MEASURING SOCIAL JUSTICE

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Working paper No. 194
May 2018

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Abstract

Social justice is realized when every member of society has the same opportunity to rise to a higher economic or social bracket based on merit, and when no individual is discriminated against based on wealth, gender, religion, ethnicity, class, age, profession, or skin colour. Social justice reaches its apex when social mobility becomes based entirely on merit. This paper suggests an approach to measure social justice throughout a composite index derived from a framework that assumes that achieving social justice depends on the level of equality between individuals in society in human capital, and in social and cultural capital. Human capital includes five dimensions: education, knowledge and access to information, employment, health and culture and recreation. Social and cultural capital includes five dimensions: justice, trust, satisfaction with life, safety and participation. A set of indicators was used to represent each dimension. The index was applied to measure inequality attributed to five gaps: geographical, gender, wealth and generational. Applying the framework on Egypt shows that a wider inequality in human capital exists between the rich and the poor, while, the wider gap in social capital exists between urban and rural population.

الملخص

تتحقق العدالة الاجتماعية عندما يتوفر لكل فرد في المجتمع نفس الفرصة للارتقاء إلى شريحة اقتصادية أو اجتماعية أعلى على أساس الجدارة، وعندما لا يتعرض أي فرد للتمييز على أساس الثروة أو النوع أو الدين أو العرق أو الطبقة أو السن أو المهنة أو لون البشرة. وتصل العدالة الاجتماعية إلى ذروتها عندما يكون الحراك الاجتماعي قائما كليا على أساس الجدارة . في هذا السياق تقترح هذه الدراسة منهجا لقياس العدالة الاجتماعية من خلال مؤشر مركب مستمد من إطار يفترض أن تحقيق العدالة الاجتماعية يعتمد على درجة المساواة بين أفراد المجتمع في رأس المال البشري، وفي رأس المال الاجتماعي والثقافي. حيث يتضمن رأس المال البشري خمسة أبعاد هي التعليم، والمعرفة والحصول على المعلومات، والتوظيف، والصحة، والثقافة والترفيه. كما يشمل رأس المال الاجتماعي والثقافي خمسة أبعاد هي العدالة، والثقة، والرضا عن الحياة، والسلامة، والمشاركة. وقد تم استخدام مجموعة من المؤشرات لكل بعد، وتطبيق المؤشر لقياس عدم العدالة الناجمة عن خمس فجوات هي الفجوة الجغرافية والفجوة بين الجنسين ومن حيث الثروة والفجوة الجيلية. وبالتطبيق على مصر يتضح اتساع نطاق عدم العدالة في رأس المال البشري بين الفقراء والأغنياء، بينما تقع الفجوة الأكثر اتساعا في رأس المال الاجتماعي بين سكان الحضر والريف.

Keywords: inequality; social justice; measuring social justice; Egyptian social justice index.

JEL classification: D63; I14; I24; I31; J62.

1. INTRODUCTION

Interest in the concept of social justice in Egypt has grown significantly in the wake of the January 25th 2011 Revolution. Though definitions of the concept have varied over time, and between cultures, this working paper addresses an operational definition of social justice, which is a prerequisite to its measurement. Given the wide array of conceptual and operational definitions in the existing literature, the paper begins with a review of definitions that are relevant to the Egyptian context. This review of global social justice definitions and indicators is not exhaustive, but is intended to examine and adapt these definitions and indicators according to the Egyptian context. Accordingly, the focus of this paper will be on devising a matrix to reveal the weak points in certain concepts used to describe the manifestations of social justice in Egypt.

2. SOCIAL JUSTICE: A THEORETICAL FRAMEWORK

Social justice is realized when every member of society has the same opportunity to rise to a higher economic or social bracket based on merit, and when no individual is discriminated against based on wealth, gender, religion, ethnicity, class, age, profession, or skin colour. Social justice reaches its apex when social mobility has come to be based entirely on merit. This does not mean leaving everything to "market forces" alone. On the contrary, social justice requires that protection be provided for marginalized and weak groups that lack the ability to compete, and which cannot enjoy a decent life without support from governmental and nongovernmental institutions. In addition, the process of achieving social justice must draw a distinction between equality on the one hand, and equity on the other. Realizing social justice, which is a long-term process, is not limited to the achievement of equal opportunities, which would simply perpetuate an existing situation, but includes tools for positive discrimination to equip vulnerable groups with the abilities and skills needed to climb the social ladder, which will contribute ultimately to an advance for society as a whole.

Social justice is a cumulative and gradual transformation process which passes through phases, and which can be summed up by the following three levels:

Level 1: Inequality is endemic and society is dominated by unjust values and standards due to widespread monopolization of wealth, corruption, and the absence of the rule of law.

Level 2: The state achieves a degree of growth that prompts it to adopt protectionist policies. These policies lead to more state power, which is then used to reduce differences among social classes and thereby achieve greater economic justice. Social justice is then expanded through protectionist policies that are able to achieve a relative degree of fairness in wealth distribution.

Level 3: The state exhibits a solid will to bring about the changes needed to achieve just and sustainable development via effective public policies and good governance. At this level, society is governed by general values and standards based on the principles of complete equality among human beings and the rule of law. This situation contributes to a cultural transformation that brings an end to all forms of discrimination.

The dynamic interaction between a state of inequality and a state of relative justice yields three outcomes, each of which embodies a particular form or expression of justice:

Compensatory Justice: Compensatory justice generally consists of acts of charity and welfare initiated by powerful parties targeting those who are weak and vulnerable. This dynamic, in which actions taken to address inequality and injustice are selective and seasonal in nature, tends to undermine the notion of social justice and transmute it into meaningless slogans. Social justice is defined in this context as a form of corrective intervention on the part of the state, civil society or individuals with the aim of helping the poor and needy, including the disabled, children, the elderly, and widowed or divorced women.

Distributive and Protectionist Justice: This form of justice is achieved by constantly striving to broaden opportunities and choices, achieve a just distribution of wealth, and formulate policies that aim to protect the largest possible number of weak, vulnerable, and marginalized groups or classes. In this context, social justice is defined as a continuous improvement in living conditions, ongoing expansion of opportunities, and promotion of equal rights before the law. Social justice thus defined is reformist, protectionist, and empowering. It is reformist in the sense that it aims to achieve social balance among different classes, generations, and sectors in a gradual manner. It is protectionist in the sense that it relies on safety nets for the poor, marginalized, and needy, and on public services whose purpose is to provide general protection in the areas of education, health, public utilities, and housing. And it is empowering because it relies not only on the charitable, compensatory approach but, in addition, on a solidarity and protection based

approach that enables some groups of the poor to move into the ranks of the middle class while preventing others from falling into extreme poverty.

