POST-2015 GOALS, TARGETS AND INDICATORS

APRIL 10-11, 2012
PARIS, FRANCE
CONFERENCE REPORT

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Barry Carin and Nicole Bates-Eamer

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ACRONYMS

CIGI	The Centre for International Governance Innovation
DALY	Disability-Adjusted Life Year Index (WHO)
EFA	Education for All (UNESCO)
FAO	Food and Agriculture Organization (UN)
GLAAS	Global Assessment of Annual Assessment of Sanitation and Drinking Water
GPI	gender parity indexes
HALE	Healthy Life Expectancy Index (WHO)
IFPRI	International Food Policy Research Institute
IFRC	International Federation of Red Cross and Red Crescent Societies
ILO	International Labour Organization
IMF	International Monetary Fund
KDI	Korean Development Institute
LAMP	Literacy Assessment and Monitoring Programme
MCGs	Millennium Consumption Goals
MDGs	Millennium Development Goals
MPI	Multidimensional Poverty Index
OECD	Organisation for Economic Co-operation and Development
OPHI	Oxford Poverty and Human Development Initiative
PISA	Programme for International Student Assessment (OECD)
PPP	purchasing power parity
SDGs	Sustainable Development Goals
SG	Secretary-General (UN)
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNISDR	United Nations International Strategy for Disaster Reduction
USAID	United States Agency for International Development
WFS	World Food Summit
WHO	World Health Organization (UN)
WTO	World Trade Organization
WWAP	World Water Assessment Program (UNESCO)

SUMMARY

The Millennium Development Goals (MDGs) have been remarkably successful in focusing attention and mobilizing resources to address the major gaps in human development.

Future goals must reach beyond traditional development thinking to become higher sustainable one-world goals that apply to poor and rich countries alike. The paper discusses the potential indicators for 12 future potential goals, clustered into three categories.

The first four goals are about the essential endowments necessary for individuals to achieve their fuller potential:

- Adequate livelihoods and income levels for dignified human existence;
- Sufficient food and water for active living;
- Appropriate education and skills for productive participation in society; and
- Good health for the best possible physical and mental well-being.

The second set of four goals is concerned with protecting and promoting collective human capital:

- Security for ensuring freedom from violence;
- Gender equality for enabling males and females to participate and benefit equally in society;
- Resilient communities and nations for reduced disaster impact from natural and technological hazards; and
- Connectivity for access to essential information, services, and opportunities.

The third set deal with the effective provision of global public goods:

- Empowerment of people for realizing their civil and political rights;
- Sustainable management of the biosphere for enabling people and planet to thrive together;
- Rules on running the world economy for the fairly shared benefit of all nations; and
- Good global governance for transparent and accountable international institutions and partnerships.

The potential effectiveness of indicators to underpin targets for each of the 12 goals is critical. Organizations' and individuals' behaviours are influenced by how success will be assessed. Without practical indicators, goals remain purely aspirational and progress cannot be measured.

But there are daunting challenges to devise indicators that are both measureable and motivational — to galvanize public support for development. Metrics must be sophisticated — not too crude, but also not too technocratic. Indicators should allow disaggregation by sex, urban/rural, identity groups and income bands so as to unmask the inequalities that hide behind generalised statistics. Serious limitations in data exist.

This paper reviews a menu of indicators for the 12 candidate goals to inform the future process of selecting the post 2015 successors to the Millennium Development Goals.

ABOUT THE AUTHORS

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Prior to joining CIGI, Barry served as high commissioner of Canada to Singapore and as assistant deputy minister of trade and economic policy in the Department of Foreign Affairs and International Trade. He was Canadian representative on the executive committee of the OECD, assistant deputy minister for strategic policy and planning in the Department of Employment and Immigration and was director of effectiveness evaluation in the Treasury Board Secretariat.

He has a Ph.D. in economics from Brown University and an Honours B.A. in economics and political science from McGill University.

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In addition to her work at the Centre for Global Studies, Nicole founded her own educational consulting company, Tutasoma, which delivers interactive workshops to high school students on various global issues. Nicole previously worked in children's rights as a project coordinator for Right To Play in Tanzania and as a research consultant for Senator Landon Pearson in Ottawa.

