



An Inventory of Composite Measures of Human Progress

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Introduction

Since the first Human Development Index (HDI) was published in 1990, a wealth of composite measures of human progress and well-being have been developed to varying degrees of acclaim and scrutiny. The range of authors has likewise been broad, including individuals as well as development research and policy analysis groups affiliated with international organisations, national governments, NGOs, civil societies, private consultancies and universities.

This comprehensive, though not exhaustive inventory details 101 composite measures of human well-being and progress mainly put forward since the first HDI, covering a broad range of concepts and construction methodologies. Themes range from happiness-adjusted income to environmentally-adjusted income, from child development to information and communication technology (ICT) development. The hope is that the inventory will provide a useful reference point for those wishing to find out more about the availability of existing composite measures focused on human development, their construction methodologies, limitations, and scope of impact. These measures can then be used with greater understanding for further research and analysis, and even for the development of new and better informed indices.

Readers' Guide

The inventory is arranged first by concept, as listed in the table of contents, then by final stage aggregation method. A full list of the details provided for each inventory entry can be found in the “Description of Details Contained in the Inventory” section below. Descriptions of the construction methodologies and other details in the inventory are written to follow as far as possible a standard format, where sufficient detail in the source methodology documentation allowed. This is to facilitate clear definition of the stages in the construction procedures and to allow ease of comparison between the methodologies for different entries. The general format is as follows: first, an explanation of the normalisation procedure used (including treatment of outliers and extreme distributions where possible) to scale indicators onto a comparable unit of variation; second, how the indicators are weighted and aggregated into the dimension level and, if applicable, details of any other aggregation stages in between; and third, how the overall composite measure is derived from the dimension level.

As mentioned before, within each concept category the measures are ordered by their final stage aggregation method, which refers to the third stage in the general methodology format just described. The categories of final stage aggregation method are as follows: generalised mean; ratio; unweighted arithmetic mean; unweighted sum; weighted arithmetic mean; or weighted sum. Some methodologies fall under more than one of these aggregation categories.

Readers will find that the majority of entries in this inventory of “composite measures” are in fact titled as various kinds of “indices”. Some clarification is needed at this point. Typically, composite measures tend to be classified into the following types: first, adjusted income measures which add or subtract the value derived or lost from social and environmental factors; second, subjective well-being measures derived from self-assessed survey responses about various aspects of life; and third, composite measures constructed from indicators measuring a particular concept that are weighted and aggregated into a synthetic index.¹ It should

¹ Note that ‘dashboard’-type approaches and sets of indicators that are not *explicitly* aggregated into a single measure are not included in this inventory.

be noted however, that although only the third type explicitly mentions weighting and aggregation, in fact all three types involve both of these procedures which are typically associated only with the notion of an “index”. To see this, note also that the general methodology format described above accommodates all three types of measure: with adjusted income measures, indicators are normalised into monetary units and aggregated additively; with subjective well-being measures, indicators are normalised into units of impact on subjective well-being response scores and then aggregated additively again; synthetic indices can be normalised in a number of ways (the inventory includes z-score standardisation, max-min normalisation, monetisation, or converting into a 1-*n* scale), and aggregated using aggregation methods listed in the previous paragraph.

From the observation just noted and for conciseness, the term “index” will be used in the next sections of the introduction to describe all three types of composite measures. An additional note when using the inventory is that for indices released regularly over a sustained period, it is often the case that construction methodologies evolve to some degree, as data gets updated or made available and new opinions on theories emerge. Therefore, details given in the inventory are those referring to the *most recent* release.

Finally, a few remarks should be made on the hotly debated topic of index weighting methods. The inventory does not explicitly classify indices into neat categories of weighting types, however on inspection of the entries several broad types of weighting method do emerge. By far the most popular is equal weighting of indicators or dimensions. This has often proved controversial, since it is not straightforward that equal weighting necessarily implies giving equal importance to the dimensions in question, but more crucially the argument for equal importance is not always made explicit in the first instance. Another method commonly favoured by sociologists is principal components analysis, using statistical analysis to derive independent latent components that each describes as much variation in the data as possible; these latent components are then used in lieu of the raw indicators. Private consultancies on the other hand tend to favour weighting by expert opinion, making use of their networks of expert analysts and area specialists to come to a consensus on weights within these indices. One of the more recent developments is weighting by obtaining relative preferences between dimensions of the population that the index is intended to represent. This is done either by interviewing focus groups drawn from members of the public, or else by analysing covariates in regressions using subjective well-being response data.

Encompassing all of these weighting types, another emerging trend has been the representation of indices and their weighting using interactive interfaces either in web graphic or downloadable excel format, allowing viewers and users to adjust and experiment with different weights for themselves. These graphical and interactive formats have often made for the most engaging, transparent and easily understandable representation of indices in the inventory.

The descriptions and explanations given in the inventory are intended on a neutral basis, and do not attempt to make any recommendation as to which methods are superior or inferior. For this, readers are directed to the abundant literature reviewing and critiquing these various methodologies.

Explanation of Concept Categories

All indices are classified under the following thematic categories, each pertaining to a particular concept or issue in the attainment of human progress and well-being. The inherently complex nature of the concepts and constructs summarised by composite measures means that almost all indices can be classified under numerous categories. Therefore as with the categories of final stage aggregation method, many indices are assigned more than one of these concept categories. In these cases, the index is listed in the table of contents under the category that arguably describes more fully the concept it is intended to capture.

Children’s Well-being: Attainment of children and young people mainly of ages 19 and under

Economic Progress: The use and security of financial resources, value of capital stocks, and performance in headline macroeconomic indicators

Environment: The value, use, degradation and preservation of natural capital and ecosystem services

Gender Disparities: Inequality in attainment between males and females

Globalisation: Connectedness to the global marketplace and to international channels of culture, knowledge and decision-making

Governance: Performance of the political and legal institutions that enable a well-functioning economic environment and democratic civic engagement

Human Capabilities: Attainment in the basic aspects of health, education and standard of living

Human Progress: Attainment in a mixture of human capabilities as well as personal, social and environmental factors

Poverty: Deprivations in the basic aspects of health, education, standard of living and nutrition

Quality of Living: Adequacy and comfort of living conditions as measured by economic, environmental and social factors, as well as the physical, cultural and intellectual surrounding environment

Safety and Security: Likelihood or avoidance of personal harm, financial harm, or armed conflict

Social Exclusion: Ostracism or inequality in social provisioning for minority groups in society

Social Progress: Performance in aspects that affect the functioning and flourishing of society, such as intergroup equality and cohesion, and level of crime and substance abuse

Subjective Well-being: Pertaining to attainment or satisfaction as measured by self-evaluated survey responses

Sustainability: Capacity to meet long-term needs of the environment, economy or society

Technology and Innovation: The development of information technology skills and connectivity, and of new ideas and products

Vulnerability: Risk of falling victim to various natural or man-made hazards, such as natural disasters, civil upheaval or food shortages

Well-being: Attainment in multiple and diverse aspects that impact on physical and mental quality of life at present.

Women's well-being: Pertaining particularly to the attainment of females, and not to inequality in attainment between the two genders

Description of Details Contained in the Inventory

Each entry in the inventory contains the following information:

Name of index: How the index is identified by the agency/institution/author

Agency/Institution/Author: The party responsible for constructing and releasing the index

Concept: What thematic category or issue in human progress the index addresses (see "Explanation of Concept Categories" above for more details)

What it measures: A more detailed description of the concept that the index is intended to capture, usually phrased in terms of the language used by the publication introducing the index

Final stage aggregation method: General description of how the index is aggregated from the dimension level into the overall index level (see "Other Categories and Definitions" above for more details)

Dimensions (in latest edition): The sub-level of components which are aggregated into the overall index in the final stage of constructing the index. In the source methodology documentation, these were variously termed "dimensions", "components", "pillars" etc. however they have all been re-labelled as "dimensions" in this inventory for consistency of interpretation between the different measures

Indicators and their sources (in latest edition): The variables used at the most disaggregated stage of constructing the index as detailed in the source methodology documentation, including the respective data

sources. Where possible, individual data sources are given for each indicator; however where this was not possible due to lack of detail in the methodology documentation, a list of sources is given at the end of the indicator list for the entry. In some cases indicators are further comprised of sub-indicators, however these for the most part were not elaborated on in the source methodology documentation. Sub-indicator details are therefore not given in this inventory, however a note is provided in the indicator details of index entries where sub-indicators were used

Weighting (in latest edition): Description of how the indicators are weighted at the indicator aggregation stage, and how the dimensions are weighted at the dimension aggregation stage into the overall index (see “Other Categories and Definitions” above for more details)

Methodology (in latest edition): Explanation of all the technical stages involved in constructing the index

Index metric: The units or scale by which countries/regions are assessed according to the index

Year of introduction: The year in which the first edition (or in some cases the pilot version) of the index was released

Frequency of release: How often the index is updated or published. Indices not published on a regular basis are classified as either “one-off”, for one-time releases; “irregular”, for example for index methodologies used in various publications by unaffiliated authors or organisations at different times; or else the specific years, or range of years, for which the index has been published so far is listed

Country coverage (in latest edition): Number of countries assessed in the most recent release of the index. A small number of indices in the inventory are intra-national, assessing regions within a particular country. In these cases this is made clear

Who uses the index: The primary audience and users of the index, as demonstrated by content published online or in print that either cites, commentates on, or uses the index in some way

How is it used: The analytical purposes for which the index is used within the publication containing it

Influence/Impact: Other uses that have been made of the index in wider circles, and their efficacy

Documented limitations: Explicit critiques of the index that have been found in published content, either online or in print. Where possible, references to the source are given. It should be noted that some critiques may pertain to a whole class of indices, or even to composite measures in general; however only those explicitly documented for a particular index are detailed in the inventory

Relevant websites: The website to which the index is affiliated and where more information can be found. Where this isn’t available a link to the source methodology documentation is provided

Publication where the index can be found: The name of the primary publication containing the index by the agency/institution/author, such as a paper, book or report(s)

Official source/citation: The party to which the original index and methodology should be credited when using references

Inventory

1. Child and Youth Well-Being Index (CWI)

Agency/Institution/Author: Foundation for Child Development

Concept: Children's well-being

What it measures: Summary measure of the overall well-being of America's children and young people

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 7:-

Family economic well-being;

Health;

Safe/risky behaviour;

Educational attainment;

Community engagement;

Social relationships;

Emotional/spiritual well-being

Indicators and their sources (in latest edition): 28:-

Poverty rate (all families with children ages 0–18) (US Census Bureau);

Secure parental employment rate (all families with children ages 0–18) (US Census Bureau);

Median annual income (all families with children ages 0–18) (US Census Bureau);

Rate of children with health insurance (all families with children ages 0–18) (US Census Bureau);

Teenage birth rate (ages 10–17) (National Center for Health Statistics);

Rate of violent crime victimisation (ages 12–19) (US Department of Justice);

Rate of violent crime offenders (ages 12–17) (US Department of Justice);

Rate of cigarette smoking (grade 12) (Institute for Social Research, University of Michigan);

Rate of binge alcohol drinking (grade 12) (Institute for Social Research, University of Michigan);

Rate of illicit drug use (grade 12) (Institute for Social Research, University of Michigan);

Rate of children in families headed by a single parent (all families with children ages 0–18);

Rate of children who have moved within the last year (ages 0–18) (US Census Bureau);

Suicide rate (ages 10–19) (National Center for Health Statistics);

Rate of weekly religious attendance (grade 12) (Institute for Social Research, University of Michigan);

Percent who report religion as being very important (grade 12) (Institute for Social Research, University of Michigan);

Rate of persons who have received a high school diploma (ages 18–24) (US Department of Education Statistics);

Rate of youth not working and not in school (ages 16–19) (US Bureau of Labor Statistics);

Rate of pre-kindergarten enrolment (ages 3–4) (US Department of Education);

Rate of persons who have received a bachelor's degree (Ages 25–29) (US Department of Education);

Rate of voting in presidential elections (ages 18–24) (US Census Bureau);

Reading test scores (averages of ages 9, 13, and 17) (US Department of Education);

Mathematics test scores (average of ages 9, 13, and 17) (US Department of Education);

Infant mortality rate (National Center for Health Statistics);

Low birth weight rate (National Center for Health Statistics);

Mortality rate (ages 1–19) (National Center for Health Statistics);

Rate of children with very good or excellent health (ages 0–18, as reported by parents) (National Center for Health Statistics);

Rate of children with activity limitations due to health problems (ages 0–18, as reported by parents) (National Center for Health Statistics);

Rate of obese children and adolescents (ages 6–19) (National Center for Health Statistics)

Weighting (in latest edition): Equal weighting of indicators with dimensions, equal weighting of dimensions within the overall index

Methodology (in latest edition): Time series of each of the indicators is indexed by a base year (1975), and assigned a value of 100 for each indicator; subsequent values of the indicator are taken as percentage changes; indicators are aggregated by unweighted arithmetic mean into 7 dimensions sub-indices, and these are then aggregated by unweighted arithmetic mean into the overall index

Index metric: Baseline score of 100 with 1975 base year

Year of introduction: 2004

Frequency of release: Annually

Country coverage (in latest edition): US

Who uses the index: Policy-makers, NGOs, researchers, media

How is it used: To track short-term changes and long-term trends in the dimensions, indicators, and the overall index

Influence/Impact: Used as a tool for alerting policy-makers and the public to child and family needs requiring policy attention

Documented limitations: Problems with equal weighting: there is actually an implicit weighting scheme in the index, where the indicators in dimensions with more components are down-weighted relative to those with fewer components

Relevant websites: <http://fcd-us.org/our-work/child-well-being-index-cwi/>

Publication where index can be found: National Child and Youth Well-being Index

Official source/citation: Foundation for Child Development

2. Child Development Index (CDI)

Agency/Institution/Author: Save the Children

Concept: Children's well-being

What it measures: A global tool to assess the performance of countries on child mortality, nutrition and access to primary education

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Health;

Nutrition;

Education

Indicators and their sources (in latest edition): 3:-

Under-5 mortality rate;

% of under-5's moderately-severely underweight;

% of primary school-age children not enrolled in school

(Sources: UN, World Bank, national statistics)

Weighting (in latest edition): Equal dimension weighting

Methodology (in latest edition): Indicators are expressed on a 0-100 scale; indicator scores are averaged by unweighted arithmetic mean to obtain the overall index score

Index metric: 0-100 scale

0 = best score

100 = worst score

Year of introduction: 2008

Frequency of release: 2008; 2012

Country coverage (in latest edition): 141

Who uses the index: NGOs, policy-makers, researchers, media

How is it used: To rank countries and monitor progress in child well-being across countries and over time

Influence/Impact: The CDI has been used as an advocacy tool to promote policy decisions that address basic threats to child survival and well-being

Documented limitations: Criticism that the indicators are all at different scales and therefore cannot be aggregated by averaging. See note by Achim Wolf (Note on the Save the Children 'Child Development Index')

Relevant websites: <http://www.savethechildren.org.uk/resources/online-library/child-development-index-2012-progress-challenges-and-inequality>

Publication where index can be found: The Child Development Index reports

Official source/citation: Save the Children

3. Child Well-being in Rich Countries

Agency/Institution/Author: UNICEF

Concept: Children's well-being

What it measures: A composite index of five dimensions of well-being affecting the lives of children in the world's most advanced economies

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 5 (each split into 2 or 3 components):-

Material well-being;

Health and safety;

Education;

Behaviours and risks;

Housing and environment

Indicators and their sources (in latest edition): 26 (each belonging to a component of a dimension):-

Relative child poverty rate;

Relative child poverty gap;

Child deprivation rate;

Low family affluence rate;

Infant mortality rate;

Low birthweight rate;

Overall immunisation rate;

Child death rate, age 1-19;

Participation rate: early childhood education;

Participation rate: further education, age 15-19;

% age 15-19 not in education, employment or training;

Average PISA scores in reading, maths and science;

Being overweight;

Eating breakfast;

Eating fruit;
Taking exercise;
Teenage fertility rate;
Smoking;
Alcohol;
Cannabis;
Fighting;
Being bullied;
Rooms per person;
Multiple housing problems;
Homicide rate;
Air pollution.

(Sources: UNICEF)

Weighting (in latest edition): Equal indicator weights within each component, equal component weights within each dimension, equal dimension weights within the overall index

Methodology (in latest edition): Indicators are first standardised to give z-scores, with mean 0 and standard deviation 1; standardised indicators are aggregated by unweighted arithmetic mean to give component scores; component scores are aggregated by unweighted arithmetic mean to give dimension scores; countries are ranked by each of the 5 dimension scores, and these rankings are then averaged to give the overall index rank

Index metric: 1-29 average ranking position among the 29 countries assessed

Year of introduction: 2007

Frequency of release: 2007; 2013

Country coverage (in latest edition): 29

Who uses the index: Policy-makers, NGOs, researchers, media

How is it used: To monitor and rank overall country performance and in the component dimensions of child well-being

Influence/Impact: Used to improve international understanding of issues in children's rights; support advocacy for policy reform in favour of children

Documented limitations: The z-scores used by the index are sensitive to data availability and could be conditioned by the presence of outliers. See Martorano, Natali, de Neubourg and Bradshaw, 2013 (Child Well-being in Economically Rich Countries: Changes in the first decade of the 21st century)

Relevant websites: http://www.unicef-irc.org/publications/pdf/rc11_eng.pdf

Publication where index can be found: UNICEF Innocenti Report Card 11

Official source/citation: UNICEF

4. Child-friendliness Index

Agency/Institution/Author: The African Child Policy Forum

Concept: Children's well-being

What it measures: Composite index measuring governments' relative performance in realising children's rights and ensuring their well-being

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 2:-

Child protection;
Provision

Indicators and their sources (in latest edition): 36:-

18 for the 'Child protection' dimension;

5 in 'Budgetary commitment' and 13 in 'Child-related outcomes for children' for the 'Provision' dimension

(Sources: UNESCO Institute of Statistics; World Bank Africa and World Development Indicators series; UNICEF ChildInfo database; UN Statistics Division; Stockholm International Peace Research Institute; Measure DHS)

Weighting (in latest edition): Equal weighting of all indicators and dimensions

Methodology (in latest edition): Indicators are first standardised into a scale of 0 to 1 using minimum and maximum observed values for each dimension; the arithmetic mean is then taken to aggregate indicators into dimension indices; the arithmetic mean is taken again of these dimension indices into the overall index

Index metric: 0-1 scale

0 = worst score

1 = best score

Year of introduction: 2008

Frequency of release: 2008; 2011; 2013

Country coverage (in latest edition): 52 African countries

Who uses the index: Mainly used by NGOs and the media

How is it used: To compare and contrast child-friendliness of governments with a country's economic status or availability of resources; assess gender disparity among children

Influence/Impact: Used as an advocacy tool by NGOs urging governments to implement policies and laws that benefit children

Documented limitations: Arithmetic mean aggregation used due to unknown functional forms of relationships between indicators used

Relevant websites: <http://www.africanchildforum.org/africanreport/>

Publication where index can be found: The African Reports on Child Wellbeing

Official source/citation: The African Child Policy Forum

5. Commitment to Development Index

Agency/Institution/Author: Center for Global Development

Concept: Economic progress

What it measures: Rates OECD countries on how much they help low and middle income countries to build prosperity, good government and security

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 7:-

Aid;

Trade;

Investment;

Migration;

Environment;

Security;

Technology

Indicators and their sources (in latest edition): 30

(Sources: World Bank, OECD, UN, academic researchers)

Weighting (in latest edition): Equal dimension weighting

Methodology (in latest edition): Each dimension combines many indicators into a single score, placing that score on a standard scale, so that an average score equals 5. If a country is twice as good as average it scores a 10, and if it is more than twice as good it scores above 10

Index metric: 0-10 scale

Year of introduction: 2003

Frequency of release: Annually

Country coverage (in latest edition): 27 OECD countries

Who uses the index: Media, governments, researchers

How is it used: To rank rich country performance in the overall index and its component dimensions

Influence/Impact: The index is widely cited as a measure of donor policies' impact on developing countries; used to draw attention to the ways rich countries can positively influence development

Documented limitations: Criticism that some of the dimensions may be extraneous when measuring contributions to poverty reduction (see article by the Ministry of Foreign Affairs of Japan 2006, Critical Comments on the Ranking of Developed Countries Made by CGD, a US non-governmental think tank)

Relevant websites: <http://www.cgdev.org/publication/commitment-development-index-2013>

Publication where index can be found: Commitment to Development Index briefs

Official source/citation: Center for Global Development

6. IMD World Competitiveness Ranking

Agency/Institution/Author: IMD World Competitiveness Center

Concept: Economic progress

What it measures: A measure of how nations and enterprises manage the totality of their competencies to achieve increased prosperity

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Economic performance;

Government efficiency;

Business efficiency;

Infrastructure

Indicators and their sources (in latest edition): 246

(Sources: statistical indicators are acquired from international, national and regional organisations, private institutions and IMD's network of 55 international Partner Institutes; additional criteria are drawn from IMD's annual Executive Opinion Survey)

Weighting (in latest edition): Indicators equally weighted within sub-factors; sub-factors equally weighted within dimensions; dimensions equally weighted within the overall index

Methodology (in latest edition): Non-normally distributed data is normalised by taking the log; each of the 246 indicators is standardised to give z-scores; standardised indicators are aggregated by unweighted arithmetic mean into 20 sub-factors; these sub-factors are aggregated by unweighted arithmetic mean into the 4 dimensions; dimensions are then aggregated by unweighted arithmetic mean into the overall index

Index metric: Relative country ranking

1 = best performance

Year of introduction: 1989

Frequency of release: Annually

Country coverage (in latest edition): 60

Who uses the index: Businesses, governments, researchers, academia, media

How is it used: To rank countries in the overall index and its dimensions; rankings split by population size, wealth or regions; analyse time trends

Influence/Impact: The report containing the rankings has been regarded as the leading annual report on the competitiveness of nations

Documented limitations: Criticism that the index disregards economies' unique characteristics such as geography, culture and demographics; criticism of the index's underlying assumption that countries compete with each other like companies

Relevant websites: <http://www.imd.org/uupload/imd.website/wcc/methodology.pdf>

Publication where index can be found: IMD World Competitiveness Yearbook

Official source/citation: IMD World Competitiveness Center

7. Index of Economic Well-being (IEWB)

Agency/Institution/Author: Osberg and Sharpe, Centre for the Study of Living Standards (CSLS)

Concept: Economic progress

What it measures: A composite measure of economic well-being, recognising four dimensions of command over resources

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 4:-

Consumption flows;

Wealth stocks;

Equality;

Economic security

Indicators and their sources (in latest edition): 16:-

C: Per capita personal consumption adjusted for household size and life expectancy (constant \$);

G: Government spending per capita excluding debt charges (constant \$);

WT: Working time adjustment per capita (constant \$);

UP: Value of unpaid work per capita (constant \$);

K: Capital stock per capita (constant \$);

RD: R&D stock per capita (constant \$);

NR: Natural resource stock per capita (constant \$);

HC: Human capital stock per capita (constant \$);

D: Net foreign debt per capita (constant \$);

ED: Social cost of environmental degradation per capita (constant \$);

LIM: Poverty rate and gap (poverty intensity);

Gini: Gini coefficient for post-fiscal money income;

UR: Risk from unemployment;

ILL: Financial risk from illness;

SPP: Risk from single parent poverty;

OLD: Risk from poverty in old age

(Source: OECD)

Weighting (in latest edition): The IEWB tool in Microsoft Excel format allows the user to explore the effects of different dimension weights on trends in the index. For discussion purposes, dimensions are weighted 0.25 each within the overall index

Methodology (in latest edition): Indicators are summed into dimension components; each dimension is linearly scaled to the range 0-1, and aggregated by arithmetic mean with equal weighting (0.25 for each dimension) to obtain the IEWB:

$IEWB = 0.25(C + G + UP + WT) + 0.25(K + RD + HC - D - ED) + 0.25(0.75(LIM) + 0.25(Gini)) + 0.25(UR + ILL + SPP + OLD)$

Index metric: 0-1 scale

0 = worst score

1 = best score

Year of introduction: 1998

Frequency of release: Irregular; annual data available

Country coverage (in latest edition): 14 OECD countries; Canada and its provinces

Who uses the index: The index has been applied by Osberg and Sharpe (Centre for the Study of Living Standards) in Canada (1998), in the US (2001), as well a sample of OECD countries (2002, 2005)

How is it used: To rank countries/provinces; monitor their performance over time in the overall index and in its component dimensions

Influence/Impact: The IEWB has received considerable academic attention; limited public profile however, since advancement of a particular advocacy objective is not a mandate of the CSLS

Documented limitations: Criticism of its complexity, conceptually in terms of specification of the components and empirically in terms of data requirements; this has limited replicability of the index beyond the original 14 countries. See Osberg and Sharpe 2009 (New estimates of the IEWB for Canada and the provinces)

Relevant websites: <http://www.csls.ca/iwb.asp>

Publication where index can be found: Osberg and Sharpe. How should we measure the “economic” aspects of well-being? Review of Income and Wealth, 2005, vol. 51

Official source/citation: Osberg and Sharpe

8. Inclusive Wealth Index

Agency/Institution/Author: Munoz, Darkey, Oleson and Pearson, UNU-IHDP and UNEP

Concept: Economic progress

What it measures: A measure of the social value of capital assets of nations, going beyond the traditional economic concept of produced capital and including natural and human capital

Final stage aggregation method: Weighted sum

Dimensions (in latest edition): 4:-

Human capital;

Manufactured capital;

Natural capital;

Health capital

Indicators and their sources (in latest edition): 51

(Sources: UN Population Division; WHO; Klenow and Rodriguez-Clare 1997; Conference Board; Barro and Lee 2010; UN Statistics Division; ILO; FAO; Bolt et al. 2002; Lampietti and Dixon 1995; World Bank; Richard et al. (in press); SAUP; Sumaila et al. 2005; US Energy Information Administration; US Geological Survey; US Environmental Protection Agency; Boden et al. 2011; Tol 2009; Nordhaus and Boyer 2000; BP)

Weighting (in latest edition): Assets are effectively weighted according to their shadow prices or values, proxied empirically by average rental prices i.e. market prices minus production costs of the resources, averaged over the period considered

Methodology (in latest edition): Inclusive Wealth = Value of human capital + Value of manufactured capital + Value of natural capital

(with health capital measured separately, and adjusting for potential carbon damages from climate change, oil capital gains, and total factor productivity)

Index metric: Monetary amount

Year of introduction: 2012

Frequency of release: One-off

Country coverage (in latest edition): 20

Who uses the index: Policy-makers, governments, NGOs, media

How is it used: To measure composition of, and growth rates in countries' IWI, its component dimensions, and IWI per capita

Influence/Impact: The index has received widespread interest and attention since its launch at the Rio+20 Conference, and its inclusion in the 2012 Inclusive Wealth Report; has gained further exposure to policy-makers through UN workshops

Documented limitations: Other capital stocks are not accounted for, most prominently social capital; further limitations are due to data availability, making country comparisons difficult and requiring for example linear interpolation in some cases

Relevant websites: <http://www.ihdp.unu.edu/article/iwr>

Publication where index can be found: UNU-IHDP and UNEP. Chapter 2, Inclusive Wealth Report 2012: Measuring progress toward sustainability. Cambridge: Cambridge University Press

Official source/citation: UNU-IHDP and UNEP 2012

9. Happy Income (HI) Index

Agency/Institution/Author: Prinz and Bünger

Concept: Economic progress; Subjective well-being

What it measures: Measure of satisfaction-weighted income; modification of Veenhoven's Happy Life Years

Final stage aggregation method: Ratio

Dimensions (in latest edition): 2:-

Income;

Happiness

Indicators and their sources (in latest edition): 2:-

Relative median household net income, adjusted for household size (Eurofound European Quality of Life Survey);

Life satisfaction (Eurofound European Quality of Life Survey)

Weighting (in latest edition): Income is effectively weighted by degree of happiness

Methodology (in latest edition): Answers to the life satisfaction question on the European Quality of Life Survey are transformed from a 10-Likert scale to a 0-1 scale by reducing the Likert scale value by one and dividing the result by nine. The HI Index is the median equalised household net income (relative level indexed to 100) multiplied by the 0-1 scale of national average life satisfaction

