arabia	108	37.8
Poland	111	37.3
Kuwait	113	37.2
Sri Lanka	114	37.1
Chile	119	36.6
Spain	120	36.1
United Kingdom	121	36.1
Mexico	124	35.7
Algeria	128	35.3
Thailand	134	34.5
China	136	34.2

The Natural Capital score is composed of indicators measuring the availability, and level of degradation, of natural resources. The indicators used to evaluate the natural capital cover the availability of freshwater and renewable water resources, biomass resources (forests, biodiversity) and loss of biomass due to human activity. In addition, the availability of arable land and level of degradation, the area potentially suitable for agricultural use, as well as the availability of mineral resource have all been incorporated.

Some of these indicators are determined by geography, region, climate, and population density. While the availability of natural capital is as it is (i.e. beyond the influence of human capabilities), the status of degradation is a result of human activity. The level of degradation is a measurement of a country's capability to manage its natural capital in a sustainable manner.

Countries with a high natural capital score are well positioned to achieve sustainable development through:

- The availability of sufficient agricultural resources to feed its population and potentially export agricultural products
- The availability of sufficient and renewable water resources for agricultural and industrial purposes as well as human needs
- The availability of recreational areas for the domestic population, also indicating potential for tourism

While today's global trade have made countries independent of domestic agricultural self-sufficiency, natural capital cannot be substituted and needs to be carefully managed.

For a additional information and detailed analysis please refer to the Natural Capital section or the ranking tables.

Resource Intensity
Executive summary

The Resource Intensity score is composed of national and industrial efficiency coefficients.

In order to reflect both the absolute consumption of resources as well as the economic productivity of resource consumption, consumption data was calculated per capita as well as a function of the GDP. Indicators used includes water consumption, energy usage, GHG emissions, waste indicators, and raw material usage. In addition, the raw data was analysed for the current consumption data as well as the direction of trends over recent years in order to incorporate the future performance of the country in the score.

The leading nations in this ranking include less developed economies with a low per-capita resource consumption. However, there are distinctive differences visible within the industrialised nations. Countries with a low Resource Intensity score are facing obstacles to achieve sustainable development in terms of:

- Depletion of natural resources (in particular water resources)
- Higher production cost through lower efficiency, potentially multiplied by the rising oil price and other energy costs), leading to lower industrial competitiveness and margins
- Higher dependency on imports of raw materials and the fluctuations on international commodity markets

Resource intensity and efficiency can be influenced by a set of sensitive policies and incentives. A decade of intelligent policy making can make a significant difference.

For a additional information and detailed analysis please refer to the Resource Intensity section or the data tables.

Resource Intensity Ranking		
Country	Rank	Score
Sudan	1	61.3
Sri Lanka	2	60.3
Albania	3	60.1
Burma	4	60.0
Tajikistan	5	59.2
Angola	6	58.3
Republic of Congo	7	57.1
Switzerland	8	56.9
Nigeria	9	56.7
Philippines	14	55.3
Austria	24	54.0
Portugal	29	53.0
Italy	35	52.2
Argentina	37	52.1
Brazil	40	51.6
Netherlands	46	51.2
Spain	47	51.0
Greece	53	50.5
Singapore	57	49.9
Germany	60	49.6
France	63	49.1
Sweden	65	49.0
United Kingdom	77	47.8
Kenya	79	47.6
Japan	90	45.4
Morocco	91	45.2
Indonesia	92	44.8
New Zealand	93	44.6
India	114	42.8
Bangladesh	117	42.3
Canada	118	42.3
Thailand	119	42.2
Pakistan	122	41.3
Denmark	123	41.2
USA	124	41.2
Poland	126	40.9
Chile	127	40.9
Egypt	128	40.9
Turkey	130	40.0
Mexico	140	38.6
Finland	142	38.2
Russia	146	36.9
Norway	147	36.2
China	148	36.1

Sustainable Innovation
Executive summary

Sustainable Innovation & Competitiveness		
Country	Rank	Score
Singapore	1	65.5
China	2	62.1
Japan	3	60.4
Austria	4	60.1
Norway	5	59.6
South Korea	6	58.9
Netherlands	7	58.9
Denmark	8	58.6
Switzerland	9	58.2
Germany	10	58.0
Sweden	11	57.0
Finland	12	56.9
Portugal	18	55.3
Canada	21	54.1
United Kingdom	22	53.7
France	23	53.5
Spain	24	53.1
Australia	25	52.6
USA	27	51.4
Brazil	28	51.2
New Zealand	29	50.9
Chile	32	50.6
Italy	36	48.4
Russia	38	47.2
Turkey	46	45.9
Poland	50	44.5
Saudi Arabia	51	44.3
Algeria	52	43.9
Greece	56	43.3
Jordan	59	43.1
Argentina	60	43.0
Kuwait	76	40.0
South Africa	80	38.3
Malaysia	81	38.2
India	86	37.3
Indonesia	90	37.0
Vietnam	96	35.4
Egypt	102	34.0
Morocco	109	32.8
Thailand	114	32.0
Mexico	119	31.2
Philippines	120	31.2
Pakistan	122	30.5
United Arab Emirates	123	30.3
Kenya	134	28.1

The Sustainable Innovation score is aimed at evaluating a country's competitiveness in a knowledge-driven high-tech world, today and in the foreseeable future. The score is calculated based on indicators incorporating education availability and education quality, R&D efforts and importance, business facilitation environment, infrastructure indicators, and the Gross National Income as an economic indicator. All indicators have been analysed for current performance as well as the trend over recent years in order to incorporate the future performance outlook.

The sustainable innovation ranking is topped by Asian nations: Singapore, China, Japan and South Korea (6th) where education historically and culturally was and is considered highly important. Other nations in the top ten are Central European Countries, with Brazil in 28th place the highest country from another continent.

While the leading countries in this list are set to be economically highly successful in the near future, countries with a low Sustainable Innovation score are likely to:

- Face a lack of qualified workers to sustain or kick-start high-tech industries
- Remain on a low level of industrialisation, facing difficulties to catch up on with the leading nations
- Dependent on imports to satisfy high-tech technology needs, requiring the generation of foreign exchange through export of low-value goods

Improving the innovation capability requires investments in education and infrastructure, coupled with target industry development programs, possibly accompanied by protective measurements.

For a additional information and detailed analysis please refer to the Sustainable Innovation section or the ranking tables.

Social Cohesion
Executive summary

In order to capture the full reality of the social status of a nation, indicators covering a variety of issues have been incorporated: health status, availability and affordability of health care systems, equal opportunity factors (gender equality, economic equality), demographic balance, crime levels, public services, freedom indicators (freedom of expression, human rights), and qualitative life satisfaction indicators compiled by other research institutions. All indicators have been analysed for current performance as well as the trend over recent years in order to incorporate the future performance outlook.

The ranking is dominated by the Scandinavian and Central European countries, with only Canada and Japan breaking into the top 20. While for poor countries a low score indicates difficulties in achieving sustainable development, for high income countries a low score indicates a society in decline. Countries with a low Social Cohesion score are likely to face some of the following problems:

- Higher child mortality and generally lower health levels, leading to higher long-term costs and lower worker productivity
- Higher crime rates due to lack of economic opportunities or high income inequality, leading to increased insecurity, additional security cost, and barriers to investment
- General lower life satisfaction, leading to lower motivation and efficiency

For a additional information and detailed analysis please refer to the Social Cohesion section or the ranking tables.

Social Cohesion Ranking (selection)		
Country	Rank	Score
Norway	1	78.3
Iceland	2	76.1
Denmark	3	75.5
Finland	4	75.0
Ireland	5	74.9
Sweden	6	73.7
Austria	7	73.0
Germany	8	71.5
Switzerland	9	71.1
Japan	10	69.8
Netherlands	12	66.1
Canada	16	64.8
Poland	17	64.4
France	20	62.1
New Zealand	21	62.0
Australia	22	60.8
Spain	23	57.8
United Kingdom	24	57.8
Egypt	27	56.6
Greece	31	55.0
Italy	36	53.5
Singapore	40	52.0
South Korea	41	51.6
United Arab Emirates	43	50.2
Kuwait	47	48.7
Portugal	49	48.2
Vietnam	52	47.4
China	53	47.3
Argentina	55	46.3
Bangladesh	58	46.1
Malaysia	61	45.8
Jordan	64	45.2
Indonesia	69	44.8
India	71	44.2
USA	78	42.6
Morocco	80	41.6
Saudi Arabia	84	40.5
Turkey	85	39.8
Chile	87	38.7
Mexico	88	38.6
Algeria	90	38.4
Pakistan	93	37.4
Philippines	99	35.7
Brazil	102	34.6


Methodology

The Sustainability of a Nation
Methodology

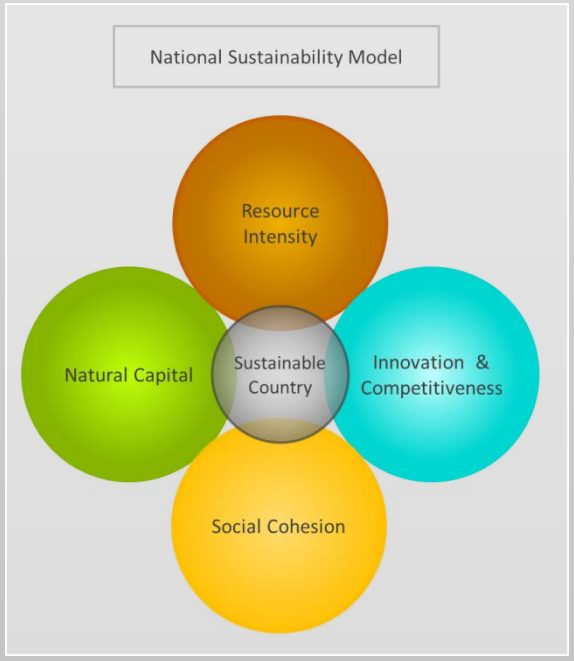
Sustainability models

The three-dimensional sustainability model of reconciling the economy, the environment and the society is often used and applied in the corporate world to evaluate and manage sustainability issues and performance.

Corporations are entities that operate in very different boundaries and with different goals than states and nation-economies. The elements of the model therefore have to be adapted to the characteristics of nations and their fundament of sustained prosperity.

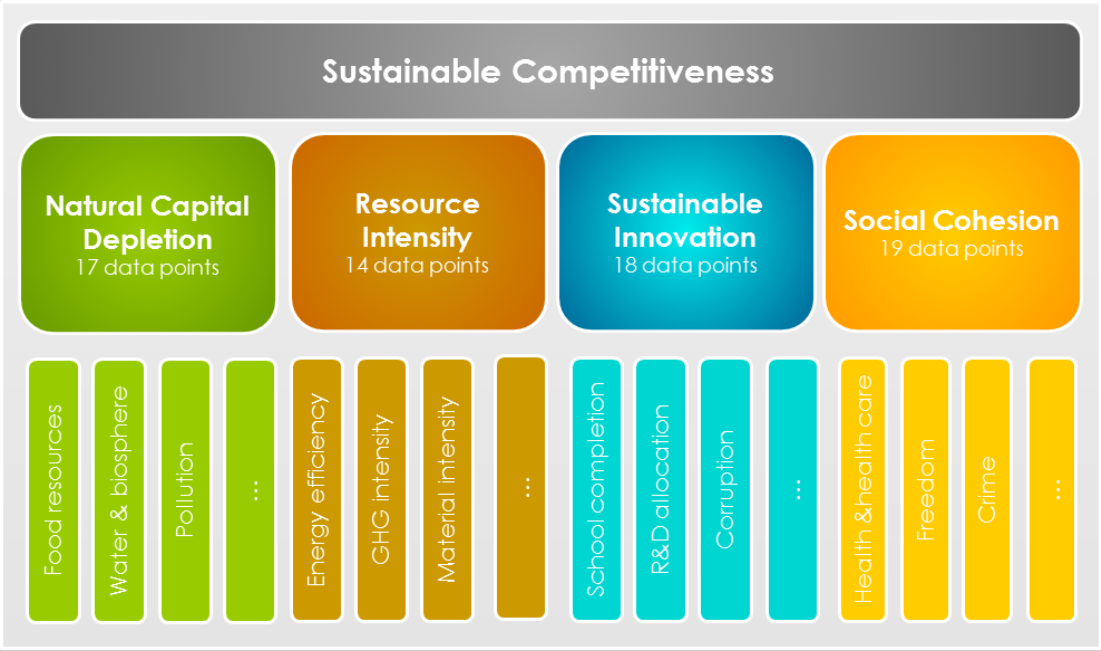
While corporate or economic entities (depending on the nature of their business) are working with natural capital, they do not own it, and have the opportunity to move on (geographically, as well as to other business fields) at any given moment. Transport and international trade have made countries and people less dependent on their immediate environment, However, countries and population cannot simply move on should fundamental resources (water, agricultural output) become scarce or the country inhabitable due to climate change. At the end of the day people rely on, and live off, the natural capital of their environment for better or worse.

For the purpose of evaluating the sustainability and sustainable development level (which is equal to sustained economic development), a fourth element – the natural capital – has been added to the three elements of innovation competitiveness, resource efficiency and social sustainability.



National Sustainability

The National Sustainable Competitiveness Score has been calculated based on 69 data indicators grouped in 4 pillars:



20 years after Rio, the concept of "Sustainability" is widely used and applied. "Sustainability" or "Sustainable development" is a broad concept, encompassing a large number of themes and issues. In addition, many of the issues are dependent on each other, and are often interacting. Factors determining the development level of a country can or should to be viewed from a long-term (sustainable) perspective. Given the complexity – the number of issues, interrelationships and changes over time - it might be argued that "sustainability" is better described in qualitative than quantitative terms. However, a qualitative description is always subject to the subjectivity and background of the describer. Numeric values (single data points), in contrast, are not subjective. The data collected by the various global institutions across all countries contain numerous single indicators (quantitative indicators) that are an expression of the current sustainability level of a certain aspect of sustainability. In order to exclude subjectivity, this Index has been calculated purely based on quantitative indicators. The quantitative indicators are carefully chosen as expressions of relevant aspects of sustainable development, based on a sustainability model that ensures coverage of all relevant aspects of sustainability that can be measured in numbers. The sum of all these indicators together reflect the overall sustainability and sustainable competitiveness level of a country.

Sustainability Indicators
Methodology

Natural Capital

The natural capital of a nation or country consists of the natural environment, which is defined by a mixture of size, population, geography, climate, biodiversity and natural resources (renewable and non-renewable resources), as well as the depletion of those resources. The combination of these factors and the level of depletion of the natural resources due to human activity and climate change represents the future potential of sustaining a prosperous livelihood for the population and the economy of a nation.

Indicators used encompass forests and biodiversity indicator, agricultural indicators, land degradation and desertification, water resources, minerals and energy resources, pollution indicators and depletion indicators.

Resource Intensity

The more efficient a nation is using resources, the smaller the negative impacts of a potential supply scarcity of resources (energy, water, and minerals). Higher efficiency is also equal to lower cost per production unit in agriculture, industrial production, and to a lesser extend also in the service sector. Efficient use of resources and energy is an indicator for a nation's ability to maintain or improve living standard levels both under a business-as-usual scenario of the future and under changing external economic or geo-political circumstances and influences.

Indicators used cover water usage and depletion, energy usage, energy intensity and energy sources, climate change emissions and intensity as well as certain raw material usage. However, data availability for raw materials consumption other than steel is limited and therefore could not be included.

Natural Capital & Natural Capital Depletion

18 data points

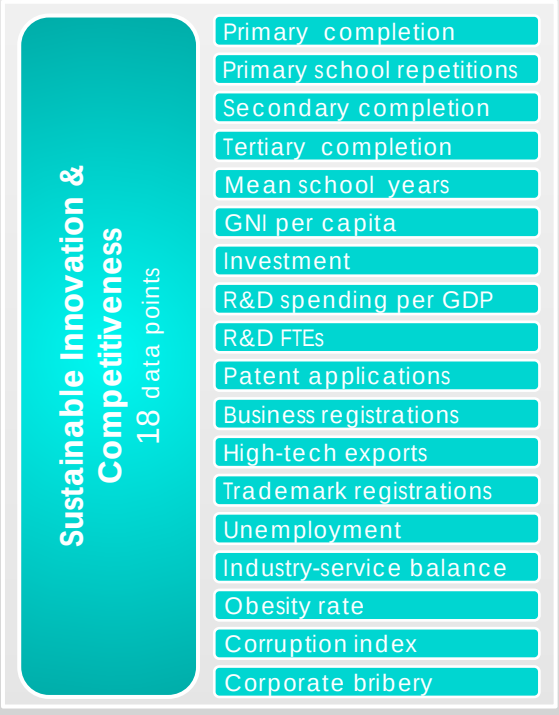
- Arable land per capita
- Potentially arable land
- Cereal yield
- Land degradation
- Desertification risk
- Forest area & forest loss
- Extreme weather events
- Renewable freshwater
- Inland water
- Biodiversity potential
- Endangered species
- Resource depletion
- Ecological footprint
- Population density
- Energy self-sufficiency
- Air pollution
- SO2 emissions
- Hazardous waste

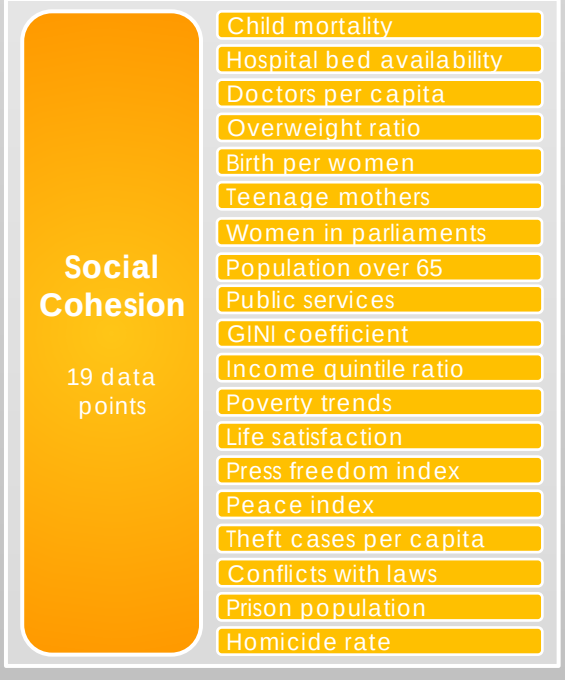
Resource Intensity

14 data points

- Energy per capita
- Energy per GDP
- GHG per capita
- GHG per GDP
- Water per capita
- Water per GDP
- Steel per capita
- Steel per GDP
- Electricity per capita
- Electricity per GDP
- Renewable electricity
- Coal electricity
- Hydropower electricity
- Transmission losses

Sustainability Indicators
Methodology





Sustaining Innovation & Competitiveness

The backbone of sustained economic success is the ability to continuously improve and innovate on all levels, and throughout all institutions (not limited to industrial or technology R&D). Sustaining competitiveness also requires a long-term view beyond momentary individual or political interests and opinions, and long-term investments in crucial areas are needed. Economies that are being deprived from investments sooner or later face decline, as some nations of the formerly "leading" West are currently learning the hard way.

Indicators used cover educational levels, R&D performance indictors, infrastructure investment levels, employment indexes, the balance of the agricultural-industrial-service sectors, business environment indicators, obesity (as a measurement of worker efficiency), and corruption levels affecting business development.

Social Cohesion

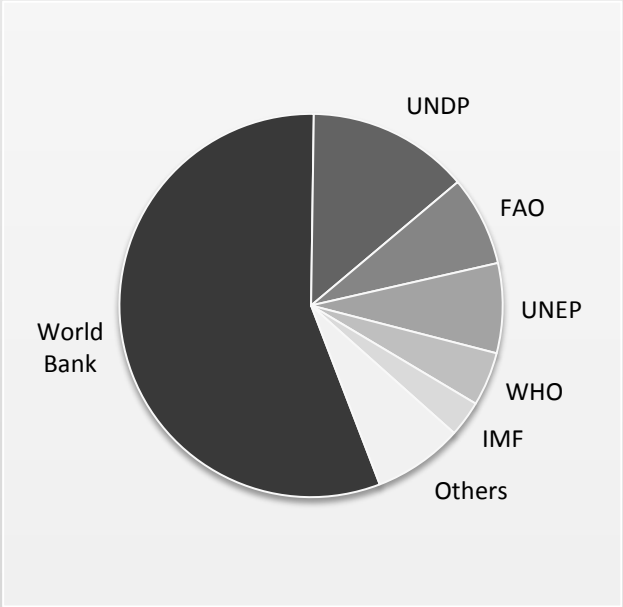
Last but not least, nations and societies need some minimum level of social cohesion, coherence, and solidarity between different regions, between authorities and the people, between interest groups, between income levels, between generations, and between individuals. A lack of social cohesion in any of the above aspects can seriously undermine the long-term stability which an economy requires as a basis to thrive in the long run.