Overall Equity: Overall equity goes beyond the notion of a just distribution of wealth and opportunities, where justice becomes a general principle rooted in people's beliefs and actions; including fostering the values of equality, achievement, merit, fairness, cooperation, solidarity, and social participation. Overall equity means viewing social safety nets as a right of all members of society both in the present and in the future. It not only involves protecting equal rights, granting equal opportunity, distributing wealth fairly, but also engaging in public interactions and exchanges.

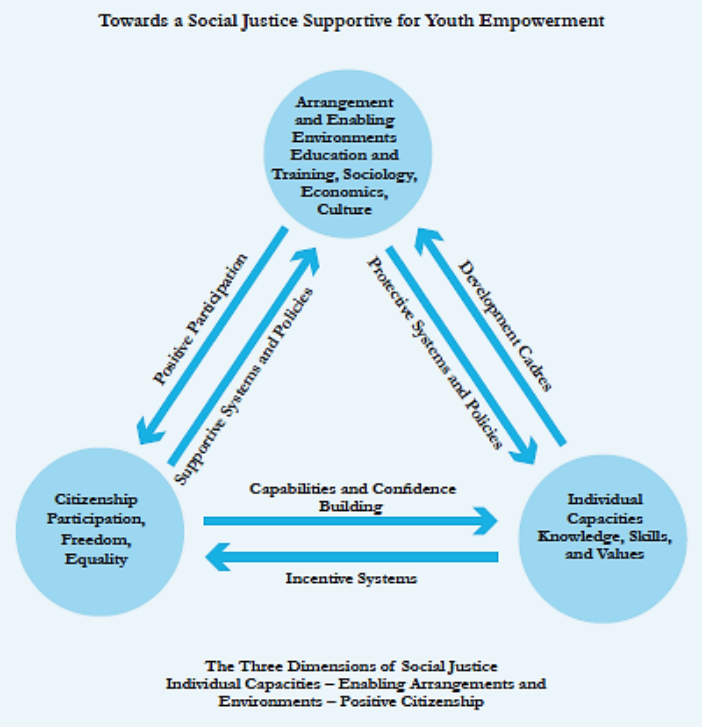
This evolution in the concept of justice involves an ongoing process of expanding the options and opportunities available to individuals. As we move from compensatory justice to distributive justice and on to overall equity, individuals obtain more and more of their rights, broadening their range of choices and opportunities. This perspective makes it possible to formulate a procedural scale of social justice that moves incrementally from compensatory (corrective) justice, to distributive and protectionist justice, to overall equity. The theoretical definition of social justice thus has, as its counterpart, a procedural definition that mobilizes the largest possible number of measurement indicators to gauge the current state of justice. Perhaps the first step in formulating a procedural definition is to identify the dimensions of justice as manifested in the concrete details of development programmes and in the lives of communities; and to identify standard indicators for each dimension, building upon the five gaps/indicators outlined above

3. Measuring Social Justice: International Experiences

The European Social Justice Index[1] provides a list of dimensions that cover the two basic principles of social justice, which are the fair distribution of basic goods, and equal opportunities to develop skills. Accordingly, this index identifies and arranges seven dimensions of justice, from highest to lowest priority and relative importance. The seven dimensions measure performance in "poverty prevention, education, labour, public compensation, income distribution, intergenerational justice and discrimination."[2] These dimensions are further divided into 25 measurable indicators, some quantitative and some descriptive.

Box 1. Social Justice and Knowledge

The 2014 UNDP Arab Knowledge Report argued that development cannot take place without the co-existence (and interdependence) of the two pillars of social justice and knowledge. The goal of the proposed model for achieving social justice in order to empower youth was composed of three dimensions: individual capacities, positive citizenship, and enabling arrangements and environment.



The seven dimensions have been weighted as follows: poverty prevention (quadruple weight), equitable education (triple weight), labour market access (double weight), followed by four normal weight dimensions (single weight), which are public spending, income distribution, intergenerational justice, and social cohesion and non-discrimination. These values were converted into standard values by using the following formula:

$$x_n = 1 + 9 * \frac{x_i - MIN_i}{MAX_x - MIN_x}$$

The most detailed operational social justice indicators found in the literature appear to be the Social Justice Index mentioned in detail in Schraad-Tischler and Kroll's examination of social justice in the EU.[3] The general index is divided into six dimensions, which are in turn divided into 44 measurable indicators, some quantitative and some qualitative. The six dimensions and their corresponding indicators are presented in detail below:

2.1 Poverty Prevention

1. Percentage of total population at risk of poverty or social exclusion.
2. Percentage of children (under 18 years) at risk of poverty or social exclusion.
3. Percentage of older persons (65 years and older) at risk of poverty or social exclusion.
4. Percentage of population living in quasi-jobless households (aged 0 to 59 years).
5. Percentage of total population suffering from severe material deprivation.
6. Percentage of children (under 18 years) suffering from severe material deprivation.
7. Percentage of older persons (65 years and older) suffering from severe material deprivation.
8. Percentage of total population at risk of poverty.
9. Percentage of children (under 18 years) at risk of poverty.
10. Percentage of older persons (65 years and older) at risk of poverty.

2.2 Equitable Education

1. Policy performance in delivering high-quality, equitable and efficient education and training (descriptive indicator).
2. Effect of socioeconomic factors on school performance.
3. Total public expenditure on pre-primary education as percent of GDP.
4. Early leavers from school and training, aged 18 to 24 years (percent).

2.3 Labour Market Access

1. Employment rate, ages 15 to 64 years (percent).
2. Older employment rate, aged 55 to 64 years (percent).
3. Ratio of foreign-born to native-born employment rates, aged 15 to 64 years (percent).
4. Ratio of women to men employment rates, aged 15 to 64 years (percent).
5. Unemployment rate, aged 15 to 64 years (percent).

6. Long-term unemployment rate, unemployed for a period greater than or equal to one year, aged 15 to 64 years (percent of labour force).
7. Youth unemployment rate, aged 15 to 24 years (percent).
8. Low-skilled unemployment rate, aged 15 to 64 years, less than upper secondary education (percent).
9. Main reason for not finding a permanent job, aged 15 to 64 years (percent) (descriptive indicator).
10. In-work at risk of poverty rate, full-time workers (percent).
11. Low-wage earners as a proportion of all employees (excluding apprentices), less than upper secondary education (percent).