Index metric: 0-100 scale relative to the other countries

Year of introduction: 2009

Frequency of release: One-off

Country coverage (in latest edition): 27

Who uses the index: Academia

How is it used: The authors compare Happy Income with Happy Life Years for 27 countries

Influence/Impact: Limited exposure, however the index has been cited on several occasions in academic papers

Documented limitations: Limited documentation due to limited exposure of the index

Relevant websites: http://www.wiwi.uni-muenster.de/cawm/forschen/Download/Diskbeitraege/DP_15_Happy_Income_and_Happy_Life_Years.pdf

Publication where index can be found: Prinz and Bünger. Living in a material world: Happy Income and Happy Life Years. Discussion paper, 2009

Official source/citation: Prinz and Bünger 2009

10. Environmental Sustainability Index (ESI)

Agency/Institution/Author: Yale Center for Environmental Law and Policy, Columbia Center for International Earth Science Information Network, World Economic Forum

Concept: Environment

What it measures: Predecessor to the Environmental Performance Index; a first attempt to rank countries on different elements of environmental sustainability

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 5:-

Environmental systems;

Reducing environmental stress;

Reducing human vulnerability to environmental stresses;

Societal and institutional capacity to respond to environmental challenges;

Global stewardship

Indicators and their sources (in latest edition): 21 (constructed from 76 individual variables):-

Urban population weighted SO₂ concentration;

Threatened mammal species as percentage of known mammal species in each country;

Freshwater availability per capita;

Internal groundwater availability per capita;

Anthropogenic NO_x emissions per populated land area;

Anthropogenic SO₂ emissions per populated land area;

Anthropogenic VOC emissions per populated land area;

Coal consumption per populated land area;

Vehicles in use per populated land area;

Generation of hazardous waste;

Industrial organic water pollutant (BOD) emissions per available freshwater;

Fertiliser consumption per hectare of arable land;

Pesticide consumption per hectare of arable land;

Percentage of total forest area that is certified for sustainable management;

Child death rate from respiratory diseases;

Average number of deaths per million inhabitants from floods, tropical cyclones, and droughts;

IUCN member organisations per million population;

Local Agenda 21 initiatives per million people;
 Number of ISO 14001 certified companies per billion dollar GDP (PPP);
 Carbon emissions permillion dollars GDP;
 Carbon emissions per capita
 (Sources: OECD; UNHABITAT; WHO; European Environment Agency; World Resources Institute; Center for International Earth Science Information; UNEP; UNFCCC; UN Statistics Division; FAO; World Economic Forum; UNICEF; UNDESA; Freedom House; World Bank; UNESCO; International Council of Chemical Associations; US Energy Information Agency; Dow Jones SAM Sustainability Group; Innovest Strategic Value Advisors; International Telecommunication Union; CDIAC; CIA World Factbook)

Weighting (in latest edition): Equal weighting of variables within each indicator; equal weighting of indicators within the overall index

Methodology (in latest edition): Indicator distributions are corrected for extreme skewness and extreme values are trimmed; z-scores are then calculated for each indicator; missing values are imputed; variables within each indicator are equally weighted and each indicator is equally weighted by arithmetic mean into the final index

Index metric: 0-100 scale
 0 = worst score
 100 = best score

Year of introduction: 2000

Frequency of release: 2000; 2001; 2002; 2005

Country coverage (in latest edition): 146

Who uses the index: Researchers, academia, media, policy-makers, students

How is it used: To measure the relative position of countries based on performance in environmental sustainability

Influence/Impact: Intended for use as a policy tool for identifying issues needing greater attention within national environmental protection programs and in general; cited in many academic papers, books, reports and the media

Documented limitations: The set of indicators falls short of the ideal, due to data limitations and conceptual difficulties and uncertainty (such as how to measure and attribute the vitality of the oceans on a national basis)

Relevant websites: <http://www.yale.edu/esi/>

Publication where index can be found: 2005 Environmental Sustainability Index: Benchmarking National Environmental Stewardship

Official source/citation: Yale Center for Environmental Law and Policy

11. Environmental Performance Index (EPI)

Agency/Institution/Author: Yale Center for Environmental Law and Policy, Columbia Center for International Earth Science Information Network, World Economic Forum

Concept: Environment

What it measures: Outcome-oriented index of current national environmental protection efforts, also reflecting Goal 7 of the Millennium Development Goals, to “ensure environmental sustainability”

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 2 (split into 10 policy categories):-

Environmental health;

Ecosystem vitality.

10 categories:-

Environmental health;
Air pollution (effects on human health);
Water (effects on human health);
Air pollution (ecosystem effects);
Water resources (ecosystem effects);
Biodiversity and habitat;
Forestry;
Fisheries;
Agriculture;
Climate change

Indicators and their sources (in latest edition): 22:-

Child mortality;
Particulate matter;
Indoor air pollution;
Access to sanitation;
Access to drinking water;
SO₂ per capita;
SO₂ per \$ GDP;
Change in water quality;
Critical habitat protection;
Biome protected areas;
Marine protected areas;
Agricultural subsidies;
Pesticide regulation;
Forest growing stock;
Change in forest cover;
Forest loss;
Coastal shelf fishing pressure;
Fish stocks overexploited;
CO₂ per capita;
CO₂ per \$ GDP;
CO₂ per KWH;
Renewable electricity

(Sources: Alliance for Zero Extinction; World Bank; Battelle Memorial Institute; Villeneuve 2010; Doll et al. 2009; FAO; International Energy Agency; IUCN and UNEP-WCMC; University of British Columbia Fisheries Centre; Smith et al. 2011; UNEP; UNDESA; University of Maryland; WHO)

Weighting (in latest edition): Environmental health 30%; ecosystem vitality 70%; at the indicator level, weightings are determined based on expert judgments regarding quality of the underlying data, or closeness of a given proxy measure to the parameter of interest

Methodology (in latest edition): For each indicator, a proximity-to-target value is calculated based on the gap between a country's current results and the policy target; indicators are aggregated by weighted arithmetic mean into the overall index (see weighting details), with resultant weights of 30:70 for the 2 dimensions as described

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 2006

Frequency of release: Biennially

Country coverage (in latest edition): 132

Who uses the index: Researchers, academia, media, policy-makers, students

How is it used: To rank country monitor global trends in the overall index and in the 10 policy categories

Influence/Impact: The EPI has been used as an advocacy tool to promote action on reducing environmental stresses on human health and promoting ecosystem vitality and sound natural resource management; cited in many research publications and used in the construction of other

Documented limitations: Main limitations are due to unreliable data sources, gaps in data coverage and lack of a systematic process for verifying environmental data reported by governments

Relevant websites: <http://epi.yale.edu/>

Publication where index can be found: 2012 EPI: Environmental Performance Index and Pilot Trend Environmental Performance Index

Official source/citation: Yale Center for Environmental Law and Policy

12. Happy Planet Index (HPI)

Agency/Institution/Author: New Economics Foundation

Concept: Environment; Subjective well-being

What it measures: An efficiency measure capturing the degree to which long and happy lives are achieved per unit of environmental impact

Final stage aggregation method: Ratio

Dimensions (in latest edition): 3:-

Life satisfaction;

Life expectancy;

Ecological footprint

Indicators and their sources (in latest edition): 3:-

Life expectancy (UNDP);

Experienced well-being, 0-10 scale (Gallup);

Ecological Footprint (Global Footprint Network)

Weighting (in latest edition): Longevity of well-being is effectively weighted by the environmental efficiency with which it is achieved

Methodology (in latest edition): Happy Life Years (HLY) are first adjusted to range between 0 and the mean life expectancy for each country; Ecological Footprint (EF) is then adjusted so that its coefficient of variance is equal to that of adjusted Happy Life Years; (see the HLY and EF entries for definitions)

$HPI = \text{adjusted HLY} \div \text{adjusted (EF)}$, normalised to range between 0-100 (see index metric details)

Index metric: 0-100 scale;

A country with well-being score of 10, average life expectancy of 85 and Ecological Footprint of 1.78 global ha per capita (equivalent to one planet living) achieves HPI score of 100

Year of introduction: 2006

Frequency of release: Triennially

Country coverage (in latest edition): 151

Who uses the index: Governments, CSOs, NGOs, researchers, media, students, academia

How is it used: To assess the sustainability with which countries are supporting their inhabitants to live good lives now and in the future; rank countries; contrast income with components of the HPI

Influence/Impact: The HPI has received widespread interest; adopted by the WWF, local and national governments and supranational organisations for evaluative purposes

Documented limitations: Lacks economic and other dimensions of well-being; often misunderstood as being a measure of happiness, when it is in fact a measure of the ecological efficiency of supporting well-being

Relevant websites: <http://www.happyplanetindex.org/>

Publication where index can be found: Happy Planet Index reports

Official source/citation: New Economics Foundation

13. Gender Equity Index

Agency/Institution/Author: Social Watch

Concept: Gender disparities

What it measures: Measures the gap between women and men in education, the economy and political empowerment

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Education;

Economic activity;

Empowerment.

Indicators and their sources (in latest edition): 11:-

Literacy rate (UNESCO);

Enrolment rate in primary education (UNESCO);

Enrolment rate in secondary education (UNESCO);

Enrolment rate in tertiary education (UNESCO);

Rate of economic activity (UNESCO);

Estimated perceived income (UNESCO);

% of women in technical positions (UNESCO);

% of women in management and government positions (UNESCO);

% of women in parliament (Inter-Parliamentary Union);

% of women in ministerial level positions (Inter-Parliamentary Union);

Weighting (in latest edition): Calculations of ratios are weighted by male and female population share; equal weighting of indicators within dimensions; equal weighting of dimensions within the overall index

Methodology (in latest edition): All indicators are first converted into female/male ratios, weighted by male and female share of the population; indicators are aggregated by unweighted arithmetic mean into dimensions, and dimension values are again aggregated by unweighted arithmetic mean into the overall index

Index metric: 0-100 scale;

100 = total equality

Year of introduction: 2004

Frequency of release: Annually

Country coverage (in latest edition): 154

Who uses the index: NGOs, CSOs, media, researchers, academia

How is it used: To score and monitor country progress in the overall index and its dimensions; classify countries into 5 categories

Influence/Impact: The index has been quite widely cited in the media, in research papers and by other NGOs and CSOs

Documented limitations: Indicator ratios are not standardised, so indicators with the largest variability among countries dominate the overall index (see Buvinic, Morrison, Ofosu-Amaah and Sjoblom 2008. Equality for Women: Where Do We Stand on Millennium Development Goal 3?)

Relevant websites: <http://www.socialwatch.org/node/11565>

Publication where index can be found: Social Watch Reports

Official source/citation: Social Watch

14. Global Gender Gap Index

Agency/Institution/Author: World Economic Forum

Concept: Gender disparities

What it measures: Index capturing the magnitude and scope of gender-based disparities around the world on economic, political, education- and health-based criteria

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Economic Participation and Opportunity;

Educational Attainment;

Health and Survival; Political Empowerment

Indicators and their sources (in latest edition): 14:-

Ratio of female to male labour force participation (ILO);

Female to male wage ratio for similar work (WEF);

Estimated female to male ratio of earned income (WEF);

Ratio of female to male legislators, senior officials and managers (ILO, UNDP);

Ratio of female to male professional and technical workers (ILO, UNDP);

Ratio of female to male literacy rate (UNESCO, UNDP);

Ratio of female to male net primary enrolment rate (UNESCO);

Ratio of female to male net secondary enrolment rate (UNESCO);

Ratio of female to male gross tertiary enrolment ratio (UNESCO);

Female to male sex ratio at birth (CIA);

Ratio of female to male healthy life expectancy (WHO);

Ratio of female to male seats in parliament (Inter-Parliamentary Union);

Ratio of females to males at ministerial level (Inter-Parliamentary Union);

Ratio of years of a female head of state to male head of state (last 50 years) (WEF)

Weighting (in latest edition): Once indicators are equalised by their standard deviations, they are equally weighted within the dimension sub-indices; dimension sub-indices are equally weighted within the overall index

Methodology (in latest edition): All indicators are expressed as female/male ratios; the ratios are truncated at the “equality benchmark” for each indicator so that the maximum score of 1 is assigned to a country that has reached parity between women and men, and one where women have surpassed men; indicator ratios are then normalised by equalising their standard deviations, before aggregating into dimension sub-indices by arithmetic mean of the normalised ratios; the final index is the unweighted arithmetic mean of the sub-index scores

Index metric: 0-1 scale

1 = total equality

Year of introduction: 2006

Frequency of release: Annually

Country coverage (in latest edition): 136

Who uses the index: NGOs, researchers, media, businesses, governments, students

How is it used: To rank countries; create country profiles; assess global gender gap trends

Influence/Impact: The index receives widespread media attention, and has been used as an advocacy tool informing research and strategies towards improving engagement and integration of women within global society

Documented limitations: Limitations due to data availability, e.g. in the case of missing data on economic remuneration, a ratio of 0.75 has been somewhat arbitrarily used; ignores the division of unpaid labour, including childcare; neglects gendered violence

Relevant websites: <http://www.weforum.org/issues/global-gender-gap>

Publication where index can be found: The Global Gender Gap Report

Official source/citation: World Economic Forum

15. African Gender and Development Index

Agency/Institution/Author: UN Economic Commission for Africa

Concept: Gender disparities; Women's well-being

What it measures: Pilot of a composite gender equality index composed of two parts, the Gender Status Index (GSI) and the African Women's Progress Scoreboard (AWPS); the GSI measures relative gender equalities in a country; the AWPS assesses government ratification of conv

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): GSI dimensions:-

Social power;

Economic power;

Political power.

AWPS:-

Women's rights;

Social power;

Economic power;

Political power

Indicators and their sources (in latest edition): GSI: 44

AWPS: 34

(Expected sources: Ministries of Education, Population Census, Household Surveys, Demographic and Health Survey, Living Standard Measurement Study, Social Dimension of Adjustment Survey, Ministries of Health, Time-use surveys, Agricultural surveys, Ministries of Civil Service, Enterprise Surveys, Informal sector surveys)

Weighting (in latest edition): Provisionally, in the GSI each indicator is weighted equally in each sub-component, each sub-component is equally weighted in each component, each component is equally weighted in each dimension, and each dimension is equally weighted in the overall GSI;

Methodology (in latest edition): Each indicator in the GSI is calculated as the proportion of female achievement to male achievement for the given variable; indicators are aggregated into sub-components, then components, then dimensions, and finally the overall GSI by unweighted arithmetic mean at each stage.

Each indicator in the AWPS is scored in 15 criteria with the maximum score over all the criteria set to 100%; the overall AWPS score is the unweighted arithmetic mean of the indicator scores

Index metric: GSI: 0-1 scale

1 = total equality;

AWPS: 0-100% scale

100% = best performance

Year of introduction: 2004

Frequency of release: Annually

Country coverage (in latest edition): 12 African pilot countries

Who uses the index: NGOs, CSOs, governments, researchers, media

How is it used: To score and monitor Africa's progress in the implementation of global, regional and sub-regional commitments affecting women

Influence/Impact: The African Gender Development Index has been piloted in 12 countries and is entering its second pilot phase with the addition of 6 new countries

Documented limitations: Only measures the gender gap and not absolute levels of well-being; the AGDI uses national data, however not all data are always available and the use of national data may entail problems of harmonisation of these data

Relevant websites: <http://www.uneca.org/publications/african-gender-and-development-index-2011>

Publication where index can be found: African Women's Report: Measuring Gender Inequalities in Africa - Experiences and Lessons from the African Gender and Development Index

Official source/citation: UN Economic Commission for Africa

16. A.T. Kearney/Foreign Policy Globalization Index

Agency/Institution/Author: A.T. Kearney, Foreign Policy

Concept: Globalisation

What it measures: A measure of a country's economic, personal, technological, and political integration

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 4:-

Economic integration;

Personal contact;

Technology;

Political engagement

Indicators and their sources (in latest edition): 12:-

Trade as a % of GDP (IFS);

FDI as a % of GDP (UNCTAD);

Government transfers as a % of GDP (IMF);

Internet users as a % of population (International Telecommunication Union);

Internet hosts as a % of population (International Telecommunication Union);

Secure servers as a % of population (Netcraft Secure Server Survey);

Number of international organisation memberships (CIA);

Participation in UN Security Council missions, contribution of personnel and finance (UNDPI);

Number of international treaties ratified (official websites of the treaties);

International travel and tourism, arrivals and departures per capita (World Bank);

International telephone traffic, minutes per capita (International Telecommunication Union);
Cross-border transfers (including remittances) as a % of GDP (IMF)

Weighting (in latest edition): Weights are assigned on the basis of importance of each of the dimensions and indicators, as considered by the index's designers

Methodology (in latest edition): Each indicator is normalised on a scale of 0-1 using observed maximum and minimum values; normalised values are then multiplied by a "scale factor" which sets a baseline of 100 for 1998 indicator values; indicators are aggregated by weighted arithmetic mean into dimension sub-indices; these are then aggregated again by weighted arithmetic mean into the overall index and scaled to the range 0-10

Index metric: 0-10 scale

0 = least globalisation

100 = most globalisation

Year of introduction: 2001

Frequency of release: Annually;

2001-2007

Country coverage (in latest edition): 72

Who uses the index: Researchers, academia, media

How is it used: To rank countries; report on the top and bottom ranking countries

Influence/Impact: The index is one of the most widely used and cited indexes of globalisation

Documented limitations: The index has been criticised for insufficient clarity of the methodological notes published; various changes introduced into the index's construction have never been openly stated or justified

Relevant websites: http://www.foreignpolicy.com/articles/2007/10/11/its_a_hip_hop_world

Publication where index can be found: Foreign Policy

Official source/citation: Foreign Policy and A.T. Kearney

17. CSGR Globalisation Index

Agency/Institution/Author: Lockwood and Redoano, Warwick University Centre for the Study of Globalisation and Regionalisation

Concept: Globalisation

What it measures: Measure of the economic, social and political dimensions of globalisation on an annual basis over the period 1982 to 2004

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 3:-

Economic globalisation;

Social globalisation;

Political globalisation

Indicators and their sources (in latest edition): 16:-

Trade as a proportion of GDP (World Bank);

FDI as a proportion of GDP (World Bank);

Portfolio investment as a proportion of GDP (IMF);

Income payments and receipts as a proportion of GDP (World Bank);

Proportion of foreign population stock (World Bank);

Proportion of foreign population inflow (World Bank);

Worker remittances as a proportion of GDP (World Bank);

Number of tourists as a % of population (World Bank);
 International outgoing phone calls per capita (International Telecommunication Union);
 Number of Internet users as a % of population (International Telecommunication Union);
 Number of films imported and exported (UNESCO);
 Value of books and newspapers imported and exported per capita (US\$) (UNESCO);
 Number of international letters sent per capita (Universal Postal Union);
 Number of foreign embassies (Europa World Yearbook);
 Number of UN peacekeeping operations participated (CIA World Factbook);
 Number of International organisation memberships (CIA World Factbook)

Weighting (in latest edition): Indicators are weighted by principal components analysis within dimensions; dimensions are equally weighted within the overall index

Methodology (in latest edition): Indicators are normalised into a scale of 0-1 using maximum and minimum observed goalposts; indicators are weighted by principal components analysis and aggregate by weighted arithmetic mean to obtain the dimensions sub-indices; dimension sub-indices are then aggregated by unweighted arithmetic mean into the final index

Index metric: 0-1 scale

0 = worst score

1 = best score

Year of introduction: 2004

Frequency of release: Irregular

Country coverage (in latest edition): 211

Who uses the index: Researchers, academia

How is it used: To score countries according to the overall index and its dimensions; score world globalisation over time

Influence/Impact: The index has been cited in numerous research papers on globalisation and its measurement; its influence on policy has been limited however

Documented limitations: The index has been criticised for using an excessive number of indicators; hampers control on the quality of the information; almost negligible weights of some indicators makes it difficult to justify their inclusion. See Caselli 2008 (Measuring... What? Notes on Some Globalization Indices)

Relevant websites: <http://www2.warwick.ac.uk/fac/soc/csgr/index/>

Publication where index can be found: Lockwood and Redoano. The CSGR Globalisation Index: an Introductory Guide. Centre for the Study of Globalisation and Regionalisation. Working Paper 155/04

Official source/citation: Lockwood and Redoano 2004

18. KOF Index of Globalization

Agency/Institution/Author: Dreher

Concept: Globalisation

What it measures: A composite measure of three main dimensions of globalisation

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 3:-

Economic globalisation;

Social globalisation;

Political globalisation

Indicators and their sources (in latest edition): 23:-

Trade;
FDI;
Portfolio investment;
Income payments to foreign nationals;
Hidden import barriers;
Mean tariff rate;
Taxes on international trade;
Capital account restrictions;
Telephone traffic;
Transfers;
International tourism;
Foreign population;
International letters;
Internet users;
Television;
Trade in newspapers;
Number of McDonald's Restaurants;
Number of Ikea;
Trade in books;
Number of embassies in country;
Membership in international organisation;
Participation in UN Security Council missions;
International treaties

(Sources: World Bank; UNCTAD; IMF; Gwartney et al. 2012; International Telecommunication Union; Universal Postal Union; Ikea; UNESCO; UN Commodity Trade Statistics; Europa World Yearbook; CIA World Factbook; UN Treaties Collection)

Weighting (in latest edition): Weights are determined by principal components analysis

Methodology (in latest edition): Each indicator is first transformed to the scale 0-100, using observed maximum and minimum goalposts in the 1970-2010 period; indicators are aggregated by weighted arithmetic mean into dimension sub-indices and these are aggregated again by weighted arithmetic mean into the overall index

Index metric: 0-100 scale

0 = least globalisation

100 = most globalisation

Year of introduction: 2002

Frequency of release: Annually

Country coverage (in latest edition): 207

Who uses the index: Researchers, academics

How is it used: To rank country performance in the overall index and in dimension sub-indices; analyse trends over time

Influence/Impact: The index has been cited in numerous research papers on globalisation and its measurement

Documented limitations: Criticism that indicators like trade in letters, newspapers and books are outdated in the digital age

Relevant websites: <http://globalization.kof.ethz.ch/>

Publication where index can be found: Dreher. Does Globalization Affect Growth? Evidence from a new Index of Globalization. Applied Economics, 2006, vol. 38 pp. 1091-1110

Official source/citation: Dreher 2006

19. Bertelsmann Stiftung's Transformation Index (BTI): Status Index

Agency/Institution/Author: Bertelsmann Stiftung

Concept: Governance

What it measures: Assessment of a country's progress toward democracy under the rule of law and a market economy under principles of social justice

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 2:-

Political transformation;

Economic transformation

Indicators and their sources (in latest edition): 12 (further divided into 32 sub-indicator questions):-

Stateness;

Political participation;

Rule of law;

Stability of democratic institutions;

Political and social integration;

Level of socioeconomic development;

Organisation of the market and competition;

Currency and price stability;

Private property;

Welfare regime;

Economic performance;

Sustainability

(Source: Bertelsmann Stiftung)

Weighting (in latest edition): Equal weighting of sub-indicator questions within the indicators; equal weighting of indicators within the dimensions; equal weighting of dimensions within the overall Status Index

Methodology (in latest edition): Qualitative sub-indicator questions are awarded scores on a scale of 1-10 by country experts; sub-indicators are aggregated into indicators, indicators into dimensions and dimensions into the overall index by unweighted arithmetic mean for each step

Index metric: 1-10 scale

1 = worst score

10 = best score

Year of introduction: 2003

Frequency of release: Biennially

Country coverage (in latest edition): 128 developing and transition countries

Who uses the index: NGOs, governments, researchers, academia, media

How is it used: To rank and assess country performance in the overall index, the two dimension sub-indices and the indicators

Influence/Impact: The index has been used by the German, British and US governments as a yardstick in assessing their partner countries; widely cited and used in media, in academic and research papers and in the construction of other indices

Documented limitations: Criticism of subjective scoring in general applies to the index, since the indicator scores are based on expert opinion rather than objective data

Relevant websites: <http://www.bti-project.org/index/>

Publication where index can be found: Transformation Index BTI: Political Management in International Comparison

Official source/citation: Bertelsmann Stiftung

20. Change Readiness Index (CRI)

Agency/Institution/Author: KMPG International

Concept: Governance

What it measures: Summary measure of a country's input performance into three areas identified as influential for a country's underlying capability to manage change

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Enterprise capability;

Government capability;

People & civil society capability

Indicators and their sources (in latest edition): 70 secondary data variables (sources: World Economic Forum, World Bank, Legatum, Economist Intelligence Unit, Freedom House, Heritage Foundation, UNESCO, UNCTAD, WIPO, IMF, WHO, ILO, UNDP);

21 primary survey question responses (gathered from 545 country experts around the world);

All indicators fall into the following sub-indices:-

Labor markets;

Economic diversification;

Economic openness;

Innovation and R&D;

Business environment;

Financial sector;

Infrastructure;

Informal sector;

Trade policy and economic openness;

Macroeconomic framework;

Public administration and state/business relations;

Regulation;

Fiscal and budgeting;

Rule of law;

Government strategic planning and horizon scanning;

Environment;

Food and energy security;

Human capital;

Entrepreneurship;

Civil society;

Safety nets;

Technology;

Gender;

Inclusiveness of growth;
Demographics;
Access to information;
Health

Weighting (in latest edition): Equal indicator weighting within sub-indices; equal sub-index weighting within pillars; equal pillar weighting within the composite score; results in an overall weighting of 23:77 for primary versus secondary data in the 2013 index

Methodology (in latest edition): Indicators are standardised to give z-scores and outlier values are trimmed; standardised indicators are then equally weighted into sub-indices, then pillars, then the overall score, each stage by arithmetic mean

Index metric: Relative country ranking

1 = best performance

Year of introduction: 2012

Frequency of release: Annually

Country coverage (in latest edition): 90

Who uses the index: Governments, researchers, investors

How is it used: Index and particularly sub-index rankings help organisations understand which countries are likely to be more resilient in the face of short-term shocks, and which countries may be more capable of exploiting opportunities and managing structural change

Influence/Impact: KPMG has applied the CRI to its own case studies comparing responses to recent earthquake disasters and assessing change readiness reforms in Tanzania and the Philippines

Documented limitations: Not intended as a measure of more long-term development such as economic growth

Relevant websites: <http://kpmg.com/changereadiness>

Publication where index can be found: Change Readiness Index

Official source/citation: KPMG International

21. Democracy Index

Agency/Institution/Author: Economist Intelligence Unit

Concept: Governance

What it measures: A measure of a nation's state of democracy based on five categories of democracy

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 5:-

Electoral process and pluralism;

Civil liberties;

Functioning of government;

Political participation;

Political culture

Indicators and their sources (in latest edition): 60

(Sources: expert opinion, World Values Survey, Eurobarometer, Gallup, Latin American Barometer, national surveys)

Weighting (in latest edition): Equal weighting throughout

Methodology (in latest edition): Indicators are scored on either a dichotomous 1-0 basis or on a 3-point basis including 0.5; dimension indices are based on the sum of the indicator scores in the

dimension and converted to a 0-10 scale; the overall index of democracy is the unweighted arithmetic mean of the five dimension indices

Index metric: 0-10 scale

0= worst score

10 = best score

Year of introduction: 2006

Frequency of release: Biennially

Country coverage (in latest edition): 167

Who uses the index: Media, researchers

How is it used: To rank countries and categorise them into levels of democracy; make regional comparisons

Influence/Impact: The index has been broadly cited in media, and has been reviewed in a couple of research papers on measuring democracy

Documented limitations: Potentially problematic subjective judgments within the index, e.g. mandatory voting is regarded in the index as reflecting negatively on quality of democracy; missing poll data is estimated by experts or imputed, which can be dubious. For more, see Coppedge and Gerring 2011 (Conceptualizing and Measuring Democracy: A New Approach)

Relevant websites: http://www.economist.com/media/pdf/DEMOCRACY_INDEX_2007_v3.pdf

Publication where index can be found: EIU Democracy Index report

Official source/citation: Economist Intelligence Unit

22. Economic Freedom of the World Index (EFW)

Agency/Institution/Author: Fraser Institute

Concept: Governance

What it measures: A measure of the degree to which the policies and institutions of countries are supportive of economic freedom in personal choice, voluntary exchange, freedom to compete, and security of privately owned property

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 5:-

Size of government;