Indictors used cover health performance indicators, birth statistics, income differences, equal opportunities (gender, economic), freedom of press, human rights considerations, and the level of crime against both possession and humans.

Scoring
Methodology

Data sources

Data sources were chosen according to their reputation and reliability (as well as availability of global data). The largest percentage of indicators was derived from the immense wealth of the World Banks indicator database, followed by data sets and indicators provided by various UN agencies.

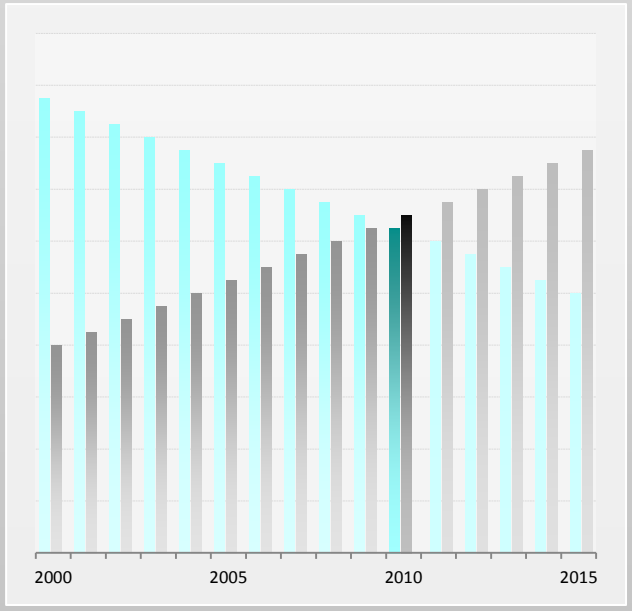


Calculation

The raw data as provided by the various databases consist of numerical values. While values can be ranked against each other, they cannot be compared or added to other values (two apples plus three oranges are not equal to five pineapples). It is therefore necessary to extract a scalable and comparable score from the raw data as a first step. In the second step, the relative importance of the indicator is assessed against other indicators to calculate the sustainability performance.

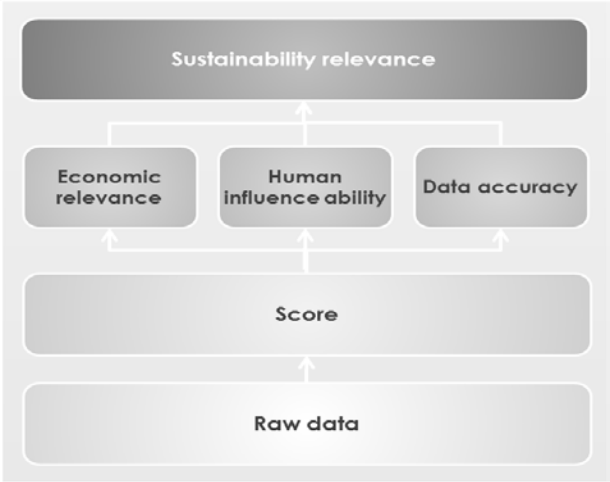
Inclusion of trends: analysis over time

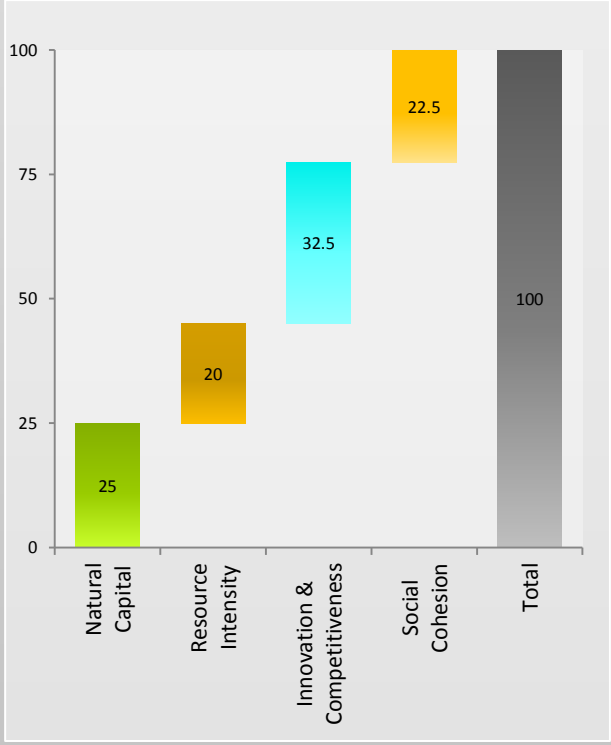
Current or recent data on its own limits the perspective to a momentary picture in time. Of equal importance are recent trends and development of the performance. Analysing trends and developments allows for understanding of where a country is coming from, and more importantly, indicates the direction of future developments. Increasing agricultural efficiency for example indicates capability to feed an increasing population, or the opposite if decreasing. Where sufficient data series are available, the trend was calculated for 5 or 10 year periods and scored to evaluate the current level as well as the future outlook and sustainability potential of a country.



While the momentary picture of these two series might be equal in 2010, the grey series is likely to improve in the future, whereas the blue line is likely to decrease

Weighting
Methodology





Scoring of individual indicators

When comparing raw data of country variables, the "absolute best" cannot be defined. Scores therefore cannot be calculated against a best practice score, as is usually practiced in corporate sustainability performance evaluation. For the purpose of this index, the raw data was analyzed and then ranked. Trough calculation of the average deviation, the top quintile (the best 20%) receives a high score, the lowest quintile (the lowest 20%) receives the lowest score, where 100 is the highest score while 0 is the lowest score.

Weightings

The simplest mathematical methodology to calculate the sustainability performance from individual scores would be to average all indicators. However, some indicators have a higher importance to the long-term development and competitiveness of a country than others; for some indicators, the data is accurate, for other less accurate, and yet other indicators can be influences trough government policies or other measurements (provided sufficient political will or economic incentives), while other indicators just are as they are (beyond the influence and manageability of current human powers). The weightings of individual indicators are calculated based on the above three criteria: economic relevance, data accuracy, and human ability to influence the variable trough policies, targeted sustainable investment or other measurements.

The application of this methodology led to the weightings of the four sustainability criteria as presented in the graph to the left.

Limitations of Quantitative Data
Methodology

Data Sources

Only data from reliable sources was included in the index. Most data points and data series were extracted from the World Banks statistical database as well as from the combined UN database that contains statistical data across several UN agencies.

Data reliability & accuracy

The data sources (World Bank, UN agencies) are considered reliable and unbiased. Raw data from the various databases was used as a basis for calculation as-is, i.e. without verifying the actual data.

Limitations of quantitative analysis

In order to exclude subjectivity, only quantitative data has been taken into account. However, quantitative indicators sometimes are not able to differentiate or express real and actual levels of quality. High spending on health care for example does not necessarily guarantee high quality health care system available for the average citizen. Equally, the percentage of school enrollment(on all levels, form primary levels to college and universities) is not necessarily an expression of the quality of the education. However, for some indicators, quality is equally important to quantity from a sustainability viewpoint. For such indicators, quantitative indicators have limited informative value and serve as a proxy.

While explanatory power of quantitative indicators is limited, conducting a qualitative evaluation of the 69 indicators used on the global level would go far beyond the limitations of this index. For indicators with a potentially low correlation between quantity and quality, the weighting has been adjusted accordingly.

Timeliness of data

Data for 2011 is not yet available for most indicators from the databases used for this index. Most data used for this index date from 2010. Where 2010 data was not available, 2009 data, and in some cases, 2008 data has been used.

Availability of data

For some indicators data is not available for all countries (in particular for the less or least developed economies). If the lack of data would be scored as “zero”, the final score for those countries would be negatively affected. In order to present a balanced overall picture, the missing data from those countries has been extrapolated based on regional averages, income and development levels, as well as geography and climate.


Sustainable Competitiveness

Sustainable Competitiveness
Regional Spread

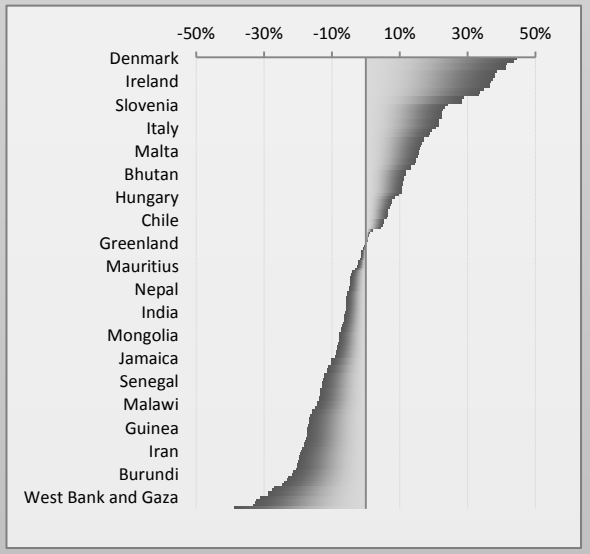
Regional spread

Scandinavia as a region achieves the highest Sustainable Competitiveness score, followed by North-West Europe, Australia & New Zealand, North America and North-East Asia – all areas in the Northern hemisphere. Central Asia is the only region that falls North-South divide. From a European perspective, it is interesting to note that Eastern Europe achieves higher scores than Sothern Europe (which has nominally higher income levels). All African Regions are in the bottom half, joined by Central America and the Middle East. The high-income countries of the Middle East have sustained their economic success with the exploitation of their mineral resources. The low Sustainable Competitiveness of the region raises concerns on whether those countries will be able to maintain or sustain their development level once there fossil fuel wealth subsidies.

Part of the objective of this index was to evaluate whether the commonly poor outlook of African nations would look different when measured against non-financial indicators. Unfortunately, this seems not to be the case.

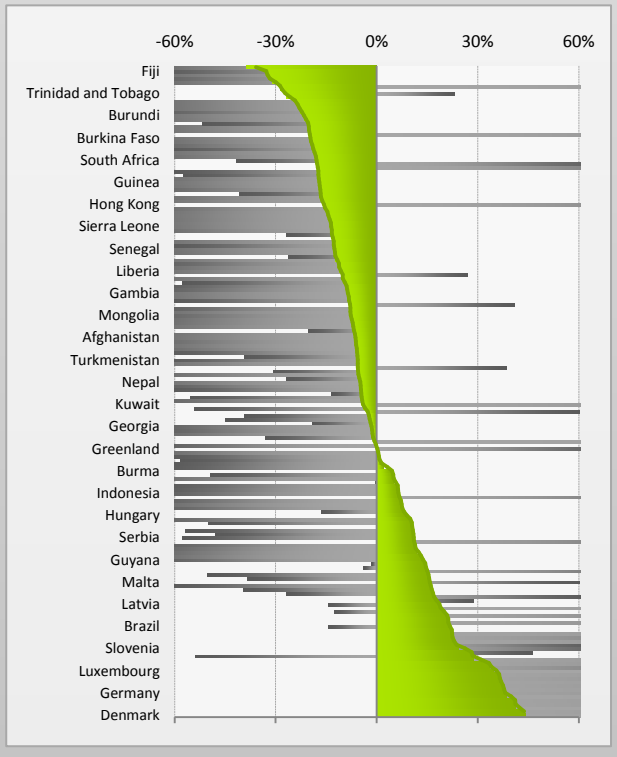
Average deviation

Only 38% of the 176 countries assessed Sustainable Competitiveness score is above the average score, i.e. nearly two thirds (62%) are below the average score. The large difference means that there is large gap between the leading scores (the top 40 nations) and the rest of the World.



Sustainable Competitiveness		
Country	Rank	Score
Denmark	1	58.8
Sweden	2	58.5
Norway	3	57.6
Austria	4	57.6
Finland	5	57.6
Switzerland	6	56.5
Germany	7	56.2
Netherlands	8	56.2
Japan	9	56.0
Ireland	10	55.7
Iceland	11	55.7
Canada	12	55.6
Luxembourg	13	55.0
New Zealand	14	54.4
France	15	54.4
Belgium	16	52.5
Belarus	17	52.3
Czech Republic	18	52.3
Slovenia	19	50.6
Portugal	20	50.3
Singapore	21	50.0
Spain	22	49.9
Australia	23	49.9
Estonia	24	49.8
Brazil	25	49.5
United Kingdom	26	49.5
Croatia	27	49.5
Italy	28	49.2
Lithuania	29	48.7
USA	30	48.4
Latvia	31	48.4
Slovakia	32	47.7
South Korea	33	47.7
Argentina	34	47.5
Romania	35	47.4
China	36	47.3
Malta	37	47.2
Costa Rica	38	47.1
Colombia	39	47.0
Greece	40	46.8
Uruguay	41	46.7
Poland	42	46.6
Guyana	43	46.2
Tajikistan	44	46.1

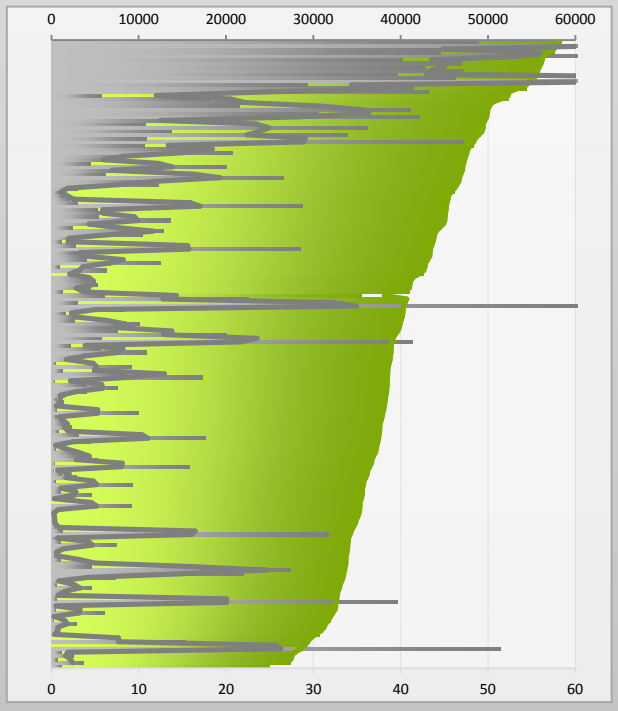
The leading nations in the Sustainable Competitiveness ranking are mostly present high-income countries, suggesting a certain correlation between Sustainable Competitiveness and GDP per capita or income levels (high income = high sustainability). While a certain similarity between GDP rankings and Sustainability levels seems to be visible, the correlation is superficial and refuted by too many exceptions to the rule. This indicates that the correlation is not from GDP to sustainable competitiveness, but rather from sustainable competitiveness to income levels. In other words: higher sustainable competitiveness can be associated with higher income levels.



Average deviation of Sustainable Competitiveness (green) and GDP per capita (grey)

Country rankings
Sustainable Competitiveness

However, the correlation or the influence of the sustainable competitiveness on the GDP or income level is not immediate; it is time deferred. Like every endeavor or project, an upfront investment is required; the seeds have to be planted, the plants needs to be cared for before the harvest can be collected. In addition, the sustainable competitiveness can be cheated in the presence of large natural resources trough exploration of the natural capital (e.g. the oil-rich countries of the Middle East). However, such wealth is highly unsustainable and the wealth generated will diminish in the absence of development of an adequate alternative sustainable economy and the underlying fundament requirements.



Sustainable Competitiveness score (green) and GDP per capita (grey)

Sustainable Competitiveness		
Country	Rank	Score
Uzbekistan	45	45.5
Bhutan	46	45.5
Armenia	47	45.4
Cyprus	48	45.3
Serbia	49	45.2
Montenegro	50	45.2
Peru	51	45.1
Venezuela	52	45.1
Suriname	53	45.1
Sri Lanka	54	44.7
Hungary	55	44.2
Russia	56	43.9
Paraguay	57	43.9
Laos	58	43.8
Egypt	59	43.7
Israel	60	43.4
Indonesia	61	43.4
Albania	62	43.3
Ecuador	63	43.3
Chile	64	42.9
Kyrgistan	65	42.8
Bulgaria	66	42.7
Burma	67	42.6
Tunisia	68	41.6
Bosnia and Herzegovina	69	41.2
Dominican Republic	70	41.1
Angola	71	41.0
Ghana	72	41.0
Greenland	73	40.8
Ukraine	74	40.6
Qatar	75	40.4
Malaysia	76	40.3
Moldova	77	40.3
Republic of Congo	78	40.2
Georgia	79	40.1
Turkey	80	39.9
Dominica	81	39.9
Mauritius	82	39.8
Equatorial Guinea	83	39.5
Azerbaijan	84	39.2
Kuwait	85	39.1
Philippines	86	39.0
Cuba	87	38.9
Seychelles	88	38.9

Sustainable Competitiveness		
Country	Rank	Score
Algeria	89	38.9
Kosovo	90	38.8
Nepal	91	38.8
Kazakhstan	92	38.6
Vietnam	93	38.6
Gabon	94	38.5
Oman	95	38.5
Ethiopia	96	38.5
Turkmenistan	97	38.5
Panama	98	38.4
Belize	99	38.4
India	100	38.3
Guinea-Bissau	101	38.3
Sudan	102	38.2
Afghanistan	103	38.2
Timor-Leste	104	38.1
Libya	105	38.0
Mali	106	37.9
Zambia	107	37.9
Papua New Guinea	108	37.7
Mongolia	109	37.6
Cambodia	110	37.6
Swaziland	111	37.6
Bahrain	112	37.5
Macedonia	113	37.4
Tanzania	114	37.4
Gambia	115	37.2
Morocco	116	37.2
El Salvador	117	37.1
Jamaica	118	36.7
Mozambique	119	36.7
Saudi Arabia	120	36.6
Liberia	121	36.2
Cameroon	122	36.2
Syria	123	36.2
Madagascar	124	35.8
Lebanon	125	35.8
Cote d'Ivoire	126	35.7
Senegal	127	35.6
Jordan	128	35.6
Bangladesh	129	35.6
North Korea	130	35.4
Mexico	131	35.4
Nigeria	132	35.4

The time-delay impact of sustainable competitiveness works both ways. A country that in the past has achieved a comparable high level of economic development will decline over time in the absence of initiatives and performance supporting sustainable competitiveness (as currently seems to be the case with the USA or the UK, for example). A country can sustain its current level for only a limited time by exploiting the historically accumulated sustainable capital (natural capital, efficiency capital, human capital and income). However, the decline in actual income level will occur at a later point (delayed) than decline in actual sustainable competitiveness will begin. By the time the decline commences to be felt in actual economic terms, it will be difficult to recuperated sustainable competitiveness because the weight of the momentum is pulling in the opposite direction. Politicians tend to turn to extremes and/or introduction of drastic economic policies in such moments. However, failure to consider the full long-term impacts of such policies often leads to a worsening of the situation rather than improvement and causes an even faster decline. The sustainable competitiveness can serve as an early warning indication for misguided development and policies.

For countries with a low current income or GDP levels, a low sustainability competitiveness score indicates low potential to achieve sustainable development in the short and mid-term future in the absence of significantly changed development and investment policies.

Low-income countries with a comparable high sustainability competitiveness score have the potential to improve their income and well-being levels based on sustainable fundamentals.

Country rankings
Sustainable Competitiveness

Sustainable Competitiveness is the results of development policies, designed and implemented by governments, authorities, economic entities and other players. Sustainable Competitiveness is therefor subject to human influence and can be improved for the better, or will change for the worse in the absence of thoughtful and intelligent guidance. While short-term success might be achieved through limited initiatives in a single area, long-term sustainable development can only be achieved through polices, regulations, standards and incentives balancing all four areas of national sustainable competitiveness:

- **Natural capital:** fostering sustainable agriculture, protecting biodiversity and biomass (forest areas), protecting surface water and water reservoirs, and sustainable use of natural resources.
- **Resource Intensity**: increasing industrial efficiency, advocating of efficient technologies, products and services, regulating through mandatory efficiency standards, and de-materialisation of production.
- **Sustainable Innovation:** increasing universal availability and quality of education, defining key national industrial and economic growth areas with supporting programs and policies, incentives fostering entrepreneurship, and eradicating corruption.
- **Social Cohesion:** Improving availability and affordability of health care services, guaranteeing equal economic opportunities, gender equality, integrating neglected communities and crime counter-measurements, ensure freedom of thought.