2.4 Social Cohesion and Non-Discrimination

1. Policy performance in strengthening social cohesion and inclusion (descriptive indicator).
2. Gini coefficient of equivalised disposable income (percent).
3. Policy performance in protecting against discrimination (descriptive indicator).
4. Proportion of seats held by women in national parliaments (percent).
5. Policy performance in integrating migrants into society (descriptive indicator).
6. Young people not employed and not participating in education or training, aged 20 to 24 years (percent).

2.5 Health

1. Policy performance in providing high-quality, inclusive and cost-efficient health care (descriptive indicator).
2. Self-reported unmet medical needs; Reason: too expensive or too far to travel or waiting list (percent).
3. Healthy life expectancy at birth, total population.
4. Availability of health services
5. Health system outcomes.

2.6 Intergenerational Justice

1. Policy performance in enabling women to combine parenting with labour market participation (descriptive indicator).

2. Policy performance in promoting pensions that prevent poverty, achieve intergenerational equity and are fiscally sustainable (descriptive indicator).
3. Policy performance in the sustainable use of natural resources and environmental protection (descriptive indicator).
4. Greenhouse gas emissions, tons in CO2 equivalents per capita.
5. Share of energy from renewable sources in gross final energy consumption (percent).
6. Total research and development expenditure, all sectors (percent of GDP).
7. Government debt (percent of GDP).
8. Old age dependency ratio (percent of working-age population).

As for the methodology used in the Schraad-Tischler and Kroll (2014) index, the quantitative data was collected from various sources, particularly Eurostat and the European Union Statistics on Income and Living Conditions. Qualitative indicators reflect the evaluations provided by more than 100 experts responding to a Sustainable Governance Indicators (SGI)[4] survey on the state of affairs in various policy areas throughout the OECD and EU. With regard to the weights, there are two methods to calculate the social justice indicator. The first one is the "weighted social justice indicator"; this indicator gives heavier weights to the first three dimensions. The second method is the "unweighted social justice indicator," which gives equal weight to each of the six dimensions.

3. The Egyptian Social Justice Index

3.1 Theoretical Framework of the Proposed Social Justice Index

This paper proposes an Egyptian Social Justice Index (ESJI) based on the definition of social justice adopted by the most recent Egyptian Human Development Report (EHDR).

Table 1. Theoretical Framework of Egyptian Social Justice Index (ESJI)

Human Capital	Social and Cultural Capital
Education	Sense of Justice
Knowledge and Access to Information	Trust in Others
Employment	Satisfaction with Life
Health	Sense of Safety
Culture and Recreation	Participation

The theoretical framework for measuring social justice identifies a number of social dimensions as indicators, previously highlighted in the report as disparities in equality, including the wealth/income gap, the gender gap, the geographic location gap, the generation gap, and the physical gap. Indicators in the ESJI are divided into two categories: human capital; and social and cultural capital.

The basis of the social justice index is that achieving social justice depends on the level of equality between individuals in society in the categories of human capital, and social and cultural capital. Human capital contains five dimensions, including education; knowledge and access to information; employment; health; and culture and recreation. The category of social and cultural capital also contains five dimensions, including sense of justice; trust in others; satisfaction with life; sense of safety; and participation (Table 1). Each of these ten dimensions is represented by a number of indicators, as presented in Tables 2 and 3 below.

Table 2. Theoretical Framework of Human Capital Indicators

Education	Enrolment in preschool education
	Enrolment in higher education
	Enrolment in medical and engineering specializations
	Quality of education
Knowledge and Access to Information	Use of traditional media
	Ability to use computers
	Social media usage
	Internet usage
Employment	Access to full-time jobs
	Employment rate
	Access to jobs in the formal sector
Health	Nutrition
	Morbidity (illness)
	Infant mortality
	Mental health
Culture and Recreation	Time allocated for recreation (spare time activities)
	Reading
	Playing sports (physical activity)

Table 3. Theoretical Framework for Social and Cultural Capital Indicators

Sense of Justice	Sense of equality
	Fair access to employment
	Sense of social justice
Trust	Trust in others
	Trust in institutions
Participation	Participation in civil society activities
	Political participation through voting
	Participation in representational councils
	Participation in public positions
Satisfaction and Optimism in the Future	Satisfaction with life
	Optimism in the future
Sense of Security	Health insurance coverage
	Social security and pensions

The philosophy behind the ESJI relies on identifying existing gaps between members of society, and measuring these gaps based on the indicators for human capital and social and cultural capital. This index differs from earlier ones in that:

1. It includes indicators not only for human capital, but also for social and cultural capital. This comprehensive approach contributes to a more complete view of social justice that does not limit it to equality in economic opportunities alone, but transcends this to include social and cultural dimensions that represent a real barrier to upward social mobility.
2. The proposed ESJI differentiates between indicators of social and cultural capital, and those of human capital; which allows for the examination of sub-indices for each, facilitating the identification of areas of inequality between social groups. The resulting information supports the development of strategies that aim to limit inequality in society in a way that differentiates between interventions (legislative versus programmatic) directed at addressing gaps in social and cultural capital.
3. The proposed ESJI focuses on the following gaps to measure social justice: the wealth gap, the gender gap, the location gap, the generation gap and the physical gap. Statistical analysis of the index allows for the creation of sub-indices for each of the gaps, and the comparison between them, which enriches knowledge of the levels of existing inequality and evaluation of the extent of each based on evidence. It is noteworthy that identifying these gaps may

differ from one society to another depending on the incidence of inequality that may be based on different characteristics, such as ethnicity, race or religious belief. This allows for flexibility in using the index at the international level.

The absence of social justice is measured by comparing different groups in Egyptian society with each other. The ten dimensions above were compared according to the five gaps identified in Egyptian society (Table 4 below).