Legal system and property rights;

Sound money;

Freedom to trade internationally;

Regulation

Indicators and their sources (in latest edition): 42

(Sources: World Bank; IMF; UN National Accounts; WEF; European Bank for Reconstruction and Development; PwC; PRS Group; WTO; MRI Bankers' Guide to Foreign Currency; Lawson and Lemke 2011; Barth, Caprio and Levine 2006; International Institute for Strategic Studies; War Resisters International)

Weighting (in latest edition): Equal weighting throughout

Methodology (in latest edition): Indicators are placed on a scale from 0-10; indicators are aggregated into components by unweighted arithmetic mean; these are then aggregated by unweighted arithmetic mean into dimensions; the 5 dimensions are then aggregated by unweighted arithmetic mean into the overall index

Index metric: 0-10 scale

0 = worst score

10 = best score

Year of introduction: 1996

Frequency of release: Annually

Country coverage (in latest edition): 152

Who uses the index: Researchers, academics

How is it used: To rank country performance in the overall index and its dimensions; analyse trends over time

Influence/Impact: The index has been very widely used in research studies as a measure of economic freedom

Documented limitations: Main criticisms surround the use of the index in the Economic Freedom of the World Reports to support laissez-faire growth policies

Relevant websites: <http://www.freetheworld.com/>

Publication where index can be found: Economic Freedom of the World Report

Official source/citation: Fraser Institute

23. Ibrahim Index of African Governance (IIAG)

Agency/Institution/Author: Mo Ibrahim Foundation

Concept: Governance

What it measures: An assessment of the delivery of public goods and services, and policy outcomes in every African country

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Safety and rule of law;

Participation & human rights;

Sustainable economic opportunity;

Human development

Indicators and their sources (in latest edition): 94

(Sources: African Development Bank, OECD, UNDP, UNECA, AIDSinfo UNAIDS, African Union, World Bank, Bertelsmann Stiftung, Cingranelli-Richards Human Rights Dataset, Inter-agency Group for Child Mortality Estimation, CDD Ghana, Economist Intelligence Unit, Institut de Recherche Empirique en Economie Politique, Freedom House, World Economic Forum, WHO, Internal Displacement Monitoring Centre, International Telecommunication Union, The Heritage Foundation Index of Economic Freedom, Office of the High Commissioner for Human Rights, UNHCR, International Fund for Agricultural Development, Political Terror Scale, US Department of State, Uppsala Conflict Data Programme, UNESCO)

Weighting (in latest edition): Equal indicator weighting within sub-components; equal weighting of sub-components within dimensions; equal dimension weighting within the overall index

Methodology (in latest edition): Indicators are trimmed of outliers and normalised to the range 0-100 using observed maximum and minimum goalposts; normalised indicators are aggregate by unweighted arithmetic mean into sub-category scores (3 or 4 sub-categories per dimension), which are in turn aggregated by unweighted arithmetic mean into dimension scores; dimension scores are then aggregated again by unweighted arithmetic mean into the overall index

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 2007

Frequency of release: Annually

Country coverage (in latest edition): 52 African countries

Who uses the index: NGOs, researchers, media

How is it used: To rank African countries' governance performance and monitor progress; assess dimension performance; compare regions of Africa

Influence/Impact: The index has been used by charities to help guide the distribution of aid in African countries; widely cited by NGOs and in the media

Documented limitations: The unobservable nature of governance means the IIAG is a proxy measurement, there is therefore considerable uncertainty in the scores

Relevant websites: <http://www.moibrahimfoundation.org/iiag/>

Publication where index can be found: Ibrahim Index of African Governance: Data Report

Official source/citation: Mo Ibrahim Foundation

24. Index of Economic Freedom

Agency/Institution/Author: The Heritage Foundation, The Wall Street Journal

Concept: Governance

What it measures: A summary measure of 10 economic freedoms, grouped into 4 broad categories

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Rule of law;

Limited government;

Regulatory efficiency;

Open markets

Indicators and their sources (in latest edition): 10:-

Property rights;

Freedom from corruption;

Fiscal freedom;

Government spending;

Business freedom;

Labour freedom;

Monetary freedom;

Trade freedom;

Investment freedom;

Financial freedom

(Sources: Economist Intelligence Unit; US Department of Commerce; US Department of State; Transparency International; Office of the US Trade Representative; Deloitte; PricewaterhouseCoopers; OECD; Eurostat; African Development Bank; IMF; Asian Development Bank; World Bank; Economic Commission for Latin America)

Weighting (in latest edition): Equally weighted indicators within the overall index

Methodology (in latest edition): Each of the 10 indicators is scored from 0-100; the indicators are equally weighted and aggregated by arithmetic mean to obtain the overall index

Index metric: 0-100 scale

100 = maximum economic freedom

Year of introduction: 1995

Frequency of release: Annually

Country coverage (in latest edition): 185

Who uses the index: Researchers, academia, policy-makers, media

How is it used: To rank and score countries in the overall index and its indicators; analyse the relationship between index performance and well-being

Influence/Impact: The index has been used and reviewed in various research papers; the index has been advocated by some economists (e.g. Harsanyi) and criticised by others (e.g. Sachs) for its advocacy of economic freedom

Documented limitations: The index has been criticised for its underlying assumption that economic freedom necessarily leads to better growth; criticism of the frequency of methodology modifications; there is interaction between the indicator variables, but this interaction are not easily definable

Relevant websites: <http://www.heritage.org/index/>

Publication where index can be found: Index of Economic Freedom reports

Official source/citation: The Heritage Foundation

25. Bertelsmann Stiftung's Transformation Index (BTI): Management Index

Agency/Institution/Author: Bertelsmann Stiftung

Concept: Governance

What it measures: Assessment of a country's quality of governance; along with the Status Index forms Bertelsmann Stiftung's Transformation Index

Final stage aggregation method: Unweighted arithmetic mean; Ratio

Dimensions (in latest edition): 1:-

Transformation management

Indicators and their sources (in latest edition): 5 (further divided into 20 sub-indicators):-

Level of difficulty;

Steering capability;

Resource efficiency;

Consensus-building;

International cooperation

(Source: Bertelsmann Stiftung)

Weighting (in latest edition): Equal weighting of four of the indicators, which are in turn weighted by the level of difficulty

Methodology (in latest edition): The management index scores represent the unweighted arithmetic mean of four indicator scores weighted by a fifth indicator, the level of difficulty of transformation in the country

Index metric: 1-10 scale

1 = worst score

10 = best score

Year of introduction: 2003

Frequency of release: Biennially

Country coverage (in latest edition): 128 developing and transition countries

Who uses the index: NGOs, governments, researchers, academia, media

How is it used: To rank and assess country performance in the overall index, the two dimension sub-indices and the indicators

Influence/Impact: The index has been used by the German, British and US governments as a yardstick in assessing their partner countries; widely cited and used in media, in academic and research papers and in the construction of other indices

Documented limitations: Criticism of subjective scoring in general applies to the index, since the indicator scores are based on expert opinion rather than objective data

Relevant websites: <http://www.bti-project.org/index/>

Publication where index can be found: Transformation Index BTI: Political Management in International Comparison

Official source/citation: Bertelsmann Stiftung

26. Worldwide Governance Indicators (WGI)

Agency/Institution/Author: World Bank

Concept: Governance

What it measures: 6 aggregate measures of how governments are selected, monitored and replaced; their capacity to effectively formulate and implement sound policies and provide public services, and the respect of citizens and the state for the institutions that govern econ

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): Separate indices for each of 6 dimensions:-

Voice and accountability;

Political stability and absence of violence;

Government effectiveness;

Regulatory quality;

Rule of law;

Control of corruption

Indicators and their sources (in latest edition): Indicators from 31 different data sources

(Sources: African Development Bank; Afrobarometer; Asian Development Bank; Business Enterprise; Bertelsmann Transformation Index; Freedom House Countries at the Crossroads; European Bank for Reconstruction and Development; Economist Intelligence Unit; Freedom House; Transparency International; World Economic Forum; Global Integrity Index; Gallup World Poll; Heritage Foundation; Cingranelli Richards; IFAD; iJET; Institutional Profiles Database; IREEP; Latinobarometro; International Research and Exchanges Board; International Budget Project; World Bank; Political Economic Risk Consultancy; Political Risk Services; Reporters Without Borders; US State Department; Vanderbilt University; Institute for Management and Development; World Justice Project; Global Insight)

Weighting (in latest edition): Weighted by unobserved components model

Methodology (in latest edition): Indicators are rescaled from 0-1; an unobserved components model (UCM) is used to construct a weighted arithmetic mean of the individual indicators with greater weight assigned to indicators that are more strongly correlated with each other; the composite measures of governance generated by the UCM are in units of a standard normal distribution, with mean 0, standard deviation of 1, and running from approximately -2.5 to 2.5, with higher values corresponding to better governance; measures are also reported in percentile rank terms, ranging from 0 (lowest rank) to 100 (highest rank)

Index metric: 0-100 percentile scale

0 = lowest rank

100 = highest rank

Year of introduction: 1996

Frequency of release: Annually

Country coverage (in latest edition): 215

Who uses the index: Researchers, policy-makers

How is it used: To rank countries and make cross-country and over-time comparisons

Influence/Impact: Widely used among policy-makers and academics

Documented limitations: Criticism that comparisons cannot be made over time using the WGI since they are scaled to have the same global averages in every period. (Kaufmann, Kraay and Mastruzzi of the World Bank respond to this and other criticisms in the working paper “The Worldwide Governance Indicators Project: Answering the Critics”.)

Relevant websites: <http://info.worldbank.org/governance/wgi/index.aspx>

Publication where index can be found: World Bank website for the World Governance Indicators

Official source/citation: World Bank

27. Gender Inequality Index (GII)

Agency/Institution/Author: UNDP/Human Development Report Office

Concept: Human capabilities

What it measures: Summary measure reflecting women’s loss of achievement due to gender inequality in three dimensions: reproductive health, empowerment, and labour market participation

Final stage aggregation method: Generalised mean

Dimensions (in latest edition): 3:-

Reproductive health;

Empowerment;

Labour market

Indicators and their sources (in latest edition): 5:-

Maternal mortality ratio (WHO);

Adolescent fertility rate (UNDESA);

Share of parliamentary seats held by each sex (IPU);

Secondary and higher education attainment levels (Barro and Lee 2011, UNESCO);

Women’s participation in the work force (ILO)

Weighting (in latest edition): Equal dimension weighting; equal weighting of genders

Methodology (in latest edition): Indicators are aggregated by unweighted geometric mean first into dimensions and then across dimensions separately for women and men; gender sub-indices are then aggregated by unweighted harmonic mean across genders to obtain the overall index

Index metric: 0-1 scale

0 = perfectly equal

1 = most unequal

Year of introduction: 2010

Frequency of release: Annually

Country coverage (in latest edition): 148

Who uses the index: Mainly researchers, students, academia

How is it used: To compare countries by the extent to which national achievements in human development are eroded by gender inequality; provide empirical foundations for policy analysis and advocacy efforts

Influence/Impact: The GII being an experimental index, has garnered substantial interest but less influence than the GDI

Documented limitations: Limitations due to lack of data availability e.g. lack of domestic violence data. Permya (A critical assessment of UNDP's Gender Inequality Index, Feminist Economics) criticises the GII's complexity for making it difficult to interpret. In an unpublished review commissioned by HDRO, Klasen (UNDP's Gender-related measures: Current problems and proposals for fixing them, mimeo) additionally notes that the GII mixes well-being and empowerment issues, does not weight for unequal population share of genders, and does not specify the equality baseline from which the GII makes comparisons

Relevant websites: <http://hdr.undp.org/en/data>

Publication where index can be found: Human Development Reports

Official source/citation: United Nations Development Programme

28. Human Development Index (HDI)

Agency/Institution/Author: UNDP/Human Development Report Office

Concept: Human capabilities

What it measures: Summary measure of a country's average achievements in three basic aspects of human development

Final stage aggregation method: Generalised mean

Dimensions (in latest edition): 3:-

Health;

Education;

Standard of living

Indicators and their sources (in latest edition): 4:-

Life expectancy at birth (UNDESA);

Expected years of schooling for children (UNESCO Institute for Statistics);

Mean years of schooling for adults aged 25 years and older (UNESCO Institute for Statistics);

Log of GNI per capita (PPP constant prices) (World Bank)

Weighting (in latest edition): Equal dimension weighting; equal indicator weighting (within the education sub-index)

Methodology (in latest edition): Indicators are first transformed into a scale of 0-1 using defined minimum and maximum goalposts for each indicator; indicators are aggregated by unweighted geometric mean (arithmetic mean before 2010) into dimension indices, which are then aggregated into the overall index by unweighted geometric (arithmetic) mean

Index metric: 0-1 scale

0 = worst score

1 = best score

Year of introduction: 1990

Frequency of release: Annually

Country coverage (in latest edition): 187

Who uses the index: Governments, CSOs, NGOs, researchers, media, students, academia

How is it used: To classify countries into four human development groups; compare performance across countries; generate policy debates and inform national policy-making

Influence/Impact: The HDI has been a powerful advocacy tool informing policy decisions including identifying priorities for resource allocation

Documented limitations: Main limitations include mixing stock and flow variables; perfect substitutability across dimensions; uncontrolled consequences for implied trade-offs between dimensions

Relevant websites: <http://hdr.undp.org/en/data>

Publication where index can be found: Human Development Reports

Official source/citation: United Nations Development Programme

29. Inequality-Adjusted Human Development Index (IHDI)

Agency/Institution/Author: UNDP/Human Development Report Office

Concept: Human capabilities; Social exclusion

What it measures: Measure of human development as measured by the HDI, adjusted for inequality in distribution of each dimension

Final stage aggregation method: Generalised mean

Dimensions (in latest edition): 3:-

Health;

Education;

Standard of living

Indicators and their sources (in latest edition): 4:-

Life expectancy at birth (UNDESA);

Expected years of schooling for children (Luxembourg Income Study, Eurostat, World Bank, UNICEF, ICF Macro, UNU World Income Inequality Database);

Mean years of schooling for adults aged 25 years and older (sources as above);

Log of GNI per capita (PPP constant prices) (sources as above)

Weighting (in latest edition): Equal dimension weighting; equal indicator weighting (within the education sub-index)

Methodology (in latest edition): The IHDI uses individual-level data (whereas the HDI uses country-level data). Each country-level indicator of the IHDI is the geometric mean of the individuals values, representing the arithmetic mean country value reduced by the inequality in distribution. These inequality-weighted indicators are then aggregated as with the HDI, by unweighted geometric mean (arithmetic mean before 2010) into dimension indices, and again by unweighted geometric (arithmetic) mean into the overall IHDI

Index metric: 0-1 scale

The IHDI will be equal to the HDI when there is no inequality in the distribution of achievement across the population, but falls below the HDI as inequality rises.

Year of introduction: 2010

Frequency of release: Annually

Country coverage (in latest edition): 132

Who uses the index: Mainly researchers, students, academia

How is it used: To compare human development performance across countries, taking into account inequality in how achievements are distributed among the population

Influence/Impact: The IHDI being an experimental index, has been welcomed by academics, but not in general in policy circles due to difficulty in interpretation

Documented limitations: Not association sensitive i.e. it does not account for overlapping inequalities in the same person. For details see Kovakevic 2010 (Measurement of Inequality in Human Development: A Review)

Relevant websites: <http://hdr.undp.org/en/data>

Publication where index can be found: Human Development Reports

Official source/citation: United Nations Development Programme

30. Gender-related Development Index (GDI)

Agency/Institution/Author: UNDP/Human Development Report Office

Concept: Human capabilities

What it measures: A measure of the HDI adjusted for gender disparities in its basic dimensions

Final stage aggregation method: Ratio; Ratio is new for the 2014 version, unweighted arithmetic mean was used for the 1995-2009 version

Dimensions (in latest edition): 3:-

Health;

Standard of living;

Education

Indicators and their sources (in latest edition): 4 in the 2014 version:-

Life expectancy at birth (UNDESA);

Estimated earned income (PPP constant prices) (World Bank)

Expected years of schooling for children (UNESCO Institute for Statistics);

Mean years of schooling for adults aged 25 years and older (UNESCO Institute for Statistics).

N.B. In the 1995-2009 version and consistent with the HDI before 2010, the following two education indicators were used in place of the last two indicators in the previous list:

Adult literacy rate (UNESCO Institute for Statistics);

Combined primary, secondary and tertiary gross enrolment ratio (UNESCO Institute for Statistics)

Weighting (in latest edition): Equal dimension weighting; equal weighting within the education sub-index (in the 1995-2009 version literacy and enrolment were weighted 2/3 and 1/3 respectively within the education sub-index, consistent with the HDI before 2010)

Methodology (in latest edition): First, dimension indices are calculated separately for males and females according to the HDI methodology (consistent with pre-2010 HDI methodology for the 1995-2009 version of the GDI, or post-2010 HDI methodology for the 2014 version; additionally, gender-specific life expectancy goalposts are used); the ratio of the male and female indices are then taken to give the overall GDI (in the 1995-2009 version the harmonic mean of male and female dimension indices were taken to give dimension indices adjusted for gender inequality; the inequality-adjusted dimension indices were then aggregated by unweighted arithmetic mean into the overall GDI)

Index metric: 0-1 scale

The GDI will be equal to the HDI when there is no inequality between genders, but falls below the HDI as inequality rises.

Year of introduction: 1995

Frequency of release: Annually;

1995-2009; 2014

Country coverage (in latest edition): 155

Who uses the index: Governments, researchers, NGOs, CSOs, students, media, academia

How is it used: To compare human development performance across countries, taking into account inequality in achievements between men and women

Influence/Impact: The GDI has been an advocacy and monitoring tool for gender-related human development analysis and policy-making

Documented limitations: A review by the HDRO found the GDI had often been misinterpreted as a measure of gender inequality; in fact it is the HDI adjusted for gender disparities. For this and further criticisms, see Klasen 2006 (UNDP's Gender-related Measures: Some Conceptual Problems and Possible Solutions)

Relevant websites: <http://hdr.undp.org/en/global-reports>

Publication where index can be found: Human Development Reports 1995-2009

Official source/citation: United Nations Development Programme

31. American Human Development Index

Agency/Institution/Author: Measure of America

Concept: Human capabilities

What it measures: Summary measure of the same three basic dimensions as the standard HDI, but using different indicators to better reflect the US context

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Health;

Education;

Income

Indicators and their sources (in latest edition): 4:-

Life expectancy at birth (calculations using data from the Centers for Disease Control and Prevention, National Center for Health Statistics, and US Census Bureau);

Net school enrolment for population aged 3-24 (US Census Bureau);

Degree attainment for population aged 25 and older (US Census Bureau);

Median personal earnings (US Census Bureau)

Weighting (in latest edition): Equal dimension weighting within the overall index; enrolment 1/3 and degree attainment 2/3 within the education dimension

Methodology (in latest edition): Indicators are first normalised onto a 0-10 scale using observed maximum and minimum goalposts; the education indicators are aggregated by weighted arithmetic mean into the education dimension; this is then aggregated with the other dimension indicators by unweighted arithmetic mean into the overall index

Index metric: 0-10 scale

0 = worst score

10 = best score

Year of introduction: 2008

Frequency of release: Annually

Country coverage (in latest edition): 51 US states

Who uses the index: Policy-makers, media, NGOs

How is it used: To rank and score the performance of states; map scores visually; track progress over time; disaggregate results by gender and race

Influence/Impact: The index, rankings and index report findings have received considerable interest and have been widely cited in the media; has been cited in state-level policy discussions

Documented limitations: The index cannot be used to measure the short-term impacts of policy changes, since its indicators do not change quickly

Relevant websites: <http://www.measureofamerica.org/>

Publication where index can be found: The Measure of America reports

Official source/citation: Measure of America

32. Basic Capabilities Index (BCI)

Agency/Institution/Author: Social Watch

Concept: Human capabilities

What it measures: The BCI measures access in countries to three minimum levels of social coverage

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Education;

Infant health;

Reproductive health

Indicators and their sources (in latest edition): 5:-

Adult literacy rate (UNESCO);

Primary net enrolment rate (UNESCO);

% children reaching fifth grade (UNESCO);

Under-5 mortality rate (UNICEF);

% births attended by skilled personnel (WHO, UNICEF)

Weighting (in latest edition): Equal dimension weighting; equal weighting of indicators (within the education sub-index)

Methodology (in latest edition): Indicators are rescaled from 0-100; the unweighted arithmetic mean is taken to aggregate indicators into the education dimension; dimensions are aggregated using unweighted arithmetic mean into the overall index

Index metric: 0-100 scale

100 = best score

Year of introduction: 1990

Frequency of release: Annually

Country coverage (in latest edition): 167

Who uses the index: Media, NGOs

How is it used: To classify countries into five categories; monitor and compare performance across countries

Influence/Impact: The BCI has been used as part of Social Watch's platform for NGO and CSO advocacy to influence policy decisions

Documented limitations: Very simplistic; inconsistent use of 2 or 3 indicators for the education sub-index depending on data availability

Relevant websites: http://www.socialwatch.org/sites/default/files/BCI2009_StartingPoint.pdf

Publication where index can be found: Basic Capabilities Index updates

Official source/citation: Social Watch

33. Education for All Development Index (EDI)

Agency/Institution/Author: UNESCO

Concept: Human capabilities

What it measures: A composite index providing an overall assessment of a country's education system

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Universal primary education;
 Adult literacy;
 Quality of education;
 Gender

Indicators and their sources (in latest edition): 4:-

% of primary school age children enrolled in either primary or secondary school;
 Adult literacy rate for those aged 15 and above;
 Survival rate to Grade 5;
 Average of the gender parity indexes for the first 2 indicators: primary and secondary net enrolment ratio and the adult literacy rate

(Sources: EFA Global Monitoring Report, UN Institute for Statistics)

Weighting (in latest edition): Equal weighting of the indicators within the overall index

Methodology (in latest edition): One indicator is used as a proxy measure for each of the four dimensions; indicators are equally weighted and aggregated by arithmetic mean

Index metric: 0-100% scale

0 = worst score

100 = best score

Year of introduction: 2002

Frequency of release: Annually

Country coverage (in latest edition): 127

Who uses the index: Researchers, NGOs, media

How is it used: To rank countries and classify them into categories

Influence/Impact: The index has been widely used and cited by researchers and the media; has received wide exposure as part of UNESCO's EFA Global Monitoring Report

Documented limitations: Criticism of the choice of equal weighting, making some dimensions more or less susceptible to large changes; the indicators are not independent of each other. For more detailed discussion, see Lewin 2011 (Taking Targets to Task Revisited: How Indicators of Progress on Access to Education can Mislead).

Relevant websites: <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/efareport/statistics/efa-development-index/>

Publication where index can be found: Education for All Global Monitoring Report

Official source/citation: UNESCO

34. Index of Human Progress (IHP)

Agency/Institution/Author: Emes and Hahn, Fraser Institute

Concept: Human progress

What it measures: The Index of Human Progress builds on the HDI by using unadjusted GDP per capita (1995 USD) and including 6 additional indicators that measure desirable outcomes

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Health;

Education;

Technology;

GDP

Indicators and their sources (in latest edition): 10:-

Life expectancy;
Infant mortality rate;
Under-5 mortality rate;
Adult mortality rate;
Literacy rate;
Combined enrolment rate;
Number of televisions per 1000 persons;
Number of radios per 1000 persons;
Telephone service per 1000 persons;
Unadjusted GDP per capita in 1995 USD
(Sources: World Bank; UN)

Weighting (in latest edition): Equal weighting of indicators into dimensions; equal weighting of dimensions into the overall index

Methodology (in latest edition): Indicators are first transformed into a scale of 0-1 using observed minimum and maximum values for each dimension; dimension indices are then aggregated into an index using arithmetic mean with equal weights for dimensions and equal weights within dimensions

Index metric: % scale

0 = worst score

Year of introduction: 2001

Frequency of release: One-off

Country coverage (in latest edition): 128

Who uses the index: Media, CSOs, researchers

How is it used: To evaluate the performance of countries in the overall index and in dimension sub-indices

Influence/Impact: Modest media coverage and citations by public benefit organisations; cited in a small number of academic papers; used as the basis for analysis in Ashby 2009 (Institutions and Human Progress: An Analysis of International Pooled Data); otherwise limited im

Documented limitations: Helliwell 2002 (Globalization and Well-being) notes that the index uses unlogged GDP as an indicator, however general consensus and practice is that log income is the appropriate indicator

Relevant websites: <http://www.fraserinstitute.org/research-news/display.aspx?id=13201>

Publication where index can be found: Emes and Hahn. Measuring Development: An Index of Human Progress. A Fraser Institute Occasional Paper, 2001, No. 36

Official source/citation: Emes and Hahn 2001

35. **Weighted Index of Social Progress (WISP)**

Agency/Institution/Author: Estes, University of Pennsylvania

Concept: Human progress

What it measures: Measure of “adequacy of social provision” to assess the progress in providing more adequately for the basic social and material needs of the world’s population

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 10:-

Education;

Health status;

Women status;
 Defence effort;
 Economic;
 Demographic;
 Geographic;
 Political chaos;
 Cultural diversity;
 Welfare effort

Indicators and their sources (in latest edition): 41

(Sources: UN, World Bank, OECD, International Social Security Association, World Resources Institute, Amnesty International, Freedom House, International Federation of Red Cross and Red Crescent Societies, Stockholm International Peace and Research Institute, Transparency International, CIA World Factbook, Encyclopaedia Britannica, Ellingsen 1995)

Weighting (in latest edition): Weights are derived by PCA and factor analysis, in which each indicator and sub-index is analysed separately for its relative contribution to explaining the variance in changes in social progress over time

Methodology (in latest edition): Standardised indicator scores are multiplied by their factor loadings and averaged to give sub-index scores; sub-indices are then weighted and summed to give the overall index score

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 1988

Frequency of release: Irregular, on average every 5 yrs

Country coverage (in latest edition): 162

Who uses the index: Researchers, students, media

How is it used: To assess performance of countries, continents, and find trends over time

Influence/Impact: Estes has written numerous papers utilising the WISP, which have garnered considerable interest from researchers and journalists over the years

Documented limitations: Very uneven number of indicators within dimensions ranging from 1-5 indicators per dimension

Relevant websites:

http://www.sp2.upenn.edu/restes/Estes%20Papers/World%20Social%20Situation_2010.pdf

Publication where index can be found: Estes. The World Social Situation: Development Challenges at the Outset of a New Century. Social Indicators Research, 2009

Official source/citation: Richard J. Estes

36. Genuine Progress Indicator (GPI)

Agency/Institution/Author: Redefining Progress

Concept: Human progress

What it measures: A variant of the Index of Sustainable Economic Welfare (ISEW). Both use GDP, but adjust for factors such as income distribution, add factors such as the value of household and volunteer work, and subtract factors such as the costs of crime and pollution

Final stage aggregation method: Weighted sum

Dimensions (in latest edition): Income distribution;

Housework, volunteering and higher education;
Crime;
Resource depletion;
Pollution;
Long-term environmental damage;
Changes in leisure time;
Defensive expenditures;
Lifespan of consumer durables and public infrastructure;
Dependence on foreign assets

Indicators and their sources (in latest edition): Derived from 26 separate time series data columns spanning the 1950-2004 period:-