Sustainable Competitiveness		
Country	Rank	Score
Sierra Leone	133	35.2
Democratic Republic of Congo	134	35.2
Central African Republic	135	34.9
Malawi	136	34.9
Uganda	137	34.7
Djibouti	138	34.4
Hong Kong	139	34.3
Niger	140	34.1
Mauritania	141	34.0
Botswana	142	34.0
Bolivia	143	33.9
Chad	144	33.9
Guinea	145	33.8
Pakistan	146	33.8
Namibia	147	33.7
Thailand	148	33.7
Brunei	149	33.6
Bahamas	150	33.6
South Africa	151	33.4
Nicaragua	152	33.4
Zimbabwe	153	33.1
Iran	154	33.1
Honduras	155	32.9
Lesotho	156	32.8
Burkina Faso	157	32.7
United Arab Emirates	158	32.6
Rwanda	159	32.6
Togo	160	32.6
Maldives	161	32.4
Eritrea	162	32.0
Burundi	163	31.9
Guatemala	164	31.5
Kenya	165	31.4
Benin	166	31.0
Comoros	167	30.7
South Sudan	168	29.8
Trinidad and Tobago	169	29.6
Somalia	170	29.1
Macao	171	29.1
West Bank and Gaza	172	28.1
Iraq	173	27.6
Haiti	174	27.5
Fiji	175	27.3
Yemen	176	25.0


Natural Capital

Natural Capital
Overview

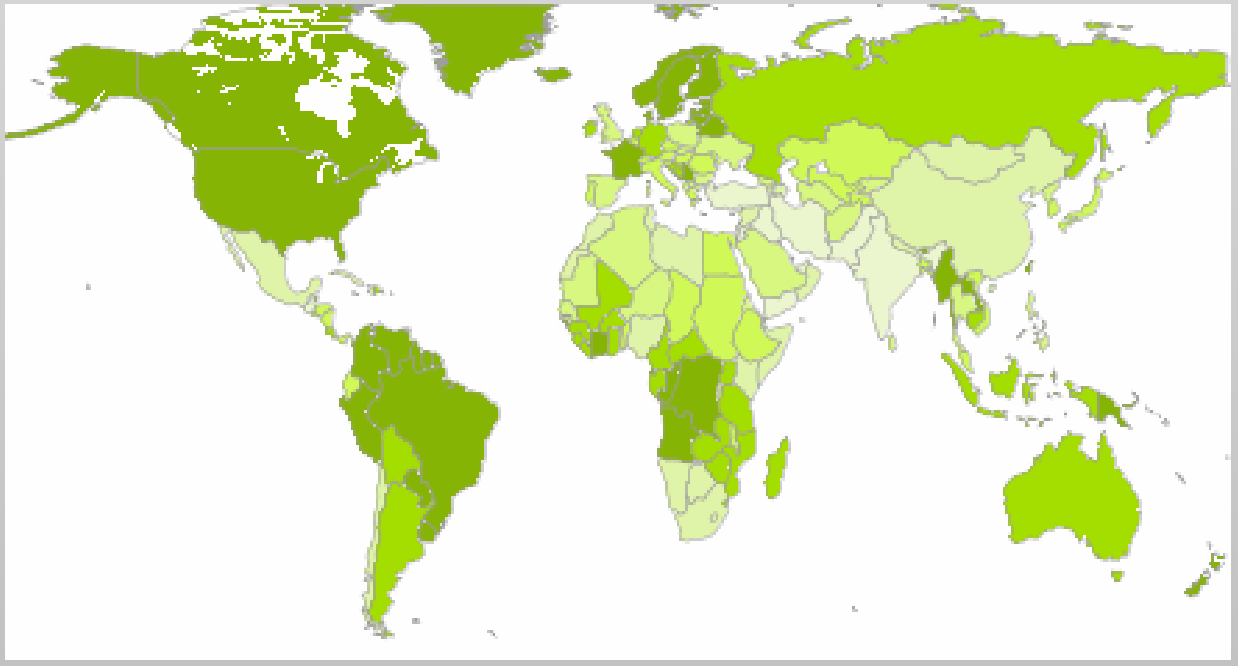
Natural Capital Sustainability

The potential for sustaining natural capital as a basis for sustainable development is composed of two main factors: the characteristics of geography and climate, combined with the extend of human activities that have or will affect the ability of natural factors to sustain the population and the economy.

Because the natural capital is as it is, it is problematic to improve or change. While it takes little to impair or deplete the natural capital, rebuilding or improving natural capital factors is difficult, and requires significant time and resources.

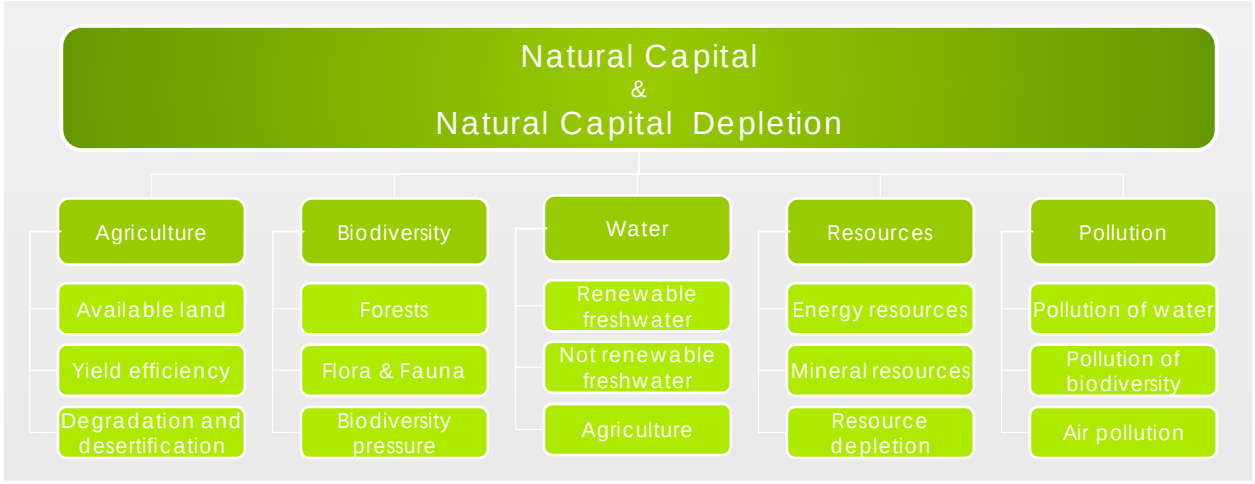
The natural capital sustainability map below indicates a certain correlation with the level of human activities and population density. Large countries with a comparably small population density and rich biodiversity are on top of the Natural Capital ranking (North America, Scandinavia, Brazil). A large number of countries located in tropical areas (at the intersection of Central and South America, West Africa, South-East Asia) also seem to have the potential to achieve sustainable development based on their respective natural capital.

The top ten according to natural capital indicators contains some surprising and not well known countries like Suriname, Guyana, and Laos - whereas the OECD's representation in the top twenty is limited to Canada, Finland, Denmark and the USA. The ranking of China (133) and India (160) are affected by a combination of arid climate, high population density, and high pollution levels.



The Natural Capital Map: Dark colour indicates high Natural Capital, light colour limited natural capital

Indicators
Natural Capital



Indicators

The number of data points available from a variety of sources is nearly endless. The main challenge is to select the most relevant, and meaningful indicators amongst the wealth of available data. In order to define meaningful and relevant, the core issues affecting the sustainable use of natural capital have been defined in a natural capital model (see flowchart above).

Based on the definition of key sustainability areas, data series are chosen as indicators. The indicators have been analyzed for the latest data point available as well as their development over time, reflecting the current status and the future outlook of a country based on the natural capital and the level of its depletion due to human activities.

As some of the above key areas are difficult to express in numerical values, quantitative scores compiled by GEF (Global Environment Facility, a sub-division of the UNEP) have been used for certain indicators, such as biodiversity potential, resource depletion, and the ecological footprint.

Regional Rankings
Natural Capital

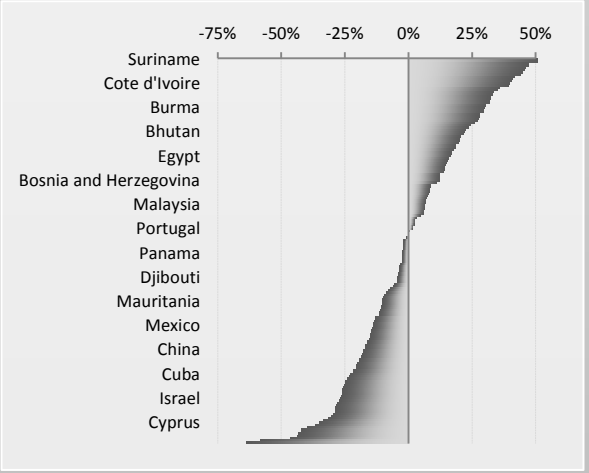
Regional spread

North America, Scandinavia as well as Australia & New Zealand come out on top of the regional natural capital ranking – all regions with comparable low population density (one of the factors affecting the level of depletion of the natural capital), coupled with sufficient availability of renewable freshwater resources and a rich biodiversity. South America and Western Africa are following the top three regions thanks to a rich biodiversity and favorable climatic circumstance. The same applies for South-East Asia. However, higher depletion levels somewhat lowers the natural capital sustainability level of this region.

Eastern Africa, Southern Europe, Central Asia and the Middle East are forming the bottom of the Natural Capital ranking. Common to all of these regions is the arid climate, underlining the fundamental - and until recently grossly underestimated and neglected importance of sufficient and renewable water resources and the stable supply of clean water for all purposes (irrigation, human, industrial). Water availability is also strongly correlated to the level and richness of the local biodiversity.

Average deviation

42% of all countries are above the absolute World average (i.e. 58% are below average). The unequal spread between above and below average indicates that a comparably small number of countries reach a relative high score, while the majority of the countries are somewhere in the middle. Some countries at the very bottom, affected by the combination of arid climate, high population density, and absence of other natural resources possess very little natural capital levels even compared to the average.



Country Rankings
Natural Capital

Natural Capital Sustainability		
Country	Rank	Score
Suriname	1	63.3
Guyana	2	63.0
Latvia	3	61.0
New Zealand	4	61.0
Canada	5	60.5
Colombia	6	60.3
Belarus	7	60.0
Brazil	8	59.7
Laos	9	58.7
Finland	10	58.4
Denmark	11	58.2
Cote d'Ivoire	12	57.9
Venezuela	13	57.7
Lithuania	14	56.2
USA	15	55.9
Guinea-Bissau	16	55.3
Peru	17	55.2
Russia	18	54.9
Papua New Guinea	19	54.9
Democratic Republic of Congo	20	54.7
Uruguay	21	54.7
Sweden	22	54.0
Burma	23	53.7
Madagascar	24	53.7
Ireland	25	53.6
Angola	26	53.0
Norway	27	52.9
Estonia	28	52.9
France	29	52.7
Republic of Congo	30	52.1
Argentina	31	51.6
Equatorial Guinea	32	51.2
Indonesia	33	50.8
Bhutan	34	50.6
Mozambique	35	50.4
Australia	36	50.0
Cameroon	37	49.8
Paraguay	38	49.7
Central African Republic	39	49.6
Sudan	40	49.1
Zambia	41	49.1
Liberia	42	48.7
Gabon	43	48.4
Belize	44	48.4

Nations cannot choose their natural environment. The natural capital factor is determined by the natural environment and available natural resources. This seems to be why most top nations – with a few exceptions – are countries with a comparably small population density, coupled with sufficient yearly water availability (yearly rainwater volume). Water availability in turn is the basis for a rich biodiversity and agricultural yield. However, the natural capital indicators also take into account level of depletion and pollution, an indicator for the nations ability to manage and use resources in a sustainable and efficient manner.

Countries that rank high on this list have high potential for sustaining their current level of development as an economy and a society, providing the basic principle for the economy (in the form of raw materials and water) and the society to prosper (in the form of water, food, and a healthy natural environment). However, the natural capital is only the basis.

Some of the top twenty nations in this list (for example Suriname, Guyana, Laos, Ivory Coast) are amongst the poorest nations in the World measured in monetary economic output such as GDP per capita. This observation indicates that while natural resources present a basis for sustained development, natural capital is not equal to sustainable development without adequate measurements to kick-start the social and economic development in the form of investments in education, R&D, and infrastructure. On a positive note it can be observed that some countries currently classified amongst the World's poorest nations do in fact possess a solid basis to achieve sustainable development.

Country Rankings
Natural Capital

The natural capital of a country is mainly determined by factors beyond the influence of humanity: geography, climate, water resources, mineral resources. However, the efficient and sustainable use - and therefore the level of depletion – is a result of human activity and therefore can be directed through positive and negative incentives.

The countries on the bottom of the natural capital ranking - which includes the two largest countries by population, China (133) and India (156) - are highly likely to face barriers to sustainable and sustained development. Depending on the country, its location, geography, climate and population, these obstacles might include:

- limitations to agricultural output due to lack of water, desertification, and pollution
- Increasing desertification of arable land
- Loss of biodiversity
- Water constraints, affecting agriculture, human needs, and the economy
- Potential conflict over resources. The on-going violent conflict in Darfur, for example, is in its essence a conflict over limited natural resources (water, agricultural land, grazing land) in an arid region amidst the background of increasing population pressure

Countries facing any of these constraints need to develop a long-term strategy to counter its specific treats. Potential counter-strategies include negative incentives (regulation, protection, contingents) as well as positive incentives (investments, market incentives, subsidies, educational support, targeted R&D).

Natural Capital Sustainability		
Country	Rank	Score
Egypt	45	48.3
Dominican Republic	46	48.0
Zimbabwe	47	47.8
Iceland	48	47.6
Sierra Leone	49	47.5
Cambodia	50	47.3
Tanzania	51	47.3
Bolivia	52	47.2
Guinea	53	46.6
Swaziland	54	46.5
Netherlands	55	46.5
Bosnia and Herzegovina	56	46.5
Costa Rica	57	46.0
Gambia	58	45.0
Japan	59	45.0
Ethiopia	60	44.9
Czech Republic	61	44.8
Ghana	62	44.8
Uganda	63	44.6
Hungary	64	44.4
Lesotho	65	44.3
Mali	66	44.2
Malaysia	67	44.1
Croatia	68	44.1
Ecuador	69	44.0
Germany	70	43.9
Burkina Faso	71	43.8
Italy	72	43.3
Nicaragua	73	42.7
Vietnam	74	42.5
Rwanda	75	42.5
Malawi	76	42.4
Uzbekistan	77	42.2
Portugal	78	42.1
Kazakhstan	79	41.6
Belgium	80	41.4
Austria	81	41.4
Chad	82	41.1
Greece	83	40.7
Bangladesh	84	40.6
Tajikistan	85	40.6
Moldova	86	40.6
Trinidad and Tobago	87	40.6
Fiji	88	40.4

Country rankings
Natural Capital

Natural Capital Sustainability		
Country	Rank	Score
Panama	89	40.4
Serbia	90	40.4
Benin	91	40.4
South Korea	92	40.4
Honduras	92	40.4
Romania	94	40.2
Mauritius	95	40.0
Slovenia	96	40.0
Bulgaria	97	39.9
Philippines	98	39.8
Qatar	99	39.8
Djibouti	100	39.7
South Africa	101	39.6
Luxembourg	102	39.6
Kyrgistan	103	39.2
Switzerland	104	39.1
Togo	105	38.5
Slovakia	106	38.2
Saudi Arabia	107	37.8
El Salvador	108	37.5
Albania	109	37.3
Poland	110	37.3
Mauritania	111	37.2
Kuwait	112	37.2
Sri Lanka	113	37.1
Dominica	114	37.0
Senegal	115	36.8
Georgia	116	36.7
Chile	117	36.6
Spain	118	36.1
United Kingdom	119	36.1
Niger	120	36.0
Turkmenistan	121	35.7
Mexico	122	35.7
North Korea	123	35.7
Macedonia	124	35.4
Algeria	125	35.3
Ukraine	126	35.3
Timor-Leste	127	35.2
Malta	128	35.1
Bahamas	129	34.8
Seychelles	130	34.7
Thailand	131	34.5
Oman	132	34.4

Negative efficiency incentives

Countries have a variety of tools at their disposal to increase the efficiency of natural capital usage and so achieving sustainable development in their specific natural context. These tools include, amongst others:

- Setting mandatory efficiency standards (possibly coupled with fines for non-compliance)
- User-pays principles – defining prices of resources (e.g. water) that reflect the inclusive value of the resource or internalizes non-financial depletion and/or pollution costs. This measurement can be coupled with positive incentives, whereby the revenues so gained are redistributed in relevant R&D efforts, support for technology, subsidies, or other programs
- Introduction of environmental regulations
- Designation of protected areas
- Designation of sustainable development demonstration projects and areas
- Polluter pays principles.
- As a drastic measurement of last resort: introduction of contingents

The danger of many of the above measurements lies in the details and comprehensiveness of policies, and have to be embedded in the wider national context in order to avert potential negative social side effects and the unintentional development of inequality in terms of income levels.

In order to guarantee long-term sustainability, economic development considerations have to be taken into account as well.

Country Rankings
Natural Capital

Positive incentives

Measurements to increase efficiency and achieve sustainable development through positive measurements include (but are not limited to):

- Targeted R&D and policies conveying resource-efficiency technologies (a growth market with large economic potential)
- Investment in restoring natural capital (e.g. forests) with long-term benefits for renewable resources (such as groundwater), and possibly, tourism
- Market tools such as cap-and-trade systems unfortunately have proven to be ineffective due to the complexity of cap definition and administrative overheads requirements

Compensation through technology

Despite very limited natural resources, Israel (rank 155, excluding West Bank and Gaza) has achieved and maintained a high level of economic prosperity compared to its neighbor's and other countries with similar external characteristics. Israel has developed and applied intelligent technology (in particular in terms of irrigation) which allows to extract the highest yield from limited resources: the country is a net agricultural exporter. However, Israel's' natural water reservoirs are limited and diminishing despite the technology used, posing a serious challenge to the long-term sustainment of current output levels. Israel's example demonstrates both the positive impact on the development level as well as the limitations of technology to guarantee long-term sustained development.

Natural Capital Sustainability		
Country	Rank	Score
China	133	34.2
Afghanistan	134	34.1
Burundi	135	33.9
Comoros	136	33.8
Syria	137	33.5
Somalia	138	33.4
Botswana	139	33.1
Azerbaijan	140	33.0
Eritrea	141	32.9
Morocco	142	32.5
Montenegro	143	32.5
Cuba	144	32.0
Libya	145	31.8
Nigeria	146	31.5
Armenia	147	31.1
Jamaica	148	31.1
Haiti	149	30.9
Tunisia	150	30.9
Mongolia	151	30.7
Iraq	152	30.7
Turkey	153	30.7
Namibia	154	30.5
Israel	155	30.4
India	156	30.1
Greenland	157	29.8
Brunei	158	29.7
South Sudan	159	29.6
United Arab Emirates	160	29.5
Kenya	161	29.5
Nepal	162	29.2
Bahrain	163	28.8
Pakistan	164	28.5
Yemen	165	27.6
Cyprus	166	26.9
Guatemala	167	26.2
West Bank and Gaza	168	24.9
Singapore	169	24.1
Lebanon	170	23.9
Maldives	171	23.6
Iran	172	23.3
Kosovo	173	22.2
Hong Kong	174	17.3
Jordan	175	15.1

Resource Intensity & Efficiency

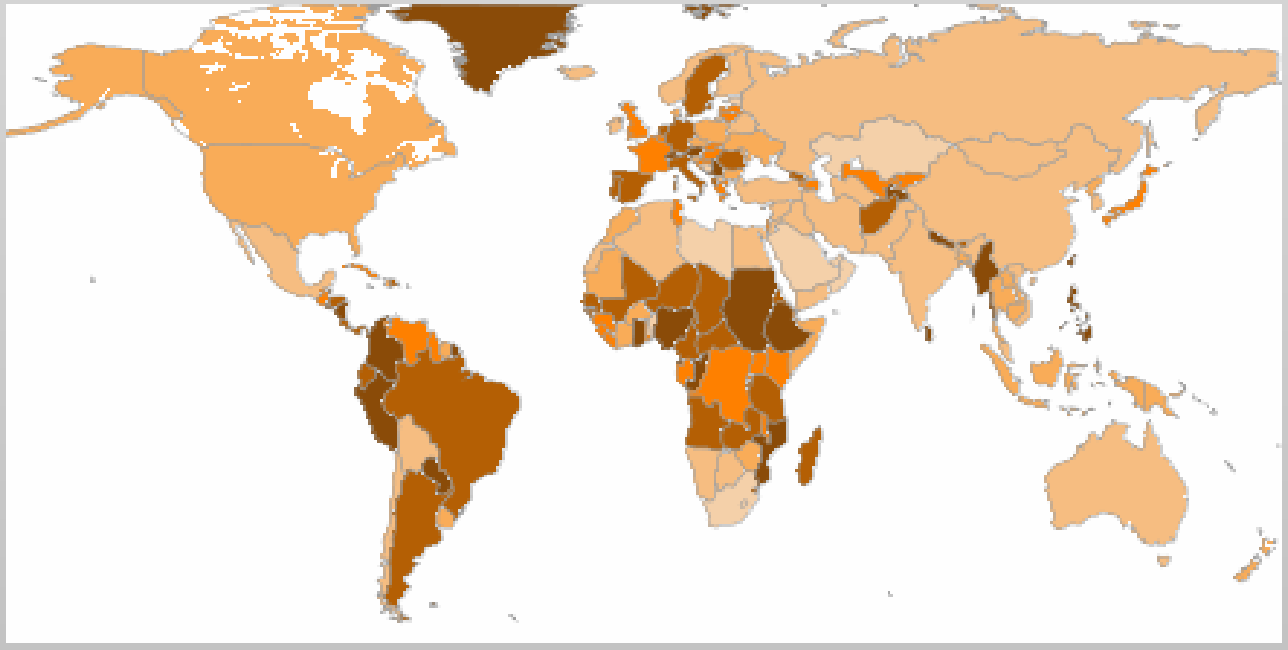
Resource Intensity
Overview

The resource intensity factor is composed of indicators scored relative to population (e.g. GHG measured per capita) as well as relative to economic output (e.g. energy consumption measured per GDP) in order to incorporate both absolute intensity and relative intensity (i.e. economic resource efficiency). While the indicators measured against population (per capita) clearly favour countries with low resource and raw material consumption (which are mostly equal to less developed countries), the indicators scored relative to GDP measure economic efficiency.