Table 4. Gaps Resulting from the Absence of Social Justice

Wealth/Income	Highest 20 percent as compared to lowest 20 percent of income levels
Gender	Males compared to females
Geographic Location (Place of Residence)	Urban compared to rural
	Lower Egypt compared to Upper Egypt
	Planned areas compared to unplanned areas (slums)
Generation Gap	Comparing age cohorts over time
Those with Physical Differences	Persons with disabilities compared to others
	Dwarfism (shortness of stature) compared to others

Due to the lack of data on those with physical differences, it was removed from the ESJI. However, due to the importance of this segment of society, which represents approximately 15 percent of the total Egyptian population and experiences discrimination in a number of areas, it is vital to create databases that would allow for the measurement and monitoring of inequality indicators resulting from physical differences. Meanwhile, the ESJI is limited to the first four gaps presented above, discussed in more detail in the following sections.

3.2 ESJI Methodology

Each dimension of the ESJI contains a number of indicators. The social justice measurement for each dimension according to a specific gap is calculated based on the difference in value between the two categories being compared (such as wealthy/poor, young/old, male/female). For example, calculating the indicator of education by gender involves comparing average enrolment rates for males versus females. Figure 1 provides the different steps in grouping averages in order to calculate the social justice dimensions.

Figure 1. Phases of Grouping Averages to Calculate Dimensions

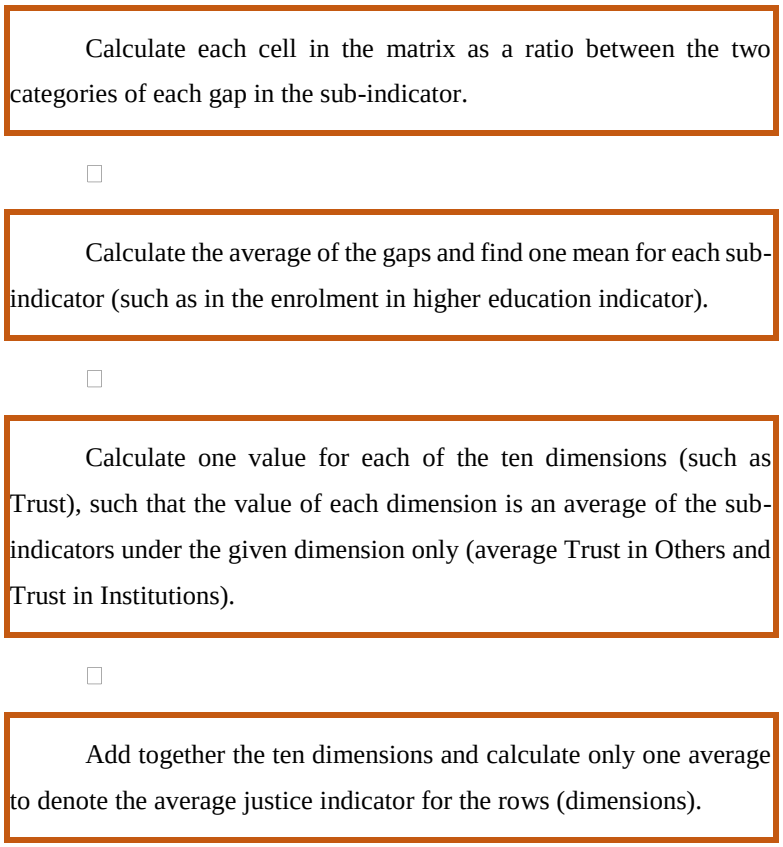


Table 5, below, presents the ESJI. In cases where the value of the indicator is 1, this indicates full justice between both sides of the gap. If the value is higher than one, this indicates that there is an imbalance in favour of one of the parties in the gap; and there is no maximum value restriction.

Since the ESJI is concerned with revealing the presence of gaps regardless of which side of the imbalance benefits and which does not, in cases where the value is less than one the following inversion was used: 1/indicator value to identify averages, and the results were included in Table 5 within parenthesis, in order to differentiate them from other results. The ESJI relies on calculating non-weighted values for each gap, and in order to calculate the value for a gap within each dimension, averages were calculated for the different indicators within each dimension. Calculating the index for a specific gap involves calculating the average of all the dimension averages within that gap.

The geographic location gap was formulated to indicate both the urban/rural gap, as well as the Upper Egypt/Lower Egypt gap. Accordingly, in order for this gap to not have added weight

when calculating the averages for gaps by dimension, the average for the urban/rural gap and the Upper Egypt/Lower Egypt gaps were calculated first for each dimension.

3.3 ESJI Results

The ESJI demonstrates the level of inequality in society that results from the four gaps of wealth, gender, geographic location, and generation. Table 5 highlights severe disparities in social justice in red-shaded cells, where the value of one segment is over three times greater than the other, representing a significant and dangerous gap. Cells shaded in orange indicate a lack of justice that deserves the attention of policymakers even if less critical than those in red, with values between 2 and 3. As for the values that come close to 1,while they indicate a limited disparity between one segment of society and another, they are still worthy of attention.

Table 5 also demonstrates that the most severe lack of social justice appears in the wealth gap between the two poles of high and low levels of wealth (highest 20 percent and lowest 20 percent), with a concentration of red-shaded cells; especially when it comes to education, sense of security, access to information, participation in civil society, and access to knowledge, where the gap values reach up to 18 times. Further analysis also reveals the absence of justice in the place of residence gap, especially regarding rural and urban areas where there is a concentration of orange shading; the urban areas are favoured over the rural areas by more than two times in most indicators. It is also worthy to note how rural areas are better than urban areas in terms of social cohesion, which comprises the participation of rural youth in elections, psychological health, sense of social justice, and sense of security in the public sphere. These are issues that require the attention of policymakers. Also, successful practices in rural areas should be applied in urban regions to increase cohesion among citizens.

Concerning the generation gap, we notice large discrepancies among the various age groups or between the same age group across two different generations. For example, there is a sharp difference in favour of younger generations with regard to knowledge, access to information and a lower rate of infant mortality in 2012 by about 3.25 times as compared to the same indicator in 1987. However, in terms of social and health security, equal access to jobs and access to formal sector employment, we find that the older generations are better off than the younger ones. This requires some consideration by policymakers.