B: Personal consumption (National Income and Product Accounts);
C: Income distribution index (US Census Bureau);
D: Weighted personal consumption (Column B/Column C);
E: Value of household work and parenting (Eisner 1985, Michigan Survey Research Center, Bureau of Labor Statistics);
F: Value of higher education (Hill et al. 2005, US Census Bureau);
G: Value of volunteer work (Bureau of Labor Statistics, American Time Use Surveys)
H: Services of consumer durables (Bureau of Economic Analysis);
I: Services of highways and streets (Bureau of Economic Analysis);
J: Cost of crime (Bureau of Justice Statistics National Crime Survey, Laband and Sophocleus 1992, Security Distributing and Marketing);
K: Loss of leisure time (Leete-Guy and Schor 1992, Mishel et al. 1996);
L: Cost of underemployment (Leete-Guy and Schor 1992, Economic Policy Institute, Bureau of Labor Statistics)
M: Cost of consumer durables (National Income and Products Accounts);
N: Cost of commuting (Statistical Abstract of the United States, BEA National Income and Product Accounts, Leete-Guy and Schor 1992, National Household Transportation Survey);
O: Cost of household pollution abatement (Bureau of Economic Analysis);
P: Cost of automobile accidents (Statistical Abstract, National Center for Statistical Analysis, National Safety Council);
Q: Cost of water pollution (Freeman 1982, Rutledge and Vogan 1994, Uri and Lewis 1999, National Resources Inventory, Hagerman 1992, Adams et al. 2006);
R: Cost of air pollution (Myrick Freeman 1982, EPA);
S: Cost of noise pollution (WHO);
T: Loss of wetlands (Woodward and Wui 2000, US Fish and Wildlife Service);
U: Loss of farmland (American Farmland Trust, National Agricultural Statistics Service, USDA National Agricultural Lands Study, Farm Information Center, Ready et al. 1997);
V: Loss of primary forests and damage from logging roads (Outcalt and Sheffield 1996, USFWS, USDA, Beardsley et al. 1999, Tongass National Forest, US Forest Service, Costanza et al. 1997, Vincent et al. 1995);
W: Depletion of non-renewable energy resources (Energy Information Administration, USDA);
X: Carbon dioxide emissions damage (Oak Ridge National Laboratory, IPCC);
Y: Cost of ozone depletion (Alternative Fluorocarbons Environmental Acceptability Study, EPA, UNEP, US Congress);
Z: Net capital investment (Bureau of Labor Statistics, Bureau of Economic Analysis);
AA: Net foreign borrowing (Bureau of Economic Analysis)

Weighting (in latest edition): Weights are incorporated in the indicators as the unit value/cost of the factors (i.e. their prices or shadow prices)

Methodology (in latest edition): $GPI = (D + (E \text{ through } I) - (J \text{ through } Y) + Z + AA)$

Index metric: Monetary amount

Year of introduction: 1995

Frequency of release: Irregular

Country coverage (in latest edition): US

Who uses the index: Governments, researchers, students, media, academia

How is it used: To serve as a comparison to GDP, making distinctions between transactions that add to well-being and those that diminish it

Influence/Impact: The GPI has had a fairly wide uptake from the US, to GPI Atlantic (Canada), Australia, Finland, as well as other EU efforts and efforts within US states. Posner and Costanza 2011 provide a list of 25 applications of GPI methodology covering 21 countries

Documented limitations: Arguments about its policy irrelevance due to subjective aspects and doubts about methodological rigor (see Neumayer 1999, Carson and Young 1994)

Relevant websites: http://rprogress.org/sustainability_indicators/genuine_progress_indicator.htm

Publication where index can be found: The Genuine Progress Indicator 2006: A Tool for Sustainable Development

Official source/citation: Redefining Progress

37. Pollution-Sensitive Human Development Index (HDPI)

Agency/Institution/Author: Lasso de la Vega and Urrutia

Concept: Human progress; Environment

What it measures: Summary measure of human development incorporating the environmental damage done in generating income, which has a negative effect on all the world's inhabitants

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Health;

Education;

Pollution-sensitive income

Indicators and their sources (in latest edition): 5:-

Life expectancy at birth (UNDESA);

Adult literacy rate (UNESCO Institute for Statistics);

Combined primary, secondary and tertiary gross enrolment ratio (UNESCO Institute for Statistics);

GDP per capita (PPP constant prices) (World Bank);

CO2 emissions per capita from industrial processes (UNDP)

Weighting (in latest edition): Equal dimension weighting; literacy 2/3 and enrolment 1/3 within the education sub-index; equal weighting of GDP and CO2 within the pollution-sensitive income sub-index

Methodology (in latest edition): Indicators are first transformed into a scale of 0-1 using defined minimum and maximum goalposts for each dimension; education indicators are aggregated by weighted arithmetic mean and pollution/income indicators aggregated by harmonic mean into dimension sub-indices; sub-indices are then aggregated into the overall index by unweighted arithmetic mean

Index metric: 0-1 scale

0 = worst score

1 = best score

Year of introduction: 2001

Frequency of release: One-off

Country coverage (in latest edition): 165

Who uses the index: Researchers

How is it used: To assess and rank countries and compare HDI performance with HDPI performance

Influence/Impact: Cited by a small number of academic papers

Documented limitations: Limited documentation due to limited exposure of the index; introduction of the pollution indicator may be deemed arbitrary

Relevant websites: <http://link.springer.com/article/10.1023/A%3A1012738731198>

Publication where index can be found: Lasso de la Vega and Urrutia. HDPI: A Framework for Pollution-Sensitive Human Development Indicators. Environment, Development and Sustainability, 2001, vol.3, pp. 199-215

Official source/citation: Lasso de la Vega and Urrutia 2001

38. Human Sustainable Development Index (HSDI)

Agency/Institution/Author: Togtokh, International Geosphere-Biosphere Programme

Concept: Human progress; Sustainability

What it measures: Addition of a new indicator to the HDI, in order to integrate sustainability and the environmental costs of the human development

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Health;

Education;

Standard of living;

Environment

Indicators and their sources (in latest edition): 5:-

Life expectancy at birth (UNDESA);

Expected years of schooling for children (UNESCO Institute for Statistics);

Mean years of schooling for adults aged 25 years and older (UNESCO Institute for Statistics);

GNI per capita (PPP constant prices) (World Bank);

Carbon emissions per capita (no source given)

Weighting (in latest edition): Equal weighting of the 4 dimension indices

Methodology (in latest edition): Indicators are transformed into a scale of 0-1 using defined minimum and maximum goalposts for each dimension; indicators are aggregated by arithmetic mean into dimension indices; these are then aggregated into the overall index by unweighted arithmetic mean

Index metric: 0-1 scale

0 = worst score

1 = best score

Year of introduction: 2010

Frequency of release: One-off

Country coverage (in latest edition): 163

Who uses the index: Media

How is it used: To rank countries and compare rankings with the HDI

Influence/Impact: The HSDI has generated discussion and received considerable interest from online media outlets

Documented limitations: Limited documentation, since the index itself was proposed as a simple modification of another index

Relevant websites: <http://ourworld.unu.edu/en/the-2010-human-sustainable-development-index>

Publication where index can be found: 2010 Human Sustainable Development Index webpage

Official source/citation: Togtokh

39. Human Poverty Index for Developing Countries (HPI-I)

Agency/Institution/Author: UNDP/Human Development Report Office

Concept: Poverty

What it measures: A composite index measuring deprivations in the three basic dimensions captured in the human development index

Final stage aggregation method: Generalised mean

Dimensions (in latest edition): 3:-

Health;

Knowledge;

Standard of living

Indicators and their sources (in latest edition): 4:-

Probability at birth of not surviving to age 40 (UN);

Adult illiteracy rate (UNESCO);

% of population not using an improved water source (UN);

% of children under weight-for-age (UN)

Weighting (in latest edition): Equally weighted indicators within the standard of living dimension; equally weighted dimensions within the overall index

Methodology (in latest edition): Each indicator is measured on a scale of 0-100; the two standard of living indicators are combined by unweighted arithmetic mean into the standard of living dimension; this is aggregated with the other dimension indicators into the overall HPI-I by generalised mean of order 3

Index metric: 0-100 scale

0 = best score

100 = worst score

Year of introduction: 1997

Frequency of release: Annually;

1997-2009

Country coverage (in latest edition): 135

Who uses the index: Governments, NGOs, researchers, academia

How is it used: To rank and score country performance in the overall index and its component indicators

Influence/Impact: The HPI was used as an advocacy tool as part of the Human Development Reports, informing policy decisions and identifying priorities

Documented limitations: Cannot capture the effects of overlapping deprivations in individuals

Relevant websites: <http://hdr.undp.org/en/global-reports>

Publication where index can be found: Human Development Reports 1997-2009

Official source/citation: United Nations Development Programme

40. Human Poverty Index for Selected OECD Countries (HPI-II)

Agency/Institution/Author: UNDP/Human Development Report Office

Concept: Poverty

What it measures: A composite index measuring deprivations in the three basic dimensions captured in the human development index, and also capturing social exclusion

Final stage aggregation method: Generalised mean

Dimensions (in latest edition): 4:-

Health;

Knowledge;

Standard of living;

Social exclusion

Indicators and their sources (in latest edition): 4:-

Probability at birth of not surviving to age 60 (UN);

% of adults lacking functional literacy skills (OECD, Statistics Canada);

% of people living below the poverty line (LIS);

Long-term unemployment rate (OECD)

Weighting (in latest edition): Equally weighted indicators within the overall index

Methodology (in latest edition): Each indicator is measured on a scale of 0-100; dimension indicators are aggregated into the overall HPI-II by generalised mean of order 3

Index metric: 0-100 scale

0 = best score

100 = worst score

Year of introduction: 1997

Frequency of release: Annually;

1997-2009

Country coverage (in latest edition): 30 OECD countries

Who uses the index: Governments, NGOs, researchers, academia

How is it used: To rank and score country performance in the overall index and its component indicators

Influence/Impact: The HPI was used as an advocacy tool as part of the Human Development Reports, informing policy decisions and identifying priorities

Documented limitations: Cannot capture the effects of overlapping deprivations in individuals

Relevant websites: <http://hdr.undp.org/en/global-reports>

Publication where index can be found: Human Development Reports 1997-2009

Official source/citation: United Nations Development Programme

41. Global Hunger Index

Agency/Institution/Author: International Food Policy Research Institute

Concept: Poverty

What it measures: Composite measure of a country's hunger situation in three components

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Undernourishment;

Child underweight;

Child mortality

Indicators and their sources (in latest edition): 3:-

Proportion of the undernourished as a % of the population (FAO);

Prevalence of underweight children under 5 (WHO, UNICEF, MEASURE DHS);

Mortality rate of children under 5 (UN Inter-agency Group)

Weighting (in latest edition): Equally weighted indicators within the overall index

Methodology (in latest edition): Indicators are aggregated by unweighted arithmetic mean to obtain the final index score

Index metric: 0-100 scale

0 = no hunger

100 = worst hunger

Year of introduction: 2006

Frequency of release: Annually

Country coverage (in latest edition): 120 developing and transition countries

Who uses the index: Governments, policy-makers, NGOs, CSOs, researchers, media

How is it used: To rank countries and classify them into categories of hunger severity; analyse national, regional and global trends; assess countries' efforts in reducing hunger

Influence/Impact: The index has received widespread interest across the board; it has been used as an advocacy tool encouraging commitment to ending global hunger

Documented limitations: Lacks consideration of intra-country inequality in food allocation

Relevant websites: <http://www.ifpri.org/book-8018/ourwork/researcharea/global-hunger-index>

Publication where index can be found: Global Hunger Index reports

Official source/citation: International Food Policy Research Institute

42. **Hunger and Nutrition Commitment Index (HANCI)**

Agency/Institution/Author: Institute of Development Studies

Concept: Poverty

What it measures: A measure of a country's political commitment to tackling hunger and undernutrition

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Legal frameworks;

Policies and programmes;

Public expenditures

Indicators and their sources (in latest edition): 22:-

International Code of Marketing of Breastmilk Substitutes in domestic law (World Breastfeeding Trends Initiative; UNICEF);

Constitutional right to food (Vidar 2006; Knuth and Vidar 2011);

Women's access to agricultural land (OECD);

Constitutional right to social security (Vidar 2006; Knuth and Vidar 2011);

Women's economic rights (Cingranelli-Richards);

Vitamin A coverage (UNICEF; MEASURE DHS; WHO);

Complementary feeding (Scaling Up Nutrition; World Breastfeeding Trends Initiative);

Access to improved drinking water (WHO);

Access to sanitation (World Bank);
Skilled birth attendance (WHO);
Civil registration of live births (WHO; UNICEF);
Status of safety nets (Bertelsmann Transformation Index);
Security of access to land (International Fund for Agricultural Development);
Access to agricultural extension services (International Fund for Agricultural Development);
Nutrition in national development policies/strategies (web-based searches);
National nutrition plan or strategy (Economist Intelligence Unit; Save the Children; World Vision International);
Multi-sectoral and multi-stakeholder coordination mechanisms (Scaling Up Nutrition; Economist Intelligence Unit; Save the Children; World Vision International);
Time-bound nutrition targets (Scaling Up Nutrition; Save the Children; World Vision International);
Recent national nutrition survey (UNICEF);
Nutrition budget (Scaling Up Nutrition; Save the Children; World Vision International);
Public expenditures on agriculture (Comprehensive Africa Agriculture Development Programme; FAO; International Food Policy Research Institute; Fan, Omilola and Lambert 2009)
Public expenditures on health (WHO)

Weighting (in latest edition): Equally weighted indicators within dimensions; equally weighted dimensions (scored by Borda rank) within the overall index

Methodology (in latest edition): Indicators are first normalised into a 0-1 score by using maximum and minimum goalposts for each indicator; normalised indicators are then aggregated into 2 sets of the 3 dimension sub-indices by unweighted arithmetic mean, one set for “Hunger reduction commitment” and one set for “Nutrition commitment”; the 6 sub-indices are then aggregate by unweighted Borda rank into the overall index

Index metric: Relative country ranking

1 = best rank

Year of introduction: 2012

Frequency of release: Annually

Country coverage (in latest edition): 45 developing countries

Who uses the index: Governments, policy-makers, NGOs, CSOs, researchers, media

How is it used: To rank country performance and categorise them into different levels of commitment

Influence/Impact: The index has received widespread coverage from the media and other NGOs

Documented limitations: The indicators used for quality of governance fall short of the ideal

Relevant websites: <http://www.hancindex.org/>

Publication where index can be found: The Hunger And Nutrition Commitment Index (HANCI 2012): Measuring Political Commitment to Reduce Hunger and Undernutrition

Official source/citation: Institute of Development Studies

43. Multidimensional Poverty Index (MPI)

Agency/Institution/Author: UNDP/Human Development Report Office; Oxford Poverty and Human Development Initiative (OPHI)

Concept: Poverty

What it measures: Measure of the number of people who are multidimensionally poor (overlapping deprivations at the household level) in the three dimensions of the HDI

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 3:-

Health;
 Education;
 Standard of living

Indicators and their sources (in latest edition): 10:-

At least one member is malnourished;
 One or more children have died;
 No one has completed five years of schooling;
 At least one school-age child not enrolled in school;
 No electricity;
 No access to clean drinking water;
 No access to adequate sanitation;
 House has dirt floor;
 Household uses 'dirty' cooking fuel (dung, firewood or charcoal);
 Household has no car and owns at most one of: bicycle, motorcycle, radio, refrigerator, telephone or television

(Sources: Demographic and Health Survey; Multiple Indicators Cluster Survey; World Health Survey)

Weighting (in latest edition): Equal dimension weighting; equal indicator weighting within dimensions

Methodology (in latest edition): Like the IHDI, the MPI uses individual-level data, however unlike the HDI all data come from the same survey; indicators are valued 1 if true and 0 if false for the individuals' households; households are assigned percentage deprivation scores calculated as the sum of each indicator value multiplied by its weight; households with >33.3% deprivation are classified as multidimensionally poor; the overall MPI value is the sum of deprivation scores above 33.3% divided by the whole population

Index metric: 0-100%

0 = no deprivation

100 = total deprivation

Year of introduction: 2010

Frequency of release: Annually

Country coverage (in latest edition): 104

Who uses the index: Governments, researchers, NGOs, students, media

How is it used: To reveal interconnections among deprivation dimensions; reveal areas or groups with severe deprivation; enable policymakers to target resources and design policies more effectively

Influence/Impact: Developed by the Oxford Poverty and Human Development Initiative (OPHI), the MPI has had much exposure through OPHI's international workshops and papers on its methodology and use; 7 countries and states have developed their own MPIs

Documented limitations: Main limitations are due to lack of data availability: missing data from the surveys, no information on inequality within households. Also cut-off of 33.3% is arbitrary, insensitive to correlation between indicators and inequality between poor households. For details see Rippin 2011 (A Response to the Weaknesses of the MPI: The Correlation Sensitive Poverty Index)

Relevant websites: <http://hdr.undp.org/en/data>

Publication where index can be found: Human Development Reports

Official source/citation: United Nations Development Programme

44. Combined Quality of Life (QOL) Index

Agency/Institution/Author: Diener

Concept: Quality of living

What it measures: Two indexes are proposed, the “Basic QOL Index” to assess developing country criteria, and the “Advanced QOL Index” to assess advanced country criteria. These two indexes are added to yield a “Combined QOL Index”

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 7:-

Mastery;

Affective autonomy;

Intellectual autonomy;

Egalitarian commitment;

Harmony;

Conservatism;

Hierarchy

Indicators and their sources (in latest edition): 14 (7 for the “Basic” index, 7 for the “Advanced” index):-

Purchasing power;

Homicide rate;

Fulfilment of basic physical needs;

Suicide rate;

Literacy rate;

Gross human rights violations;

Deforestation;

Physicians per capita;

Savings rate;

Per capita income;

Subjective well-being;

Percent attending college;

Income equality;

Environmental treaties signed

(Sources: UN Demographic Yearbook; World Bank; UN Compendium of Social Statistics and Indicators)

Weighting (in latest edition): Equal indicator weighting within each of the “Basic” and “Advanced” QOL indexes; equal weighting of the two indexes within the “Combined” QOL index

Methodology (in latest edition): For each of the “Basic” and “Advanced” QOL indexes, the seven corresponding indicators are standardised to have a mean of 0 and standard deviation of 1, and aggregated by unweighted arithmetic mean; the “Combined” QOL index is the sum of the Basic and Advanced indexes

Index metric: Continuous scale with neutral midpoint of 0

Year of introduction: 1995

Frequency of release: One-off

Country coverage (in latest edition): 101

Who uses the index: Academia, researchers, students

How is it used: To rank country performance according to each of the Basic, Advanced and Combined indexes; compare rankings with the UN’s HDI rankings

Influence/Impact: The paper is widely cited in the academic literature

Documented limitations: Equal weighting is applied to the indicators without stating why or making the procedure explicit (see Hagerty and Land 2007, Constructing Summary Indices of Quality of Life: A Model for the Effect of Heterogeneous Importance Weights)

Relevant websites: <http://link.springer.com/article/10.1007%2F01079721#>

Publication where index can be found: Diener, E. A value based index for measuring national quality of life. Social Indicators Research, 1995, vol. 36, pp. 107-127

Official source/citation: Diener 1995

45. Index of Individual Living Conditions

Agency/Institution/Author: Social Indicators Research Centre, Leibniz Institute for Social Research

Concept: Quality of living

What it measures: Composite index aiming to give a summary view of the quality of living conditions in a country

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 7:-

Income/standard of living;

Housing;

Housing area;

Education;

Health;

Social relations;

Work

Indicators and their sources (in latest edition): 18:-

Equivalised household net income as % of national median;

Number of affordable items in: heating, annual holiday, new clothes, meat;

Number of durables possessed in: car, colour TV, dishwasher, telephone;

Ability to make ends meet;

Rooms per person;

Bath/WC available;

State of repair of leaky roof, dampness or rot;

Noise from neighbours or outside;

Any pollution, crime or environmental problems;

Crime or vandalism in the area;

Education level;

Self-rated health status;

Presence of chronic health problem;

Hampered in daily activities by any health problem;

Household size;

Membership in club/organisation;

Frequency of meeting friends/relatives;

Work status

(Source: European Community Household Panel Study)

Weighting (in latest edition): Equal indicator weighting within dimensions, equal dimension weighting within the overall index

Methodology (in latest edition): The indicators use individual-level responses to survey questions scored from 1-5; indicators are aggregated by either unweighted arithmetic mean, or summed and recoded into dimension sub-indices; dimension sub-indices are aggregated by unweighted arithmetic mean into the overall index

Index metric: 1-5 scale

1 = worst

5 = best

Year of introduction: 1995

Frequency of release: Annually;

1995-2001

Country coverage (in latest edition): 9 EU countries

Who uses the index: Researchers

How is it used: To compare the living conditions of populations across countries and over time

Influence/Impact: Limited exposure, the index was cited in a paper by Moreira, Simões and Crespo (Composite indicators of development – the importance of dimensional weights)

Documented limitations: Equal weighting is applied without making this choice of weights explicit or stating rationale

Relevant websites:

http://www.gesis.org/fileadmin/upload/dienstleistung/daten/soz_indikatoren/eusi/Doku_Index_Constr.pdf

Publication where index can be found: Calculation of Composite Index of Individual Living Conditions

Official source/citation: Social Indicators Research Centre, Leibniz Institute for Social Research

46. World's Best Countries

Agency/Institution/Author: Newsweek magazine

Concept: Quality of living

What it measures: A measure of which countries provide the best opportunity to live a healthy, safe, reasonably prosperous, and upwardly mobile life

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 5:-

Education;

Health;

Quality of life;

Economic competitiveness;

Political environment

Indicators and their sources (in latest edition): 19:-

Academic achievement score (TIMSS; PISA; CIA World Factbook);

Healthy life expectancy at birth (WHO);

Inequality in family income (UNDP);

Gender gap (World Economic Forum);

% of the population living on less than \$2 a day (World Bank);

Consumption per capita (World Insight);

Homicide Rate (UN Office on Crime and Drugs);

Environmental health (Yale's Environmental Performance Index);

Unemployment rate (CIA World Factbook; Economist Intelligence Unit);
 Growth in GDP/capita (CIA World Factbook; Global Insight);
 Services and manufacturing as % of GDP (World Bank; Global Insight);
 Innovation (World Economic Forum's Innovation Index);
 Ease of doing business (World Bank);
 Bankruptcy (World Bank);
 Time to start a new business (World Bank);
 Stock market capitalisation as % of GDP (S&P; McKinsey Global Institute);
 Democratic freedom (Freedom House rating);
 Political Participation (Global Peace Index; Economist Intelligence Unit);
 Political risk faced by governments, corporations and investors (Political Risk Services)

Weighting (in latest edition): Equal indicator weighting within dimensions, equal dimension weighting within the overall index

Methodology (in latest edition): Indicators are first normalised on a 1-100 scale using observed maximum and minimum values; indicators are aggregated by unweighted arithmetic mean into dimension indices; dimension indices are then aggregated by unweighted arithmetic mean into the overall index

Index metric: 1-100 score

Year of introduction: 2010

Frequency of release: One-off

Country coverage (in latest edition): 100

Who uses the index: Media

How is it used: To rank country performance in the overall index and sub-indices

Influence/Impact: Extensive media coverage of the index rankings; however, limited impact beyond media commentary

Documented limitations: Index lacks theoretical foundations. See Ravallion (Mashup Indices of Development)

Relevant websites: <http://mag.newsweek.com/2010/08/15/world-s-best-countries-categories-metrics-and-methodology.html>

Publication where index can be found: Newsweek, August 2010

Official source/citation: Newsweek

47. Global Liveability Index

Agency/Institution/Author: Economist Intelligence Unit

Concept: Quality of living

What it measures: Assesses which locations around the world provide the best or the worst living conditions

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 5:-
 Stability;
 Healthcare;
 Culture and environment;
 Education;
 Infrastructure

Indicators and their sources (in latest edition): 30:-

Prevalence of petty crime (EIU rating);
Prevalence of violent crime (EIU rating);
Threat of terror (EIU rating);
Threat of military conflict (EIU rating);
Threat of civil unrest/conflict (EIU rating);
Availability of private healthcare (EIU rating);
Quality of private healthcare (EIU rating);
Availability of public healthcare (EIU rating);
Quality of public healthcare (EIU rating);
Availability of over-the-counter drugs (EIU rating);
General healthcare indicators (adapted from World Bank);
Humidity/temperature rating (adapted from average weather conditions);
Discomfort of climate to travellers (EIU rating);
Level of corruption (adapted from Transparency International);
Social or religious restrictions (EIU rating);
Level of censorship (EIU rating);
Sporting availability (EIU rating of 3 indicators);
Cultural availability (EIU rating of 4 cultural indicators);
Food and drink (EIU rating of 4 cultural indicators);
Consumer goods and services (EIU rating of product availability);
Availability of private education (EIU rating);
Quality of private education (EIU rating);
Public education indicators (adapted from World Bank);
Quality of road network (EIU rating);
Quality of public transport (EIU rating);
Quality of international links (EIU rating);
Availability of good quality housing (EIU rating);
Quality of energy provision (EIU rating);
Quality of water provision (EIU rating);
Quality of telecommunications (EIU rating)

Weighting (in latest edition): Equal indicator weighting within dimensions; differential weighting of dimensions:-
Stability 25%;
Healthcare 20%;
Culture and environment 25%;
Education 10%;
Infrastructure 20%

Methodology (in latest edition): Each city is assigned a rating of relative comfort for each of the indicators; the indicators are rated as acceptable, tolerable, uncomfortable, undesirable or intolerable; for qualitative indicators, ratings are based on expert opinion, for quantitative indicators, ratings are calculated based on the relative performance of a number of external data points.

Indicators are aggregated by unweighted arithmetic mean into the 5 dimensions, and dimensions are aggregated by weighted arithmetic mean into the overall index

Index metric: 1-100 scale
1 = intolerable
100 = ideal

Year of introduction: 2002

Frequency of release: Annually

Country coverage (in latest edition): 140 cities

Who uses the index: Media, individuals, governments

How is it used: To rank and categorise cities by liveability rating; suggest premium that companies pay to employees who move to cities with difficult or unhealthy living conditions.

Influence/Impact: Media attention on top ranked cities and ranking of cities hosting international sporting events

Documented limitations: Neglects other important dimensions, e.g. social responsibility, diversity, equity and sustainability; no consideration of urban density or aesthetic values

Relevant websites:

http://www.eiu.com/site_info.asp?info_name=The Global Liveability Report Methodology

Publication where index can be found: The Economist Intelligence Unit's Global liveability report

Official source/citation: Economist Intelligence Unit

48. Global Quality of Living

Agency/Institution/Author: Mercer Human Resource Consulting

Concept: Quality of living

What it measures: City-to-city index comparison that summarises the difference in the quality of living between any two cities

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 10:-

Political and social environment (23.5%);

Economic environment (4.0%);

Socio-cultural environment (6.4%);

Medical and health considerations (19%);

Schools and education (3.4%);

Public services and transportation (13.0%);

Recreation (9.0%);

Consumer g

Indicators and their sources (in latest edition): 39 survey questions

(Source: Mercer Human Resource Consulting)

Weighting (in latest edition): Weights attributed to each dimension are the result of a pilot study conducted by Mercer, which questioned expatriates on the importance that each of the 39 variables should be given

Methodology (in latest edition): Data is gathered using a questionnaire developed by Mercer in cooperation with multinational clients and experts; each city is evaluated by field researchers and consultants in Mercer's worldwide offices, in terms of the 39 questions on a scale from 0 (lowest score) to 10 (highest score); scores are aggregated by weighted arithmetic mean and normalised to a base score of 100

Index metric: New York is assigned base score of 100

Year of introduction: 2001

Frequency of release: Annually

Country coverage (in latest edition): 221 cities

Who uses the index: Multinational organisations, government agencies, media

How is it used: To help multinational organisations compensate employees fairly for hardship premiums when placing them on international assignments.