The resource intensity ranking is topped by Sudan, Sri Lanka, Albania, and Burma, with three further African nations and Nepal in the top ten. The only OECD nations amongst the top 20 are Switzerland (8) and Luxembourg (13). The World's economic powerhouses score comparable low - Germany in rank 60, Japan at 90, and the USA at 124. Brazil (rank 40) is positioned the highest among the large emerging economies, while India at 114, Russia (146) and China (rank 148) have a distinctive potential for improving their resource intensity.

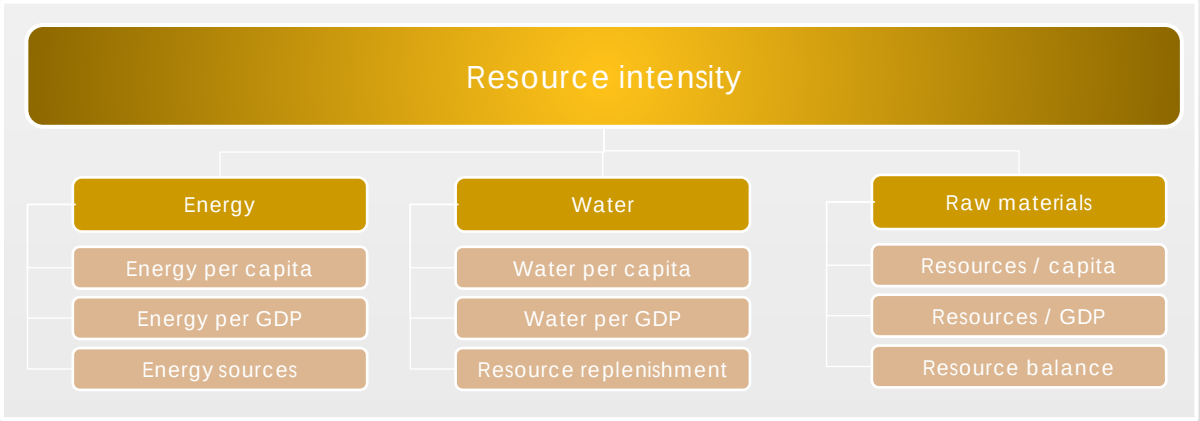
The resource intensity map shows that the resource intensity of less developed countries seems to be lower than that of higher developed countries - despite the weighting (as calculated by relevance) for scores measured against economic output (GDP) being significantly higher than for absolute intensity scores (measured against capita).

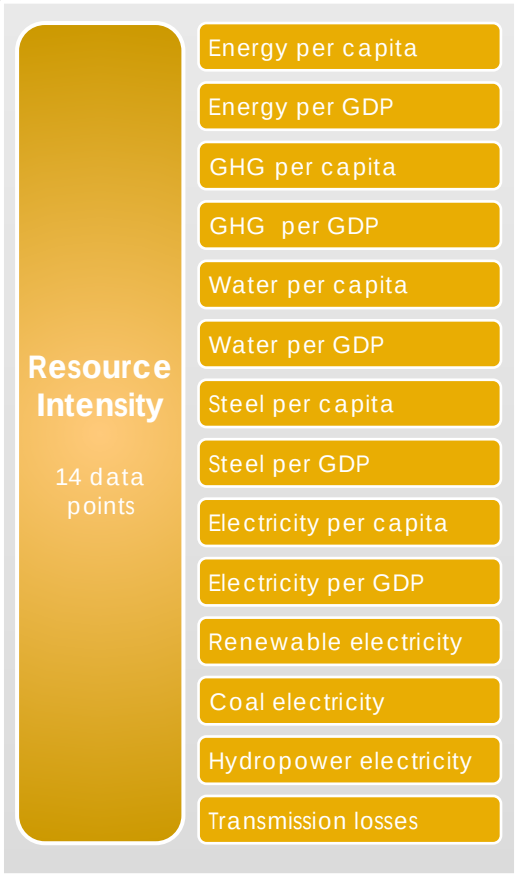
The main implication of the rankings are related to stability of economic growth: should global prices for raw materials and energy rise significantly in the future (as many research organisations suggest), the countries in the lower ranks will face substantial higher challenges to maintain their growth compared to countries with higher efficiency and intensity scores.



The Resource Intensity Map: Dark colour indicates low resource intensity (or high resource efficiency), light colour high resource intensity

Model & Indicators
Resource Intensity





Indicators

The main sustainability drivers in the resource intensity are energy, water and raw materials, both in terms of intensity and efficiency. A number of factors are pointing to rising cost of energy and raw materials supply in the future: scarcity and depletion of energy and mineral resources, increasing consumption (particular in non-OECD countries), financial speculation on raw materials, and possibly geo-political influences. The key objective of this dimension is therefore to evaluate countries ability to deal with rising cost and sustain economic growth under a scenario of further rise of prices in the global resource markets as expected.

The availability of indicators to measure resource intensity and efficiency is not as wide as in other criteria, particularly in terms of usage raw materials. Other than steel usage, reliable raw material usage statistics are not available on a global level. The focus is therefore on energy, energy sources, water, steel usage, as well as GHG emission intensity and productivity.

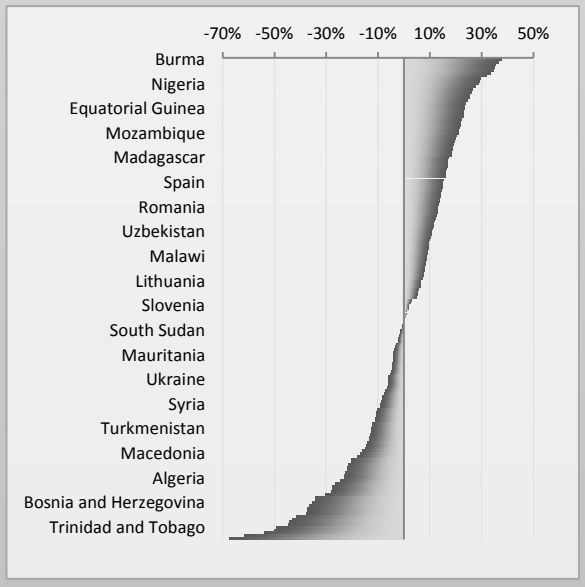
Regional Spread
Resource Intensity

Regional spread

Central America and Western Africa top the resource intensity ranking, a small margin before South America. The first two regions consist mainly of less developed nations in economic terms or GDP, while South America consists of fairly and lesser developed nations. Western Europe (excluding Scandinavia and Southern Europe) made the fourth spot – indicating that the methodology applied indeed is capable of incorporating both absolute and economic relative resource intensity. If only absolute intensity, i.e. per capita consumption of resources, was incorporated, Westerns Europe most likely would be found on the bottom of the ranking. Scandinavia is amongst the lower ranks, possibly due to the abundant availability of energy (hydro-energy, oil) that allowed for efficiency management to be considered a somewhat marginal consideration in the past.

Average Deviation

52% of all countries are above the World average (i.e. 48% are below average), representing a fairly even distribution. The lowest negative deviation is close to -70%, whereas the highest deviation is less than +40%. The equal spread and the diverse allotment of countries of similar natural characteristics and regions indicate that there is no direct correlation between geography, location and climate to resource intensity, or economic development level to natural resource intensity and efficiency. The only manifestation of a visible correlation seems to be a correlation of abundant local availability of resources with low efficiency. In the absence of rich local resources, efficiency and intensity are the result of economic activities, policies, and investments.



Country Rankings
Resource Intensity

Resource Intensity		
Country	**Rank**	**Score**
Sudan	1	61.3
Sri Lanka	2	60.3
Albania	3	60.1
Burma	4	60.0
Tajikistan	5	59.2
Angola	6	58.3
Republic of Congo	7	57.1
Switzerland	8	56.9
Nigeria	9	56.7
Nepal	10	56.5
Guinea-Bissau	11	56.4
Colombia	12	55.9
Luxembourg	13	55.4
Philippines	14	55.3
Peru	15	55.2
Ethiopia	16	55.0
Ghana	17	55.0
Afghanistan	18	54.7
Zambia	19	54.6
Nicaragua	20	54.4
Georgia	21	54.1
Belize	22	54.0
El Salvador	23	54.0
Austria	24	54.0
Dominica	25	53.8
Paraguay	26	53.6
Equatorial Guinea	27	53.4
Gambia	28	53.3
Portugal	29	53.0
Ecuador	30	53.0
Mozambique	31	52.7
Eritrea	32	52.7
Madagascar	33	52.7
Mali	34	52.6
Italy	35	52.2
Panama	36	52.1
Argentina	37	52.1
Bhutan	38	52.0
Costa Rica	39	51.9
Brazil	40	51.6
Lesotho	41	51.6
Swaziland	42	51.5
Croatia	43	51.4
Chad	44	51.3

The top of the intensity ranking is dominated by countries that are - under general classifications based on standard economic and financial criteria – considered to be on a lower level of development. Other than Switzerland and Luxembourg, all countries in the top twenty can be allocated to this development category. It is not surprising that countries with a lower level of economic development or output have a comparably small per-capita resource usage.

The observation that some (but not all) of those countries on average also seem to consume less recourses relative to the economic output – i.e. resource productivity measured in resource consumption per GDP – is less expected.

Some countries considered highly developed nations (such as Switzerland or Austria, for example) show a fair level of resource efficiency, while other countries with comparable industrial characteristics currently have a higher resource intensity or lower resource efficiency.

The ranking finds countries from all regions and all development levels next to each other in the ranking with no obvious correlation.

The above observation allows to conclude that the resource intensity and resource efficiency is not correlated to geography and climate. It is also not directly correlated to the level of economic development and output. The absence of such correlations suggests that resource intensity and resource efficiency are to a considerable degree influenced by the nature of economic and industrial policies, regulations and incentives.

Country Rankings
Resource Intensity

The resource intensity score of a country is influenced by a number of factors, including

- Level of economic development and output: countries with a lower level of economic output and overall development (including transport) have a low per-capita resource consumption
- However, the productivity (resource consumption measured by GDP) is not necessarily tied to the level of economic development, as some countries both at the top as well as on the bottom of the ranking prove
- The specific characteristics of industrial activities: countries with a strong heavy industry (resource intensive industries such as mining, metal industry, heavy machinery, shipbuilding, etc.) consume more resources and therefore are likely to achieve a lower ranking compared to economies with a focus on high-tech industry
- Booming emerging economies are likely to have a higher current resource intensity due to significant activities related to the development of the built environment (infrastructure and housing construction) as compared to "mature" economies where the main infrastructure related activities are comprised of upgrading existing infrastructure or selective adding of new infrastructure

The intensity score is a momentary reflection in time. The factors underlying the resource intensity and efficiency are subject to human decisions and can be improved through intelligent policies and investments.

Resource Intensity		
Country	Rank	Score
Senegal	45	51.2
Netherlands	46	51.2
Spain	47	51.0
Romania	48	51.0
Tanzania	49	50.8
Slovakia	50	50.8
Uzbekistan	51	50.6
Burundi	52	50.5
Greece	53	50.5
Niger	54	50.4
Honduras	55	50.4
Kyrgistan	56	50.0
Singapore	57	49.9
Azerbaijan	58	49.8
Guyana	59	49.7
Germany	60	49.6
Dominican Republic	61	49.5
Central African Republic	62	49.3
France	63	49.1
Armenia	64	49.0
Sweden	65	49.0
Guinea	66	48.9
Cuba	67	48.8
Togo	68	48.4
Comoros	69	48.4
Latvia	70	48.3
Malawi	71	48.3
Venezuela	72	48.3
Lithuania	73	48.1
Cameroon	74	48.0
Malta	75	47.9
Israel	76	47.8
United Kingdom	77	47.8
Sierra Leone	78	47.6
Kenya	79	47.6
Belgium	80	47.3
Djibouti	81	47.2
Suriname	82	46.9
Democratic Republic of Congo	83	46.9
Liberia	84	46.8
Rwanda	85	46.6
Tunisia	86	46.5
Guatemala	87	46.2
Hungary	88	45.8

Country Rankings
Resource Intensity

Resource Intensity		
Country	Rank	Score
Gabon	89	45.7
Japan	90	45.4
Morocco	91	45.2
Indonesia	92	44.8
New Zealand	93	44.6
Slovenia	94	44.6
Cambodia	95	44.6
Uganda	96	44.6
Mauritania	97	44.3
Cote d'Ivoire	98	44.3
Bulgaria	99	44.2
Somalia	100	44.1
Mauritius	101	43.9
Haiti	102	43.7
Iraq	102	43.7
Papua New Guinea	104	43.6
Jamaica	105	43.6
Ukraine	106	43.5
Moldova	107	43.3
Burkina Faso	108	43.2
South Sudan	109	43.1
Zimbabwe	110	43.0
Laos	111	43.0
Czech Republic	112	42.9
Serbia	113	42.9
India	114	42.8
Timor-Leste	115	42.5
Uruguay	116	42.4
Bangladesh	117	42.3
Canada	118	42.3
Thailand	119	42.2
Montenegro	120	42.1
Syria	121	41.4
Pakistan	122	41.3
Denmark	123	41.2
USA	124	41.2
North Korea	125	41.0
Poland	126	40.9
Chile	127	40.9
Egypt	128	40.9
Maldives	129	40.4
Turkey	130	40.0
Belarus	131	40.0
Iceland	132	39.7

The resource intensity & efficiency ranking divides countries in three basic categories: countries with low intensity and high efficiency, countries with high intensity and high efficiency, and countries with high intensity and low efficiency. Countries with a high score (low intensity and high efficiency) are better equipped to handle the future challenges in an environment of limited resources. Countries with high resource intensity and low efficiency are likely to face one or several of the following challenges:

- Higher costs – both absolute and in percentage of the GDP - compared to more efficient countries to maintain current levels of economic output and growth rates, negatively affecting living standards and the competitiveness of the industry. While there is growing consensus that resource costs will rise in the future, the time and level of future global energy price increases remains fiercely disputed. However, the fact that the International Energy Agency – until recently known for conservative estimations – has been issuing surprisingly strong worded warnings indicating that these increases might be closer and stronger than most people are expecting
- Faster depletion of national resources (f the country possesses such resources), negatively affecting the long-term development outlook
- Increased dependency on imports for countries that do not possess sufficient resources to cover their own needs. With dependency on imports comes dependency on market volatility and fluctuations, and possibly exposure to external political pressure and concessions

Country Rankings
Resource Intensity

Resource intensity and efficiency are not God-given. They depend on technology, policies, and applied incentives . A decade of intelligent polices can make immense differences to the national efficiency and intensity of a country. Tools available to nations include, amongst others:

- Taxes: higher resource taxes increase incentives to increase efficiency. Countries that have introduced resource taxes in the past have higher resource efficiency than similar economies with lower taxes (e.g. Japan). Economic actors in countries where resources (in particular energy) have been or are subsidised have even less incentives to increase efficiency. In addition, countries with higher taxes have more room for leveraging fluctuations and spikes in the global energy markets through temporary easing of taxes. However, it might be argued that this measurement is currently not opportune considering the expected rise of costs of resources in the near- to mid-term future
- Infrastructure investment: upgrading existing or building new efficient infrastructure (transport, power, buildings) increases efficiency, while lowering long-term cost and reduces dependency on resource imports. In addition, this measurements can have positive impacts on the job market and unemployment figures
- Targeted R&D support and other measurements for key growth industries
- Mandatory efficiency standards (cars, electronic appliances, buildings, etc.)
- Mandatory efficiency labels, public awareness campaigns

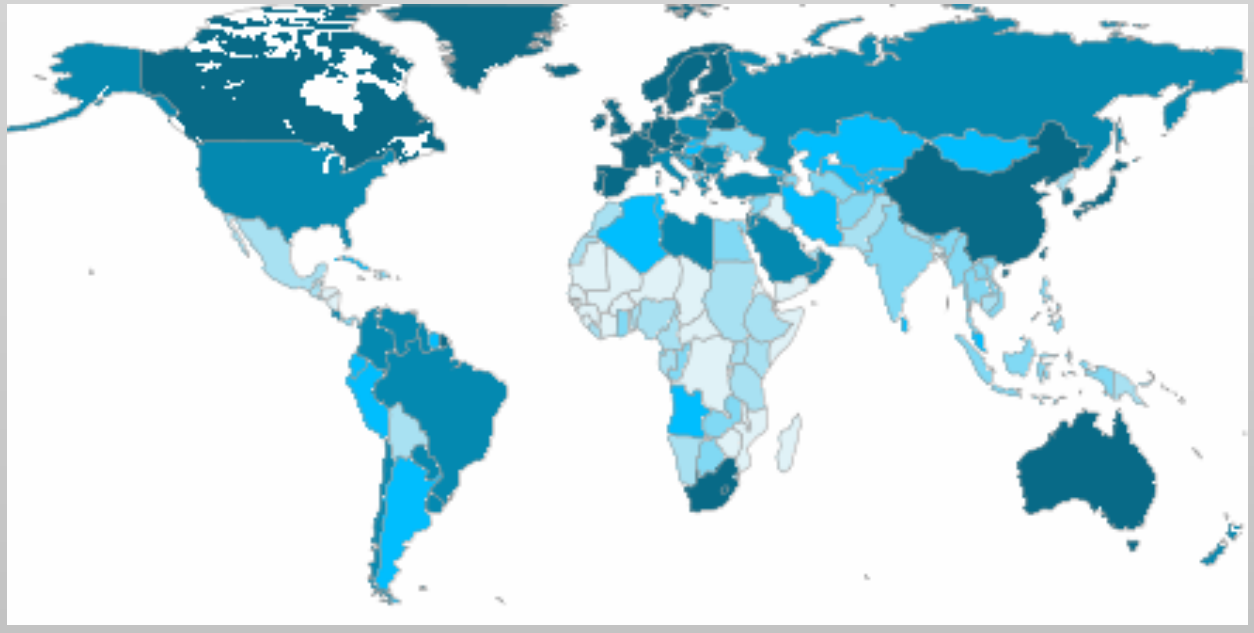
Resource Intensity		
Country	Rank	Score
Turkmenistan	133	39.7
Namibia	134	39.4
Botswana	135	39.3
Lebanon	136	39.1
Ireland	137	39.0
Bolivia	138	38.8
Kosovo	139	38.8
Mexico	140	38.6
Macedonia	141	38.4
Finland	142	38.2
Cyprus	143	37.9
Seychelles	144	37.8
West Bank and Gaza	145	37.0
Russia	146	36.9
Norway	147	36.2
China	148	36.1
Yemen	149	35.2
Hong Kong	150	35.1
Jordan	151	34.8
Algeria	152	34.6
Qatar	153	34.4
Macao	154	34.0
Malaysia	155	33.4
Australia	156	32.9
Libya	157	32.7
South Korea	158	31.8
Benin	159	31.0
Mongolia	160	30.9
Bahamas	161	30.3
Bosnia and Herzegovina	162	29.7
Vietnam	163	29.7
Estonia	164	29.5
Kuwait	165	28.9
Greenland	166	27.6
Bahrain	167	27.5
Iran	168	27.2
South Africa	169	25.5
Kazakhstan	170	24.9
Brunei	171	24.4
Fiji	172	24.2
Trinidad and Tobago	173	21.8
United Arab Emirates	174	20.4
Saudi Arabia	175	17.6
Oman	176	14.6

Sustaining Innovation

Overview
Sustainable Innovation & Competitiveness

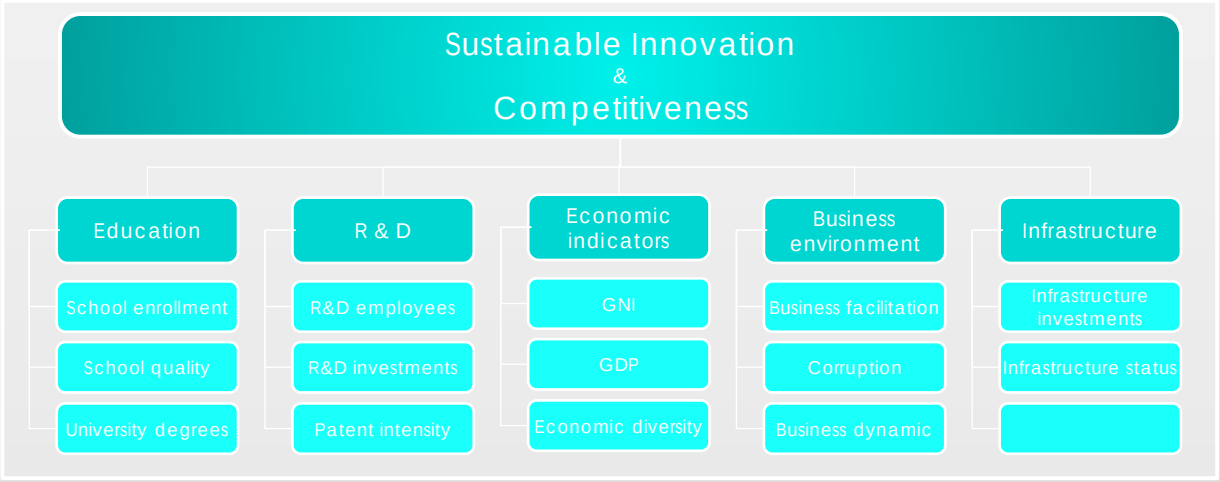
The indicators used for assessing innovation capability and sustainability competitiveness are composed of data points relating to education, innovation capabilities, business environment, economic development, and infrastructure. Countries with a high score in this ranking are more likely than others to develop successful economies through research and know-ledge driven industries, i.e. the high-value added industries, and therefore achieve higher growth rates. All indicators used to assess the innovation capability and sustainable competitiveness have been scored against size of the population or against GDP in order to gain a full picture of the competitiveness, independent of the size of a country.