Table 5. Egyptian Social Justice Index (ESJI)

		Wealth/ Income Gap	Gender Gap	Geographic Location Gap		Generation Gap
Dimensions	Indicators	Highest 20 Percent/ Lowest 20 Percent	Males/ Females	Urban/ Rural	Upper Egypt/ Lower Egypt	Youngest/ Oldest
Education	Enrolment in preschool education	3.384	0.920 (1.087)	3.286	2.550	2.188
	Enrolment in higher education	5.849	1.343	2.403	1.235	2.207
	Quality of education (citizens' satisfaction with quality of education)	0.727 (1.376)	0.825 (1.212)	0.632 (1.581)	0.923 (1.084)	1.152
Knowledge and Access to Information	Use of traditional media means (use of all three means at least once a week: newspapers, radio, and television)	4.799	1.795	0.396 (2.523)	1.312	4.923
	Ability to use computers (at least once a week)	4.920	1.443	2.278	1.258	2.531
	Social networking usage (at least once a week)	5.972	1.765	2.470	1.347	3.934
	Internet usage (at least once a week)	5.557	1.680	2.396	1.279	3.112
Employment	Proportion of those employed full time	1.081	1.228	1.223	1.332	0.924 (1.083)
	Employment rate	----	4.495	1.023	1.043	0.960 (1.042)
	Proportion of those employed in the formal sector	3.614	1.874	1.392	1.159	0.408 (2.452)
Health	Nutrition (inverted malnutrition: i.e., inverted indicator of height for age for under two-year-olds, standard deviation)	0.971 (1.030)	0.873 (1.146)	0.900 (1.111)	1.464	1.140
	Morbidity (inverted prevalence of diarrhea among children under five)	1.660	0.944 (1.059)	1.221	1.283	0.882 (1.134)
	Morbidity (inverted prevalence of infectious HCV-RNA)	1.795	0.707 (1.415)	1.479	0.620 (1.612)	1.470
	Morbidity (inverted prevalence of high blood pressure)	0.799 (1.251)	1.030	0.877 (1.141)	0.995 (1.006)	1.122
	Infant mortality (inverted mortality)	2.000	1.080	1.450	1.391	3.250
	Psychological health (inverted emotional disturbance)	1.843	2.692	0.788 (1.269)	0.922 (1.084)	1.293
Culture and Recreation	Time allocated for recreation	1.374	0.897 (1.115)	1.180	----	-----
	Reading	18.000	1.25	3	----	-----
	Playing sports (physical activity) among Egyptian youth	1.044	1.642	0.995 (1.005)	0.921 (1.086)	0.815 (1.228)
Sense of Justice	Sense of equality	1.644	0.923 (1.084)	0.924 (1.082)	0.860 (1.163)	1.124
	Fair access to employment	----	1.222	0.906	0.979	0.431

		Wealth/ Income Gap	Gender Gap	Geographic Location Gap		Generation Gap
Dimensions	Indicators	Highest 20 Percent/ Lowest 20 Percent	Males/ Females	Urban/ Rural	Upper Egypt/ Lower Egypt	Youngest/ Oldest
				(1.104)	(1.021)	(2.318)
	Sense of social justice	----	1.125	0.553 (1.808)	2.037	1.032
Trust	Trust in others	----	1.158	0.708 (1.412)	1.117	0.642 (1.557)
	Trust in institutions	----	1.175	0.632 (1.581)	1.395	0.614 (1.628)
Participation	Participation in civil society (associations and groups) among youth	7.778	2.733	2.571	0.978 (1.022)	1.478
	Political participation – voting in elections	0.355 (2.817)	3.248	0.473 (2.113)	1.106	16.000
Satisfaction and Optimism	Satisfaction with life	1.424	0.840 (1.191)	----	----	1.843
	Optimism in the future	----	0.993 (1.007)	----	1.173	0.911 (1.097)
Sense of Security	Health insurance coverage	4.746	0.611 (1.637)	1.636	1.150	0.425 (2.353)
	Social security and pensions	3.898	0.477 (2.097)	1.403	1.306	0.312 (3.206)
	Sense of security in the public sphere (personal security and safety)	2.230	1.376	0.745 (1.342)	0.486 (2.057)	1.342

As mentioned previously, the physical differences gap is excluded due to a lack of available data. The minimum value reached by the index is 1, which indicates an ideal state of social justice with no inequalities arising from the four identified gaps. The greater the index value the lower the level of social justice. The general indicator of social justice for Egypt is 2.24; furthermore, the difference in the level of injustice between human capital and social capital is not large (2.27 versus 2.21, respectively), which confirms that investigating the sources of inequality cannot overlook the issue of human capital.

A very significant observation emerged in the calculation of social justice dimensions, specifically the 'optimism in the future' indicator. At first glance, it appears that social justice exists because all values are close to a solid 1 value under each of the five gaps. This indicator appears positive when comparing gap segments. However, while it reflects a lack of difference between the various categories, the percentage of lack of optimism in the future in each numerator and denominator in each cell of Table 5 is not less than 71 percent. Also, satisfaction with life does not exceed 30 percent. These are extremely serious values where there is concern for social justice and

general social well-being. This is a priority issue in order to avoid lack of security or political instability.

Table 6, below, explains the sources of the data and the methods of measuring each individual sub-indicator for each of the dimensions.

Table 6. Social Justice Measurement Matrix Sources and Comments

Dimension	Indicator	Source and Comments
Education	Enrolment in Pre-Primary Education	Source: The 2014 Survey of Young People in Egypt (the 13-35 age group). Calculation of generation gap: Gap between under-18 and over-30 age groups.
	Enrolment in Higher Education	Source: Egypt Demographic and Health Survey data, 2015, family characteristics. Calculation of generation gap: Gap between the 24-29 year and 55-59 year age groups.
	Proportion of Citizens Satisfied with Quality of Education	Source: Egyptian Center for Public Opinion Research (Baseera) – Opinion poll on "Providing basic services to citizens in Egypt in 2015." Three wealth levels only, not five; Comparison done between the highest and the lowest. Scores from 0-5; We took a total of groups 4 and 5 (satisfied and very satisfied). Generational gap between the under-30 year and over-50 year age groups.
Knowledge and Access to Information	Use of Traditional Media Newspapers, Radio & Television (at least once a week)	Source: Egypt Demographic and Health Survey data, 2015, both sexes in the 15-59 year age group. Calculation of generation gap: Gap between the 25-29 year and 55-59 year age groups.
	Proportion of Computer Usage (at least once a week)	Source: Egypt Demographic and Health Survey data, 2015, both sexes in the age group 15-59 years. Calculation of generation gap: Gap between the 25-29 year and 55-59 year age groups.
	Proportion of Social Network Usage (at least once a week)	Source: Egypt Demographic and Health Survey data, 2015, both sexes in the 15-59 year age group. Calculation of generation gap: Gap between the 25-29 year and 55-59 year age groups.
	Proportion of Internet Usage (at least once a week)	Source: Egypt Demographic and Health Survey data, 2015, both sexes in the 15-59 year age groups. Calculation of generation gap: Gap between the 25-29 year and 55-59 year age groups.
Employment	Proportion of those Employed on a Full-time Basis	Source: The 2014 Survey of Young People in Egypt (15-35 year age group). Calculation of generation gap: Gap between the 18-24 year and 30-35 year age groups.
	Employment Rate	Source: Egyptian Labour Market Panel Survey (ELMPS) data, 2012. Calculation of generation gap: Gap between the 15-29 year and over-50 year age groups.
	Proportion of those Employed in the Formal Sector	Source: Egyptian Labour Market Panel Survey (ELMPS) data, 2012. Calculation of generation gap: Gap between the 15-29 year and +50 year age groups.
Health	Nutrition (inverted indicator of height for age for under two-year-olds, standard deviation)	Source: Egypt Demographic and Health Survey data, 2014, children under 5. The indicator used in the source is: malnutrition = height for age < -2 standard deviation. The source indicator for social justice is negative because it is an indicator of malnutrition; therefore, it was calculated inversely to convert it to a health indicator.