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CONFERENCE REPORT: POST-2015 GOALS, TARGETS AND INDICATORS[1]

Barry Carin and Nicole Bates-Eamer

FOREWORD

On April 10-11, 2012, The Centre for International Governance Innovation (CIGI) and the Korean Development Institute (KDI) co-hosted an event at the Organisation for Economic Co-operation and Development (OECD) headquarters in Paris, France. Statisticians, metrics and issue experts, and development practitioners convened to discuss the options for indicators to underpin potential post-2015 development goals. The discussions flowed from a background paper circulated before the meeting on the state of the art on targets and indicators relevant to 12 broad goals.

The specific task in Paris was to refine the suite of options on the "best" indicators to measure the potential goals, given the various challenges that confront efforts to construct a post-2015 development framework. Every potential goal needs smart and parsimonious indicators. A goal will not be selected for the post-2015 framework unless there is a consensus on appropriate indicators to measure progress.

The intention of conference participants is to contribute technical inputs to the official United Nations (UN) process. Rather than advocate any particular issue area, this paper (building on the Paris discussion) provides a compendium of the best options for each goal.

BACKGROUND

> Tell me what you're going to measure; and I'll tell you how I'm going to behave. (Anonymous)
>
> The question is not whether to abandon global targets but rather how to improve the MDG architecture and how to adjust them to the priorities beyond 2015. (Vandemoortele, 2011)
>
> You show me anything that depicts institutional progress in America: school test scores, crime stats, arrest reports, arrest stats, anything that a politician can run on, anything that somebody can get a promotion on. And as soon as you invent that statistical category, 50 people in that institution will be at work trying to make it look as if a lot of progress is actually occurring when actually no progress is. (David Simon, quoted in Moyers, 2009)
>
> It is clear that without solid information we cannot measure where we are and what needs to be done, with respect to the MDGs or in other domains. If the world cannot get the right numbers, it cannot come out with the right solutions. (Paul Cheung, quoted in UNDESA, 2012)

There is a great deal of reflection and activity reviewing the effectiveness of the MDGs, proposing ideas for what should succeed them in 2015.[2] What post-2015 goals and targets would be both ambitious and feasible? Should the targets and timelines of the existing eight goals simply be revised? Or should new dimensions be included? Should successor goals emphasize attention to inequality, empowerment, climate change, sustainability and the measurements of outputs and outcomes rather than inputs? Should they address failing states, the absence of democracy or trade rules? The answers matter because goals influence investment and behaviour.

The premise is that aspirational statements are useless without metrics; that one cannot have any sensible discussion about targets if unable to measure progress in agreed areas. The purpose of this report is to support the process of selecting successor goals by providing a comprehensive assessment of the strengths and weaknesses of the range of potential targets and indicators for 12 broad "candidate goals." Practical ways to measure progress in agreed areas must be made clear. There are a number of lessons to learn from the old MDGs in that regard — and participants do not want to repeat errors (for example, simplistically measuring education by school enrollment). Targets are about the specific levels of global and national ambition. But the questions before those levels of ambition (targets) are set include determining what is important to do (goals), and how to measure the success of that ambition (indicators). Indicators will influence the type of development done; targets are about how much of that agreed type of development is desired.

The Paris meeting, held April 10-11, 2012, was tasked with assessing the potential effectiveness of indicators to

1 This report benefits from the contributions of Carla AbouZahr, Sabina Alkire, Colin Bradford, Danny Bradlow, Lynn Brown, Carlo Cafiero, Mukesh Kapila, Kaushal Joshi, Denise Lievesley, Wonhyuk Lim, Richard Manning, Mike Muller, Anthony Redmond, Emma Samman and Jan Vandemoortele.