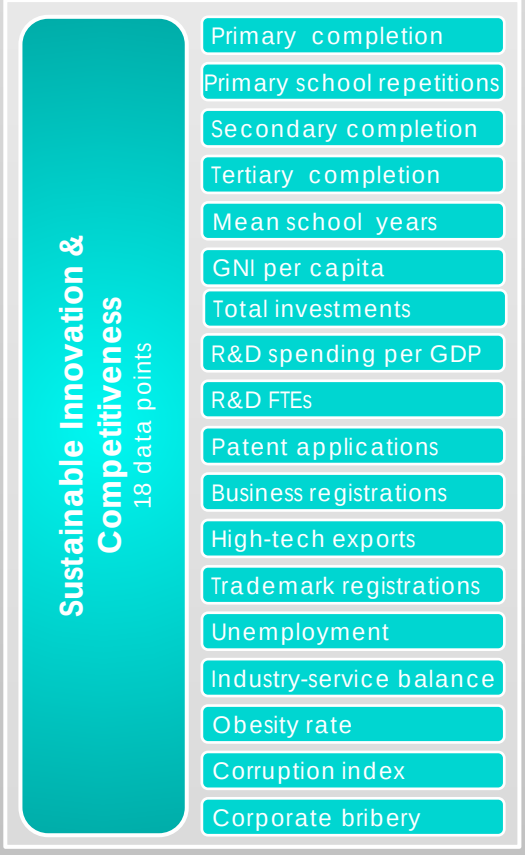
The innovation and competitiveness ranking is dominated by Asian nation and OECD countries from the Northern hemisphere. The top three spots in the innovation and competitiveness rank are occupied by Asian countries (Singapore, China, and Japan, followed by South Korea in 6th), with all other top-ten places (Austria, Norway, Netherlands, Denmark, Switzerland and Germany, in order of ranking) and top twenty spots going to European countries. The UK is ranked 22th, the USA 28th, followed by Brazil (29th) as the highest ranked country of the Southern hemisphere. The only other nations from outside Europe or North-East Asia in the top 50 are New Zealand, Canada, Israel, Australia, Chile, Libya, Costa Rica, Bahrain, Uruguay and Colombia. Other than Libya, there is no representation from Africa, Central Asia or South-East Asia within the leading 50 nations in terms of innovation capability and sustainable competitiveness.



The Sustainable Innovation Map: dark colour indicates high ,light colour limited sustainable innovation & competitiveness

Model & Indicators
Sustainable Innovation & Competitiveness





Indicators

Education indicators of the past are an indication for today's R&D and innovation capabilities while todays education indicators reflect future innovation capabilities. R&D strength is the basis for the development of value-added technologies and services. Educational performance indicators are therefore highly important to sustain innovation and competitiveness. Additional indicators include performance data on R&D (employees in R&D functions, capital allocation, patent applications), and infrastructure investments (infrastructure investments today are an indication of the quality (and efficiency) of tomorrows infrastructure). The Gross National Income (GNI) has been chosen as an economic indicator due to more appropriately reflecting the full economic capability compared to the GDP.

Further indicators relate to the actual business environment – new business registration, business legislation, corruption, and the health of the balance between agricultural, industrial and service sectors of an economy.

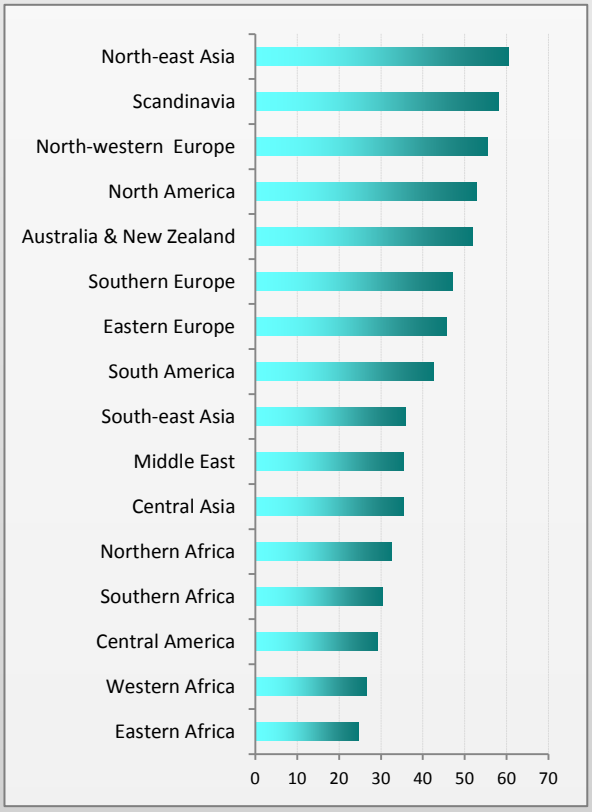
Regional Spread
Sustainable Innovation & Competitiveness

Regional spread

North-East Asia is the leading region in terms of sustainable innovation and competitiveness, followed by Scandinavia and North-Western Europe. A significant gap is visible from the leading countries to countries from Southern, Eastern Europe and South America. Another significant gap opens to countries in Central Asia, Central America and Africa.

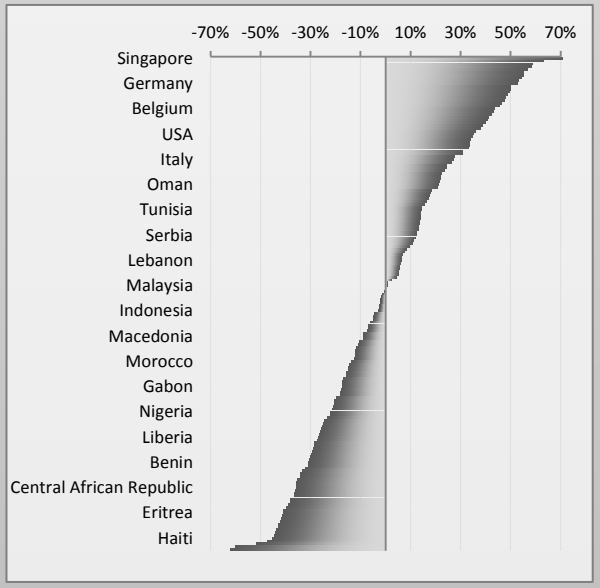
Coincidently, this rankings shows a fair amount of similarity to the findings of the PISA Study (comparison of student test levels across OECD countries, which could not be used for this index due to lack of coverage of non-OECD countries), underlying the fundamental importance of education availability and quality for achieving sustainable development.

All African regions are on the bottom of this list, indicating that the continent is still some distance off to lifting itself out of the cycle of poverty and lack of resources for innovation and investments to eradicate poverty.



Average Deviation

Only 45% of all countries are above the World average (i.e. 55% are below average), indicating a significant gap between the leading and above average nations to the lower performing countries. This notion is also supported by the high average deviation, both on the positive and the negative ends of the scale (i.e. the leading and the last countries in this ranking) of plus/minus 70%.



Country Rankings
Sustainable Innovation & Competitiveness

Sustainable Innovation		
Country	**Rank**	**Score**
Singapore	1	65.5
China	2	62.1
Japan	3	60.4
Austria	4	60.1
Norway	5	59.6
South Korea	6	58.9
Netherlands	7	58.9
Denmark	8	58.6
Switzerland	9	58.2
Germany	10	58.0
Sweden	11	57.0
Finland	12	56.9
Iceland	13	56.8
Luxembourg	14	56.5
Belarus	15	56.3
Estonia	16	56.0
Czech Republic	17	55.6
Portugal	18	55.3
Belgium	19	54.6
Ireland	20	54.4
Canada	21	54.1
United Kingdom	22	53.7
France	23	53.5
Spain	24	53.1
Australia	25	52.6
Gibraltar	26	52.4
Slovenia	27	51.7
USA	28	51.4
Brazil	29	51.2
New Zealand	30	50.9
Israel	31	50.7
Montenegro	32	50.7
Chile	33	50.6
Cyprus	34	49.7
Malta	35	49.7
Armenia	36	48.5
Italy	37	48.4
Libya	38	48.1
Russia	39	47.2
Hong Kong	40	47.2
Croatia	41	47.0
Greenland	42	46.5
Lithuania	43	46.4
Costa Rica	44	46.4

The calculation of the sustainable innovation and competitiveness ranking is based on a mixture of indicators representing education, R&D, economic and business achievements , and infrastructure. The combination of these factors allows for an comprehensive picture of a country's sustainable outlook in economic terms. In addition, the calculation of the ranking is based both on current data and the analysis of performance trends over recent years. Incorporating current performance and recent trends allows for integrating both the current status as well as the outlook for the near and medium-term future of a country in the ranking .

The high ranking countries are in a good position to thrive in an increasingly complex economy, where know-ledge and innovation are key success factors for adding value and achieve sustained growth. The lower ranking countries are faced with the potential of technological handicaps or dependence on imports for high-tech needs – the backbone of economic development.

The innovation and competitiveness ranking is dominated by the North-East Asian countries (excluding Mongolia, North Korea), which are known(amongst many other things) for vigorous education drills and fierce competitiveness in schooling. However, the prominence of Western European and Scandinavian countries amongst the leading nations indicate that a softer approach to school discipline can be equally successful. The discussion of whether the Eastern or Western education model is better is therefore besides the point. Many roads lead to Rome, but not all do. This analysis suggests that universal availability of education, coupled with policies to support key R&D areas, and infrastructure investment is key to sustainable innovation competitiveness.

Country Rankings
Sustainable Innovation & Competitiveness

Countries listed amongst the lower ranks of the sustainable innovation & competitiveness list are likely to face obstacles in achieving sustainable and sustained economic growth. Some of the ingredients of a successful sustainable development implementation, however, require other factors in order to kick start development (e.g. factor A is a requirement to achieve B, while A is required as a prerequisite to achieve B. In such a situation, A cannot be achieved due to the absence of B, and B cannot be achieved because of the lack of A). Significant co-operated efforts on a wide front of issues and political will for implementation is required in order to escape this cycle, a considerable task for a country. However, over the last three or four decades some countries in Asia have proven that such achievements are not impossible (for example South Korea, Malaysia, China).

Amongst the current (and future) obstacles facing countries characterized by low sustainable competitiveness are:

- Limited availability and quality of education (number of students per teacher, teachers education & motivation, facilities and materials), leading to limited R&D capabilities and a lack of highly qualified workforce, in turn limiting economic opportunities and development
- Insufficient R&D spending, limiting opportunities to develop value-added industries
- Lack of modern transport and communication infrastructure, leading to limited and costly access to markets
- Limited health and sanitation infrastructure

Many of the above obstacles are interlinked and therefore challenging to overcome.

Sustainable Innovation		
Country	**Rank**	**Score**
Romania	45	46.2
Oman	46	46.1
Turkey	47	45.9
Bahrain	48	45.0
Uruguay	49	44.7
Colombia	50	44.6
Poland	51	44.5
Saudi Arabia	52	44.3
Algeria	53	43.9
Bulgaria	54	43.5
Tunisia	55	43.4
Uzbekistan	56	43.4
Greece	57	43.3
Latvia	58	43.2
Guyana	59	43.2
Jordan	60	43.1
Argentina	61	43.0
Iran	62	43.0
Sri Lanka	63	42.8
Serbia	64	42.7
Venezuela	65	42.5
Mauritius	66	42.2
Ecuador	67	42.1
Paraguay	68	41.7
Slovakia	69	41.1
Kyrgistan	70	40.9
Georgia	71	40.5
Mongolia	72	40.4
Lebanon	73	40.3
Kazakhstan	74	40.3
Peru	75	40.1
Brunei	76	40.1
Kuwait	77	40.0
Kosovo	78	39.9
Cuba	79	39.6
Bosnia and Herzegovina	80	38.9
South Africa	81	38.3
Malaysia	82	38.2
Bhutan	83	38.1
Suriname	84	37.8
Tajikistan	85	37.5
Ukraine	86	37.3
India	87	37.3
Syria	88	37.2

Country Rankings
Sustainable Innovation & Competitiveness

Sustainable Innovation		
Country	Rank	Score
Dominica	89	37.1
Moldova	90	37.1
Indonesia	91	37.0
Angola	92	36.3
Botswana	93	36.2
Hungary	94	36.1
Seychelles	95	35.7
Turkmenistan	96	35.4
Vietnam	97	35.4
Albania	98	35.2
Ghana	99	34.6
Macedonia	100	34.6
Dominican Republic	101	34.6
Egypt	102	34.0
Burma	103	33.9
Afghanistan	104	33.6
Equatorial Guinea	105	33.5
Nepal	106	33.4
Qatar	107	33.4
Laos	108	33.3
Morocco	109	32.8
Panama	110	32.5
Timor-Leste	111	32.4
Namibia	112	32.3
Zambia	113	32.1
Thailand	114	32.0
Azerbaijan	115	31.6
Republic of Congo	116	31.5
Bahamas	117	31.4
Gabon	118	31.4
Mexico	119	31.2
Philippines	120	31.2
Jamaica	121	31.2
Pakistan	122	30.5
United Arab Emirates	123	30.3
El Salvador	124	30.2
Belize	125	30.1
Swaziland	126	29.9
Nigeria	127	29.6
Cambodia	128	29.6
North Korea	129	29.2
Ethiopia	130	28.7
Tanzania	131	28.5
Rwanda	132	28.4

In order to achieve sustainable development through innovation and competitiveness, countries have a number of tools at their disposal. However, there is no one-size-fits all solution. Policies have to be designed intelligently and specific to the circumstances and characteristics of a country:

- Increasing budget allocation for education, and raise incentives for school attendance. However, increasing financial allocation alone is never sufficient without careful and localised planning
- Formulate policies and incentives to increase allocation for R&D in areas key to the countries characteristic. In many Asian countries, formulating strategic industrial development priorities on the national level (not in the private industry) has shown to be highly effective
- Protective measurements: development of protective measurements for key national industries areas (including agriculture) to allow the national industries to reach international competitiveness before competing on global markets
- Increase allocation for the development of modern and intelligent infrastructure (which has the positive side-effect of creating employment in countries with high unemployment) to kick-start the economy. However, developing prestige projects that often turn into white elephants and investment ruins is a waste of time & money
- Eradicating corruption on all levels.
- Cutting unnecessary bureaucratic and administrative obstacles for businesses.
- Regulating and attaching conditions to the flow of international capital

Country Rankings
Sustainable Innovation & Competitiveness

The measurements listed on the previous page have been the cornerstones of successful development in countries in Asia. Unfortunately, development strategies are too often driven by economic theories and ideology instead of pragmatism (a rationally incomprehensible phenomena that can currently be observed in European politician's attempt to solving the financial crises). Most of the measurements listed on the previous page are contradicting to what dominant players such as the World Bank and the IMF have been demanding from borrowing countries. Considering that development in most of the debtor countries (particularly Africa) has stalled over the last 50 years, it is probably fair to state that World Bank/IMF's theory-based free market approach has not been particular helpful. China has recently entered the scene as an alternative development partner. While China is most likely pursuing its own interests (access to natural resources) its is understandable that developing countries are co-operating with China in return for infrastructure development that do not come with ideological strings attached.

Interestingly, decline is equally reflected as progress in this ranking . Analysing the performance of the USA (formerly considered powerful not only in size but also in terms of innovation & competitiveness), shows that the country is ranked low in relation to its global status in most innovation and competitiveness indicators. What is even more worrying from a USA perspective is that most indicators have shown negative (declining) trends over recent years. On a positive note, the USA stays amongst the top ten countries in terms of R&D investment and patent applications, indicating that all is not yet lost.