Dimension	Indicator	Source and Comments
		The generation gap is the ratio of under-5 year old children who suffered malnutrition in 2014 compared to the same ratio in 1992, then it was converted to a social justice trend indicator.
	Morbidity (inverted prevalence of diarrhea among children under five)	Source: Egypt Demographic and Health Survey data, 2014. The source indicator provides the value of the rate of prevalence of diarrheal diseases in children under-five. The source indicator for social justice is negative; therefore, it was calculated inversely to convert it to a health indicator. The generation gap is the ratio of under-5 year old children who suffered diarrhea in 2014 divided by the same ratio in 1992; then it was converted to a social justice trend indicator.
	Morbidity (inverted prevalence of infectious hepatitis HCV-RNA)	Source: Egypt Demographic and Health Survey data, 2014, ages 15-59 years for both sexes, except the gender gap, which includes data on ages 1-59 years. The source indicator gives a relative value of the rate of prevalence of HCV-RNA. The source indicator for social justice is negative; therefore, it was calculated inversely to convert it to a health indicator. The generation gap was replaced with a comparison of the number of people in 15-59 year the age group in the 2015 report divided by the same group in 2008 because this is what is available with regard to hepatitis data.
	Morbidity (inverted prevalence of high blood pressure)	Source: Egypt Demographic and Health Survey data, 2014, both sexes in the 15-59 year age group. The source indicator gives a relative value of the rate of prevalence of high blood pressure. The source indicator for social justice is negative; therefore, it was calculated inversely to convert it to a health indicator. The generation gap was replaced with a comparison of the number of people in the 15-59 year age group in the 2014 report divided by the same group in 2008 because this is what is available with regard to high blood pressure data.
	Infant Mortality (inverted)	Source: Egypt Demographic and Health Survey data, 2014, and the 2014 Statistical Yearbook of the Central Agency for Public Mobilization and Statistics. The source indicator provides the mortality rate of infants under one year. Calculation of generation gap: Gap is the infant mortality rate in 2012 divided by the same rate in 1987 from the 2014 Statistical Yearbook of the Central Agency for Public Mobilization and Statistics.
	Psychological Health (inverted emotional disturbance)	Source: The 2014 Survey of Young People in Egypt (the 13-35 year age group). The source indicator gives a relative value of the rate of prevalence of psychological disturbances (at least 8 symptoms from a total of 20 concurrent symptoms). The source indicator for social justice is negative; therefore, it was calculated in reverse to convert it to a psychological health indicator. Calculation of generation gap: Gap between the age groups 18-24 year and 30-35 years.
Culture and Recreation	Time Allocated for Recreation	Source: The 2009 Survey of Young People in Egypt (the 15-29 year age group).
	Reading	Source: The 2009 Survey of Young People in Egypt (the 15-29 year age group).
	Playing Sports (physical activity) among Egyptian Youth	Source: The 2014 Survey of Young People in Egypt (the 13-35 age group). Calculation of generation gap: Gap between the 13-17 year and 30-35 year age groups.

Dimension	Indicator	Source and Comments
Sense of Justice	Sense of Equality	Source: Arab Barometer, 2013. Moderate and high rate of sense of equality. Calculation of generation gap: Gap between the under-30 year and over-50 year age groups.
	Fair Access to Employment	Source: Egyptian Center for Public Opinion Research (Baseera), Political and Social Transformations in the Arab World (ArabTrans) 2014 survey data. The value is calculated as a response to the question of whether or not a job was obtained through favoritism. Calculation of generation gap: Gap between the under-30 year and over-50 year age groups.
	Sense of Social Justice	Source: Egyptian Center for Public Opinion Research (Baseera), results of survey on Egyptian awareness of social justice, 2014. The value is calculated as the average of the high 8-10 scores where 0 means no social justice and 10 means total justice. Calculation of generation gap: Gap between the under-30 year and over-50 year age groups.
Trust	Trust in Others	Source: Egyptian Center for Public Opinion Research (Baseera), Political and Social Transformations in the Arab World (ArabTrans) 2014 survey data. The value is based on responses to the question of whether most people can be trusted. Calculation of generation gap: Gap between the under-30 year and over-50 year age groups.
	Trust in Institutions	Source: Egyptian Center for Public Opinion Research (Baseera), Political and Social Transformations in the Arab World (ArabTrans) 2014 survey data. The value indicates the mean ratio of those who responded that there is no corruption or there is a little corruption. Calculation of generation gap: Gap between the under-30 year and over-50 year age groups.
Participation	Participation in Civil Society (Associations and Groups) among Youth	Source: The 2014 Survey of Young People in Egypt (the 13-35 year age group). Calculation of generation gap: Gap between the 13-17 and 30-35 year age groups.
	Political Participation – Voting in elections (Youth participation in all Elections 2011-2012)	Source: The 2014 Survey of Young People in Egypt (the 13-35 year age group). Calculation of generation gap: Gap between the 18-24 and 30-35 year age groups. Youth participation in all six elections during 2011-2012.
Satisfaction and Optimism	Rate of Satisfaction with Life	Source: World Values Survey 2012. Total ratios of high satisfaction (8-10) on a scale of 1-10 where 1 means totally unsatisfied and 10 means totally satisfied. Calculation of generation gap: Comparison between the under-30 year and over-50 year age groups. In the wealth gap, the highest level of social standing (not level of wealth) was compared with the lowest out of five social levels, because the data did not cover wealth quintiles.
	Rate of Optimism in the Future	Source: Egyptian Center for Public Opinion Research (Baseera), Political and Social Transformations in the Arab World (ArabTrans) 2014 survey data.