Influence/Impact: Although intended for private remuneration and compensation purposes, the index has been influential in informing city benchmarking and liveability evaluations by local governments

Documented limitations: Insufficient clarity of methodological notes provided by Mercer; individual circumstances cannot be accommodated within the global framework of analysis used for the index

Relevant websites: <http://www.mercer.com/qualityoflivingpr>

Publication where index can be found: Mercer Quality of Living reports

Official source/citation: Mercer

49. Overall Index of the Quality of Life

Agency/Institution/Author: Slottje

Concept: Quality of living

What it measures: A measure of quality of life that is as comprehensive as possible with available data for as many countries as possible

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): No dimensions defined, indicators are described as “attributes”

Indicators and their sources (in latest edition): 20:-

Political rights;

Civil liberty;

Average household size;

Soldier to civilian ratio;

Energy consumption per capita;

% of women in the labour force;

% of children in the labour force;

National territory per square km of road;

Telephones per capita;

Male life expectancy;

Female life expectancy;

Infant mortality rate per 1000 births;

People per hospital bed;

People per physician;

Daily caloric consumption per capita;

Male literacy rate;

Female literacy rate;

Radio receivers per 1000 people;

Number of daily newspapers in the country;

Per capita real GDP

(Sources: Kurian 1984 (Book of World Rankings); The World in Figures; Gastil 1987 (Freedom in the World))

Weighting (in latest edition): Three different weighting methods are used and compared: country rankings in the indicators; principal components analysis; and regressing a latent variable on the indicators

Methodology (in latest edition): Several different indexes are constructed by different weighted arithmetic means of the 20 “attributes” (indicators), with weights assigned according to variations on

the three methods described; the resulting rankings are averaged for each country over all the different indexes as the final index of the quality of life

Index metric: Relative country ranking

1 = best performance

Year of introduction: 1991

Frequency of release: One-off

Country coverage (in latest edition): 126

Who uses the index: Academia, researchers

How is it used: To rank relative performance of countries according to a number of differently weighted indexes (using the same 20 attributes); compare differences in resultant rankings

Influence/Impact: The paper containing the index analysis is highly cited by other academic papers

Documented limitations: Differences in index rankings resulting from the various weighting techniques may be understated due to coarseness in the indicators used (Slottje's own observation)

Relevant websites: <http://www.jstor.org/stable/2109407>

Publication where index can be found: Slottje, D. Measuring the Quality of Life Across Countries. The Review of Economics and Statistics, 1991, vol. 73, pp. 684-693

Official source/citation: Slottje 1991

50. Human Security Index (HSI)

Agency/Institution/Author: Hastings

Concept: Safety and security

What it measures: A measure of the attainment of physical, mental, and spiritual peace and security of individuals and communities at home and in the world

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Economic fabric;

Environmental fabric;

Social fabric

Indicators and their sources (in latest edition): 33 (some of which are combined into sub-indices)

(Sources: IMF; World Bank; CIA; Solt 2010; UN-WIDER; Environmental Vulnerability Index; Environmental Performance Index; World Resources Institute; Wikipedia; Press Freedom Index; WEF; VisionOfHumanity.org; International Centre for Prison Studies, Kings College London; PoliticalTerrorScale.org; FAO; Global Hunger Index; US Department of Agriculture; WHO; Petrie & Tang 2008; WGI; Kaufmann & Vincente 2008)

Weighting (in latest edition): Equal weighting of sub-indicators within indicators; equal weighting of indicators within dimensions; equal weighting of dimensions within the overall index

Methodology (in latest edition): All indicators are first transformed into a scale of 0-1 using defined minimum and maximum goalposts for each indicator; sub-indices (comprised of 1-3 indicators) are created by aggregating the respective indicators by unweighted arithmetic mean; sub-indices are aggregated by arithmetic mean into dimension indices, which are then aggregated into the overall index by unweighted arithmetic mean

Index metric: 0-1 scale

0 = worst score

1 = best score

Year of introduction: 2008

Frequency of release: 2008; 2009; 2010

Country coverage (in latest edition): 232

Who uses the index: Researchers

How is it used: To rank country performance and map this visually; compare performance with that of GDP and the UN's HDI

Influence/Impact: The index has been cited and used as the basis for a number of research papers on regional level human security and the development of measures of human security. See Werthes et al. (Assessing Human Insecurity Worldwide: The Way to A Human (In)Security Index)

Documented limitations: Limited documented criticisms of the index

Relevant websites: <http://www.humansecurityindex.org/>

Publication where index can be found: Hastings. The Human Security Index: Pursuing enriched characterization of development. Development, 2013, vol. 56 pp. 66-78

Official source/citation: Hastings

51. Global Peace Index

Agency/Institution/Author: Institute for Economics and Peace

Concept: Safety and security

What it measures: A measure of a nation's peace in terms of the level of safety and security in society, the extent of domestic or international conflict, and the degree of militarisation

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 2:-

Internal peace;

External peace

Indicators and their sources (in latest edition): 22:-

Level of perceived criminality in society (Economist Intelligence Unit);

Number of internal security officers and police per 100,000 people (UN, Economist Intelligence Unit);

Number of homicides per 100,000 people (UN; Economist Intelligence Unit);

Number of jailed population per 100,000 people (University of Essex);

Ease of access to small arms and light weapons (Economist Intelligence Unit);

Level of organised conflict (internal) (Economist Intelligence Unit);

Likelihood of violent demonstrations (Economist Intelligence Unit);

Level of violent crime (Economist Intelligence Unit);

Political instability (Economist Intelligence Unit);

Political terror scale (Amnesty International, US State Department);

Volume of transfers of major conventional weapons as recipient (imports) per 100,000 people (SIPRI Arms Transfers Database);

Terrorist activity (Global Terrorism Index, Institute for Economics and Peace);

Number of deaths from organised conflict (internal) (International Institute for Strategic Studies (IISS));

Military expenditure as a % of GDP (IISS);

Number of armed-services personnel per 100,000 people (IISS);

Financial contribution to UN peacekeeping missions (UN, Institute for Economics and Peace);

Nuclear and heavy weapons capability (IISS, SIPRI, Institute for Economics and Peace);

Volume of transfers of major conventional weapons as supplier (exports) per 100,000 people (SIPRI Arms Transfers Database);

Number of refugees and displaced people as a % of population (UNHCR, Internal Displacement Monitoring Centre);

Relations with neighbouring countries (Economist Intelligence Unit);

Number of external and internal conflicts fought (Uppsala Conflict Data Program (UCDP), Economist Intelligence Unit);

Number of deaths from organised conflict (external) (UCDP)

Weighting (in latest edition): The 'Internal peace' dimension is weighted 60% and the 'External peace' dimension is weighted 40%. Individual indicators are apportioned scores by independent experts based on the relative importance of each of the indicators on a scale 1-5

Methodology (in latest edition): Scores for each indicator are normalised on a scale of 1-5. 7 of the 22 indicators are scored qualitatively by the Economist Intelligence Unit's country analysts. Indicators are aggregated by weighted arithmetic mean into dimension indices according to the expert weightings; the 'internal' and 'external' peace dimensions are then aggregated by weighted arithmetic mean into the overall index

Index metric: 1-5 scale

1 = most peaceful

5 = least peaceful

Year of introduction: 2007

Frequency of release: Annually

Country coverage (in latest edition): 162

Who uses the index: Governments, NGOs, media

How is it used: To rank and analyse countries; assess regional and time trends

Influence/Impact: The index has been endorsed by numerous notable figures, and has been used as an indicator in the construction of other indices

Documented limitations: Criticised for not including indicators relating to violence against women and children, and also for penalising states for their military expenditure: this may unfairly reward those receiving protection from treaties and penalise larger countries, e.g. the US, who spend more on defence to protect others

Relevant websites: <http://economicsandpeace.org/research/iep-indices-data/global-peace-index>

Publication where index can be found: Global Peace Index report

Official source/citation: Institute for Economics and Peace

52. Personal Security Index (PSI)

Agency/Institution/Author: Canadian Council on Social Development (CCSD)

Concept: Safety and security

What it measures: Two separate composite indices (one "Data index", one "Perception index") measuring individuals' quality of life in terms of the various forms of insecurity to which they are exposed

Final stage aggregation method: Weighted sum

Dimensions (in latest edition): 3:-

Economic security;

Health security;

Physical safety

Indicators and their sources (in latest edition): 14 survey questions for the "Perception index" (source: CCSD telephone survey)

11 indicators for the “Data index” (source: Statistics Canada):-

Level of disposable income;

Poverty gap;

Long-term unemployment rate;

% of unemployed Canadians who receive employment insurance benefits;

Average level of social assistance available;

Ratio of total mortgage and consumer debt to total disposable income;

Ratio of total years of life lost before age 75 and proportion of the population under 75;

Workplace injuries per 100,000 workers that result in time being lost from the workplace;

Motor vehicle accident injury rate as a % of the population;

Level of property crime;

Level of violent crime

Weighting (in latest edition): Dimension weights assigned as the result of a public survey:

Economic security 35%;

Health security 55%;

Physical safety 10%.

Equal indicator weights within dimensions

Methodology (in latest edition): Responses to questions for the “Perception index” are scored on a scale of 1-7; average scores for each question are weighted according to the dimension it belongs, summed and normalised to 100 in the 1998 base year; in subsequent years, percentage changes in response scores are rescaled relative to changes against the baseline.

For the “Data index”, changes in indicator values are normalised into z-scores by subtracting the mean and dividing by the standard deviation of 1994-98 values; these z-score changes are weighted, summed and rescaled relative to changes against the baseline

Index metric: Baseline score of 100 with 1998 base year

Year of introduction: 1999

Frequency of release: Annually; 1999-2003

Country coverage (in latest edition): 6 Canadian regions

Who uses the index: Policy-makers, researchers

How is it used: To track changes in the two index scores and their component dimensions over time; identify deviations in perceptions and the data

Influence/Impact: The index has been cited in numerous research papers

Documented limitations: Main limitations are due to data availability, resulting in indicators that fall short of the ideal

Relevant websites: <http://www.ccsd.ca/pubs/2003/psi/>

Publication where index can be found: Personal Security Index reports

Official source/citation: Canadian Council on Social Development

53. Social Institutions & Gender Index (SIGI)

Agency/Institution/Author: OECD Development Centre

Concept: Social exclusion

What it measures: A composite measure of the drivers underlying discrimination against women in developing countries

Final stage aggregation method: Generalised mean

Dimensions (in latest edition): 5:-

Discriminatory family code;
Restricted physical integrity;
Son bias;
Restricted resources and entitlements;
Restricted civil liberties

Indicators and their sources (in latest edition): 14 (PCA weights in parentheses):-

Legal age of marriage (0.47);
Early marriage (0.38);
Parental authority (0.59);
Inheritance (0.53);
Violence against women (0.64);
Female genital mutilation (0.60);
Reproductive integrity (0.48);
Missing women (0.70);
Fertility preferences (0.70);
Access to land (0.59);
Access to bank loans and other forms of credit (0.560);
Access to property other than land (0.58);
Access to public space (0.70);
Political voice (0.70)

(Sources: SIGI country notes, UN World Marriage, Demographic Health Surveys, Multiple Cluster Indicator Surveys, WHO, UN Women, Population Reference Bureau, UN Population Division, CIA, Inter-Parliamentary Union, The Quota Project)

Weighting (in latest edition): Indicators weighted by principal components analysis within the dimension sub-indices; dimensions weighted equally within the overall index; the website also allows users to change the sub-indices that are included in the SIGI and change the weightings

Methodology (in latest edition): Indicators are all scored or coded in the range 0-1; statistical association and correspondence of the variables in each sub-index is tested to ensure the variables belong to a distinct dimension; variables are then aggregated into dimensions by weighted arithmetic mean, with weights derived by polychoric principal components analysis; dimension sub-indices are aggregated into the overall index by equally weighted average of the squared sub-indices

Index metric: 0-1 scale

0 = best score

1 = worst score

Year of introduction: 2009

Frequency of release: 2009; 2012

Country coverage (in latest edition): 86

Who uses the index: NGOs, policy-makers, researchers, media

How is it used: To rank country performance; analyse and compare how sub-index and indicator performance relates to women's employment outcomes, educational attainment, health outcomes and the environment

Influence/Impact: The index has been widely cited by OECD-affiliated publications and other NGOs

Documented limitations: Limitations to data availability and measurement limits the country coverage of the index; non-OECD and non-EU countries are excluded

Relevant websites: <http://genderindex.org/>

Publication where index can be found: Social Institutions and Gender Index report

Official source/citation: OECD Development Centre

54. Human Opportunity Index (HOI)

Agency/Institution/Author: World Bank

Concept: Social exclusion

What it measures: An empirical application of the equal-opportunity approach. Calculates how personal circumstances impact a child's probability of accessing the services that are necessary to succeed in life

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 2:-

Education;

Housing

Indicators and their sources (in latest edition): 5:-

School attendance rate;

Probability of completing sixth grade on time;

Adequate access to water;

Access to electricity;

Adequate access to sanitation

(Sources: World Bank; Universidad Nacional de La Plata Socioeconomic Database for Latin America and the Caribbean)

Weighting (in latest edition): Equal weighting between the two dimensions

Methodology (in latest edition): Dimension HOI = Coverage rate * (1 - Dissimilarity index):-

Estimate logistic model of child i's access/no access to a given basic good or service as a function of circumstances; use coefficients to obtain each of the N children's predicted probabilities 'p' of access given their circumstances; average of individual probabilities gives overall Coverage rate 'C';

Dissimilarity index is given by: $(1/2C)\sum(1/N)(p - C)$.

Overall HOI = arithmetic mean of education and housing HOIs

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 2008

Frequency of release: 2008; 2010

Country coverage (in latest edition): 19 countries in Latin America and the Caribbean

Who uses the index: Researchers, NGOs, students, media

How is it used: To score countries according to the overall index and its component parts; track changes over time; compare dimension performance in different regions of the world

Influence/Impact: The index has been used as an advocacy tool to promote policies that increase equality of opportunity

Documented limitations: Due to data availability, indicators are limited to measures of quantity; ideally indicators of quality in basic goods and services should also be incorporated

Relevant websites: <http://www.worldbank.org/lacopportunity>

Publication where index can be found: Human Opportunity Report for Latin America and the Caribbean

Official source/citation: The International Bank for Reconstruction and Development/The World Bank

55. Social Inclusion Index

Agency/Institution/Author: Americas Quarterly

Concept: Social exclusion

What it measures: Composite measure of the combined factors necessary for an individual to enjoy a safe, productive life as a fully integrated member of society

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 2:-

Inputs to social inclusion;

Outputs of social inclusion

Indicators and their sources (in latest edition): 21:-

% GDP growth (IMF);

% GDP spent on social programs (UN ECLAC);

% secondary school enrolment by gender (World Bank);

% secondary school enrolment by race (World Bank);

Political rights (Freedom House);

Civil rights (Freedom House);

Civil society participation by gender (AmericasBarometer);

Civil society participation by race (AmericasBarometer);

Women's rights (Inter-American Dialogue);

LGBT rights (Gay Friendliness Index);

Financial inclusion (World Bank);

% living on more than \$4 a day by gender (World Bank);

% living on more than \$4 a day by race (World Bank);

Personal empowerment by gender (AmericasBarometer);

Personal empowerment by race (AmericasBarometer);

Government responsiveness by gender (AmericasBarometer);

Government responsiveness by race (AmericasBarometer);

% access to adequate housing by gender (World Bank);

% access to adequate housing by race (World Bank);

% access to a formal job, ages 25-65 by gender (World Bank);

% access to a formal job, ages 25-65 by race (World Bank)

Weighting (in latest edition): Equal weighting of all indicators

Methodology (in latest edition): Each of the 11 countries is scored by its relative ranking (1-11) for all 15 indicators with the total score converted to a 0-100 scale; all variables are weighted equally

Index metric: 0-100 scale

0 = worst ranking

100 = best ranking

Year of introduction: 2012

Frequency of release: Annually

Country coverage (in latest edition): 16 countries in North and Latin America

Who uses the index: Media, students

How is it used: To rank Latin American countries relative to each other

Influence/Impact: Cited by other media publications; impact somewhat limited outside of Americas Quarterly's parent organisation, media and social media outlets

Documented limitations: Lack of data for some countries means that index scores for these countries are rescaled according to only those indicators for which there are data; equal weighting due to insufficient knowledge for how to quantify relative importance of dimensions

Relevant websites: http://americasquarterly.org/charticles/Social_Inclusion_Index_2013/index.html

Publication where index can be found: Americas Quarterly

Official source/citation: Americas Quarterly

56. Multiculturalism Policy Index

Agency/Institution/Author: Queen's University

Concept: Social exclusion

What it measures: Assessment of multiculturalism policies in Western democracies

Final stage aggregation method: Unweighted sum

Dimensions (in latest edition): 3:-

Policies celebrating multiculturalism;

Policies reducing legal

constraints on diversity; Policies giving active support for immigrant communities and individuals

Indicators and their sources (in latest edition): 8:-

Constitutional, legislative, or parliamentary affirmation of multiculturalism, at the central and/or regional and municipal levels;

The adoption of multiculturalism in school curricula;

The inclusion of ethnic representation/sensitivity in the mandate of public media or media licensing;

Exemptions from dress codes, either by statute or by court cases;

Allowing of dual citizenship;

The funding of ethnic group organisations to support cultural activities;

The funding of bilingual education or mother-tongue instruction;

Affirmative action for disadvantaged immigrant groups

(Sources: policy documents; program guidelines; legislation; government news releases; secondary sources)

Weighting (in latest edition): Equal weighting given to all indicators

Methodology (in latest edition): A country's index score is the number of indicator policies it has adopted

Index metric: 6-8 = "strong" commitment to multiculturalism;

3-5 = "modest"

0-2 = "weak"

Year of introduction: 2006

Frequency of release: Irregular

Country coverage (in latest edition): 21 OECD countries

Who uses the index: Researchers, academia

How is it used: To classify countries into three categories of commitment to multiculturalism

Influence/Impact: The index has been cited and used in numerous academic and research papers about multiculturalism, citizenship and immigration

Documented limitations: The authors acknowledge that is no universally-accepted definition of a "multiculturalism policy", therefore the list of indicator policies may be controversial, and perhaps arbitrary

Relevant websites: <http://www.queensu.ca/mcp/index.html>

Publication where index can be found: Banting and Kymlicka. Multiculturalism and the Welfare State: Recognition and Redistribution in Contemporary Democracies. Oxford University Press 2006
Official source/citation: Queen's University

57. Global Slavery Index

Agency/Institution/Author: Walk Free Foundation

Concept: Social exclusion

What it measures: Estimated measure of the size of the modern slavery problem, defined as one person depriving another people of their freedom

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 3:-

Estimated prevalence of modern slavery;

Estimated human trafficking;

Estimated child marriage

Indicators and their sources (in latest edition): 3:-

Estimated prevalence of modern slavery (primary sample surveys, statistical extrapolation, widely-varying secondary sources);

Estimated human trafficking (US Department of State Trafficking in Persons Report);

Estimated child marriage (UNICEF)

Weighting (in latest edition): Estimated prevalence of modern slavery 95%;

Estimated human trafficking 2.5%;

Estimated child marriage 2.5%

Methodology (in latest edition): Indicators are first transformed into the range 1-100 and aggregated by weighted arithmetic mean into the overall index

Index metric: 1 -100 scale

100 = highest level of slavery

Year of introduction: 2013

Frequency of release: Annually

Country coverage (in latest edition): 162

Who uses the index: Media, governments, NGOs

How is it used: To rank countries; draw up country profiles of the best and worst-performing countries

Influence/Impact: The inaugural index has received endorsements from numerous notable figures and considerable media attention; intended to engage with governments and support countries to assess responses to modern slavery

Documented limitations: The estimate of slavery prevalence is a very weak, approximate measure due to the hidden nature of modern slavery

Relevant websites: <http://www.globalslaveryindex.org/report/#view-online>

Publication where index can be found: Global Slavery Index

Official source/citation: Walk Free Foundation

58. Freedom Index

Agency/Institution/Author: Vásquez and Štumberger

Concept: Social progress

What it measures: A work in progress for a broad measure of human liberty that includes economic as well as civil and personal freedoms

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 2:-

Economic freedom;

Personal freedom

Indicators and their sources (in latest edition): 76 (42 from the Economic Freedom of the World Index, plus the following 36 personal freedom indicators):-

Extrajudicial killing (Cingranelli-Richards Human Rights Data Project);

Torture (Cingranelli-Richards Human Rights Data Project);

Political imprisonment (Cingranelli-Richards Human Rights Data Project);

Disappearance (Cingranelli-Richards Human Rights Data Project);

Battle-related deaths (Uppsala Conflict Data Program);

Level of organised conflict (internal) (Economist Intelligence Unit);

Female genital mutilation (OECD);

Sex preference (OECD);

Homicide (UN Office on Drugs and Crime);

Human trafficking (UN Office on Drugs and Crime);

Sexual violence (UN Office on Drugs and Crime);

Assault (UN Office on Drugs and Crime);

Level of perceived criminality in society (Economist Intelligence Unit);

Theft (UN Office on Drugs and Crime);

Burglary (UN Office on Drugs and Crime);

Inheritance (OECD);

Hostility to foreigners and their private property (Economist Intelligence Unit);

Forcibly displaced populations (US Committee for Refugees & Immigrants);

Freedom of foreign movement (Cingranelli-Richards Human Rights Data Project);

Freedom of domestic movement (Cingranelli-Richards Human Rights Data Project);

Women's Freedom of movement (OECD);

Press killings (Committee to Protect Journalists);

Freedom of speech (Cingranelli-Richards Human Rights Data Project);

Laws and regulations that influence media content (Freedom House);

Political pressures and controls on media content (Freedom House);

Dress code in public (OECD);

Freedom of assembly and association (Cingranelli-Richards Human Rights Data Project);

Parental authority (OECD);

Religion - government restrictions (Pew Forum on Religion & Public Life);

Religion - social hostility (Pew Forum on Religion & Public Life);

Male to male relationship (International Lesbian & Gay Association);

Female to female relationship (International Lesbian & Gay Association);

Age of consent for homosexual couples (International Lesbian & Gay Association);

Adoption by homosexuals (International Lesbian & Gay Association)

Weighting (in latest edition): Equal weighting at each stage of aggregation

Methodology (in latest edition): The "Economic freedom" sub-index is exactly the Fraser Institute's Economic Freedom of the World Index; the indicators for the "Personal freedom" sub-index are scored in range 0-10 and aggregated by unweighted arithmetic mean into 4 categories; these categories are

then aggregated by unweighted arithmetic mean into the “Personal freedom” index; the “Economic freedom” index and “Personal freedom” index are then aggregated, again by unweighted arithmetic mean into the overall index

Index metric: 0-10 score

0 = no freedom

10 = maximum freedom

Year of introduction: 2012

Frequency of release: One-off

Country coverage (in latest edition): 123

Who uses the index: Academia, researchers

How is it used: To rank and score country performance in the overall index and the component Economic and Personal indices

Influence/Impact: The index is still in development, but has already received substantial media interest and citations since the release of the book containing the index

Documented limitations: No explanation of how the indicators are transformed into a score between 0-10 (see Hall and Lawson, Comments on “An Index of Freedom in the World”)

Relevant websites: <http://www.cato.org/blog/creating-human-freedom-index>

Publication where index can be found: Towards a Worldwide Index of Human Freedom, Chapter 3. Fraser Institute and Liberales Institut 2012

Official source/citation: Vásquez and Štumberger

59. Index of Social Health (ISH)

Agency/Institution/Author: Miringoff and Miringoff, Institute for Innovation in Social Policy

Concept: Social progress

What it measures: A comprehensive measure examining 16 social indicators affecting various sectors of American society

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): Indicators are grouped by stages of life:-

Children;

Youth;

Adults;

Elderly;

All ages

Indicators and their sources (in latest edition): 16:-

Infant mortality (National Center for Health Statistics);

Child abuse (Children’s Bureau);

Child poverty (US Bureau of the Census);

Teenage suicide (National Center for Health Statistics);

Teenage drug abuse (Monitoring the Future (University of Michigan));

High school dropouts (US Bureau of the Census);

Unemployment (US Bureau of Labor Statistics);

Weekly wages (Economic Report of the President);

Health insurance coverage (US Bureau of the Census);

Poverty among the elderly (US Bureau of the Census);

Out-of-pocket health-care costs among the elderly (Consumer Expenditure Survey);

Homicides (Federal Bureau of Investigation);

Alcohol-related traffic fatalities (National Highway Safety Administration);

Food insecurity (US Dept. of Agriculture);

Affordable housing (National Association of Realtors);

Income inequality (US Bureau of the Census)

Weighting (in latest edition): Equal weighting of indicators into the overall index

Methodology (in latest edition): Values for the indicators for any specific year are indexed as percentages of their values for the year in which they had their “best practice” or best performance value; they are then aggregated by arithmetic mean with equal weights to obtain the value of the ISH for that year

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 1987

Frequency of release: Annually

Country coverage (in latest edition): 50 US states

Who uses the index: Media, researchers, students

How is it used: To monitor the performance of US states in addressing social issues affecting citizens at each stage of life

Influence/Impact: Widely cited in the media in discussions of alternative indicators of progress; used for education purposes

Documented limitations: Inadequate treatment of weighting, since no explicit consideration of how individuals themselves weight each social indicator, nor the likely variation in weights over people. See Hagerty et al. 2001 (Quality of Life Indexes for National Policy: Review and Agenda for Research)

Relevant websites: <http://iisp.vassar.edu/ish.html>

Publication where index can be found: The Index of Social Health updates

Official source/citation: Miringoff and Miringoff

60. Social Progress Index (SPI)

Agency/Institution/Author: Social Progress Imperative

Concept: Social progress

What it measures: A composite measure of a country’s social, political, and environmental landscape

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3 (each split into 4 components):-

Basic human needs;

Foundations of well-being;

Opportunity

Indicators and their sources (in latest edition): 52 (each belonging to one of the 4 components)

(Sources: Economist Intelligence Unit; Gallup World Poll; UNDESA; UNESCO; Freedom House;

Cingranelli-Richards Human Rights Data Project; Heritage Foundation)

Weighting (in latest edition): Weights determined by factor analysis

Methodology (in latest edition): Indicators are first transformed so that a higher score corresponds to better social progress; a weighted linear transformation is applied to aggregate the indicators so the mean of each resulting component is 50 and standard deviation is 12.5; each dimension is calculated as

the unweighted sum of the 4 components and the overall index is then calculated as the unweighted sum of the 3 dimensions

Index metric: 0-100 scale

0 = worst ranking

100 = best ranking

Year of introduction: 2013

Frequency of release: Annually

Country coverage (in latest edition): 50

Who uses the index: Media, governments, industry

How is it used: To compare countries on different facets of social progress; identify specific areas of strength or weakness; benchmark countries against peers at the level of individual indicators and at the aggregate measure of social progress.