Sustainable Innovation		
Country	Rank	Score
Senegal	133	28.3
Kenya	134	28.1
Niger	135	28.0
Liberia	136	27.8
Bolivia	137	27.6
Uganda	138	27.2
Gambia	139	27.1
Mauritania	140	27.0
Sudan	141	26.8
Maldives	142	26.7
Cameroon	143	26.6
Papua New Guinea	144	26.4
Benin	145	26.3
Guatemala	146	26.3
Zimbabwe	147	25.8
Mali	148	25.3
Sierra Leone	149	25.1
Democratic Republic of Congo	150	25.0
Trinidad and Tobago	151	24.7
Malawi	152	24.5
Mozambique	153	24.4
Central African Republic	154	24.4
Fiji	155	24.3
West Bank and Gaza	156	24.1
Djibouti	157	24.1
South Sudan	158	23.5
Cote d'Ivoire	159	23.5
Lesotho	160	23.3
Honduras	161	22.9
Chad	162	22.4
Eritrea	163	22.4
Guinea-Bissau	164	22.3
Togo	165	22.1
Burundi	166	22.0
Bangladesh	167	21.8
Madagascar	168	21.7
Burkina Faso	169	21.4
Somalia	170	21.3
Comoros	171	21.2
Haiti	172	20.8
Guinea	173	20.1
Nicaragua	174	18.4
Yemen	175	15.2
Iraq	176	14.5

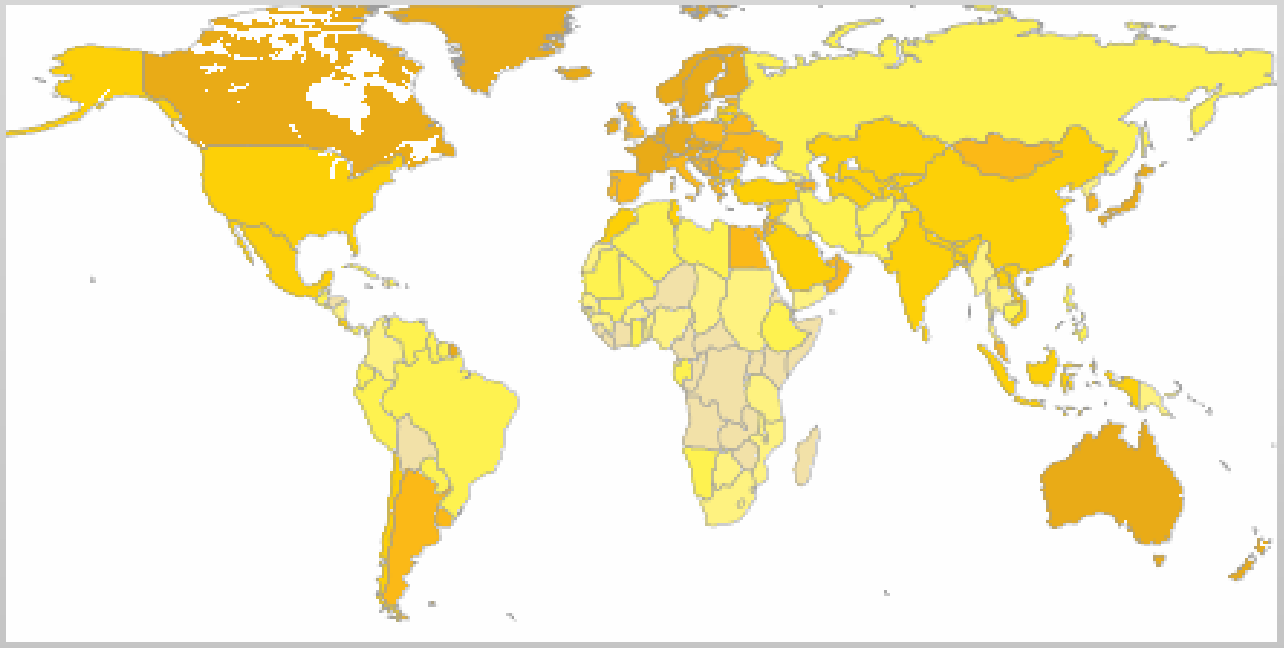

Social Cohesion

Social Cohesion
Overview

A certain level of social balance or social consensus is required to maintain a stable environment in which economic activities can take place. The higher the social consensus, the higher the motivation of individuals to contribute to the wider good, i.e. the sustainable development of the nation. The indicators used to calculate the social cohesion score of countries is composed of health and health care factors (availability and affordability), the quantitative equality within societies (income, assets, and gender equality), freedom indicators (political freedom, freedom from fear, individual happiness), crime levels, and demographic indicators.

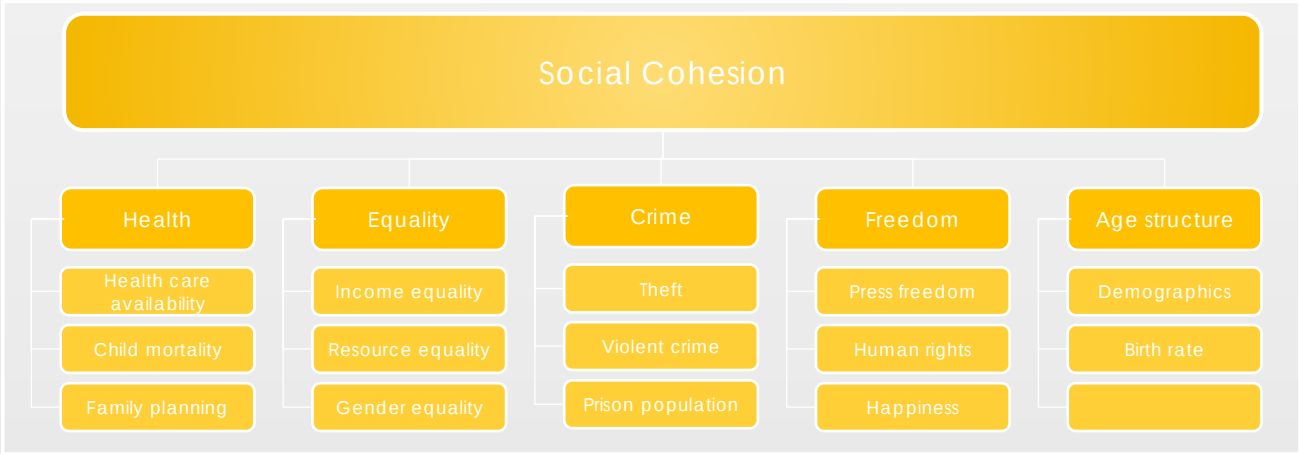
All four Scandinavian countries – often associated with socially progressiveness - are ranked in the top six, with other Central and Northern European countries (Iceland, Ireland, Austria, Germany, Switzerland) and Japan (10th) filling the top ten. The first non-European countries in the Social Cohesion ranking are Canada (16th), New Zealand (21th) and Australia (22th). The highest ranked non-OECD country is Qatar (29th), and Argentina (55th) in South America, while the first African Nation is Mali (91st). Of the emerging economies, China is ranked 53rd, India 71st, Brazil 102th and Russia 106th. The USA , due to comparable high crime rates and low availability of health services, is ranked 78th.

Most African nations, particular below in and South of the Sahel zone, are at the bottom of this list, due to a combination of low availability of health care services and child mortality, limited freedom of expression and unstable human rights situation.



The Social Cohesion Map: dark colour indicates high ,light colour limited social cohesion and consensus

Model & Indicators
Social Cohesion



Indicators

Social Cohesion is not a tangible value and therefore hard to measure and evaluate in numeric values. The social consensus in a society is influenced by several factors: health care systems and their universal availability to measure physical health; income and asset equality, which are correlated to crime levels; demographic structure to assess the future balance within a society; and freedom of expression, freedom from fear and the absence of violent conflicts.

The indicators selected to measure social cohesion have been selected from these 5 themes. Some of these indicators (e.g. "happiness") are qualitative, i.e. no statistical data is available for "happiness". Instead, qualitative indicators from surveys and other sources compiled by other organisations were used to measure the qualitative aspects of social cohesion, including single indicators from the Happy Planet Index (New Economics Foundation), the Press Freedom Index (Reporters Without Borders), and the Global Peace Index (Institute for Economics and Peace).

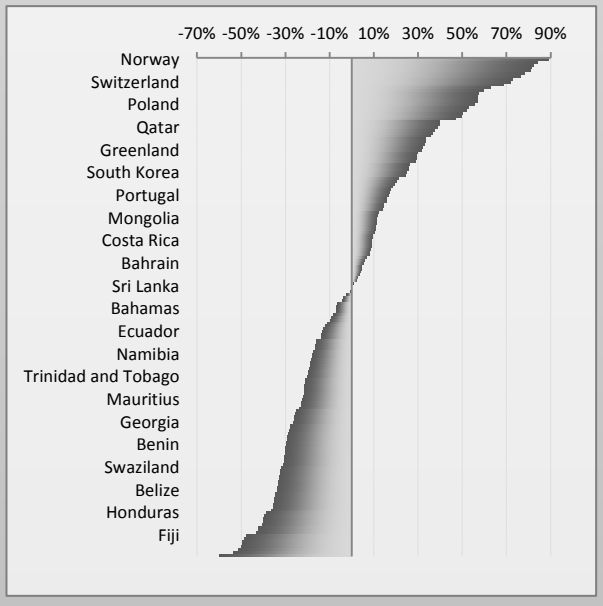
Regional Spread
Social Cohesion

Regional spread

Scandinavia tops the social cohesion ranking by a considerable margin, followed by North-Western Europe. Both regions with high average GDP per capita. The high ranking of regions with medium or high GDP seems to indicate a certain correlation of income levels and social consensus. Central America and Africa South of the Mediterranean Arabic countries form the bottom of this regional ranking, with the Middle East and Central Asia occupying the middle ranks. The only ranking not fitting into this pattern is North America's classification below Southern Europe, due to higher crime levels. There is also a distinct differentiation between North and South visible here, whereby the Northern hemisphere makes the top of the list, while the Southern hemisphere is located at the bottom (expect Australia & New Zealand, which, depending on the definition, are often included in the definition of the North).

Average Deviation

Only 43% of countries are above the absolute average of all countries (i.e. 57% are below average), representing an uneven distribution. The high positive deviation amongst the top ten countries of between 70-90% also indicates significant gaps between the countries on the top of the ranking (i.e. between the top ten and the top twenty countries, for example). On the other end of the scale, the deviation is 70% below the average. The high deviation at the top and bottom end indicate a big spread between leading and trailing countries. In other words, the countries at the bottom of the ranking are facing an significant barriers to improve social cohesion and catch up with currently higher ranked countries.



Country Rankings
Social Cohesion

Social Cohesion		
Country	**Rank**	**Score**
Norway	1	78.3
Iceland	2	76.1
Denmark	3	75.5
Finland	4	75.0
Ireland	5	74.9
Sweden	6	73.7
Austria	7	73.0
Germany	8	71.5
Switzerland	9	71.1
Japan	10	69.8
Luxembourg	11	67.5
Netherlands	12	66.1
Slovenia	13	65.1
Slovakia	14	64.9
Belgium	15	64.9
Canada	16	64.8
Poland	17	64.4
Cyprus	18	63.3
Czech Republic	19	63.0
France	20	62.1
New Zealand	21	62.0
Australia	22	60.8
Spain	23	57.8
United Kingdom	24	57.8
Qatar	25	57.5
Croatia	26	57.0
Egypt	27	56.6
Serbia	28	56.1
Estonia	29	55.2
Hungary	30	55.2
Greece	31	55.0
Malta	32	54.6
Greenland	33	54.5
Kosovo	34	53.7
Tajikistan	35	53.5
Italy	36	53.5
Romania	37	53.3
Montenegro	38	52.2
Oman	39	52.0
Singapore	40	52.0
South Korea	41	51.6
Armenia	42	51.4
United Arab Emirates	43	50.2
Bosnia and Herzegovina	44	49.7

The Social Cohesion score is derived from a number of factors that measure individual aspects of social cohesion (health care, equality, crime, freedom, demographics).

Social Cohesion is not an absolute necessary ingredient for short-term economic development, but facilitates economic growth. It is questionable, however, to what extend long-term economic development can be achieved without social cohesion. As sustainable development includes all levels of an economy, sustained sustainable development cannot be achieved without social cohesion.

The individual data points were also analyzed against recent trends where sufficient data coverage is available. The score therefore reflects both a current momentary picture as well as the future potential and development trends.

The calculated social cohesion scores show a certain correlation to GDP per capita level, raising the question whether social cohesion is the result or the cause of increased economic wealth. However, the correlation cannot be observed throughout all countries. The exceptions to the rule (correlation) such as the USA (high GDP per capita, but comparably low social cohesion score) seem to indicate that social cohesion is not a default outcome of economic success. It could also be an indication of the beginning decline of a society.

Countries on the top of this list posses a strong consensus basis to achieve or sustain sustainable development, while countries with a low score face additional obstacles to achieve the same. High-income countries with a low social cohesion score are in danger of risking their economic achievements due to disintegrating social consensus.

Country Rankings
Social Cohesion

Countries with a low social cohesion are likely to face constraints in achieving sustainable and sustained development:

- Higher child mortality, occurrence of sickness and diseases (which considering todays level of medicine are not difficult to treat), and general lower health levels due to absence of universal health care. "Universal" includes geographic availability and financial affordability. The absence of either of the two has the same effect. An expensive high-tech medical care systems that is not available to significant parts of the population is as bad as a system that is not available in rural areas from a national development point of view.
- Besides the human effects and tragedies inflicted by sub-optimal health care, lower physical and psychological health have negative impacts on the development bottom-line through higher long-term cost, lower labour availability, and lower labour efficiency.
- Lack of economic equality and equal opportunities leads to lack of incentives to follow an ambitious career path. An additional consequence is lower work motivation and identification, which in turn negatively affects the efficiency and profitability of economic entities. Combined with large income and asset ownership gaps, lack of economic opportunities is likely to increase crime rates. In extreme cases this can lead to the breakdown of order, effectively rendering development impossible.
- Unbalanced demographic structure (aging population) affects a country's social structure and constraints social services.

Social Cohesion		
Country	Rank	Score
Belarus	45	49.4
Seychelles	46	49.0
Kuwait	47	48.7
Ukraine	48	48.5
Portugal	49	48.2
Uzbekistan	50	47.8
Azerbaijan	51	47.8
Vietnam	52	47.4
China	53	47.3
Albania	54	47.1
Argentina	55	46.3
Bhutan	56	46.2
Mongolia	57	46.1
Bangladesh	58	46.1
Timor-Leste	59	46.0
Laos	60	45.9
Malaysia	61	45.8
Uruguay	62	45.6
Lithuania	63	45.3
Jordan	64	45.2
Costa Rica	65	45.1
Kazakhstan	66	45.1
Tunisia	67	45.1
Turkmenistan	68	44.9
Indonesia	69	44.8
Jamaica	70	44.7
India	71	44.2
Latvia	72	43.7
Bahrain	73	43.5
Kyrgistan	74	43.2
Maldives	75	43.1
Bulgaria	76	43.0
Macedonia	77	42.8
USA	78	42.6
Moldova	79	42.3
Morocco	80	41.6
Sri Lanka	81	41.3
Israel	82	41.3
Nepal	83	41.1
Saudi Arabia	84	40.5
Turkey	85	39.8
North Korea	86	39.6
Chile	87	38.7
Mexico	88	38.6

Country Rankings
Social Cohesion

Social Cohesion		
Country	**Rank**	**Score**
Bahamas	89	38.5
Algeria	90	38.4
Mali	91	38.0
Lebanon	92	37.6
Pakistan	93	37.4
Dominican Republic	94	36.8
Suriname	95	36.4
Cuba	96	36.1
Ecuador	97	36.0
Brunei	98	35.7
Philippines	99	35.7
Dominica	100	34.8
Afghanistan	101	34.7
Brazil	102	34.6
Ghana	103	34.6
Cambodia	104	34.1
Namibia	105	34.1
Russia	106	34.1
Peru	107	33.8
Djibouti	108	33.7
Venezuela	109	33.6
Panama	110	33.4
Libya	111	33.2
Gabon	112	33.2
Trinidad and Tobago	113	33.2
Syria	114	32.8
Paraguay	115	32.7
Papua New Guinea	116	32.6
Ethiopia	117	32.6
Iran	118	32.6
Mauritania	119	32.5
El Salvador	120	32.3
Mauritius	121	32.2
Guatemala	122	32.0
Senegal	123	32.0
Malawi	124	31.7
Guyana	125	31.0
Gambia	126	30.9
Iraq	127	30.6
Hong Kong	128	30.6
Georgia	129	30.6
Burkina Faso	130	30.0
Guinea-Bissau	131	29.9
Colombia	132	29.7

Social cohesion and the social consensus within a society or country is determined by a number of factors, including history and culture. Because of the diverse influences, there is no on-size-fits all solution to improve social cohesion in a specific country. However, there are some common characteristics in countries that have a high social cohesion, which can be influenced through adequate policies. These characteristics include:

- Universal availability of health care (both in terms of geographical availability and affordability)
- Equal gender rights and equal gender opportunities
- Limited income and asset ownership deviation, as well as equal economic opportunities for all sections, groups and individuals of society
- Low crime rates
- Adequate and equal availability of public services
- Freedom of thought and freedom of expression
- Absence of fear (absence of violent conflicts and guarantee of human rights)

Some of the above factors are the result of complex inter-correlations and interactions between different variables. Crime rates, for example, can be associated with the inter-action of income and equality factors, relevant legislation, the specific history of a country, cultural acceptance (which in turn is influenced by history), the mix and density of populations, and others. Other factors are less complex and can be improved with relevant counter-measurements.

Country Rankings
Social Cohesion

Turning the tide on social cohesion requires efforts and policies and several fronts. Some of the available policies include:

- Increasing access to adequate health care in geographical terms (i.e. in rural areas), using modern technology and communication coupled with innovative business models
- Increase the affordability of health care systems in order to include wider segments of the population and marginalised groups for the benefit of the whole society. However, adequate checks & balances have to be incorporated
- Designing intelligent policies that limit income and asset ownership gaps. However, such policies have to be designed to allow sufficient room for awarding individual performance and accomplishments that serve as drivers for the overall economy and development
- Increasing community development programs with a focus on fostering alternatives to criminal career paths
- Adapt legislation to reduce criminality and incentives for criminal behaviour (for example treating drug addiction as a sickness rather than a crime)
- Introducing incentives to increase birth rate in aging societies resp. incentives to decrease birth rate in countries with high birth rates
- Avoiding unnecessary confrontations in terms of geo-political engagement and foreign relations

Social Cohesion		
Country	Rank	Score
West Bank and Gaza	133	29.5
Tanzania	134	29.3
Burma	135	29.3
Nigeria	136	29.1
Benin	137	29.1
Chad	138	29.0
Guinea	139	28.9
Togo	140	28.9
Nicaragua	141	28.8
Burundi	142	28.8
Yemen	143	28.7
Macao	144	28.6
Swaziland	145	28.2
South Sudan	146	28.1
Thailand	147	28.1
Mozambique	148	27.8
Eritrea	149	27.8
Uganda	150	27.7
Sierra Leone	151	27.7
Liberia	152	27.5
Belize	153	27.4
Niger	154	27.1
Cameroon	155	27.1
Republic of Congo	156	27.0
Comoros	157	26.8
South Africa	158	26.8
Botswana	159	26.6
Bolivia	160	26.3
Honduras	161	25.4
Equatorial Guinea	162	25.0
Madagascar	163	24.9
Cote d'Ivoire	164	24.8
Sudan	165	24.6
Central African Republic	166	23.9
Kenya	167	23.9
Somalia	168	23.6
Fiji	169	21.8
Democratic Republic of Congo	170	21.4
Zimbabwe	171	21.0
Angola	172	20.9
Zambia	173	20.8
Haiti	174	20.2
Lesotho	175	19.3
Rwanda	176	16.7

At A Glance:
Global Sustainability Rankings

Sustainable Competitiveness
Rankings at a glance

Country	Rank	Score
Denmark	1	58.8
Sweden	2	58.5
Norway	3	57.6
Austria	4	57.6
Finland	5	57.6
Switzerland	6	56.5
Germany	7	56.2
Netherlands	8	56.2
Japan	9	56.0
Ireland	10	55.7
Iceland	11	55.7
Canada	12	55.6
Luxembourg	13	55.0
New Zealand	14	54.4
France	15	54.4
Belgium	16	52.5
Belarus	17	52.3
Czech Republic	18	52.3
Slovenia	19	50.6
Portugal	20	50.3
Singapore	21	50.0
Spain	22	49.9
Australia	23	49.9
Estonia	24	49.8
Brazil	25	49.5
United Kingdom	26	49.5
Croatia	27	49.5
Italy	28	49.2
Lithuania	29	48.7
USA	30	48.4
Latvia	31	48.4
Slovakia	32	47.7
South Korea	33	47.7
Argentina	34	47.5
Romania	35	47.4
China	36	47.3
Malta	37	47.2
Costa Rica	38	47.1
Colombia	39	47.0
Greece	40	46.8
Uruguay	41	46.7
Poland	42	46.6
Guyana	43	46.2
Tajikistan	44	46.1

Country	Rank	Score
Uzbekistan	45	45.5
Bhutan	46	45.5
Armenia	47	45.4
Cyprus	48	45.3
Serbia	49	45.2
Montenegro	50	45.2
Peru	51	45.1
Venezuela	52	45.1
Suriname	53	45.1
Sri Lanka	54	44.7
Hungary	55	44.2
Russia	56	43.9
Paraguay	57	43.9
Laos	58	43.8
Egypt	59	43.7
Israel	60	43.4
Indonesia	61	43.4
Albania	62	43.3
Ecuador	63	43.3
Chile	64	42.9
Kyrgistan	65	42.8
Bulgaria	66	42.7
Burma	67	42.6
Tunisia	68	41.6
Bosnia and Herzegovina	69	41.2
Dominican Republic	70	41.1
Angola	71	41.0
Ghana	72	41.0
Greenland	73	40.8
Ukraine	74	40.6
Qatar	75	40.4
Malaysia	76	40.3
Moldova	77	40.3
Republic of Congo	78	40.2
Georgia	79	40.1
Turkey	80	39.9
Dominica	81	39.9
Mauritius	82	39.8
Equatorial Guinea	83	39.5
Azerbaijan	84	39.2
Kuwait	85	39.1
Philippines	86	39.0
Cuba	87	38.9
Seychelles	88	38.9