2 See Annex 1 for an overview of current initiatives examining post-2015 goals. Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

underpin targets for each of the 12 goals that had emerged from earlier meetings. Over the past 18 months, CIGI and the International Federation of Red Cross and Red Crescent Societies (IFRC) examined the current literature assessing the MDGs and hosted two meetings with experts and civil society representatives. Discussions included an overview of the MDGs' progress to date, their strengths and weaknesses as a framework, the changing context of poverty and the criteria for a post-2015 framework. In this process, the research to date was surveyed and participants familiarized themselves with others' work (see previous meeting reports from Bellagio and Geneva).

The 12 Bellagio goals would apply to both developing and developed countries, setting global minimums with individual national targets reflecting the country context. Indicators would be disaggregated by gender, rural/urban location, income groups, age, and vulnerable populations;[3] place poverty at the centre of the process; focus on equitable growth and development in terms of freedom and justice and enabling conditions; and empower countries to define, measure and achieve their own development.

To expand on previous work, CIGI, KDI and IFRC have formed partnerships with the Institute for Poverty Reduction Centre (China), the Getulio Vargas Foundation (Brazil), the University of Pretoria (South Africa), Tata Institute of Social Sciences (India) and the University of Manchester (United Kingdom). Together, participants will refine the assessment of the menus of indicators for candidate goals and targets.

CHALLENGES

Participants agreed that an ideal set of global targets should have the attributes listed by Jan Vandemoortele (2011):

- Express the many dimensions of human well-being, yet include a limited number of targets;
- Address the complexity of development, yet exploit the charm of simplicity;
- Embody agreed principles, yet allow for quantitative monitoring;
- Reflect global priorities and universal standards, yet be tailored to the domestic situation and local challenges;
- Specify the destination, yet spell out the journey for getting there; and
- Combine comprehensiveness with conciseness; complexity with simplicity; principles with measurability; universality with country-specificity; and ends with means.

Vandemoortele characterized these attributes as "practically impossible when it comes to setting targets that require universal acceptance and a political consensus among governments and world leaders" (2011: 10). Nonetheless, cognizant of the challenge, participants at the June 2011 Bellagio workshop proposed a tentative architecture of 12 goals. Twelve post-2015 goals are too many. (The current eight MDGs are broken down into 21 targets measured by 60 indicators.) As Claire Melamed writes, "At this stage, it would be both brave and extremely foolish to predict the shape, the organizing principles, or the level of ambition of any future agreement" (2012: 9).

The participants' intention in proposing 12 goals is to provide a potential set of options for inclusion in a future framework and to begin to think through its complexities, the intellectual and practical issues in selecting targets and indicators that decision makers will encounter in their official process. Participants do not expect these 12 goals to succeed the current eight, nor believe anything but an inclusive consultative process led by the UN will be the official process for formulating a legitimate post-2015 framework. The original MDGs were criticized for having emerged from a faulty closed-doors process, being poorly specified and influenced by special interests, rather than a coherent conceptual design or rigorous statistical parameters. The intention is to contribute to the debate by arraying potential indicators of progress and assessing their strengths and weaknesses.

At the Bellagio meeting, Ian McKinnon (2011) reminded participants that while indicators are useful and can mobilize activity and enable comparisons, they are not the complete story.[4] Indicators are not the goals; they are merely metrics. Indicators must be selected that illuminate, are accessible and can inform actions without distorting them. The choice of targets is constrained by the availability of appropriate indicators. In selecting indicators, it should be ensured that:

- *Indicators are accessible to the sophisticated lay reader.* Note that indicators that have relevance in people's daily experience are easier to understand and have greater impact. For example, while analysts may prefer the Gini index, it is more accessible and relevant to say that the bottom 10 percent of a

3 The original MDGs state that "All indicators should be disaggregated by sex and urban/rural as far as possible" (UN, 2000).

4 This reminded participants of the quotation said to have hung in Albert Einstein's office: "Not everything that counts can be counted and not everything that can be counted counts."

country's population has *x* percent of the national income, while the top 10 percent has *y* percent.