Influence/Impact: Intended as a tool to help entrepreneurs, policy makers and the private sector make better decisions to help the world's poor. Paraguay will be the first country to adopt the SPI by incorporating it into its national development framework

Documented limitations: Criticism of selective sampling of the countries included in the index ranking (see <http://www.economist.com/blogs/feastandfamine/2013/04/social-progress>)

Relevant websites: <http://www.socialprogressimperative.org/>

Publication where index can be found: Social Progress Index report

Official source/citation: Social Progress Imperative

61. Indices of Social Development (ISD)

Agency/Institution/Author: International Institute of Social Studies

Concept: Social progress

What it measures: Brings together and synthesises 185 indicators into a usable set of 5 indices to track how different societies perform in social development

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 5:-

Civic activism;

Clubs and associations;

Intergroup cohesion;

Interpersonal safety and trust;

Gender equality

Indicators and their sources (in latest edition): 185

(Sources: Afrobarometer; Asian Barometer; Cingranelli-Richards; Civicus; Cross-National Time-Series Data Archive; Economist Intelligence Unit; European Social Survey; Fund for Peace, International Country Risk Guide; International Crime Victim Survey; International Labour Organisation; International Social Survey Project; International Telecommunications Union; Johns Hopkins Comparative Nonprofit Sector Project; Latinobarometer; London School of Economics Annual Civil Society Yearbook; Minorities at Risk; OECD Factbook; UNESCO; UN Criminal Justice Information Network; US State Department; World Development Indicators; WHO; World Values Survey)

Weighting (in latest edition): Indicators are weighted by incremental contribution to changes in ranking in the procedure of iteratively adding indicators to the index

Methodology (in latest edition): The indices are aggregated using the method of 'matching percentiles': indicators (with values between 0 and 1) are first ordered from the most to least reliable

and representative; scores from the second indicator are matched to the first indicator based on ranking of shared countries; these are combined with the first indicator to produce refined scores; this is continued through all of the available indicators, reducing random error with each iteration to arrive at a final score

Index metric: 0-1 scale

0 = worst

1 = best

Year of introduction: 2011

Frequency of release: Annually

Country coverage (in latest edition): 193

Who uses the index: Researchers, policy-makers

How is it used: To measure country-level and regional level progress in social development; enable policy-makers to compare countries and regions and monitor progress over time

Influence/Impact: Intended to help development practitioners identify countries with particular social development needs and concerns

Documented limitations: Not applicable at intra-country level; time periods are averages for several years of available data so it is not possible to link data to a specific year for a series of countries

Relevant websites: <http://www.indsocdev.org/>

Publication where index can be found: Haan, Staveren, Webbink and Foa. The last mile in analysing well-being and poverty:

Indices of Social Development. Working Paper

No. 2011-03

Official source/citation: Indices of Social Development

62. Happy Life Years (HLY) or Happy Life Expectancy

Agency/Institution/Author: Veenhoven

Concept: Subjective well-being

What it measures: Quantification of the degree to which citizens in a country live long and happily

Final stage aggregation method: Ratio

Dimensions (in latest edition): 2:-

Life expectancy;

Happiness

Indicators and their sources (in latest edition): 2:-

Life expectancy (UNDP);

Life satisfaction (World Database of Happiness)

Weighting (in latest edition): Life expectancy is effectively weighted by degree of happiness

Methodology (in latest edition): Life expectancy is multiplied by a happiness index; the first uses life expectancy at birth and the happiness index is correlated from eight components

Index metric: Happy life years;

High HLY = long and happy life

Low HLY = short and miserable life

Medium HLY =

1) both moderate length and

moderate appreciation

2) long but unhappy life

3) short but happy life

Year of introduction: 1996

Frequency of release: Irregular;
annual data available for some countries

Country coverage (in latest edition): 67

Who uses the index: Researchers, students, academia, media

How is it used: To compare performance across countries and over time; analyse social correlates of HLY

Influence/Impact: The original 1996 paper introducing HLY is highly cited by other academic papers; considerable number of media citations; HLY has been adopted as the basis of the Happy Planet Index

Documented limitations: Assumes that all years of life are equally happy; the life satisfaction data is taken from populations of adults, whereas HLY by definition includes childhood. HLY therefore assumes childhood is as happy, or unhappy, as adulthood. See 2006 NEF report (The Happy Planet Index)

Relevant websites: <http://www2.eur.nl/fsw/research/veenhoven/>

Publication where index can be found: Veenhoven. Happy Life Years: A Measure of Gross National Happiness. In Proceedings of the First International Conference on Operationalisation of Gross National Happiness, 2010

Official source/citation: Veenhoven

63. Gallup-Healthways Well-Being Index

Agency/Institution/Author: Gallup and Healthways

Concept: Subjective well-being

What it measures: An average of 6 sub-indices, providing real-time measurement and insights for policy-making in the US

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 6:-

Life evaluation;

Physical health;

Emotional health;

Healthy behaviour;

Work environment;

Basic access

Indicators and their sources (in latest edition): 55 survey questions

(Source: Gallup)

Weighting (in latest edition): Weighting of indicators is not explained. Dimension sub-indices are equally weighted in the overall index. The collected data are weighted to match targets from the US Census Bureau by age, sex, region, gender, education, ethnicity, and race

Methodology (in latest edition): Uses data obtained by telephone interviews with >500 US adults a day, 350 days a year. Based on their responses, individuals and communities receive an overall well-being composite score and a score for each of the 6 dimension sub-indices. Detailed aggregation methodology for the indicators is not explained. The overall index is an unweighted average of the sub-indices

Index metric: 0-100 scale

Year of introduction: 2008

Frequency of release: Daily

Country coverage (in latest edition): US states and congressional districts

Who uses the index: Media, researchers, students, academia, industry

How is it used: The index and sub-indices are reported in continuous daily, weekly, and monthly averages; track changes over time; compare performance of different US states and congressional districts

Influence/Impact: Used widely by academic researchers, policy-makers and the media. Used as the basis for Chapter 2 of the World Happiness Report 2013

Documented limitations: Neglects objective content; aggregation methodology not made explicit

Relevant websites: <http://wellbeingindex.org/>

Publication where index can be found: 2012 State of Well-Being

Official source/citation: Gallup-Healthways Well-being Index

64. National Accounts of Well-being

Agency/Institution/Author: New Economics Foundation

Concept: Subjective well-being

What it measures: 2 separate composite measures of the personal and social subjective well-being of a country's citizens

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 2:-

Personal well-being;

Social well-being;

Indicators and their sources (in latest edition): 47 survey questions, falling into the following components:-

Positive feelings - how often positive emotions are felt;

Absence of negative feelings - how often negative emotions are felt;

Satisfying life - positive evaluation of life overall, representing the results of 4 questions about satisfaction and life evaluations;

Resilience, optimism and self-esteem - a measure of individuals' psychological resources;

Vitality - having energy, feeling well-rested and healthy, and being physically active;

Positive functioning - autonomy, competence, engagement, and meaning and purpose in what individuals are doing;

Supportive relationships - the extent and quality of interactions in close relationships with family, friends and others who provide support;

Trust and belonging - trusting other people, being treated fairly and respectfully by them, and feeling a sense of belonging with and support from neighbours

(Source: European Social Survey)

Weighting (in latest edition): Equal weighting of indicators into components and components into dimensions

Methodology (in latest edition): The indicator responses are first standardised into z-scores; standardised indicators are then aggregated into components and components are aggregated into a single score for each of the 2 dimensions, using unweighted arithmetic mean at each stage; final scores are then transformed so that all results are presented on 0-10 scales, with a score of 5 always representing the average score across the countries included

Index metric: 0-10 scale

0 = worst score

10 = best score

Year of introduction: 2009

Frequency of release: One-off

Country coverage (in latest edition): 22 European countries

Who uses the index: Researchers, NGOs, policy-makers, media, students

How is it used: To rank and score countries; compare the personal and social well-being scores of countries; analyse the well-being of population subgroups

Influence/Impact: Used as an advocacy tool to promote the use of subjective well-being as a policy objective and policy tool

Documented limitations: The measure is currently limited to European countries due to lack of sufficiently harmonised international surveys

Relevant websites: <http://www.nationalaccountsowellbeing.org/>

Publication where index can be found: National Accounts of Well-being: Bringing real wealth onto the balance sheet

Official source/citation: New Economics Foundation

65. Gross National Happiness (GNH)

Agency/Institution/Author: The Centre for Bhutan Studies

Concept: Subjective well-being

What it measures: An overall measure of performance across 9 domains of gross national happiness

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 9:-

Psychological wellbeing;

Time use;

Community vitality;

Cultural diversity;

Ecological resilience;

Living standard;

Health;

Education;

Good governance

Indicators and their sources (in latest edition): 33 survey questions:-

(Source: Centre for Bhutan Studies)

Weighting (in latest edition): Indicators considered to be highly subjective are given less weight; dimensions are equally weighted in the overall index

Methodology (in latest edition): The GNH index uses individual-level data; a threshold “sufficiency” level is applied to each variable; an individual is considered happy when they have “sufficiency” in 66% of the (weighted) indicators or more; the overall GNH value is the sum of individual sufficiency scores (above 66%) divided by the whole population

Index metric: 0-1 scale

0 =no-one is sufficiently happy

1 = everyone is sufficiently happy

Year of introduction: 1972

Frequency of release: Irregular

Country coverage (in latest edition): Bhutan

Who uses the index: Governments, researchers, media, students

How is it used: Three cut off points are used, 50, 66 and 77%, to identify four different happiness categories (above 66% is sufficiently happy); decompose degrees of happiness districts, gender, or rural-urban area

Influence/Impact: Intended as an incentive for the Bhutanese government and others to decrease the insufficiencies of not-yet-happy people

Documented limitations: Criticism that since GNH depends on subjective judgements about well-being, the government may be able to define GNH in a way that suits their interests; “sufficiency” thresholds may contain a degree of arbitrariness

Relevant websites: <http://www.grossnationalhappiness.com/>

Publication where index can be found: A Short Guide to Gross National Happiness Index

Official source/citation: The Centre for Bhutan Studies

66. World Happiness Report Ranking of Happiness

Agency/Institution/Author: UN Sustainable Development Solutions Network

Concept: Subjective well-being

What it measures: Ranks country-level average happiness scores on the Cantril ladder of life and decomposes into 6 key variables

Final stage aggregation method: Weighted sum

Dimensions (in latest edition): 1:-

Happiness

Indicators and their sources (in latest edition): 6:-

Log GDP per capita;

Social support;

Healthy life expectancy;

Freedom to make life choices;

Generosity;

Perceptions of corruption

(Sources: World Bank; WHO; Gallup World Poll)

Weighting (in latest edition): Weights are given by the relative coefficients from regressing happiness scores on each of the 6 indicator variables; variables are not normalised, so weights are only meaningful when multiplied by differences in values of their respective variables

Methodology (in latest edition): Country average happiness scores on Gallup’s ‘Cantril ladder of life’ question are decomposed additively by regressing the scores on 6 key variables; the coefficients are used to calculate how much better life is for having a higher value of each variable, than a fictional country ‘Distopia’ which has the world’s lowest national average values of each of the variables (by multiplying the coefficients by the difference in variable values)

Index metric: 0-10 scale

0 = worst score

10 = best score

Year of introduction: 2012

Frequency of release: Annually

Country coverage (in latest edition): 156

Who uses the index: Governments, NGOs, academia, researchers, media, students

How is it used: To rank countries' happiness levels and decompose its explanatory effects

Influence/Impact: The report containing the happiness rankings has received widespread international attention in policy, academic and media circles

Documented limitations: Most of the variables used in the happiness regression are based on subjective responses, risking endogeneity of these variables and the happiness variable

Relevant websites: <http://unsdsn.org/happiness/>

Publication where index can be found: World Happiness Report

Official source/citation: UN SDSN

67. Sustainable Society Index (SSI)

Agency/Institution/Author: Sustainable Society Foundation

Concept: Sustainability

What it measures: Measure of a country's level of sustainability, by its distance to full sustainability in each of the index's 21 indicators

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Human well-being;

Environmental well-being;

Economic well-being

Indicators and their sources (in latest edition): 21:-

Sufficient food (FAO);

Sufficient drink (WHO-UNICEF Joint Monitoring Programme);

Safe sanitation (WHO-UNICEF Joint Monitoring Programme);

Healthy life (WHO, UN Population Division);

Clean air (Environmental Performance Index);

Clean water (Environmental Performance Index);

Education (UNESCO);

Gender equality (World Economic Forum);

Income distribution (World Bank);

Good governance (World Bank);

Air quality (Environmental Performance Index);

Biodiversity (UNEP-WCMC);

Renewable water resources (Aquastat);

Consumption (Global Footprint Network);

Renewable energy (IEA);

Greenhouse gases (IEA);

Organic farming (FiBL);

Genuine savings (World Bank);

GDP (IMF);

Employment (ILO, World Bank, CIA World Factbook);

Public debt (IMF, World Factbook)

Weighting (in latest edition): Equal weighting of indicators into categories, categories into dimensions, and dimensions into the overall index

Methodology (in latest edition): The SSI comprises four levels: 21 indicators, 8 categories, 3 well-being dimensions, 1 overall index. Every indicator receives the same weight for aggregation into categories. The same applies for aggregation of the 8 categories into the 3 well-being dimensions and finally into one figure for the overall index. Geometric mean aggregation is used in each stage

Index metric: 0-10 scale

10 = full sustainability

Year of introduction: 2006

Frequency of release: Biennially

Country coverage (in latest edition): 151

Who uses the index: Researchers, government agencies, students, media

How is it used: To monitor the progress of countries on the way to sustainability; set priorities with respect to sustainability; make comparisons between countries

Influence/Impact: The SSI has become a widely cited indicator of sustainability; Romania has used the SSI template to launch its own Romanian SSI

Documented limitations: Barriers to sustainable development are not considered (Rahnema and Naderi Mayvan 2013, Identification and Ranking of Barriers to Sustainable Development in Iran)

Relevant websites: <http://www.sustainablesocietyindex.com/>

Publication where index can be found: Sustainable Society Index updates

Official source/citation: Van de Kerk and Manuel

68. Aging Vulnerability Index

Agency/Institution/Author: Center for Strategic and International Studies, Watson Wyatt Worldwide

Concept: Sustainability

What it measures: Experimental measure of the vulnerability/preparedness of developed economies to rising old-age dependency costs; precursor to the Global Aging Preparedness Index

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 4:-

Public burden (1/3);

Fiscal room (1/3);

Benefit dependence (1/6);

Elder affluence (1/6)

Indicators and their sources (in latest edition): 11:-

Projected public benefits to the elderly in 2040 as a % of GDP;

Projected growth from 2000 to 2040 in public benefits to the elderly as a % of GDP;

Projected public benefits to the elderly in 2040 as a % of the income of the nonelderly;

Projected total taxes as a % of GDP in 2040;

Projected total benefits to the elderly in 2040 as a % of total government outlays;

The year that the net government debt reaches 150% of GDP;

Projected public benefits as a % of after-tax elderly income in 2040;

% of the elderly who live with their adult children;

% of the elderly who would drop below the poverty line if public benefits were cut by 10%;

Projected ratio of the per capita income of the elderly to the per capita income of the nonelderly in 2040;

Projected % change in that ratio between now and 2040

(Sources: OECD; UN; Luxembourg Income Study)

Weighting (in latest edition): Equally weighted indicators within dimensions; dimensions are unequally weighted (see dimension details for precise weights)

Methodology (in latest edition): Each indicator is first normalised so that the mean value is 50, and values above and below the mean by one standard deviation are set to 100 and 0 respectively; the indicators are aggregated into dimensions by unweighted arithmetic mean; dimensions are then aggregated into the overall index by weighted arithmetic mean

Index metric: Relative country ranking

1 = best performance

Year of introduction: 2003

Frequency of release: One-off

Country coverage (in latest edition): 12 OECD countries

Who uses the index: Researchers

How is it used: To rank and score country performance; classify them into 3 groups

Influence/Impact: Being an experimental index, it has been of some interest in the research community; limited further impact other than providing the basis for development of the Global Aging Preparedness Index

Documented limitations: No rationale is given for the choice of weights

Relevant websites: <http://csis.org/publication/2003-aging-vulnerability-index>

Publication where index can be found: The 2003 Aging

Vulnerability Index report

Official source/citation: Center for Strategic and International Studies, Watson Wyatt Worldwide

69. Global Aging Preparedness Index (GAP)

Agency/Institution/Author: Center for Strategic and International Studies

Concept: Sustainability

What it measures: Two separate sub-indices measuring the progress that countries are making in preparing for global aging and rising old-age dependency costs

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 2 separate sub-indices:-

Fiscal sustainability;

Income adequacy

Indicators and their sources (in latest edition): 14 (Dates refer to those used in the 2013 edition):-

Projected total public benefits to the elderly in 2040 as a % of GDP;

Projected growth in total public benefits to the elderly as a % of GDP from 2010-2040;

Projected total government revenue in 2040 as a % of GDP;

Projected total public benefits to the elderly in 2040 as a % of government outlays;

Projected net public debt in 2040 as a % of GDP;

Projected total public benefits as a % of elderly income, average for 2010-2040;

% of elderly households that would be pushed into poverty today by a 10% cut in public benefits;

Projected ratio of the average after-tax income of the elderly to the nonelderly in 2040;

Projected % change in ratio of the average after-tax income of the elderly to the nonelderly from 2010-2040;

Projected ratio of the median after-tax income of the elderly to the nonelderly in 2040;

Projected % change in ratio of the median after-tax income of the elderly to the nonelderly from 2010-2040;

% of the elderly with incomes under 50% of the median for all persons in 2010;

% of the elderly living in households with their adult children in 2010;

Change in average number of surviving children of the elderly from 2010-2040

(Sources: UN; IMF; European Commission; OECD; Luxembourg Income Study)

Weighting (in latest edition): Indicators are weighted unequally within categories; categories are again weighted unequally within dimensions as following:-

Fiscal sustainability:

Public burden category 40%;

Fiscal room category 30%;

Fiscal benefit dependence category 30%.

Income adequacy

Methodology (in latest edition): Each indicator is first normalised so that the mean value is 50, and values above and below the mean by one standard deviation are set to 100 and 0 respectively; the indicators are aggregated into categories by weighted arithmetic mean; category scores are aggregated into the two sub-indices, again by weighted arithmetic mean (see weighting details)

Index metric: Relative country ranking

1 = best performance

Year of introduction: 2010

Frequency of release: 2010; 2013

Country coverage (in latest edition): 20 developed and emerging economies

Who uses the index: Media, NGOs, researchers

How is it used: To rank and assess country performance in the overall index, sub-indices and categories; track changes in rankings

Influence/Impact: The index has been used to advocate constructive reform of retirement and pension policies in developed and emerging economies, and is cited in several research papers

Documented limitations: No rationale is given for the choice of weights at either the indicator or category level

Relevant websites: <http://csis.org/publication/global-aging-preparedness-index-second-edition>

Publication where index can be found: The Global Aging Preparedness Index report

Official source/citation: Center for Strategic and International Studies

70. RobecoSAM's Country Sustainability Ranking

Agency/Institution/Author: RobecoSAM

Concept: Sustainability

What it measures: Measures countries' strengths and weaknesses in environmental, social and governance factors, primarily focusing on mid to long-term factors that have an indirect impact on a government's ability to repay its debt or raise revenues, but that are not considered by traditional sovereign ratings

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 3:-

Environmental (15%);

Social (25%);

Governance (60%)

Indicators and their sources (in latest edition): 17 (these are in turn split into sub-indicators, unlisted):-

Environmental status (5%);
 Energy (5%);
 Environmental risk (5%);
 Social indicators (10%);
 Human development (10%);
 Strikes and lockouts (5%);
 Liberty and inequality (10%);
 Competitiveness (10%);
 Political risk (10%);
 Effectiveness (2.5%);
 Rule of law (2.5%);
 Accountability (2.5%);
 Corruption (2.5%);
 Stability (2.5%);
 Regulatory quality (2.5%);
 Aging (10%);
 Institutions (5%)

(Sources: World Bank; UN; WEF; ILO)

Weighting (in latest edition): Each indicator is assigned a weight reflecting RobecoSAM's view on its potential impact on a country's risk profile, based on statistical analysis; indicator weights within each dimension add up to the total dimension weight

Methodology (in latest edition): Z-scores are calculated for each indicator using the distribution of indicators over countries; the weighted arithmetic mean Z-score is calculated for each dimension; arithmetic mean is taken of the dimension Z-scores; this -3 to +3 Z-score is linearly transformed to range from 1-10

Index metric: 1-10 scale

1 = worst score

10 = best score

Year of introduction: 2013

Frequency of release: One-off

Country coverage (in latest edition): 59

Who uses the index: Investors, media

How is it used: To create a country sustainability ranking

Influence/Impact: The ranking has received widespread interest in the business world and in the media, as part of RobecoSAM's sustainability assessment initiatives

Documented limitations: No explanation of the foundation for the 15:25:60 dimension weighting which, oddly for a sustainability index, gives the environmental dimension lowest weight

Relevant websites: <http://www.robecosam.com/en/sustainability-insights/about-sustainability/country-sustainability-ranking.jsp>

Publication where index can be found: Measuring Country Intangibles: RobecoSAM's Country Sustainability Ranking

Official source/citation: RobecoSAM

71. Adjusted Net Savings (ANS)/Genuine Savings

Agency/Institution/Author: World Bank (based on Atkinson and Pearce 1993)

Concept: Sustainability

What it measures: A comprehensive measure of net investment across all forms of capital, indicating a country's sustainability

Final stage aggregation method: Weighted sum

Dimensions (in latest edition): 7:-

Net national saving;

Education expenditure;

Energy depletion;

Mineral depletion;

Net forest depletion;

CO2 damages;

Particulate matter (PM) damages

Indicators and their sources (in latest edition): 7:-

Gross national saving minus replacement value of fixed capital (WDI, OECD, UN, IMF, International Financial Statistics, UN);

Public current operating expenditures in education (UNESCO);

Ratio of present value of rents to exhaustion time of the resource (covering coal, crude oil and natural gas) (OECD, British Petroleum, IEA, International Petroleum Encyclopaedia, UN, World Bank);

Ratio of present value of rents to exhaustion time of the mineral (USGS Minerals Yearbook, UNCTAD monthly Commodity Price Bulletin, World Bank);

Product of unit resource rents and roundwood harvest (excess over natural growth) (FAOSTAT forestry database, World Bank, FAO, UNECE, WRI);

CO2 damages at \$20 per ton of CO2 (WDI, Frankhauser 1994);

Willingness to pay to avoid disability adjusted life years lost due to PM emissions

Weighting (in latest edition): Weights are incorporated in the indicators as the unit price/cost of each dimension

Methodology (in latest edition): ANS = Net national saving

+ Education expenditure

– Energy depletion

– Mineral depletion

– Net forest depletion

– CO2 damages

– Particulate matter damages

Index metric: Monetary amount

Negative ANS = unsustainable economy

Year of introduction: 1997

Frequency of release: Annually

Country coverage (in latest edition): 210

Who uses the index: Governments, NGOs, researchers, students, academia

How is it used: To assess whether a country's economy satisfies (weak) sustainability

Influence/Impact: ANS is a well established measure of (weak) sustainability; has been at the forefront in ongoing debates about sustainability measurement

Documented limitations: Not all capital stocks captured; questionable estimates of some capital investments; assumes an intertemporally efficient economy. See Dietz 2004 (Genuine Savings: a critical analysis of its policy-guiding value)

Relevant websites: <http://data.worldbank.org/data-catalog/environmental-accounting>

Publication where index can be found: World Bank World Development Indicators;
Pearce and Atkinson. Capital Theory and the Measurement
of Sustainable Development. Ecological Economics, 1993, vol. 8, pp. 103-8

Official source/citation: World Bank;
Pearce and Atkinson 1993

72. Index of Sustainable Economic Welfare (ISEW)

Agency/Institution/Author: Daly and Cobb

Concept: Sustainability

What it measures: Precursor to the GPI; a measure of comprehensive wealth based on GDP, but adjusting for factors such as income distribution, adding factors such as the value of household labour, and subtracting factors such as the costs of pollution

Final stage aggregation method: Weighted sum

Dimensions (in latest edition): 7:-

Personal consumption;

Public non-defensive expenditures;

Private defensive expenditures;

Capital formation;

Services from domestic labour;

Costs of environmental degradation;

Depreciation of natural capital

Indicators and their sources (in latest edition): Example taken from UK calculation

B: Consumer Expenditure

C: Income Inequality

D: Adjusted Consumer Expenditure

E(+): Services from Domestic Labour

F(+): Services from Consumer Durables

G(+): Services from Streets and Highways

H(+): Public Expenditure on Health and Education

I(-): Consumer Durables: difference between expenditure and value of services

J(-): Defensive Private Expenditures on Health and Education

K(-): Costs of Commuting

L(-): Costs of Personal Pollution Control

M(-): Costs of Automobile Accidents

N(-): Costs of Water Pollution

O(-): Costs of Air Pollution

P(-): Costs of Noise Pollution

Q(-): Loss of Natural Habitats

R(-): Loss of Farmlands

S(-): Depletion of Non-Renewable Resources

T(-): Costs of Climate Change

U(-): Costs of Ozone Depletion

V(+): Net Capital Growth

W(+): Net Change in International Position

Weighting (in latest edition): Weights are incorporated in the indicators as the unit value/cost of the factors (i.e. their prices or shadow prices). The UK ISEW on the website of Friends of the Earth allows users to generate an ISEW based on their own choice of weights

Methodology (in latest edition): ISEW =D + (E through W)

Index metric: Monetary amount

Year of introduction: 1989

Frequency of release: Irregular

Country coverage (in latest edition): Independent calculations by: US, Austria, Chile, Germany, Italy, the Netherlands, Scotland, Sweden, Finland, UK, Belgium

Who uses the index: Local and national governments, academics, researchers, students, NGOs

How is it used: To monitor the performance of countries and regions in beneficial economic activity; compare this to GDP

Influence/Impact: Versions of the ISEW have been adopted and calculated by local governments in several countries; it has been the basis for the very similarly constructed GPI; Posner and Costanza 2011 (A summary of ISEW and GPI studies at multiple scales and new estimates

Documented limitations: Financial costs have to be assigned to non-financial impacts such as climate change and ozone depletion, therefore weights used in the ISEW could be arbitrary, or reflect prejudices of the index creators

Relevant websites: <http://www.foe.co.uk/progress/java/ServletStoryISEW>

Publication where index can be found: Cobb and Daly. For the Common Good: Redirecting the Economy Toward Community, the Environment and a Sustainable Future. Boston: Beacon Press, 1989

Official source/citation: Daly and Cobb (1989)

73. Knowledge Economy Index (KEI)

Agency/Institution/Author: World Bank Institute

Concept: Technology and innovation

What it measures: A measure representing the overall level of development of a country towards the Knowledge Economy

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Economic and institutional regime;

Education and human resources;

The innovation system;

Information and communication technology

Indicators and their sources (in latest edition): 12:-

Tariff and non-tariff barriers (Heritage Foundation);

Regulatory quality (World Bank);

Rule of law (World Bank);

Average years of schooling (Barro and Lee);

Gross secondary enrolment rate (UNESCO);

Gross tertiary enrolment rate (UNESCO);

Royalty payments and receipts (US\$ per person) (DDP);

Scientific and technical journal articles per million people (DDP);

Patents granted to nationals by the US Patent and Trademark Office per million people (USPTO);

Telephones per 1,000 people (International Telecommunication Union);

Computers per 1,000 people (International Telecommunication Union);

Internet users per 1,000 people (International Telecommunication Union)

Weighting (in latest edition): Equal weighting of indicators within the overall index

Methodology (in latest edition): First, countries are ranked in order from best to worst using their actual scores on each variable; then, their scores are normalised on a scale of 0-10 against all countries in the comparison group; the variables are then aggregated by unweighted arithmetic mean into the overall index

Index metric: 0-10 scale

0 = worst score

10 = best score

Year of introduction: 1995

Frequency of release: Annually

Country coverage (in latest edition): 146

Who uses the index: Governments, policy-makers, CSOs, NGOs, researchers, private sector

How is it used: To rank countries; make cross-country and over-time comparisons

Influence/Impact: Has been widely used internally and externally to the World Bank, and has facilitated policy discussions with World Bank client governments as part of their Knowledge Assessment Methodology

Documented limitations: Does not capture intra-country variation; some variables may not be as relevant for low income countries that are just embarking on the transition to becoming a knowledge economy

Relevant websites: <http://www.worldbank.org/kam>

Publication where index can be found: World Bank website for the Knowledge Assessment Methodology

Official source/citation: World Bank Institute

74. Knowledge Index (KI)

Agency/Institution/Author: World Bank Institute

Concept: Technology and innovation

What it measures: A measure of a country's potential and ability to generate, adopt and diffuse knowledge; the KI is the KEI less one dimension

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Education and human resources;

The innovation system;

Information and communication technology

Indicators and their sources (in latest edition): 9:-

Average years of schooling (Barro and Lee);

Gross secondary enrolment rate (UNESCO);

Gross tertiary enrolment rate (UNESCO);

Royalty payments and receipts (US\$ per person) (DDP);

Scientific and technical journal articles per million people (DDP);

Patents granted to nationals by the US Patent and Trademark Office per million people (USPTO);

Telephones per 1,000 people (International Telecommunication Union);

Computers per 1,000 people (International Telecommunication Union);

Internet users per 1,000 people (International Telecommunication Union)

Weighting (in latest edition): Equal weighting of indicators within the overall index

Methodology (in latest edition): First, countries are ranked in order from best to worst using their actual scores on each variable; then, their scores are normalised on a scale of 0-10 against all countries in the comparison group; the variables are then aggregated by unweighted arithmetic mean into the overall index

Index metric: 0-10 scale

0 = worst score

10 = best score

Year of introduction: 1995

Frequency of release: Annually

Country coverage (in latest edition): 146

Who uses the index: Governments, policy-makers, CSOs, NGOs, researchers, private sector

How is it used: To rank countries; make cross-country and over-time comparisons

Influence/Impact: Has been widely used internally and externally to the World Bank, and has facilitated policy discussions with World Bank client governments as part of their Knowledge Assessment Methodology

Documented limitations: Does not capture intra-country variation; some variables may not be as relevant for low income countries that are just embarking on the transition to becoming a knowledge economy

Relevant websites: <http://www.worldbank.org/kam>

Publication where index can be found: World Bank website for the Knowledge Assessment Methodology

Official source/citation: World Bank Institute

75. Networked Readiness Index (NRI)

Agency/Institution/Author: World Economic Forum

Concept: Technology and innovation

What it measures: Measure of the propensity for countries to exploit the opportunities offered by information and communications technology

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Environment;

Readiness;

Usage;