Dimension	Indicator	Source and Comments
		Responses to a question on the respondents' confidence in the country's future over the next five years. Two categories (good and very good) out of a total of five categories were added together (where the lowest is 1 and means very bad).
Sense of Security	Rate of those with Health Insurance Coverage	Source: Egyptian Labour Market Panel Survey (ELMPS) data, 2012. Calculation of generation gap: Gap between the 15-29 and over-50 age groups.
	Rate of those with Social Security and Pensions	Source: The 2014 Survey of Young People in Egypt (the 13-35 year age group). Calculation of generation gap: Gap between the 18-24 and 30-35 year age groups.
	Rate of Sense of Security in the Public Sphere (Personal Security and Safety)	Source: Arab Barometer, 2013. The rate of respondents who believe that a sense of safety and security exists or that they exist completely (average of the two categories). Calculation of generation gap: Gap between the under-30 year and over-50 year age groups.

3.3.1. Disparities in the ESJI, by Gap

Table 7 provides the results of the ESJI. The greatest disparity is found in the dimension of wealth (3.46), followed by generation (2.54), gender (1.63), and geographic location (1.49). Comparing the impact of the four gaps on human and social capital demonstrates that the wealth gap has the greatest influence on human capital, reaching a value of 3.92, which is nearly double the value of the remaining three gaps (1.96 for the generation gap, 1.63 for the gender gap, and 1.56 for the geographical location gap). With regards to social capital, on the other hand, the generation gap is the largest at 3.12, followed by the wealth/income gap at 3.00, while the gender and geographical location gaps register lower inequality with regards to social capital, estimated at 1.62 and 1.42, respectively.

Table 7. Social Justice Index, Egypt 2016

Dimensions		Gaps				Total
		Wealth/ Income	Gender	Geographic Location	Generation	
Human Capital	Education	3.54	1.21	1.85	2.02	2.16
	Knowledge and Access to Information	5.31	1.67	3.63	1.86	3.12
	Employment	2.35	2.53	1.53	1.20	1.90
	Health	1.60	1.40	1.57	1.29	1.47
	Culture and Recreation	6.81	1.34	1.23	1.41	2.69
	Total	3.92	1.63	1.96	1.56	2.27
Social Capital	Sense of Justice	1.64	1.14	1.49	1.37	1.41
	Trust	*	1.17	1.59	1.38	1.38
	Participation	5.30	2.99	8.74	1.70	4.68
	Satisfaction and Optimism	1.42	1.10	1.47	1.17	1.29
	Sense of Security	3.62	1.70	2.30	1.48	2.28
	Total	3.00	1.62	3.12	1.42	2.29
Total Human and Social Capital		3.46	1.63	2.54	1.49	2.28

A detailed examination of the different gaps reveals the following:

1. Wealth/Income Gap: disparities are highest with regards to culture and recreation (6.81), knowledge and access to information (5.31), participation (5.30), sense of security (3.62) and education (3.54).
2. Gender Gap: disparities are high with regards to participation (2.99) and employment (2.53).
3. Geographical Location Gap: the highest disparity is in the dimension of education (2.02).

4. Generation Gap: the highest disparities are found in the dimensions of participation (8.74), knowledge and access to information (3.63), and sense of security (2.30).

3.3.2. Disparities in the ESJI by Dimension

An examination of the averages of each dimension and the type of capital as shown in Table 8, shows the difference in the level of injustice between human capital and social capital. Regarding individual dimensions, the participation dimension is the highest due to the very large gap in rates of participation in civil society between the highest and lowest wealth categories, which is more than sevenfold. The generation gap in terms of young people's participation in elections was sixteen fold. The dimension of participation needs further data on other aspects such as political participation in representative councils or in local and general elections and other manifestations of participation that could facilitate clearer comparisons of participation in each of the gaps mentioned.

Dimensions	Social Justice Indicator Average
Education	2.15
Knowledge and Access to Information	3.12
Employment	1.90
Health	1.47
Culture and Recreation	2.69
Sense of Justice	1.41
Trust	1.38
Participation	4.68
Satisfaction and Optimism	1.29
Sense of Security	2.27
Mean Average of All Dimensions	2.28

In terms of lack of justice, the participation dimension is followed by the culture and recreation, knowledge and access to information, equitable education and sense of security. Concerning education, it is very important to emphasize that the quality of education was not taken into account objectively. It was not compared against international standards based on international student competitions or students' contributions to global scientific efforts, etc. This is due to the lack of qualitative information,

because these indicators are only based on quantitative factors or the opinions of citizens on their personal satisfaction with educational services.

4. Bridging the Information Gap

Working to achieve greater social justice is a national project supported by all stakeholders as a means to attain stability, social harmony and sustainable economic development. One major challenge in working to achieve a higher level of social justice is the lack of availability of accurate and timely information on a number of the indicators used to calculate the ESJI.

The ability to measure progress is a principal factor in managing the transformation towards social justice, for the reasons provided below:

1. The process of transformation towards greater social justice is a continuous and cumulative one, however, it is also a fragile process that can experience significant setbacks as a result of events or decisions or procedures that inflict harm on vulnerable groups in society.
2. Some of the indicators that the ESJI relies on reflect an improvement in the short term when taken in isolation, while others require a longer term in order to reflect improvement, even if appropriate interventions are made.
3. The ESJI relies on both objective and subjective indicators. In general, objective indicators are tied to official government surveys, and their accuracy depends on the effectiveness and efficiency of the government's survey methodology, and the availability of the resources that would allow for the regular and periodic collection of the required range of data.
4. Subjective indicators that reflect attitudes and perceptions differ based on educational level and access to information, as they impact on knowledge and attitudes. Furthermore, subjective indicators are rarely separate from ideological bias and accordingly cannot be completely identified. The credibility of subjective indicators and their level of accuracy depend on the level of independence of the entities that are responsible for issuing them on behalf of the executive branch of government, and also on the level of professionalism of these entities.