- *Measure outputs rather than inputs.* Rather than spending more on childhood education, it is more important to focus on results like literacy and numeracy. Looking at these outputs gives a sense of the resources available for education, the effectiveness of the delivery system and the contribution from outside the formal system.
- *Broad, summative indicators that reflect whole sector outcomes* are preferred over narrow indicators that assess only a narrow element of the overall goal. If multiple indicators are used, that they cover quite different aspects of the general goal should be ensured. The classic example is neonatal morbidity and mortality that can best be improved only by addressing a wide range of health and nutrition factors.
- *Already agreed upon indicators* from relevant international organizations (for example, UN Food and Agriculture Organization [FAO] guidelines on malnutrition/food insecurity) are exploited.
- *They are sensitive to potential responses of behaviour change to meet the indicator* instead of the substance of the issue. For example, under pressure to increase high school graduation rates, a routine response by administrators is to make graduation requirements much less demanding without changing anything else.
- *Direct measures are preferred over indices or derived variables* to improve transparency and comparability. Complex, transformed variables may not stand up to close scrutiny when used in cross-national comparisons.
- *Direct measures to ones based on perceptions are preferred,* for reasons of comparability, robustness and legitimacy.[5]
- *Participants remain wary of process indicators that do not assess the underlying effectiveness of the process* (for example, democratic and judicial processes, freedom of expression). Form is not enough. Valid indicators need to assess the practice.
- *Disaggregation information is provided with the overall result* (for example, release national immunization rates with results by income group, region, urban/rural location, gender, age, at-risk populations).

Meeting the communications imperative of clarity and simplicity by consolidating information on multiple variables into a succinct index represents a particular challenge. The choice of weights is a subjective normative exercise. For example, Wood and Gibney, the authors of the *Political Terror Scale*, note the absurdity of attempting to "count *x* number of imprisonments as equivalent to *y* tortures and *z* killings" (2010: 373). An index can cope only imperfectly with incommensurable variables.

There is a long wish list of criteria relevant to the formulation of post-2015 goals, targets and indicators. Revision of the MDGs, attempting to meet these criteria, will face significant pitfalls and challenges. Some criteria include:[6]

- clarity and even-handedness;
- measurability not perfectibility;
- a focus on ends, not means;
- capturing the equity dimension in terms of equality of opportunity for development;
- providing for empowerment, include enabling factors (higher participation by people in those things that affect their everyday life);
- including intermediate outcomes and interim targets;
- motivating commitment and action;
- maintaining measurability that provides for accountability, but includes quality considerations;
- providing for transparency and accountability;
- including some global challenges everyone faces;
- introducing sustainability considerations;
- a bottom-up, not global top-down approach;
- basing targets on ambitious yet reasonably achievable expectations;
- measuring people's well-being, rather than measuring economic production; and
- addressing the "missing elements" of the Millennium Declaration (for example, human rights, security, equality and the economic productivity component).

Ideally, participants want metrics that are both measureable and motivational to continue to galvanize public support for development. Metrics must be sophisticated — not too crude, but also not too

5 Bearing in mind that several recent analyses have drawn attention to the increasing gap between the evolution of objective measures of peoples' economic situation and peoples' own appreciation of this (see, for example, www.stiglitz-sen-fitoussi.fr).

6 See Vandemoortele (2011) and Moss (2010).

technocratic and it must be acknowledged that serious limitations in data exist. At the October 2011 UN Inter-Agency Experts Group for the MDGs, Francesca Perucci (2011) identified several challenges related to the availability of data:

- the burden on some countries of data monitoring and reporting;
- the availability and unreliability of data collected;
- inconsistencies between data required for global aggregation and what is available at the country level;
- lack of international standards;
- failure to adopt existing international standards at national level;
- lack of national capacity; and
- disagreement on the baseline year.

The OECD-hosted Global Project on Measuring the Progress of Societies concluded its 2008 report with four lessons for indicator development:

- Be clear about your objectives and how you expect to achieve them.
- Be realistic about what an indicator set can achieve.
- Never underestimate the importance of the process of designing and agreeing to the indicators.
- Think long-term: be persistent and flexible. Indicators in general terms should be valid, relevant and effective in measuring what they purport to measure (OECD, 2008).

The indicators should also be reliable, enabling consistent application across different contexts by different groups of people at different times. Proposed indicators at the global level should be measurable, time-bound, cost-effective to collect, easy to communicate for advocacy purposes and open to cross-country comparisons. The process of indicator development should itself observe accountability principles, including transparency about data sources and methodology.