Impact

Indicators and their sources (in latest edition): 54

(Sources: WEF; Business Software Alliance; World Bank/International Finance Corporation; UNESCO; World Bank WDI; International Telecommunication Union; IMF; national sources; OECD; UN; ILO)

Weighting (in latest edition): Indicators are equally weighted within pillars; pillars are equally weighted within dimensions; dimensions are equally weighted within the overall index

Methodology (in latest edition): Indicators are obtained either from the WEF Executive Opinion Survey or from secondary sources; secondary source indicators are transformed onto a 1-7 scale to align with the survey results using observed maximum and minimum goalposts; indicators are then

aggregated into 10 pillars, the pillars into 4 dimensions (2 or 3 pillars per dimension) and finally the dimensions into the overall index; at each stage aggregation is by unweighted arithmetic mean

Index metric: 1-7 scale

1 = worst score

7 = best score

Year of introduction: 2002

Frequency of release: Annually

Country coverage (in latest edition): 144

Who uses the index: Policy-makers, governments, media

How is it used: To rank countries; analyse driving factors and impacts of networked readiness

Influence/Impact: The report containing the index is widely recognised and well-regarded; intended as a tool to help governments identify areas where policy intervention could boost the impact of ICTs on development and growth

Documented limitations: Main limitations are due to data availability and incompleteness, meaning that estimates of missing data have been necessary, and some ideal indicators have been unavailable

Relevant websites:

http://www.searo.who.int/entity/health_situation_trends/country_profiles/e_health/wef_gitr_2013_nri_structure.pdf

Publication where index can be found: The Global Information Technology Report

Official source/citation: World Economic Forum

76. Technology Achievement Index (TAI)

Agency/Institution/Author: UNDP/Human Development Report Office

Concept: Technology and innovation

What it measures: Measures a country's achievements in creating and diffusing technology and in building human skills to master new innovations

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Creation of technology;

Diffusion of recent innovations;

Diffusion of old innovations;

Human skills

Indicators and their sources (in latest edition): 8:-

Patents granted per capita (World Intellectual Property Organization);

Receipts of royalty and license fees from abroad per capita (World Bank);

Internet hosts per capita (International Telecommunication Union);

High- and medium-technology exports as a share of all exports (UN Statistical Division);

Logarithm of telephones per capita (mainline and cellular combined) (International Telecommunication Union);

Logarithm of electricity consumption per capita (World Bank);

Mean years of schooling (Barro and Lee 2000);

Gross enrolment ratio at tertiary level in science, mathematics and engineering (UNESCO)

Weighting (in latest edition): Equal indicator weighting within dimensions; equal dimension weighting within the overall index

Methodology (in latest edition): Indicators are first transformed into a scale of 0-1 using defined minimum and maximum goalposts for each indicator; indicators are aggregated by arithmetic mean into dimension indices, which are then aggregated into the overall index by unweighted arithmetic mean

Index metric: 0-1 scale

0 = worst score

1 = best score

Year of introduction: 2001

Frequency of release: One-off

Country coverage (in latest edition): 72

Who uses the index: Researchers, policy-makers

How is it used: To rank and score countries in the overall index and its component indicators; classify countries into four categories

Influence/Impact: The index was used in the 2001 Human Development Report as an advocacy tool, calling for policy-makers to reassess current technology achievements and redefine technology strategies

Documented limitations: Limitations are mainly data-related, e.g. only systematically collected data on technological innovation are included, leaving out non-commercialised innovations such as those in the informal sector and in indigenous knowledge systems

Relevant websites: http://hdr.undp.org/en/media/HDR_2001_map_appendix_1_3.pdf

Publication where index can be found: Human Development Report 2001

Official source/citation: United Nations Development Programme

77. Global Innovation Index

Agency/Institution/Author: Cornell University, INSEAD, World Intellectual Property Organization

Concept: Technology and innovation

What it measures: Summary measure of a country's innovation activities, encompassing a spectrum of innovation drivers and results

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 2:-

Innovation input;

Innovation output

Indicators and their sources (in latest edition): 84

(Sources: UN; World Bank; Thomson Reuters; HIS Global Insight; International Telecommunication Union; Yale University; Columbia University; World Economic Forum)

Weighting (in latest edition): For aggregation into sub-pillars, 23 indicators are assigned weights of 0.5 and the others weights of 1.0; 3 sub-pillars are assigned weights of 0.5 and the others weights of 1.0; this is on the basis of achieving balanced contributions of indicators/sub-

Methodology (in latest edition): Indicators are first corrected for skewness and kurtosis, and then normalised into the 0-100 range using observed maximum and minimum goalposts; normalised indicators are aggregated by weighted arithmetic mean into sub-pillars; sub-pillar scores are aggregated by weighted arithmetic mean into seven pillars; 5 of the pillars are aggregated by unweighted arithmetic mean into the "Innovation input" sub-index and 2 pillars are aggregated into the "Innovation output" sub-index; the overall index is the unweighted arithmetic mean of the two sub-index scores

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 2007

Frequency of release: Annually

Country coverage (in latest edition): 142

Who uses the index: Policy-makers, businesses,

How is it used: To rank countries according to their index and sub-index scores

Influence/Impact: The index has become a primary reference for innovation benchmarking; has been used as a tool to facilitate dialogue between policymakers, businesses and other stakeholders; used to highlight the importance of innovation policy

Documented limitations: The index cannot account for the fact that many variables, such as number of science PhDs, may not operate in an identical manner across different countries; no clear understanding of which factors interact in specific country settings

Relevant websites: <http://www.globalinnovationindex.org/>

Publication where index can be found: The Global Innovation Index reports

Official source/citation: Cornell University, INSEAD, WIPO

78. ICT Development Index (IDI)

Agency/Institution/Author: International Telecommunication Union

Concept: Technology and innovation

What it measures: Summary measure of a country's level of ICT access, use and skills

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 3:-

ICT infrastructure and access;

ICT use;

ICT skills

Indicators and their sources (in latest edition): 11:-

Fixed-telephone subscriptions per 100 inhabitants (ITU);

Mobile-cellular telephone subscriptions per 100 inhabitants (ITU);

International Internet bandwidth (bit/s) per Internet user (ITU);

% households with a computer (ITU);

% households with Internet access (ITU);

% individuals using the Internet (ITU);

Fixed (wired)-broadband subscriptions per 100 inhabitants (ITU);

Active mobile-broadband subscriptions per 100 inhabitants (ITU);

Adult literacy rate (UNESCO);

Gross enrolment ratio (secondary and tertiary level) (UNESCO)

Weighting (in latest edition): Indicators are equally weighted within sub-indices; sub-indices are weighted by PCA within the overall index:-

Access 0.4;

Use 0.4;

Skills 0.2

Methodology (in latest edition): Indicators are first normalised according to indicator goalposts, then rescaled to a 0-10 scale; indicators are aggregated by arithmetic mean into sub-indices and sub-indices are then aggregated by weighted arithmetic mean into the overall index

Index metric: 0-10 scale

0 = worst performance

10 = best performance

Year of introduction: 2009

Frequency of release: Annually

Country coverage (in latest edition): 157

Who uses the index: Governments, industry, media

How is it used: To rank countries; identify the 'most dynamic countries' in terms of IDI improvement and 'least connected countries' in terms of IDI level

Influence/Impact: Widely recognised by government, UN agencies and industry as the most accurate and impartial measure of overall national ICT development

Documented limitations: Data limitations, e.g. the index relies on sources such as telecom operators or government agencies that may be politically biased

Relevant websites: <http://www.itu.int/ITU-D/ict/publications/idi/>

Publication where index can be found: Measuring the Information Society

Official source/citation: International Telecommunication Union

79. Indicator of Innovation Output

Agency/Institution/Author: European Commission

Concept: Technology and innovation

What it measures: A work in progress for a composite measure of innovation output

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 4:-

Patents;

Skills;

Trade in knowledge-intensive goods and services;

Employment in fast-growing firms

Indicators and their sources (in latest edition): 5:-

PCT: Number of patent applications filed under the Patent Cooperation Treaty per billion GDP (in PPP Euros);

KIA: Employment in knowledge-intensive activities in business industries (including financial services) as % of total employment;

GOOD: Contribution of medium and high-tech products exports to the trade balance;

SERV: Knowledge-intensive services exports as % of total service exports;

DYN: Employment in fast-growing firms of innovative business industries, excluding financial services.

(Sources: national accounts; national business registers; European Union Labour Force Survey; Community Innovation Survey; European Patent Office Database; Commodity trade statistics; Balance of Payments)

Weighting (in latest edition): Indicators are statistically weighted so that each has a balanced contribution to the composite score

Methodology (in latest edition):

Each indicator is first standardised to give z-scores, and then statistically weighted so that each indicator has a balanced contribution to the composite score; using weighted indicator z-scores rather than the original indicator values, the composite score is given by:

Innovation Output = PCT + KIA + COMP + DYN;

where COMP = 0.5(GOOD) + 0.5(SERV)

Index metric: Baseline score of 100 set for the EU27 average in 2010

Year of introduction: 2013

Frequency of release: One-off

Country coverage (in latest edition): 35

Who uses the index: Policy-makers

How is it used: To rank country performance in the composite measure and its component indicators

Influence/Impact: Limited exposure, since the measure is still preliminary; intended to support policy-makers in removing barriers to innovators translating ideas into products and services that can be successful on the market

Documented limitations: International comparability is limited by the DYN indicator, since only national rather than international data sources available for computation of this indicator

Relevant websites:

http://ec.europa.eu/research/press/2013/pdf/staff_working_document_indicator_of_innovation_output.pdf

Publication where index can be found: Measuring innovation output in Europe: Towards a new indicator

Official source/citation: European Commission

80. Investment in the Knowledge-based Economy

Agency/Institution/Author: European Commission

Concept: Technology and innovation

What it measures: An aggregate measure of the various forms of investment in the knowledge-based economy

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 3:-

Knowledge creation;

Knowledge creation and knowledge diffusion;

Knowledge diffusion

Indicators and their sources (in latest edition): 7:-

Gross domestic expenditure on R&D per capita (2/24);

Researchers per capita (2/24);

New science & technology PhDs per capita (4/24);

Education expenditure per capita (7/24);

Life-long learning (3/24);

E-government (3/24);

Gross fixed capital formation (excluding construction) (3/24)

(Source: European Commission)

Weighting (in latest edition): Indicator weights are assigned on the basis of a conceptual understanding of the phenomenon that is trying to be measured, as given in the indicator details

Methodology (in latest edition): Indicators are first standardised by dividing by their standard deviations; they are then aggregated by weighted arithmetic mean into the overall index

Index metric: Standardised scale, ranging from just below 2.5 to just above 6.0

Year of introduction: 2002

Frequency of release: Annually;
2002-2005

Country coverage (in latest edition): 14 EU countries

Who uses the index: Policy-makers, researchers

How is it used: To compare relative country performance; compare score in relation to the “Performance in the Knowledge-based Economy” composite indicator

Influence/Impact: The composite index was used in the European Commission’s Key Figures reports of science, technology and innovation

Documented limitations: The set of weights probably does not correspond to the theoretically ideal weights that would be chosen if the precise contribution of each indicator to explaining the knowledge-based economy was known

Relevant websites: http://ec.europa.eu/invest-in-research/monitoring/statistical02_en.htm

Publication where index can be found: Third European Report on Science & Technology Indicators 2003: Towards a knowledge-based economy

Official source/citation: European Commission

81. Performance in the Knowledge-based Economy

Agency/Institution/Author: European Commission

Concept: Technology and innovation

What it measures: An aggregate measure of performance in the knowledge-based economy

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 4:-

Productivity;

S&T performance;

Output of the information infrastructure;

Effectiveness of the education system

Indicators and their sources (in latest edition): 5:-

GDP per hour worked (4/16);

European and US patents per capita (2/16);

Scientific publications per capita (2/16);

E-commerce (4/16);

Schooling success rate (4/16)

(Source: European Commission)

Weighting (in latest edition): Indicator weights are assigned on the basis of a conceptual understanding of the phenomenon that is trying to be measured, as given in the indicator details

Methodology (in latest edition): Indicators are first standardised by dividing by their standard deviations; they are then aggregated by weighted arithmetic mean into the overall index

Index metric: Standardised scale, ranging from just below 2.5 to just below 5.5

Year of introduction: 2002

Frequency of release: Annually;
2002-2005

Country coverage (in latest edition): 14 EU countries

Who uses the index: Policy-makers, researchers

How is it used: To compare relative country performance; compare score in relation to the “Investment in the Knowledge-based Economy” composite indicator

Influence/Impact: The composite index was used in the European Commission’s Key Figures reports of science, technology and innovation

Documented limitations: The set of weights probably does not correspond to the theoretically ideal weights that would be chosen if the precise contribution of each indicator to explaining the knowledge-based economy was known

Relevant websites: http://ec.europa.eu/invest-in-research/monitoring/statistical02_en.htm

Publication where index can be found: Third European Report on Science & Technology Indicators 2003: Towards a knowledge-based economy

Official source/citation: European Commission

82. Environmental Vulnerability Index

Agency/Institution/Author: South Pacific Applied Geoscience Commission, UNEP

Concept: Vulnerability

What it measures: Summary measure of 50 “smart” indicators for estimating the vulnerability of a country’s environment to future shocks

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Risk of hazards;

Resistance to damage;

Acquired vulnerability from past damage

Indicators and their sources (in latest edition): 50

(Sources: NOAA GHCN; University of British Columbia; National Geophysical Data Centre; International Disaster Database; CIA Factbook; Encarta; International Union for Conservation of Nature; NCESD; FAO; World Resources Institute; NSSG; Eurostat; International Tanker Owners Pollution Federation; UNICEF; SEDAC/CIESIN)

Weighting (in latest edition): All indicators are weighted equally for calculation of sub-indices and for calculation of the overall score

Methodology (in latest edition): Indicators are transformed into a scale of 1-7 using policy-relevant and scientific information; indicators are aggregated into the 3 dimension sub-indices by unweighted arithmetic mean; alternatively they are aggregated by unweighted arithmetic mean and multiplied by 100 to get the overall country EVI score

Index metric: 1-7 scale for sub-index scores:

1 = low vulnerability

7 = extreme vulnerability;

100-700 scale for overall EVI score

Year of introduction: 2004

Frequency of release: One-off

Country coverage (in latest edition): 235

Who uses the index: Researchers, NGOs

How is it used: To categorise countries into 5 vulnerability groups

Influence/Impact: The index has been used in numerous studies on environmental vulnerability and its measurement

Documented limitations: The index has been criticised for excluding social and economic systems, and environments significantly affected by human activities such as urban areas and farm land. Many other strong criticisms are put forward in Barnett, Lambert and Fry (Indicating Vulnerability? Unpacking The Environmental Vulnerability Index)

Relevant websites: <http://www.vulnerabilityindex.net/>

Publication where index can be found: The Environmental Vulnerability Index Reports

Official source/citation: South Pacific Applied Geoscience Commission, UNEP

83. Failed States Index (FSI)

Agency/Institution/Author: The Fund for Peace

Concept: Vulnerability

What it measures: Measure of states at risk of becoming a failed state

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Social;

Economic;

Political/military

Indicators and their sources (in latest edition): 12:-

Mounting demographic pressures;

Massive movement of refugees or internally displaced persons;

Legacy of vengeance-seeking group grievance/group paranoia;

Chronic and sustained human flight;

Uneven economic development along group lines;

Sharp and/or severe economic decline;

Criminalisation and/or delegitimisation of the state;

Progressive deterioration of public services;

Suspension or arbitrary application of the rule of law and widespread human rights abuse;

Security apparatus operates as a 'state within a state';

Rise of factionalised elites;

Intervention of other states or external political actors

(Sources: 115,000 online English-language publications; UNHCR; WHO; UNDP; Transparency International; World Factbook; Freedom House; World Bank)

Weighting (in latest edition): Equal weighting of indicators within the overall index

Methodology (in latest edition): Content analysis software scans 115,000 online English-language publications worldwide, including digitised news and magazine articles, essays, reports and speeches for indicator subject matter; this is incorporated with quantitative data from the sources listed; aggregated data are normalised and scaled from 0-10 to obtain final scores for the 12 social, economic and political/military indicators. The total score is the sum of the 12 indicators

Index metric: 0-120 scale

0 = most stable

Year of introduction: 2005

Frequency of release: Annually

Country coverage (in latest edition): 178

Who uses the index: Researchers, media, policy-makers

How is it used: To rank countries and generate debate on state stability

Influence/Impact: The index has generated large amounts of media attention, and is also used in research papers for country analysis

Documented limitations: Criticisms include: unsuitable naming of the index, state failure criteria in the content analysis methodology is left ambiguous, index is politically biased towards Western countries, very subjective since it relies heavily on newspaper reports and human judgement

Relevant websites: <http://ffp.statesindex.org/>

Publication where index can be found: The Failed State Index website

Official source/citation: The Fund for Peace

84. Global Food Security Index (GFSI)

Agency/Institution/Author: Economist Intelligence Unit (EIU)

Concept: Vulnerability

What it measures: Interactive, Excel-based index to assess food security across 3 internationally designated dimensions: affordability, availability and utilisation - the last modified to assess food quality and safety

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Affordability;

Availability;

Quality and safety

Indicators and their sources (in latest edition): 25:-

Food consumption as a share of household expenditure (FAO);

Proportion of population under global poverty line (World Bank);

Gross domestic product per capita (PPP) (EIU, World Bank, IMF);

Agricultural import tariffs (WTO);

Presence of food safety net programs (EIU score);

Access to financing for farmers (EIU score);

Sufficiency of food supply (FAO, WFP, OECD);

Public expenditure on agricultural R&D (Agricultural Science and Technology Indicators, EIU, OECD, World Bank, ASTI);

Agricultural infrastructure (EIU);

Volatility of agricultural production (FAO);

Political stability risk (EIU);

Corruption (EIU);

Urban absorption capacity (World Bank, EIU);

Diet diversification (FAO);

Government commitment to increasing nutritional standards (EIU, FAO, WHO);

Micronutrient availability (FAO);

Protein quality (EIU calculation);

Food safety (EIU, WHO);

Prevalence of undernourishment (FAO);

% of children stunted (WHO);

% of children underweight (WHO);

Intensity of food deprivation (FAO);
Human Development Index (UNDP);
EIU Women's Economic Opportunity Index (EIU);
EIU Democracy Index (EIU)

Weighting (in latest edition): Indicator weights within dimensions are decided by an expert panel, however users can also select equal weights; dimensions are equally weighted in the overall index

Methodology (in latest edition): Indicators are selected by an expert panel and normalised to range between 0 and 1 using observed maximum and minimum goalposts; normalised indicators are aggregated by weighted arithmetic mean into dimension sub-indices, with weights decided by the expert panel; dimension scores are rescaled into the 0-100 range and aggregated by unweighted arithmetic mean into the overall index

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 2012

Frequency of release: Annually

Country coverage (in latest edition): 107

Who uses the index: Researchers, media

How is it used: To rank countries; highlight where countries do well and where they struggle, and suggest where interventions are most needed

Influence/Impact: Intended to foster dialogue about practical solutions to food insecurity; the rankings have received considerable media interest; the index is cited in a number of academic papers

Documented limitations: By analysing conditions at the national level, it misses much local context; cannot fully capture important cultural and political dimensions and risks simplifying complex issues

Relevant websites: <http://foodsecurityindex.eiu.com/>

Publication where index can be found: Global Food Security Index report

Official source/citation: Economist Intelligence Unit

85. WorldRiskIndex

Agency/Institution/Author: Alliance Development Works, UN University Institute for Environment and Human Security (UNU-EHS)

Concept: Vulnerability

What it measures: A measure of disaster risk, defined as an interaction between a natural hazard and the vulnerability of societies; the national-level index is also supplemented at the regional level

Final stage aggregation method: Unweighted arithmetic mean; Ratio

Dimensions (in latest edition): 4:-

Exposure to natural hazards;

Susceptibility;

Coping capacities;

Adaptive capacities

Indicators and their sources (in latest edition): 28:-

Exposure to earthquakes (UNEP);

Exposure to cyclones (UNEP);

Exposure to floods (UNEP);

Exposure to droughts (UNEP);

Exposure to sea level rise (Columbia University, CIESIN, University of Kansas CReSIS);
 Share of population without access to improved sanitation (World Bank, WHO, UNICEF);
 Share of population without access to clean water (World Bank, WHO, UNICEF);
 Share of population undernourished (Millennium Development Goals Indicators, FAO);
 Share of under-15 and over-65 in the working population (dependency ratio) (World Bank);
 Poverty headcount ratio at \$1.25 a day (PPP) (UNDP, World Bank)
 GDP per capita (PPP) (World Bank);
 Gini index (World Bank);
 Perception of corruption (Transparency International Corruption Perception Index);
 Good governance (Fund for Peace Failed States Index);
 Number of physicians per 10,000 inhabitants (WHO);
 Number of hospital beds per 10,000 inhabitants (WHO);
 Insurance coverage (Munich Re);
 Adult literacy rate (UNDP);
 Combined gross school enrolment (UNDP);
 Gender parity in education (Millennium Development Goals Indicators, UNESCO);
 Share of female representatives in the National Parliament (Millennium Development Goals Indicators, Inter-Parliamentary Union);
 Water resources (Yale Center for Environmental law & Policy, CIESIN Columbia University);
 Biodiversity and habitat protection (Yale Center for Environmental law & Policy, CIESIN Columbia University);
 Forest management (Yale Center for Environmental law & Policy, CIESIN Columbia University);
 Agricultural management (Yale Center for Environmental law & Policy, CIESIN Columbia University);
 Public health expenditure (WHO);
 Life expectancy (UNDP);
 Private health expenditure (WHO)

Weighting (in latest edition): Indicator weights are assigned based on expert opinion, resulting in mostly equal weighting within dimensions

Methodology (in latest edition): Indicators are first normalised onto a 0-1 scale; normalised indicators are aggregated by weighted arithmetic mean into dimensions; the “Susceptibility”, “Coping capacities” and “Adaptive capacities” dimensions are aggregated by unweighted arithmetic mean (33% weight each) into a “Vulnerability” sub-index; this sub-index is then multiplied with the “Exposure” dimension and converted to a percentage to obtain the overall index

Index metric: 0-100% scale

0 = lowest risk

100 = highest risk

Year of introduction: 2011

Frequency of release: Annually

Country coverage (in latest edition): 173

Who uses the index: Researchers, students, media

How is it used: To rank countries according to the overall risk index and its component sub-indices; map the index scores visually

Influence/Impact: Since its launch it has received considerable media interest; however, being a relatively new endeavour its policy impact has been limited so far; the index has been used as part of the UNU-EHS’s curriculum

Documented limitations: Data availability limitations, e.g. data used to calculate the exposure are partially unavailable for some countries, therefore many

small island States, which are highly exposed to phenomena such as sea level rise have not been adequately considered

Relevant websites: <http://www.worldriskreport.org>

Publication where index can be found: WorldRiskReport

Official source/citation: Alliance Development Works

86. Economic Vulnerability Index (EVI)

Agency/Institution/Author: UN Committee for Development Planning (CDP)

Concept: Vulnerability

What it measures: Measure of the risk posed to a country's development by exogenous shocks

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 2:-

Exposure;

Shock

Indicators and their sources (in latest edition): 8:-

Population size (1/8);

Remoteness (1/8);

Merchandise export concentration (1/16);

Share of agriculture forestry and fisheries in gross domestic product (1/16);

Share of population in low elevated coastal areas (1/8);

Homelessness owing to natural disasters (1/8);

Instability of agricultural production (1/8);

Instability of exports of goods and services (1/4)

(Sources: UNDESA; Center for International Earth Science Information Network; UNCTAD; FAO; UN Statistics Division; UNESCO; UNDP; UNICEF; World Bank)

Weighting (in latest edition): Indicators are weighted unequally within the overall index (see indicators for precise weights)

Methodology (in latest edition): Indicators are first normalised into the range 0-100 using observed maximum and minimum goalposts, and re-scaled to remove significant outliers; normalised indicators are then aggregated by weighted arithmetic mean (see indicator details for weights) into the overall index

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 1999

Frequency of release: Triennially

Country coverage (in latest edition): 130 developing countries

Who uses the index: NGOs, researchers

How is it used: Used by the UN Committee for Development Planning as part of its classification criteria for Least Developed Countries

Influence/Impact: The index has played a large role in deciding countries' UN development classification; used in numerous research papers

Documented limitations: The EVI has been criticised for using somewhat arbitrary weighting (see Guillaumont 2007, Design of an Economic Vulnerability Index and its Use for International Development Policy)

Relevant websites: http://www.un.org/en/development/desa/policy/cdp/ldc/ldc_criteria.shtml

Publication where index can be found: CDP Policy Notes

Official source/citation: UN CDP

87. Social Vulnerability Index (SoVI)

Agency/Institution/Author: Hazards & Vulnerability Research Institute, University of South Carolina

Concept: Vulnerability

What it measures: Summary of the social vulnerability of US counties to environmental hazards, as measured by their population characteristics

Final stage aggregation method: Weighted sum

Dimensions (in latest edition): 7 latent components reduced from the set of 30 indicators:-

Race and class;

Wealth;

Elderly residents;

Hispanic ethnicity;

Special needs individuals;

Native American ethnicity;

Service industry employment

Indicators and their sources (in latest edition): 30 indicators of social, economic, demographic, and housing characteristics

(Sources: US Census Bureau; American Community Survey; Geographic Names and Information System)

Weighting (in latest edition): Indicators are not weighted, but are incorporated by their contributions to the variance in the data (i.e. all the indicator values for all the counties)

Methodology (in latest edition): Indicators are first normalised to give z-scores; the normalised indicators are then reduced into a set of statistically optimised latent components by principal components analysis; adjustments are made to the components to ensure the sign of component loadings coincide with their theoretical influence on vulnerability; components are summed to give the overall SoVI score

Index metric: Relative quantile scale:

Top 20% of scores = most vulnerable;

Bottom 20% of scores = least vulnerable

Year of introduction: 2003

Frequency of release: Irregular

Country coverage (in latest edition): US counties

Who uses the index: Researchers, academia, policy-makers

How is it used: To categorise counties into most vulnerable and least vulnerable categories; map this vulnerability visually

Influence/Impact: The index has been used in numerous studies on vulnerability and risk assessment and cited in many academic papers; has been used in hazard mitigation plans in a couple of US states

Documented limitations: The index is limited by its heavy use of census data, since rapidly changing composition of some small-area populations in the intercensal years cannot be captured

Relevant websites: <http://webra.cas.sc.edu/hvri/products/sovi.aspx>

Publication where index can be found: Cutter, Boruff and Shirley. Social Vulnerability to Environmental Hazards. Social Science Quarterly, 2003, vol.84, pp. 242-261

Official source/citation: Hazards & Vulnerability Research Institute, University of South Carolina

88. Global AgeWatch Index

Agency/Institution/Author: HelpAge International

Concept: Well-being

What it measures: A measure of how a country's ageing population is faring in 4 domains

Final stage aggregation method: Generalised mean

Dimensions (in latest edition): 4:-

Income security;

Health status;

Employment and education;

Enabling environment

Indicators and their sources (in latest edition): 13:-

Pension income coverage (World Bank);

Poverty rate in old age (World Bank);

Relative welfare of older people (World Bank, OECD, Eurostat);

GDP per capita (World Bank);

Life expectancy at 60 (WHO);

Healthy life expectancy at 60 (Institute of Health Metrics and Evaluation);

Psychological wellbeing (Gallup);

Employment of older people (ILO);

Educational status of older people (Barro and Lee);

Social connections (Gallup);

Physical safety (Gallup);

Civic freedom (Gallup);

Access to public transport (Gallup)

Weighting (in latest edition): Indicator weights within dimensions are assigned according to judgement of the relative importance of the indicator within the dimension, and on the data quality of the indicator; dimensions are equally weighted in the overall index

Methodology (in latest edition): Indicators are normalised into a scale of 0-100 by using observed minimum and maximum goalposts; indicators are aggregated by weighted geometric mean into dimension sub-indices; dimensions are aggregated by unweighted geometric mean into the overall index

Index metric: 0-100 scale

0 = worst performance

100 = best performance

Year of introduction: 2013

Frequency of release: Annually

Country coverage (in latest edition): 91

Who uses the index: Media, NGOs

How is it used: To rank national and regional performance in the overall index and dimension sub-indices; analyse relationships between index performance and various correlates

Influence/Impact: The index has been widely cited in the media since its release; used as an advocacy tool for better policies and services to improve the lives of older people, especially in developing countries

Documented limitations: Limited data availability, especially for Africa, the Middle East and the Caribbean, means that only 91 countries are included

Relevant websites: <http://www.helpage.org/global-agewatch/>

Publication where index can be found: Global AgeWatch Index: Insight report

Official source/citation: HelpAge International

89. Canadian Index of Wellbeing

Agency/Institution/Author: University of Waterloo

Concept: Well-being

What it measures: A composite index of eight interconnected domains that measures stability and change in the well-being of Canadians over time

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 8:-

Community vitality;

Democratic engagement;

Education;

Environment;

Healthy populations;

Leisure and culture;

Living standards;

Time use

Indicators and their sources (in latest edition): 64

(Sources: Statistics Canada; WWF; Royal Bank of Canada)

Weighting (in latest edition): All indicators are weighted equally within dimensions; dimensions are equally weighted within the overall index

Methodology (in latest edition): Baseline values for the 64 indicators are set at 100 for 1994, with percentage changes in each indicator calculated for each subsequent year; indicators are aggregated by unweighted arithmetic mean to obtain the dimension scores; the overall index is the unweighted arithmetic mean of the scores for each dimension

Index metric: Baseline score of 100 with 1994 base year

Year of introduction: 2011

Frequency of release: Annually

Country coverage (in latest edition): Canada

Who uses the index: Policy-makers, researchers

How is it used: Track changes in the composite index over time, track movements in the component indicators of the index

Influence/Impact: It has been used to promote dialogue on how to improve the well-being of Canadians through evidence-based policies

Documented limitations: The index relies on Statistics Canada data, which is produced with a lag (approximately 2 years)

Relevant websites: <http://uwaterloo.ca/canadian-index-wellbeing/>

Publication where index can be found: Canadian Index of Wellbeing. How are Canadians really doing?