> There is severe lack of available and accurate data on the disabled, including the

Successfully managing the shift to greater social justice requires the availability of updated, credible, accurate and comprehensive data on the indicators used in the ESJI. This can be achieved through the following:

1. Implementing a "Social Justice Field Survey" every two years. This survey would be specifically designed to gather information on indicators for the ESJI. Sample selection should take into account the different disparities of each indicator for each of the gaps identified.
2. Establishing a comprehensive information system on the physically disabled, including building new databases and updating existing ones in order to collect accurate information on this subgroup of individuals in order to more accurately calculate human capital. This information system can be used as a source of respondents for the Social Justice Field Survey, who can provide information on indicators that reflect the status of social capital. Databases must cover all forms of disability, including dwarfism, and have a wide geographical scope.
3. Establishing a comprehensive information system on informal settlement and slum residents that collects information on the availability and quality of basic services, household characteristics, infrastructure, health status, income and wealth indicators, legal empowerment, human security, and administrative corruption, among others. This system must be updated regularly, facilitating the identification of changes and trends over time.
4. Ensuring the sustainability of previous field surveys completed over the past five years, including the Population Health Survey, the Survey of Young People in Egypt, the World Values Survey, and the Labour Force Survey. These surveys yielded a number of detailed indicators used in the ESJI. However, donor funding does not guarantee sustainability or continuance in the future.
5. Issuing indicators on educational quality by the GoE, to be implemented by independent entities in order to reflect the disparities in educational quality based on wealth, gender, and location, using independent international curricula and international standards for the evaluation of educational quality, and comparison between countries.
6. Implementing field surveys in order to identify the level of decent employment between different segments of society, and between different geographical locations.

7. Developing indicators on psychological health for Egyptians, particularly in light of the unstable conditions witnessed by Egyptian society over the past five years, as well as the psychological stress resulting from the wave of terrorism that not only affects Egypt, but the whole region. Undoubtedly, measuring the effects of these circumstances on the psychological well-being of Egyptian adults and children has special relevance.
8. Conducting regular field surveys to measure social capital, including the dimensions of sense of justice, trust, participation, satisfaction and optimism, and sense of security. Care should be taken to ensure that samples are selected to represent geographical areas that have special circumstances (unplanned areas, border areas) as well as distinct social groups (such as the Nubian, Bedouin communities) and individuals that fall into more than one gap area (such as poor females in Upper Egyptian rural areas, or poor youth living in informal settlements).
9. Developing indicators on the quality of available basic services provided to citizens, and the disparities in quality of service provision based on gaps like geographical area, or social class.
10. Launching a comprehensive research programme to implement qualitative studies to provide better understanding of the social realities tied to justice, and cultural influences on perceptions of justice.
11. Opening the space for civil society to observe and report on issues related to social justice, such as legal empowerment for the poor, violence against women, quality of basic services, and administrative corruption, particularly in marginalised and vulnerable communities.

In order for this comprehensive information system to be complete it is necessary to establish a Social Justice Observatory, tasked with collecting the information related to measuring the status of social justice, including monitoring legislation, policy decisions, interventions and practices that are related to the issue of social justice.

Box 2. Measuring Human Progress

The accomplishments of the Millennium Development Goal (MDG) era have been stunning: To take just one example, the number of children who die each year has gone down by almost half, from more than 12.4 million to 6.6 million. That doesn't quite hit the two-thirds target included in MDG 4, but it's a great thing for humanity.

With the MDGs set to expire in 2015, the development community is starting to consider the next set of global goals and how to build on the current progress. The Secretary-General of the United Nations convened a High Level Panel on the subject, and one of the priorities it highlighted is a 'data revolution'. According to the panel, to accelerate the pace of improvements, development organizations and developing-country governments need access to more and better data.

Few people believe in the power of data as much as I do. In fact, I wrote the Bill & Melinda Gates Foundation's annual letter in 2012 about the importance of measurement. In my experience, the management slogan "What gets measured gets done" holds true. The mere act of tracking key indicators makes it much more likely that changes in those indicators will be positive. Second, analysing development statistics yields lessons that improve outcomes over time. For example, the recent proliferation of excellent community-based health systems in developing countries has a lot to do with the clear evidence that frontline workers get results. Once there's consensus on the importance of data and the need for a data revolution, the next step is more debate on the specific contents of that revolution.

One priority is to rationalize the ongoing data collection processes. Currently, the supply of data is extremely fragmented, so different players often count the same things multiple times in slightly different ways while neglecting to gather other useful statistics altogether. The answer is not to collect every conceivable piece of data on economic and human development, which would increase costs and lead to gridlock. We need a coordinating mechanism whereby the development community and the developing countries themselves agree on a limited list of indicators that are worth tracking carefully.

A second priority is investing in developing countries' ability to collect data over the long term: in the end, development data is only valuable if used in-country by policymakers. We should not launch a data revolution based on a huge infusion of money to gather a trove of data at a single point in time, as the next set of global goals takes effect. Instead, for a truly lasting revolution, we need to help countries hire and train more experts and invest in their own systems for tracking data that matter to them for years to come. Part of this will involve giving serious consideration to how digital technology can improve data collection in countries where current techniques are decades old. For example, using a global positioning system instead of a tape measure and a compass to estimate agricultural yields can speed up the work by more than a factor of 10.

A third priority is making sure that data on human development is widely available, informs public policy, and increases accountability. This means giving citizens, civil society, donors, entrepreneurs, and parliamentarians full access to government data, no matter what the data suggest. It also means making sure experts use the data that's available to make better policy decisions.

The benefit of a data revolution is that it will have an impact on every single priority in global development and health. With better data, countries will get better at every single goal they set, whether it's saving children's lives, increasing agricultural yields, or empowering women. Ultimately, better data can mean a better life for billions of people.

Human Development Report 2014 Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience, Special Contribution by Bill Gates, p 47 http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf.

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[1] Zayed, A. (2017). Citizenship and Social Responsibility. Dar El-Ain. In Arabic.

[2] Bertelsmann Stiftung (Gütersloh, Germany), Sustainable Governance Indicators 2009: Policy Performance and Executive Capacity in the OECD. Brookings Institute Press, 2009.

[3] Idem, p197.

[4] Schraad-Tischler, Daniel and Kroll, Christian. Social Justice in the EU: A Cross-national Comparison; Social Inclusion Monitor Europe (SIM) – Index Report. 2014

[5] SGI (Sustainable Governance Indicators) is a platform built on a cross-national survey of governance that identifies reform needs.