Country	Rank	Score
Algeria	89	38.9
Kosovo	90	38.8
Nepal	91	38.8
Kazakhstan	92	38.6
Vietnam	93	38.6
Gabon	94	38.5
Oman	95	38.5
Ethiopia	96	38.5
Turkmenistan	97	38.5
Panama	98	38.4
Belize	99	38.4
India	100	38.3
Guinea-Bissau	101	38.3
Sudan	102	38.2
Afghanistan	103	38.2
Timor-Leste	104	38.1
Libya	105	38.0
Mali	106	37.9
Zambia	107	37.9
Papua New Guinea	108	37.7
Mongolia	109	37.6
Cambodia	110	37.6
Swaziland	111	37.6
Bahrain	112	37.5
Macedonia	113	37.4
Tanzania	114	37.4
Gambia	115	37.2
Morocco	116	37.2
El Salvador	117	37.1
Jamaica	118	36.7
Mozambique	119	36.7
Saudi Arabia	120	36.6
Liberia	121	36.2
Cameroon	122	36.2
Syria	123	36.2
Madagascar	124	35.8
Lebanon	125	35.8
Cote d'Ivoire	126	35.7
Senegal	127	35.6
Jordan	128	35.6
Bangladesh	129	35.6
North Korea	130	35.4
Mexico	131	35.4
Nigeria	132	35.4

Country	Rank	Score
Sierra Leone	133	35.2
Democratic Republic of Congo	134	35.2
Central African Republic	135	34.9
Malawi	136	34.9
Uganda	137	34.7
Djibouti	138	34.4
Hong Kong	139	34.3
Niger	140	34.1
Mauritania	141	34.0
Botswana	142	34.0
Bolivia	143	33.9
Chad	144	33.9
Guinea	145	33.8
Pakistan	146	33.8
Namibia	147	33.7
Thailand	148	33.7
Brunei	149	33.6
Bahamas	150	33.6
South Africa	151	33.4
Nicaragua	152	33.4
Zimbabwe	153	33.1
Iran	154	33.1
Honduras	155	32.9
Lesotho	156	32.8
Burkina Faso	157	32.7
United Arab Emirates	158	32.6
Rwanda	159	32.6
Togo	160	32.6
Maldives	161	32.4
Eritrea	162	32.0
Burundi	163	31.9
Guatemala	164	31.5
Kenya	165	31.4
Benin	166	31.0
Comoros	167	30.7
South Sudan	168	29.8
Trinidad and Tobago	169	29.6
Somalia	170	29.1
Macao	171	29.1
West Bank and Gaza	172	28.1
Iraq	173	27.6
Haiti	174	27.5
Fiji	175	27.3
Yemen	176	25.0

All criteria: Rank 1-44

Rankings at a glance

Country	Rank	Score	Natural Capital		Resource Intensity		Innovation		Social cohesion	
Denmark	1	58.8	11	58.2	123	41.2	8	58.6	3	75.5
Sweden	2	58.5	22	54.0	65	49.0	11	57.0	6	73.7
Norway	3	57.6	27	52.9	147	36.2	5	59.6	1	78.3
Austria	4	57.6	81	41.4	24	54.0	4	60.1	7	73.0
Finland	5	57.6	10	58.4	142	38.2	12	56.9	4	75.0
Switzerland	6	56.5	104	39.1	8	56.9	9	58.2	9	71.1
Germany	7	56.2	70	43.9	60	49.6	10	58.0	8	71.5
Netherlands	8	56.2	55	46.5	46	51.2	7	58.9	12	66.1
Japan	9	56.0	59	45.0	90	45.4	3	60.4	10	69.8
Ireland	10	55.7	25	53.6	137	39.0	20	54.4	5	74.9
Iceland	11	55.7	48	47.6	132	39.7	13	56.8	2	76.1
Canada	12	55.6	5	60.5	118	42.3	21	54.1	16	64.8
Luxembourg	13	55.0	102	39.6	13	55.4	14	56.5	11	67.5
New Zealand	14	54.4	4	61.0	93	44.6	29	50.9	21	62.0
France	15	54.4	29	52.7	63	49.1	23	53.5	20	62.1
Belgium	16	52.5	80	41.4	80	47.3	19	54.6	15	64.9
Belarus	17	52.3	7	60.0	131	40.0	15	56.3	45	49.4
Czech Republic	18	52.3	61	44.8	112	42.9	17	55.6	19	63.0
Slovenia	19	50.6	96	40.0	94	44.6	26	51.7	13	65.1
Portugal	20	50.3	78	42.1	29	53.0	18	55.3	49	48.2
Singapore	21	50.0	191	24.1	57	49.9	1	65.5	40	52.0
Spain	22	49.9	120	36.1	47	51.0	24	53.1	23	57.8
Australia	23	49.9	36	50.0	156	32.9	25	52.6	22	60.8
Estonia	24	49.8	28	52.9	164	29.5	16	56.0	29	55.2
Brazil	25	49.5	8	59.7	40	51.6	28	51.2	102	34.6
United Kingdom	26	49.5	121	36.1	77	47.8	22	53.7	24	57.8
Croatia	27	49.5	68	44.1	43	51.4	40	47.0	26	57.0
Italy	28	49.2	72	43.3	35	52.2	36	48.4	36	53.5
Lithuania	29	48.7	14	56.2	73	48.1	42	46.4	63	45.3
USA	30	48.4	15	55.9	124	41.2	27	51.4	78	42.6
Latvia	31	48.4	3	61.0	70	48.3	57	43.2	72	43.7
Slovakia	32	47.7	106	38.2	50	50.8	68	41.1	14	64.9
South Korea	33	47.7	92	40.4	158	31.8	6	58.9	41	51.6
Argentina	34	47.5	31	51.6	37	52.1	60	43.0	55	46.3
Romania	35	47.4	94	40.2	48	51.0	44	46.2	37	53.3
China	36	47.3	136	34.2	148	36.1	2	62.1	53	47.3
Malta	37	47.2	131	35.1	75	47.9	34	49.7	32	54.6
Costa Rica	38	47.1	57	46.0	39	51.9	43	46.4	65	45.1
Colombia	39	47.0	6	60.3	12	55.9	49	44.6	132	29.7
Greece	40	46.8	83	40.7	53	50.5	56	43.3	31	55.0
Uruguay	41	46.7	21	54.7	116	42.4	48	44.7	62	45.6
Poland	42	46.6	111	37.3	126	40.9	50	44.5	17	64.4
Guyana	43	46.2	2	63.0	59	49.7	58	43.2	125	31.0
Tajikistan	44	46.1	85	40.6	5	59.2	84	37.5	35	53.5

All criteria: Rank 45-88

Rankings at a glance

Country	Rank	Score	Natural Capital		Resource Intensity		Innovation		Social cohesion	
Uzbekistan	45	45.5	77	42.2	51	50.6	55	43.4	50	47.8
Bhutan	46	45.5	34	50.6	38	52.0	82	38.1	56	46.2
Armenia	47	45.4	158	31.1	64	49.0	35	48.5	42	51.4
Cyprus	48	45.3	180	26.9	143	37.9	33	49.7	18	63.3
Serbia	49	45.2	90	40.4	113	42.9	63	42.7	28	56.1
Montenegro	50	45.2	152	32.5	120	42.1	31	50.7	38	52.2
Peru	51	45.1	17	55.2	15	55.2	74	40.1	107	33.8
Venezuela	52	45.1	13	57.7	72	48.3	64	42.5	109	33.6
Suriname	53	45.1	1	63.3	82	46.9	83	37.8	95	36.4
Sri Lanka	54	44.7	114	37.1	2	60.3	62	42.8	81	41.3
Hungary	55	44.2	64	44.4	88	45.8	93	36.1	30	55.2
Russia	56	43.9	18	54.9	146	36.9	38	47.2	106	34.1
Paraguay	57	43.9	38	49.7	26	53.6	67	41.7	115	32.7
Laos	58	43.8	9	58.7	111	43.0	108	33.3	60	45.9
Egypt	59	43.7	45	48.3	128	40.9	102	34.0	27	56.6
Israel	60	43.4	166	30.4	76	47.8	30	50.7	82	41.3
Indonesia	61	43.4	33	50.8	92	44.8	90	37.0	69	44.8
Albania	62	43.3	110	37.3	3	60.1	97	35.2	54	47.1
Ecuador	63	43.3	69	44.0	30	53.0	66	42.1	97	36.0
Chile	64	42.9	119	36.6	127	40.9	32	50.6	87	38.7
Kyrgistan	65	42.8	103	39.2	56	50.0	69	40.9	74	43.2
Bulgaria	66	42.7	97	39.9	99	44.2	53	43.5	76	43.0
Burma	67	42.6	23	53.7	4	60.0	103	33.9	135	29.3
Tunisia	68	41.6	161	30.9	86	46.5	54	43.4	67	45.1
Bosnia and Herzegovina	69	41.2	56	46.5	162	29.7	79	38.9	44	49.7
Dominican Republic	70	41.1	46	48.0	61	49.5	101	34.6	94	36.8
Angola	71	41.0	26	53.0	6	58.3	91	36.3	172	20.9
Ghana	72	41.0	62	44.8	17	55.0	98	34.6	103	34.6
Greenland	73	40.8	168	29.8	166	27.6	41	46.5	33	54.5
Ukraine	74	40.6	129	35.3	106	43.5	85	37.3	48	48.5
Qatar	75	40.4	99	39.8	153	34.4	107	33.4	25	57.5
Malaysia	76	40.3	67	44.1	155	33.4	81	38.2	61	45.8
Moldova	77	40.3	86	40.6	107	43.3	89	37.1	79	42.3
Republic of Congo	78	40.2	30	52.1	7	57.1	116	31.5	156	27.0
Georgia	79	40.1	118	36.7	21	54.1	70	40.5	129	30.6
Turkey	80	39.9	164	30.7	130	40.0	46	45.9	85	39.8
Dominica	81	39.9	115	37.0	25	53.8	88	37.1	100	34.8
Mauritius	82	39.8	95	40.0	101	43.9	65	42.2	121	32.2
Equatorial Guinea	83	39.5	32	51.2	27	53.4	105	33.5	162	25.0
Azerbaijan	84	39.2	147	33.0	58	49.8	115	31.6	51	47.8
Kuwait	85	39.1	113	37.2	165	28.9	76	40.0	47	48.7
Philippines	86	39.0	98	39.8	14	55.3	120	31.2	99	35.7
Cuba	87	38.9	153	32.0	67	48.8	78	39.6	96	36.1
Seychelles	88	38.9	133	34.7	144	37.8	94	35.7	46	49.0

All criteria: Rank 89-132

Rankings at a glance

Country	Rank	Score	Natural Capital		Resource Intensity		Innovation		Social cohesion	
Algeria	89	38.9	128	35.3	152	34.6	52	43.9	90	38.4
Kosovo	90	38.8	199	22.2	139	38.8	77	39.9	34	53.7
Nepal	91	38.8	173	29.2	10	56.5	106	33.4	83	41.1
Kazakhstan	92	38.6	79	41.6	170	24.9	73	40.3	66	45.1
Vietnam	93	38.6	74	42.5	163	29.7	96	35.4	52	47.4
Gabon	94	38.5	43	48.4	89	45.7	118	31.4	112	33.2
Oman	95	38.5	135	34.4	176	14.6	45	46.1	39	52.0
Ethiopia	96	38.5	60	44.9	16	55.0	130	28.7	117	32.6
Turkmenistan	97	38.5	123	35.7	133	39.7	95	35.4	68	44.9
Panama	98	38.4	89	40.4	36	52.1	110	32.5	110	33.4
Belize	99	38.4	44	48.4	22	54.0	125	30.1	153	27.4
India	100	38.3	167	30.1	114	42.8	86	37.3	71	44.2
Guinea-Bissau	101	38.3	16	55.3	11	56.4	164	22.3	131	29.9
Sudan	102	38.2	40	49.1	1	61.3	141	26.8	165	24.6
Afghanistan	103	38.2	138	34.1	18	54.7	104	33.6	101	34.7
Timor-Leste	104	38.1	130	35.2	115	42.5	111	32.4	59	46.0
Libya	105	38.0	155	31.8	157	32.7	37	48.1	111	33.2
Mali	106	37.9	66	44.2	34	52.6	148	25.3	91	38.0
Zambia	107	37.9	41	49.1	19	54.6	113	32.1	173	20.8
Papua New Guinea	108	37.7	19	54.9	104	43.6	144	26.4	116	32.6
Mongolia	109	37.6	162	30.7	160	30.9	71	40.4	57	46.1
Cambodia	110	37.6	50	47.3	95	44.6	128	29.6	104	34.1
Swaziland	111	37.6	54	46.5	42	51.5	126	29.9	145	28.2
Bahrain	112	37.5	174	28.8	167	27.5	47	45.0	73	43.5
Macedonia	113	37.4	126	35.4	141	38.4	100	34.6	77	42.8
Tanzania	114	37.4	51	47.3	49	50.8	131	28.5	134	29.3
Gambia	115	37.2	58	45.0	28	53.3	139	27.1	126	30.9
Morocco	116	37.2	151	32.5	91	45.2	109	32.8	80	41.6
El Salvador	117	37.1	109	37.5	23	54.0	124	30.2	120	32.3
Jamaica	118	36.7	159	31.1	105	43.6	121	31.2	70	44.7
Mozambique	119	36.7	35	50.4	31	52.7	153	24.4	148	27.8
Saudi Arabia	120	36.6	108	37.8	175	17.6	51	44.3	84	40.5
Liberia	121	36.2	42	48.7	84	46.8	136	27.8	152	27.5
Cameroon	122	36.2	37	49.8	74	48.0	143	26.6	155	27.1
Syria	123	36.2	142	33.5	121	41.4	87	37.2	114	32.8
Madagascar	124	35.8	24	53.7	33	52.7	168	21.7	163	24.9
Lebanon	125	35.8	192	23.9	136	39.1	72	40.3	92	37.6
Cote d'Ivoire	126	35.7	12	57.9	98	44.3	159	23.5	164	24.8
Senegal	127	35.6	117	36.8	45	51.2	133	28.3	123	32.0
Jordan	128	35.6	209	15.1	151	34.8	59	43.1	64	45.2
Bangladesh	129	35.6	84	40.6	117	42.3	167	21.8	58	46.1
North Korea	130	35.4	125	35.7	125	41.0	129	29.2	86	39.6
Mexico	131	35.4	124	35.7	140	38.6	119	31.2	88	38.6
Nigeria	132	35.4	157	31.5	9	56.7	127	29.6	136	29.1

All criteria: Rank 132-186

Rankings at a glance

Country	Rank	Score	Natural Capital		Resource Intensity		Innovation		Social cohesion	
Sierra Leone	133	35.2	49	47.5	78	47.6	149	25.1	151	27.7
Democratic Republic of Congo	134	35.2	20	54.7	83	46.9	150	25.0	170	21.4
Central African Republic	135	34.9	39	49.6	62	49.3	154	24.4	166	23.9
Malawi	136	34.9	76	42.4	71	48.3	152	24.5	124	31.7
Uganda	137	34.7	63	44.6	96	44.6	138	27.2	150	27.7
Djibouti	138	34.4	100	39.7	81	47.2	157	24.1	108	33.7
Hong Kong	139	34.3	206	17.3	150	35.1	39	47.2	128	30.6
Niger	140	34.1	122	36.0	54	50.4	135	28.0	154	27.1
Mauritania	141	34.0	112	37.2	97	44.3	140	27.0	119	32.5
Botswana	142	34.0	146	33.1	135	39.3	92	36.2	159	26.6
Bolivia	143	33.9	52	47.2	138	38.8	137	27.6	160	26.3
Chad	144	33.9	82	41.1	44	51.3	162	22.4	138	29.0
Guinea	145	33.8	53	46.6	66	48.9	173	20.1	139	28.9
Pakistan	146	33.8	176	28.5	122	41.3	122	30.5	93	37.4
Namibia	147	33.7	165	30.5	134	39.4	112	32.3	105	34.1
Thailand	148	33.7	134	34.5	119	42.2	114	32.0	147	28.1
Brunei	149	33.6	169	29.7	171	24.4	75	40.1	98	35.7
Bahamas	150	33.6	132	34.8	161	30.3	117	31.4	89	38.5
South Africa	151	33.4	101	39.6	169	25.5	80	38.3	158	26.8
Nicaragua	152	33.4	73	42.7	20	54.4	174	18.4	141	28.8
Zimbabwe	153	33.1	47	47.8	110	43.0	147	25.8	171	21.0
Iran	154	33.1	194	23.3	168	27.2	61	43.0	118	32.6
Honduras	155	32.9	92	40.4	55	50.4	161	22.9	161	25.4
Lesotho	156	32.8	65	44.3	41	51.6	160	23.3	175	19.3
Burkina Faso	157	32.7	71	43.8	108	43.2	169	21.4	130	30.0
United Arab Emirates	158	32.6	171	29.5	174	20.4	123	30.3	43	50.2
Rwanda	159	32.6	75	42.5	85	46.6	132	28.4	176	16.7
Togo	160	32.6	105	38.5	68	48.4	165	22.1	140	28.9
Maldives	161	32.4	193	23.6	129	40.4	142	26.7	75	43.1
Eritrea	162	32.0	148	32.9	32	52.7	163	22.4	149	27.8
Burundi	163	31.9	139	33.9	52	50.5	166	22.0	142	28.8
Guatemala	164	31.5	182	26.2	87	46.2	146	26.3	122	32.0
Kenya	165	31.4	172	29.5	79	47.6	134	28.1	167	23.9
Benin	166	31.0	91	40.4	159	31.0	145	26.3	137	29.1
Comoros	167	30.7	140	33.8	69	48.4	171	21.2	157	26.8
South Sudan	168	29.8	170	29.6	109	43.1	158	23.5	146	28.1
Trinidad and Tobago	169	29.6	87	40.6	173	21.8	151	24.7	113	33.2
Somalia	170	29.1	143	33.4	100	44.1	170	21.3	168	23.6
Macao	171	29.1	208	16.5	154	34.0	99	34.6	144	28.6
West Bank and Gaza	172	28.1	187	24.9	145	37.0	156	24.1	133	29.5
Iraq	173	27.6	163	30.7	102	43.7	176	14.5	127	30.6
Haiti	174	27.5	160	30.9	102	43.7	172	20.8	174	20.2
Fiji	175	27.3	88	40.4	172	24.2	155	24.3	169	21.8
Yemen	176	25.0	178	27.6	149	35.2	175	15.2	143	28.7

Natural Capital
Rankings at a glance

Country	Rank	Score
Suriname	1	63.3
Guyana	2	63.0
Latvia	3	61.0
New Zealand	4	61.0
Canada	5	60.5
Colombia	6	60.3
Belarus	7	60.0
Brazil	8	59.7
Laos	9	58.7
Finland	10	58.4
Denmark	11	58.2
Cote d'Ivoire	12	57.9
Venezuela	13	57.7
Lithuania	14	56.2
USA	15	55.9
Guinea-Bissau	16	55.3
Peru	17	55.2
Russia	18	54.9
Papua New Guinea	19	54.9
Democratic Republic of Congo	20	54.7
Uruguay	21	54.7
Sweden	22	54.0
Burma	23	53.7
Madagascar	24	53.7
Ireland	25	53.6
Angola	26	53.0
Norway	27	52.9
Estonia	28	52.9
France	29	52.7
Republic of Congo	30	52.1
Argentina	31	51.6
Equatorial Guinea	32	51.2
Indonesia	33	50.8
Bhutan	34	50.6
Mozambique	35	50.4
Australia	36	50.0
Cameroon	37	49.8
Paraguay	38	49.7
Central African Republic	39	49.6
Sudan	40	49.1
Zambia	41	49.1
Liberia	42	48.7
Gabon	43	48.4
Belize	44	48.4

Country	Rank	Score
Egypt	45	48.3
Dominican Republic	46	48.0
Zimbabwe	47	47.8
Iceland	48	47.6
Sierra Leone	49	47.5
Cambodia	50	47.3
Tanzania	51	47.3
Bolivia	52	47.2
Guinea	53	46.6
Swaziland	54	46.5
Netherlands	55	46.5
Bosnia and Herzegovina	56	46.5
Costa Rica	57	46.0
Gambia	58	45.0
Japan	59	45.0
Ethiopia	60	44.9
Czech Republic	61	44.8
Ghana	62	44.8
Uganda	63	44.6
Hungary	64	44.4
Lesotho	65	44.3
Mali	66	44.2
Malaysia	67	44.1
Croatia	68	44.1
Ecuador	69	44.0
Germany	70	43.9
Burkina Faso	71	43.8
Italy	72	43.3
Nicaragua	73	42.7
Vietnam	74	42.5
Rwanda	75	42.5
Malawi	76	42.4
Uzbekistan	77	42.2
Portugal	78	42.1
Kazakhstan	79	41.6
Belgium	80	41.4
Austria	81	41.4
Chad	82	41.1
Greece	83	40.7
Bangladesh	84	40.6
Tajikistan	85	40.6
Moldova	86	40.6
Trinidad and Tobago	87	40.6
Fiji	88	40.4