Official source/citation: Canadian Index of Wellbeing and University of Waterloo

90. Input Index

Agency/Institution/Author: Department of Economic Statistics (Statistics Sweden)

Concept: Well-being

What it measures: Aims to measure the input factors that OECD countries use to create welfare for their citizens

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Labour quantity;

Labour quality;

Research;

IT

Indicators and their sources (in latest edition): 4:-

Share of the population of working age;

Share of the labour force with at least 3 years post-secondary education;

R&D costs per inhabitant (PPP);

% inhabitants with Internet access

(Source: OECD)

Weighting (in latest edition): Equal dimension weighting

Methodology (in latest edition): All indicators are standardised to vary between 0 and 100; indicators are weighted equally within the index and aggregated by arithmetic mean

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 2004

Frequency of release: One-off

Country coverage (in latest edition): 27 OECD countries

Who uses the index: Researchers, policy-makers

How is it used: To illustrate how different statistical techniques can be used to compare complex conditions between countries. Sensitivity analysis is conducted to study how the results are affected if certain partial components and extreme values are excluded. The sign

Influence/Impact: Narrow impact, mainly readers of the background document from which the index is taken

Documented limitations: The index has received limited exposure, therefore documentation of limitations also limited

Relevant websites:

http://www.scb.se/Statistik/OV/OV9999/2004A01/OV9999_2004A01_BR_X100ST0415.pdf

Publication where index can be found: Background Facts of Economic Statistics 2004:15: Comparing Welfare of Nations

Official source/citation: Statistics Sweden

91. Legatum Prosperity Index

Agency/Institution/Author: Legatum Institute

Concept: Well-being

What it measures: A composite assessment of wealth and well-being, measuring factors that help drive economic growth or produce happy citizens in a given country

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 8:-

Economy;

Entrepreneurship & opportunity;

Governance;

Education;

Health;

Safety & security;

Personal freedom;

Social capital

Indicators and their sources (in latest edition): 89

(Sources: World Development Indicators; Gallup World Poll; International Telecommunication Union; Failed States Index; World Bank Governance Indicators; Freedom House; Center for Global Policy; Witold Henisz; Cingranelli-Richards Human Rights Dataset; Barro and Lee (2010); WHO; Center for Systemic Peace; Amnesty International; US State Department; World Values Survey)

Weighting (in latest edition): Indicator weights are given by regressing each of GDP and life satisfaction scores on the indicators that influence wealth and well-being respectively; wealth and well-being scores are equally weighted within dimensions; dimensions are equally weighted wi

Methodology (in latest edition): Indicators are first standardised by subtracting the mean and dividing by standard deviation; GDP is regressed on indicators influencing wealth and life satisfaction scores (data from Gallup) is regressed on indicators influencing well-being; resulting coefficients give the relative weights for each indicator; for each dimension, wealth and well-being indicators are first aggregated separately by weighted arithmetic mean, then these separate scores are aggregated again by unweighted arithmetic mean to obtain the dimension indices; dimension indices are aggregated by unweighted arithmetic mean to obtain the overall index

Index metric: Relative country ranking

1 = best performance

Year of introduction: 2007

Frequency of release: Annually

Country coverage (in latest edition): 142

Who uses the index: Media, researchers

How is it used: To rank country performance in the overall index and sub-indices; analyse trends in regions of the world and over time

Influence/Impact: High degree of media reporting; however, impact in research and policy has been less apparent

Documented limitations: Documented criticisms mainly concern disagreement with the index rankings

Relevant websites: <http://www.prosperity.com/>

Publication where index can be found: The Legatum Prosperity Index reports

Official source/citation: Legatum Institute

92. Opportunity Index

Agency/Institution/Author: Measure of America, Opportunity Nation

Concept: Well-being

What it measures: Summary measure of the economic, educational and civic opportunities that are available to Americans

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 3:-

Jobs and the local economy;

Education;

Community health and civic life

Indicators and their sources (in latest edition): 16:-

Unemployment rate (Bureau of Labor Statistics);

Median household income (\$) (US Census Bureau);

Poverty (% of population below poverty line) (US Census Bureau);

Ratio of household income at the 80th percentile to that of the 20th percentile (US Census Bureau);

Banking institutions (per 10,000 residents) (US Census Bureau);

Household spending less than 30% of household income on housing costs (%) (US Census Bureau);

High-speed internet (% of households for states; 5-level categories for counties) (Federal

Communications Commission Internet Access Services);

Preschool (% ages 3 and 4 in school) (US Census Bureau);

On-time high school graduation (% of freshmen who graduate in four years) (US Department of Education);

Associate degree or higher (% of adults 25 and older) (US Census Bureau);

Group membership (% of adults 18 and older involved in social, civic, sports, and religious groups) (calculations based on US Census Bureau data);

Volunteerism (% of adults ages 18 and older) (calculations based on US Census Bureau data);

Youth not in school and not working (% ages 16-24) (calculations based on US Census Bureau data);

Violent crime (per 100,000 population) (US Department of Justice);

Primary care providers (per 100,000 population) (US Department of Health and Human Services);

Grocery stores and produce vendors (per 10,000 population) (US Census Bureau)

Weighting (in latest edition): Equal weighting of indicators within dimensions; equal weighting of dimensions within the overall index

Methodology (in latest edition): Indicators are first normalised onto a 0-100 scale, using observed maximum and minimum goalposts; normalised indicators are aggregated by unweighted arithmetic mean into dimension scores; dimension scores are aggregated by unweighted arithmetic mean into the overall index score

Index metric: 0-100 scale

0 = worst score

100 = best score;

Letter grades are also assigned based on distance from the average score

Year of introduction: 2011

Frequency of release: Annually

Country coverage (in latest edition): 51 US states

Who uses the index: Media, NGOs

How is it used: To rank and score the performance of states; map scores visually; track progress over time

Influence/Impact: The index has been used as an advocacy tool promoting policies for equal opportunity across the US; widely cited in the media

Documented limitations: Limited documentation, perhaps due to interest in the index being concentrated in the media who support its pro equal-opportunity message

Relevant websites: <http://opportunityindex.org>

Publication where index can be found: Opportunity Index Briefing Book

Official source/citation: Measure of America, Opportunity Nation

93. Welfare Index

Agency/Institution/Author: Department of Economic Statistics (Statistics Sweden)

Concept: Well-being

What it measures: Aims to describe the level of welfare for citizens in OECD countries

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 4:-

Economic standard;

Leisure time;

Health;

Environment

Indicators and their sources (in latest edition): 7:-

GNI (PPP adjusted);

Potential GNI (if leisure time, proxied by consumption, were to be used for productive work);

Life expectancy by gender;

Infant mortality;

Sulphur oxides;

Nitrogen oxides;

Carbon dioxide

(Source: OECD, Eurostat, UN)

Weighting (in latest edition): Equal indicator weighting within dimensions, equal dimension weighting within the overall index

Methodology (in latest edition): All indicators are standardised to vary between 0 and 100; indicators are weighted equally within dimensions and dimensions are weighted equally within the overall index; aggregation is by arithmetic mean

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 2004

Frequency of release: One-off

Country coverage (in latest edition): 27 OECD countries

Who uses the index: Researchers, policy-makers

How is it used: To illustrate how different statistical techniques can be used to compare complex conditions between countries. Sensitivity analysis is conducted to study how the results are affected if certain partial components and extreme values are excluded. The sign

Influence/Impact: Narrow impact, mainly readers of the background document from which the index is taken

Documented limitations: The index has received limited exposure, therefore documentation of limitations also limited

Relevant websites:

http://www.scb.se/Statistik/OV/OV9999/2004A01/OV9999_2004A01_BR_X100ST0415.pdf

Publication where index can be found: Background Facts of Economic Statistics 2004:15: Comparing Welfare of Nations

Official source/citation: Statistics Sweden

94. The Wellbeing of Nations

Agency/Institution/Author: Prescott-Allen

Concept: Well-being

What it measures: 4 wellbeing indices are elaborated:

Human Wellbeing Index (HWI);

Ecosystem Wellbeing Index (EWI);

Wellbeing Index (WI);

Wellbeing/Stress Index (WSI)

Final stage aggregation method: Unweighted arithmetic mean; Ratio

Dimensions (in latest edition): 10:-

Human wellbeing

(Health and population;

Wealth;

Knowledge and culture;

Community;

Equity);

Ecosystem wellbeing

(Land;

Water;

Air;

Species and genes;

Resource use)

Indicators and their sources (in latest edition): HWI: 36 indicators

EWI: 51 indicators

(Sources: FAO; Global Environmental Monitoring System; International Telecommunication Union;

IUCN; UNDP; UNESCO; UNEP; UN Population Division; World Bank; WHO; BirdLife International;

Carbon Dioxide Information Analysis Center; Conservation International; Freedom House;

International Institute for Strategic Studies; International Labour Office; International Livestock

Research Institute; IMF; International Soil Reference and Information Centre; Inter-Parliamentary

Union; OECD; Transparency International; UNICEF; UN Crime Prevention and Criminal Justice Division;

UN Economic Commission for Europe; UN Energy Statistics Unit; World Energy Council; World

Meteorological Organization; World Resources Institute; WWF)

Weighting (in latest edition): Indicators are either equally weighted within dimensions, or else the minimum indicator score is taken within the dimension; equally weighted dimensions within each of the HWI and EWI

Methodology (in latest edition): Countries are awarded a performance score between 0-100 in each indicator based on proximity-to-target performance; these are aggregated into dimensions by either unweighted arithmetic mean or by taking the minimum indicator score within the dimension;

dimensions are aggregated by unweighted arithmetic mean into their respective indices, the HWI or EWI.

The WI is the point on the graphic 2-dimensional “Barometer of Sustainability” where the HWI and EWI intersect, and is the lower of the HWI and EWI.

The WSI is the ratio of human well-being and ecosystem stress (the opposite of ecosystem well-being i.e. 100 minus the EWI)

Index metric: 0-100 scale

Year of introduction: 2001

Frequency of release: One-off

Country coverage (in latest edition): 180

Who uses the index: Researchers, academia, students

How is it used: To rank, survey and graphically map the performance of countries in each of the 4 elaborated indices

Influence/Impact: Intended to promote high levels of human and ecosystem wellbeing, demonstrate the practicality and potential of the Wellbeing Assessment method, and encourage countries, communities, and corporations to undertake their own well-being assessments

Documented limitations: Criticism for using a single index as opposed to dividing the indices for large countries that have diverse geographic regions within each nation; some sub-indices criticised for being scored over-optimistically (see Pimentel 2001. Book Review of The Wellbeing of Nations)

Relevant websites: <http://idl-bnc.idrc.ca/dspace/bitstream/10625/19881/1/116933.pdf>

Publication where index can be found: Prescott-Allen, Robert. 2001. The Wellbeing of Nations: A Country-by-Country Index of Quality of Life and the Environment. Washington: Island Press

Official source/citation: Prescott-Allen 2001

95. Harmony Index (HI) and “Graded HI”

Agency/Institution/Author: Bell and Mo

Concept: Well-being

What it measures: An attempt to measure the extent of peaceful order and respect for diversity (Confucian harmony) within 4 dimensions that matter for human well-being

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 4:-

Harmony in the family;

Harmony in the country;

Harmony in the world;

Harmony with nature

Indicators and their sources (in latest edition): 18:-

Suicide rate of the elderly (75+) (WHO);

Suicide rate of children (under-15) (WHO);

Whether one of main goals in life has been to make my parents proud (World Values Survey);

Rate of domestic violence (UN Women);

How much do you trust your family (World Values Survey);

Whether adoption is allowed (UN);

Internal Peace Index (Global Peace Index by Institute for Economics and Peace);

Whether most people can be trusted (World Values Survey);

Gini index (CIA);

Good governance Index (World Bank);
Public trust in politicians (Global Competitiveness Index by World Economic Forum);
Club and Associations Index (Indices of Social Development by International Institute of Social Studies);
Inclusion of Minorities Index (Indices of Social Development by International Institute of Social Studies);
External Peace Index (Global Peace Index by Institute for Economics and Peace);
Number of International organisations participated (CIA);
Trade to GDP ratio (World Bank);
Ecological Footprint (Global Footprint Network);
Environmental Performance Index (Yale Center for Environmental Law and Policy)

Weighting (in latest edition): Equal weighting of indicators within dimensions; equally weighted dimensions for the HI; dimensions weighted 40%, 30%, 20%, 10% for harmony in family, country, world, nature respectively for the “Graded HI”

Methodology (in latest edition): Indicators are first normalised into a scale of 0-1; indicators are then aggregated by arithmetic mean into dimensions; dimensions are then aggregated by (weighted) arithmetic mean into the final index

Index metric: 0-1 scale

Year of introduction: 2013

Frequency of release: One-off

Country coverage (in latest edition): 27;

43 with reduced-variable index

Who uses the index: Media

How is it used: To rank countries and compare rankings according to other established measures such as HDI and GDP; draw policy suggestions from results

Influence/Impact: Limited exposure, the index was the subject of an op-ed in the Financial Times

Documented limitations: Data limitations mean that indicators are not available for a larger number of countries

Relevant websites: <http://www.harmonyindex.org>

Publication where index can be found: Bell and Mo. Harmony in the World 2013: The Ideal and the Reality. Social Indicators Research, 21 September 2013

Official source/citation: Bell and Mo 2013

96. International Good Growth Index

Agency/Institution/Author: PricewaterhouseCoopers and Demos

Concept: Well-being

What it measures: Composite measure of balanced growth that is financially, socially and environmentally sound

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 8:-

Jobs (18%);

Income (14%);

Health (13%);

Work-life balance (13%);

Sectoral balance (6%);

Housing (9%);
 Transport (6%);
 Providing for future generations (7%);
 Income distribution (7%);
 Environment (7%)

Indicators and their sources (in latest edition): 8:-

Unemployment rate as % of labour force (OECD);
 Real adjusted disposable income per head (OECD);
 % of working age population receiving long-term disability benefits (OECD);
 Average annual working hours per worker (OECD);
 Manufacturing share of employment (OECD);
 Home ownership rates (OECD);
 Road fuel costs (IEA);
 Gross domestic savings as % of GDP (World Bank);
 Ratio of disposable incomes of richest 10% and poorest 10% of households (UN);
 CO2 emissions per \$ of GDP at PPP (BP)

Weighting (in latest edition): Dimension indicators are weighted according surveys of what the public deem to be important in judging quality of life (see dimension details)

Methodology (in latest edition): Dimensions have been decided by a phase of public polling; indicators selected to represent these dimensions are normalised into z-scores by subtracting the mean and dividing by the standard deviation; normalised indicators are aggregated by weighted arithmetic mean into the overall index

Index metric: Number of standard deviations above or below the country average (z-scores)

Year of introduction: 2011

Frequency of release: One-off

Country coverage (in latest edition): 14 OECD countries

Who uses the index: Media

How is it used: To score relative country performance; compare index performance with performance in economic indicators such as GNI per capita

Influence/Impact: The international version of the Good Growth Index has received limited attention; however, there is also a regional UK version of the index which has been widely cited in UK media and in local government publications

Documented limitations: The current index is only a snapshot of a point in time and therefore subject to influence from the prevailing mood

Relevant websites: <http://www.demos.co.uk/publications/goodgrowth/>

Publication where index can be found: Good Growth report

Official source/citation: PricewaterhouseCoopers and Demos

97. Your Better Life Index

Agency/Institution/Author: OECD

Concept: Well-being

What it measures: Online interactive tool designed to let users visualise and compare performance of OECD countries on 11 topics that contribute to well-being.

Final stage aggregation method: Weighted arithmetic mean

Dimensions (in latest edition): 11:-

Housing;
Income;
Jobs;
Community;
Education;
Environment;
Civic engagement;
Health;
Life satisfaction;
Safety;
Work-life balance

Indicators and their sources (in latest edition): 24:-

Dwellings without basic facilities;
Housing expenditure;
Rooms per person;
Household net adjusted disposable income;
Household net financial wealth;
Employment rate;
Job security;
Long-term unemployment rate;
Personal earnings;
Quality of support network;
Educational attainment;
Student skills;
Years in education;
Air pollution;
Water quality;
Consultation on rule-making;
Voter turnout;
Life expectancy;
Self-reported health;
Life satisfaction;
Assault rate;
Homicide rate;
Employees working very long hours;
Time devoted to leisure and personal care.

(Sources: OECD National Accounts; UN Statistics; National Statistics Offices; Gallup World Poll)

Weighting (in latest edition): Equal indicator weighting within each dimension;

Dimension weighting assigned by the user online

Methodology (in latest edition): Indicators are first normalised into a scale of 0-1 using observed minimum and maximum values for each dimension; indicators are aggregated by unweighted arithmetic mean into dimensions; dimensions are aggregated by weighted arithmetic mean into the overall index, with weights selected on a sliding scale by the user

Index metric: Visual sliding scale from 0-10

Year of introduction: 2011

Frequency of release: Index data updated annually

Country coverage (in latest edition): 36

Who uses the index: Governments, CSOs, NGOs, researchers, media, students, academia

How is it used: To rank OECD countries by well-being outcomes, according the individuals' own customised priorities among various dimensions of life; examine underlying indicator performance; compare gender differences in achievement; users can compare their priorities t

Influence/Impact: The online interactive index has garnered great interest across the board. Over 24,000 users have shared their preferences via the web application, informing what policies should focus on for individual and collective well-being

Documented limitations: Limited to 36 countries; data availability limits which indicators can be included. For further evaluation of the index see <http://aea365.org/blog/?p=3789>

Relevant websites: <http://www.oecdbetterlifeindex.org/>

Publication where index can be found: OECD. How's Life? 2013: Measuring Well-being

Official source/citation: OECD

98. Equivalent Income

Agency/Institution/Author: Decancq and Schokkaert (based on Fleurbaey, Schokkaert and Decancq 2009)

Concept: Well-being

What it measures: Based on GDP per capita, the measure incorporates preference-based corrections for various adjustment variables at the individual level

Final stage aggregation method: Weighted sum

Dimensions (in latest edition): 5:-

Material living conditions;

Health;

Productive and valued activities;

Leisure and social interactions;

Economic and physical security

Indicators and their sources (in latest edition): 6:-

Total household income per capita;

Self-reported health;

Whether or not hampered in daily activities by illness/disability/infirmity or mental problems;

Unemployment status;

Frequency of meeting socially with friends, relatives or colleagues;

Whether or not feels safe when walking alone in local area after dark

(Source: European Social Survey)

Weighting (in latest edition): Weights differ across socio-demographic groups according to their preferences for the dimensions included (i.e. their shadow prices)

Methodology (in latest edition): Sociodemographic group-specific shadow prices are found by taking the relative coefficients from regressing subjective well-being on the various adjustment variables. Equivalent incomes are calculated for each individual by adding household income per capita to the monetised value of adjustment variables, calculated using the shadow prices and differences in individuals' variable values from specified reference levels. These equivalent incomes are then aggregated by a social welfare function incorporating aversion to inequality

Index metric: Monetary amount

Year of introduction: 2013

Frequency of release: Irregular

Country coverage (in latest edition): 18 European countries

Who uses the index: Researchers, academia, media, NGOs

How is it used: To study the measurement of social progress in Europe; compare and contrast results compared to using income as the sole measure of progress

Influence/Impact: The OECD is doing preliminary work on adopting equivalent income as a measure of inclusive growth; the approach has been pioneering in welfare economic research

Documented limitations: The measure is sensitive to the choice of reference levels from which adjustments are made. See Fleurbaey 2013 (Beyond GDP: Measuring Welfare and Assessing Sustainability, Chapter 4) for detailed analysis

Relevant websites:

<https://www.kuleuven.be/euroforum/viewpic.php?LAN=E&TABLE=DOCS&ID=857>

Publication where index can be found: Decancq and Schokkaert. Beyond GDP: Measuring Social Progress in Europe. KU Leuven Euroforum policy paper

Official source/citation: Fleurbaey, Schokkaert and Decancq 2009

99. Quality of Life Index

Agency/Institution/Author: Economist Intelligence Unit (EIU)

Concept: Well-being

What it measures: Summary measure of a country's performance in 9 objective determinants of quality of life, weighted by impact on subjective life satisfaction scores

Final stage aggregation method: Weighted sum

Dimensions (in latest edition): 9:-

Material wellbeing;

Health;

Political stability and security;

Family life;

Community life;

Climate and geography;

Job security;

Political freedom;

Gender equality

Indicators and their sources (in latest edition): 9:-

GDP per capita (PPP \$) (EIU);

Life expectancy at birth (US Census Bureau);

Political stability and security ratings (EIU);

Divorce rate (UN, Euromonitor);

High rate of church attendance or trade-union membership (World Values Survey);

Latitude (CIA World Factbook);

Unemployment rate (EIU, ILO);

Average of indices of political and civil liberties (Freedom House);

Ratio of average male and female earnings (UNDP HDR)

Weighting (in latest edition): Weights are given by the relative coefficients from regressing life satisfaction scores on each of the 9 indicator variables; variables are not normalised, so weights are only meaningful when multiplied by differences in values of their respective variabl

Methodology (in latest edition): Subjective life satisfaction responses (on a scale of 1-10) are regressed on the objective indicators of quality of life across countries; the resulting coefficients are used to construct predicted values of the life-satisfaction scores using the weighted sum of the nine indicators; a country's predicted value is then its index score

Index metric: 0-10 scale

0 = worst score

10 = best score

Year of introduction: 2005

Frequency of release: One-off

Country coverage (in latest edition): 111

Who uses the index: Media, CSOs, researchers, students, academia

How is it used: To rank countries according to quality of life variables that most affect life satisfaction of citizens globally

Influence/Impact: Considerable media coverage and use in academic papers; impact as an advocacy tool for policy-making is less clear

Documented limitations: Data exists only for those countries in which public opinion surveys have been fielded. Questionable that life satisfaction can be used as a direct measure of a latent summary variable of people's quality of life. See Foa and Tanner (Methodology of the Indices of Social Development)

Relevant websites: http://www.economist.com/media/pdf/QUALITY_OF_LIFE.pdf

Publication where index can be found: The World in 2005

Official source/citation: Economist Intelligence Unit

100. Mother's Index

Agency/Institution/Author: Save the Children

Concept: Women's well-being

What it measures: Measure of conditions for mothers around the world; shows where mothers fare best and where they face the greatest hardships

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 5:-

Maternal health;

Children's well-being;

Educational status;

Economic status;

Political status

Indicators and their sources (in latest edition): 5:-

Lifetime risk of maternal death (United Nations Inter-agency Group);

Under-5 mortality rate (United Nations Inter-agency Group);

Expected years of formal schooling (UNESCO Institute for Statistics, UNDP);

GNI per capita (World Bank, UN SNA);

Participation of women in national government (Inter-Parliamentary Union)

Weighting (in latest edition): Equal weighting of indicators within the overall index

Methodology (in latest edition): Countries are ranked from 1 to 176 (1 being the best and 176 the worst) for each of the five indicators; the overall index scores are calculated as the unweighted arithmetic mean of the five indicator ranks

Index metric: Relative country ranking

1 = best performance

Year of introduction: 2000

Frequency of release: Annually

Country coverage (in latest edition): 176

Who uses the index: Media, NGOs

How is it used: To assess the state of child and maternal health across countries

Influence/Impact: Used as an advocacy tool by NGOs to promote government action for child and maternal health

Documented limitations: The use of broad, national data means that the condition of geographic or ethnic sub-groups may vary greatly from the national average index assessment

Relevant websites: <http://www.savethechildren.org/world-mothers>

Publication where index can be found: State of the World's Mothers reports

Official source/citation: Save the Children

101. Women's Economic Opportunity Index

Agency/Institution/Author: Economist Intelligence Unit

Concept: Women's well-being

What it measures: A composite measure of the laws, regulations, practices, and attitudes that affect women employees and entrepreneurs

Final stage aggregation method: Unweighted arithmetic mean

Dimensions (in latest edition): 5:-

Labour policy and practice (which comprises two sub-categories: Labour policy and Labour practice);

Access to finance;

Education and training;

Women's legal and social status;

General business environment

Indicators and their sources (in latest edition): 26:-

Equal pay for equal work in labour policy;

Non-discrimination in labour policy;

Maternity and paternity leave and provision;

Legal restrictions on job types for women;

Difference between the statutory (pensionable) retirement age between men and women;

Equal pay for equal work in labour practice;

Non-discrimination in labour practice;

Degree of de facto discrimination against women in the workplace;

Availability, affordability and quality of childcare services;

Building credit histories;

Women's access to finance programmes;

Delivering financial services;

Private-sector credit as a % of GDP;

Women's expected primary and secondary schooling;

Women's expected tertiary schooling;

Women's adult literacy rate;

Existence of government or non-government programmes offering small and medium-sized enterprise support/development training;
 Addressing violence against women;
 Freedom of movement;
 Property ownership rights;
 Adolescent fertility rate;
 Country ratification of the Convention on the Elimination of All Forms of Discrimination against Women;
 Regulatory quality;
 Procedures, duration, cost and paid-in minimum capital for starting a business;
 Infrastructure risk;
 Mobile cellular phone subscribers per 100 inhabitants
 (Sources: Economist Intelligence Unit; ILO; World Bank; IMF; OECD; UNESCO; UNDP; UN Department of Economic and Social Affairs, Population Division; UN Secretary-General's database on violence against women; International Telecommunication Union; Social Security Online; Consultative Group to Assist the Poor; WEF; Worldwide Governance Indicators; Freedom House; Vision of Humanity; national statistical offices)

Weighting (in latest edition): Equal weighting of indicators within the overall index

Methodology (in latest edition): Indicators are first normalised into a 0-100 score by using maximum and minimum observed values; the overall index is the unweighted arithmetic mean of the normalised indicators

Index metric: 0-100 scale

0 = worst score

100 = best score

Year of introduction: 2010

Frequency of release: Biennially

Country coverage (in latest edition): 113

Who uses the index: Media, NGOs

How is it used: To rank countries and regional performance in the overall index and its dimensions

Influence/Impact: Intended to stimulate debate on the drivers and constraints on women's economic opportunity; the index has received considerable media attention, however being one of the newer gender-related indices, has had less impact than some of the others

Documented limitations: The index focuses entirely on the formal sector, ignoring the informal sector

Relevant websites: http://graphics.eiu.com/upload/WEO_report_June_2010.pdf

Publication where index can be found: Women's Economic Opportunity

Official source/citation: Economist Intelligence Unit

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