Country	Rank	Score
Panama	89	40.4
Serbia	90	40.4
Benin	91	40.4
South Korea	92	40.4
Honduras	92	40.4
Romania	94	40.2
Mauritius	95	40.0
Slovenia	96	40.0
Bulgaria	97	39.9
Philippines	98	39.8
Qatar	99	39.8
Djibouti	100	39.7
South Africa	101	39.6
Luxembourg	102	39.6
Kyrgistan	103	39.2
Switzerland	104	39.1
Togo	105	38.5
Slovakia	106	38.2
Saudi Arabia	107	37.8
El Salvador	108	37.5
Albania	109	37.3
Poland	110	37.3
Mauritania	111	37.2
Kuwait	112	37.2
Sri Lanka	113	37.1
Dominica	114	37.0
Senegal	115	36.8
Georgia	116	36.7
Chile	117	36.6
Spain	118	36.1
United Kingdom	119	36.1
Niger	120	36.0
Turkmenistan	121	35.7
Mexico	122	35.7
North Korea	123	35.7
Macedonia	124	35.4
Algeria	125	35.3
Ukraine	126	35.3
Timor-Leste	127	35.2
Malta	128	35.1
Bahamas	129	34.8
Seychelles	130	34.7
Thailand	131	34.5
Oman	132	34.4

Country	Rank	Score
China	133	34.2
Afghanistan	134	34.1
Burundi	135	33.9
Comoros	136	33.8
Syria	137	33.5
Somalia	138	33.4
Botswana	139	33.1
Azerbaijan	140	33.0
Eritrea	141	32.9
Morocco	142	32.5
Montenegro	143	32.5
Cuba	144	32.0
Libya	145	31.8
Nigeria	146	31.5
Armenia	147	31.1
Jamaica	148	31.1
Haiti	149	30.9
Tunisia	150	30.9
Mongolia	151	30.7
Iraq	152	30.7
Turkey	153	30.7
Namibia	154	30.5
Israel	155	30.4
India	156	30.1
Greenland	157	29.8
Brunei	158	29.7
South Sudan	159	29.6
United Arab Emirates	160	29.5
Kenya	161	29.5
Nepal	162	29.2
Bahrain	163	28.8
Pakistan	164	28.5
Yemen	165	27.6
Cyprus	166	26.9
Guatemala	167	26.2
West Bank and Gaza	168	24.9
Singapore	169	24.1
Lebanon	170	23.9
Maldives	171	23.6
Iran	172	23.3
Kosovo	173	22.2
Hong Kong	174	17.3
Jordan	175	15.1

Resource Intensity & Efficiency

Rankings at a glance

Country	Rank	Score
Sudan	1	61.3
Sri Lanka	2	60.3
Albania	3	60.1
Burma	4	60.0
Tajikistan	5	59.2
Angola	6	58.3
Republic of Congo	7	57.1
Switzerland	8	56.9
Nigeria	9	56.7
Nepal	10	56.5
Guinea-Bissau	11	56.4
Colombia	12	55.9
Luxembourg	13	55.4
Philippines	14	55.3
Peru	15	55.2
Ethiopia	16	55.0
Ghana	17	55.0
Afghanistan	18	54.7
Zambia	19	54.6
Nicaragua	20	54.4
Georgia	21	54.1
Belize	22	54.0
El Salvador	23	54.0
Austria	24	54.0
Dominica	25	53.8
Paraguay	26	53.6
Equatorial Guinea	27	53.4
Gambia	28	53.3
Portugal	29	53.0
Ecuador	30	53.0
Mozambique	31	52.7
Eritrea	32	52.7
Madagascar	33	52.7
Mali	34	52.6
Italy	35	52.2
Panama	36	52.1
Argentina	37	52.1
Bhutan	38	52.0
Costa Rica	39	51.9
Brazil	40	51.6
Lesotho	41	51.6
Swaziland	42	51.5
Croatia	43	51.4
Chad	44	51.3

Country	Rank	Score
Gabon	89	45.7
Japan	90	45.4
Morocco	91	45.2
Indonesia	92	44.8
New Zealand	93	44.6
Slovenia	94	44.6
Cambodia	95	44.6
Uganda	96	44.6
Mauritania	97	44.3
Cote d'Ivoire	98	44.3
Bulgaria	99	44.2
Somalia	100	44.1
Mauritius	101	43.9
Haiti	102	43.7
Iraq	102	43.7
Papua New Guinea	104	43.6
Jamaica	105	43.6
Ukraine	106	43.5
Moldova	107	43.3
Burkina Faso	108	43.2
South Sudan	109	43.1
Zimbabwe	110	43.0
Laos	111	43.0
Czech Republic	112	42.9
Serbia	113	42.9
India	114	42.8
Timor-Leste	115	42.5
Uruguay	116	42.4
Bangladesh	117	42.3
Canada	118	42.3
Thailand	119	42.2
Montenegro	120	42.1
Syria	121	41.4
Pakistan	122	41.3
Denmark	123	41.2
USA	124	41.2
North Korea	125	41.0
Poland	126	40.9
Chile	127	40.9
Egypt	128	40.9
Maldives	129	40.4
Turkey	130	40.0
Belarus	131	40.0
Iceland	132	39.7

Country	Rank	Score
Tunisia	89	45.3
Hungary	90	45.1
Slovenia	91	44.9
Somalia	92	44.8
Cote d'Ivoire	93	44.5
Suriname	94	44.4
New Zealand	95	44.3
Cambodia	96	44.2
Haiti	97	43.8
Papua New Guinea	98	43.8
Morocco	99	43.7
South Sudan	100	43.5
Indonesia	101	43.4
Jamaica	102	43.2
Mauritius	103	43.1
Czech Republic	104	43.0
Burkina Faso	105	42.8
Iraq	106	42.5
Timor-Leste	107	42.5
Zimbabwe	108	42.3
Mauritania	109	42.3
Bulgaria	110	42.2
Bangladesh	111	42.2
Serbia	112	42.1
Canada	113	42.0
Thailand	114	42.0
Moldova	115	41.9
Laos	116	41.7
Denmark	117	41.5
Ukraine	118	41.4
USA	119	41.4
India	120	41.4
Uruguay	121	41.2
North Korea	122	40.9
Maldives	123	40.7
Montenegro	124	40.4
Iceland	125	40.4
Poland	126	40.2
Syria	127	40.1
Pakistan	128	40.1
Chile	129	39.6
Namibia	130	39.4
Botswana	131	39.3
Egypt	132	39.2

Country	Rank	Score
Iceland	132	39.7
Turkmenistan	133	39.7
Namibia	134	39.4
Botswana	135	39.3
Lebanon	136	39.1
Ireland	137	39.0
Bolivia	138	38.8
Kosovo	139	38.8
Mexico	140	38.6
Macedonia	141	38.4
Finland	142	38.2
Cyprus	143	37.9
Seychelles	144	37.8
West Bank and Gaza	145	37.0
Russia	146	36.9
Norway	147	36.2
China	148	36.1
Yemen	149	35.2
Hong Kong	150	35.1
Jordan	151	34.8
Algeria	152	34.6
Qatar	153	34.4
Macao	154	34.0
Malaysia	155	33.4
Australia	156	32.9
Libya	157	32.7
South Korea	158	31.8
Benin	159	31.0
Mongolia	160	30.9
Bahamas	161	30.3
Bosnia and Herzegovina	162	29.7
Vietnam	163	29.7
Estonia	164	29.5
Kuwait	165	28.9
Greenland	166	27.6
Bahrain	167	27.5
Iran	168	27.2
South Africa	169	25.5
Kazakhstan	170	24.9
Brunei	171	24.4
Fiji	172	24.2
Trinidad and Tobago	173	21.8
United Arab Emirates	174	20.4
Saudi Arabia	175	17.6
Oman	176	14.6

Sustainable Innovation & Competitiveness
Rankings at a glance

Country	Rank	Score
Singapore	1	65.5
China	2	62.1
Japan	3	60.4
Austria	4	60.1
Norway	5	59.6
South Korea	6	58.9
Netherlands	7	58.9
Denmark	8	58.6
Switzerland	9	58.2
Germany	10	58.0
Sweden	11	57.0
Finland	12	56.9
Iceland	13	56.8
Luxembourg	14	56.5
Belarus	15	56.3
Estonia	16	56.0
Czech Republic	17	55.6
Portugal	18	55.3
Belgium	19	54.6
Ireland	20	54.4
Canada	21	54.1
United Kingdom	22	53.7
France	23	53.5
Spain	24	53.1
Australia	25	52.6
Gibraltar	26	52.4
Slovenia	27	51.7
USA	28	51.4
Brazil	29	51.2
New Zealand	30	50.9
Israel	31	50.7
Montenegro	32	50.7
Chile	33	50.6
Cyprus	34	49.7
Malta	35	49.7
Armenia	36	48.5
Italy	37	48.4
Libya	38	48.1
Russia	39	47.2
Hong Kong	40	47.2
Croatia	41	47.0
Greenland	42	46.5
Lithuania	43	46.4
Costa Rica	44	46.4

Country	Rank	Score
Romania	45	46.2
Oman	46	46.1
Turkey	47	45.9
Bahrain	48	45.0
Uruguay	49	44.7
Colombia	50	44.6
Poland	51	44.5
Saudi Arabia	52	44.3
Algeria	53	43.9
Bulgaria	54	43.5
Tunisia	55	43.4
Uzbekistan	56	43.4
Greece	57	43.3
Latvia	58	43.2
Guyana	59	43.2
Jordan	60	43.1
Argentina	61	43.0
Iran	62	43.0
Sri Lanka	63	42.8
Serbia	64	42.7
Venezuela	65	42.5
Mauritius	66	42.2
Ecuador	67	42.1
Paraguay	68	41.7
Slovakia	69	41.1
Kyrgistan	70	40.9
Georgia	71	40.5
Mongolia	72	40.4
Lebanon	73	40.3
Kazakhstan	74	40.3
Peru	75	40.1
Brunei	76	40.1
Kuwait	77	40.0
Kosovo	78	39.9
Cuba	79	39.6
Bosnia and Herzegovina	80	38.9
South Africa	81	38.3
Malaysia	82	38.2
Bhutan	83	38.1
Suriname	84	37.8
Tajikistan	85	37.5
Ukraine	86	37.3
India	87	37.3
Syria	88	37.2

Country	Rank	Score
Dominica	89	37.1
Moldova	90	37.1
Indonesia	91	37.0
Angola	92	36.3
Botswana	93	36.2
Hungary	94	36.1
Seychelles	95	35.7
Turkmenistan	96	35.4
Vietnam	97	35.4
Albania	98	35.2
Ghana	99	34.6
Macedonia	100	34.6
Dominican Republic	101	34.6
Egypt	102	34.0
Burma	103	33.9
Afghanistan	104	33.6
Equatorial Guinea	105	33.5
Nepal	106	33.4
Qatar	107	33.4
Laos	108	33.3
Morocco	109	32.8
Panama	110	32.5
Timor-Leste	111	32.4
Namibia	112	32.3
Zambia	113	32.1
Thailand	114	32.0
Azerbaijan	115	31.6
Republic of Congo	116	31.5
Bahamas	117	31.4
Gabon	118	31.4
Mexico	119	31.2
Philippines	120	31.2
Jamaica	121	31.2
Pakistan	122	30.5
United Arab Emirates	123	30.3
El Salvador	124	30.2
Belize	125	30.1
Swaziland	126	29.9
Nigeria	127	29.6
Cambodia	128	29.6
North Korea	129	29.2
Ethiopia	130	28.7
Tanzania	131	28.5
Rwanda	132	28.4

Country	Rank	Score
Senegal	133	28.3
Kenya	134	28.1
Niger	135	28.0
Liberia	136	27.8
Bolivia	137	27.6
Uganda	138	27.2
Gambia	139	27.1
Mauritania	140	27.0
Sudan	141	26.8
Maldives	142	26.7
Cameroon	143	26.6
Papua New Guinea	144	26.4
Benin	145	26.3
Guatemala	146	26.3
Zimbabwe	147	25.8
Mali	148	25.3
Sierra Leone	149	25.1
Democratic Republic of Congo	150	25.0
Trinidad and Tobago	151	24.7
Malawi	152	24.5
Mozambique	153	24.4
Central African Republic	154	24.4
Fiji	155	24.3
West Bank and Gaza	156	24.1
Djibouti	157	24.1
South Sudan	158	23.5
Cote d'Ivoire	159	23.5
Lesotho	160	23.3
Honduras	161	22.9
Chad	162	22.4
Eritrea	163	22.4
Guinea-Bissau	164	22.3
Togo	165	22.1
Burundi	166	22.0
Bangladesh	167	21.8
Madagascar	168	21.7
Burkina Faso	169	21.4
Somalia	170	21.3
Comoros	171	21.2
Haiti	172	20.8
Guinea	173	20.1
Nicaragua	174	18.4
Yemen	175	15.2
Iraq	176	14.5

Social Cohesion

Rankings at a glance

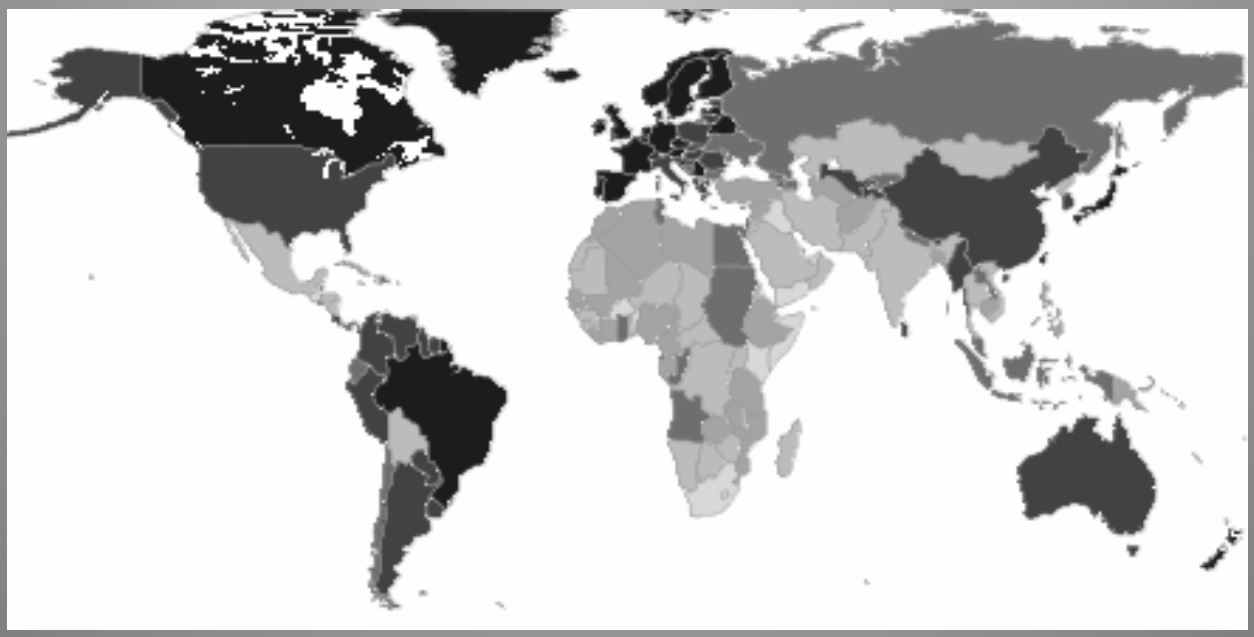
Country	Rank	Score
Norway	1	78.3
Iceland	2	76.1
Denmark	3	75.5
Finland	4	75.0
Ireland	5	74.9
Sweden	6	73.7
Austria	7	73.0
Germany	8	71.5
Switzerland	9	71.1
Japan	10	69.8
Luxembourg	11	67.5
Netherlands	12	66.1
Slovenia	13	65.1
Slovakia	14	64.9
Belgium	15	64.9
Canada	16	64.8
Poland	17	64.4
Cyprus	18	63.3
Czech Republic	19	63.0
France	20	62.1
New Zealand	21	62.0
Australia	22	60.8
Spain	23	57.8
United Kingdom	24	57.8
Qatar	25	57.5
Croatia	26	57.0
Egypt	27	56.6
Serbia	28	56.1
Estonia	29	55.2
Hungary	30	55.2
Greece	31	55.0
Malta	32	54.6
Greenland	33	54.5
Kosovo	34	53.7
Tajikistan	35	53.5
Italy	36	53.5
Romania	37	53.3
Montenegro	38	52.2
Oman	39	52.0
Singapore	40	52.0
South Korea	41	51.6
Armenia	42	51.4
United Arab Emirates	43	50.2
Bosnia and Herzegovina	44	49.7

Country	Rank	Score
Belarus	45	49.4
Seychelles	46	49.0
Kuwait	47	48.7
Ukraine	48	48.5
Portugal	49	48.2
Uzbekistan	50	47.8
Azerbaijan	51	47.8
Vietnam	52	47.4
China	53	47.3
Albania	54	47.1
Argentina	55	46.3
Jordan	56	46.2
Bhutan	57	46.2
Mongolia	58	46.1
Bangladesh	59	46.1
Timor-Leste	60	46.0
Laos	61	45.9
Syria	62	45.9
Malaysia	63	45.8
Uruguay	64	45.6
Lithuania	65	45.3
Costa Rica	66	45.1
Kazakhstan	67	45.1
Tunisia	68	45.1
Turkmenistan	69	44.9
Indonesia	70	44.8
Jamaica	71	44.7
India	72	44.2
Latvia	73	43.7
Bahrain	74	43.5
Kyrgistan	75	43.2
Maldives	76	43.1
Bulgaria	77	43.0
Macedonia	78	42.8
USA	79	42.6
Moldova	80	42.3
Morocco	81	41.6
Sri Lanka	82	41.3
Israel	83	41.3
Nepal	84	41.1
Saudi Arabia	85	40.5
Lebanon	86	40.1
Turkey	87	39.8
North Korea	88	39.6

Country	Rank	Score
Chile	89	38.7
Mexico	90	38.6
Bahamas	91	38.5
Algeria	92	38.4
Mali	93	38.0
Pakistan	94	37.4
Dominican Republic	95	36.8
Suriname	96	36.4
Cuba	97	36.1
Ecuador	98	36.0
Brunei	99	35.7
Philippines	100	35.7
Iran	101	35.5
Dominica	102	34.8
Afghanistan	103	34.7
Brazil	104	34.6
Ghana	105	34.6
Cambodia	106	34.1
Namibia	107	34.1
Russia	108	34.1
Peru	109	33.8
Djibouti	110	33.7
Venezuela	111	33.6
Panama	112	33.4
Libya	113	33.2
Gabon	114	33.2
Trinidad and Tobago	115	33.2
Paraguay	116	32.7
Papua New Guinea	117	32.6
Ethiopia	118	32.6
Mauritania	119	32.5
El Salvador	120	32.3
Mauritius	121	32.2
Guatemala	122	32.0
Senegal	123	32.0
Malawi	124	31.7
Guyana	125	31.0
Gambia	126	30.9
Iraq	127	30.6
Hong Kong	128	30.6
Georgia	129	30.6
Burkina Faso	130	30.0
Guinea-Bissau	131	29.9
Colombia	132	29.7

Country	Rank	Score
West Bank and Gaza	133	29.5
Tanzania	134	29.3
Burma	135	29.3
Nigeria	136	29.1
Benin	137	29.1
Chad	138	29.0
Guinea	139	28.9
Togo	140	28.9
Nicaragua	141	28.8
Burundi	142	28.8
Yemen	143	28.7
Macao	144	28.6
Swaziland	145	28.2
South Sudan	146	28.1
Thailand	147	28.1
Mozambique	148	27.8
Eritrea	149	27.8
Uganda	150	27.7
Sierra Leone	151	27.7
Liberia	152	27.5
Belize	153	27.4
Niger	154	27.1
Cameroon	155	27.1
Republic of Congo	156	27.0
Comoros	157	26.8
South Africa	158	26.8
Botswana	159	26.6
Bolivia	160	26.3
Honduras	161	25.4
Equatorial Guinea	162	25.0
Madagascar	163	24.9
Cote d'Ivoire	164	24.8
Sudan	165	24.6
Central African Republic	166	23.9
Kenya	167	23.9
Somalia	168	23.6
Fiji	169	21.8
Democratic Republic of Congo	170	21.4
Zimbabwe	171	21.0
Angola	172	20.9
Zambia	173	20.8
Haiti	174	20.2
Lesotho	175	19.3
Rwanda	176	16.7

THE GLOBAL SUSTAINABLE COMPETITIVENESS INDEX



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