Determining targets and indicators is a difficult — but worthy — problem. It is a normative exercise, but one that can be informed by knowledgeable expertise. The objective is to present the best options and to highlight their advantages and flaws. This report presents the state of the art on indicators relevant to each of the 12 goals to help assess what can be done in terms of measurement and data collection regarding a future set of goals and targets. The task is to identify the best options for goals, targets and indicators, given the various challenges that confront efforts to construct a post-2015 development framework.

Notwithstanding the challenge, this report presents proposed options for targets and indicators for each of the 12 goal areas in turn, contrasted with the current MDG targets and indicators. The authors have included in this report the best of conference participants' findings, refined on the basis of the Paris meeting discussions. It is hoped that participants in future consultation processes leading to a global consensus on post-2015 goals will find these indicators useful.

Figure 1: Post-2015 Goals

POTENTIAL INDICATORS AND TARGETS FOR CANDIDATE GOALS

The first group of four goals is concerned with the necessary endowments for individuals to achieve their fuller potential.

Candidate Goal 1: Adequate Livelihoods and Income Levels for Dignified Human Existence

In the World Bank's *Voices of the Poor* study (2000), one of the four main priorities cited by those surveyed was having a job. Employment income allows people to meet their basic needs and make choices about their lives. Good indicators on jobs and income should reflect both their quality and quantity. A major consideration for income levels is the distribution of income to ensure equitable growth. While the MDGs collectively reflect poverty, participants reframed the original goal on poverty and hunger as "income and jobs" to reflect the findings of the World Bank study; "poverty" is more than just measuring GDP, the proportion of population below $1 per day (purchasing power parity [PPP]), poverty lines or poverty ratios. This first goal should be measured by income and employment indicators,[7] or, if still framed as "poverty," with one of the new multidimensional indices on poverty that includes income indicators.

Table 1: Current MDG 1: Eradicate Extreme Poverty and Hunger

Target	Indicator
1. A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	• Proportion of population below $1 PPP per day • Poverty gap ratio (incidence x depth of poverty) • Share of poorest quintile in national consumption
1. B: Achieve full and productive employment and decent work for all, including women and young people	• Growth rate of GDP per person employed • Employment-to-population ratio • Proportion of employed people living below $1 PPP per day • Proportion of own-account and contributing family workers in total employment

Criticisms of the current indicators focus on the variety in household surveys' design, definitions and implementation, and the lack of analysis on income distribution within the household, between genders and within countries. Additionally, there is a growing literature that GDP or economic indicators are insufficient for measuring poverty — which is a multidimensional phenomenon (Trebeck, 2012). The *Report on the Commission of Measurement of Economic Performance and Social Progress* calls for new measures of growth and economic performance to incorporate well-being (Stiglitz, Sen and Fitoussi, 2009).

Inequality was not adequately addressed in the original MDGs; it is a major obstacle to poverty reduction, economic growth and improved social conditions (Melamed, 2012). To address inequality, a future framework could include a focus on disaggregation and presentation of data on the lowest decile or quintile. Another approach would be to focus on the average level, the distribution and the extreme tail across indicators. There is also the question of whether to measure relative poverty as well as absolute poverty via the US$1.25 PPP per day. Relative poverty is the percentage of people below 50 percent of the country's median income. This measure can give dramatically different results from absolute poverty. For example, in Brazil, absolute poverty decreased from over 20 percent to less than five percent in the last 20 years, while the relative poverty measure has remained constantly above 25 percent. In China, absolute poverty has fallen from over 80 percent to below 20 percent, while relative poverty has actually increased in the last 25 years.

Traditionally, poverty has been measured by income in terms of the price of the minimum required basket of goods and services. Poverty is now defined more broadly to include lack of education, health, housing, empowerment, employment and personal security. As Alkire and Santos assert, "No one indicator, such as income, is uniquely able to capture the multiple aspects that contribute to poverty. For this reason, since 1997, *Human Development Reports* (HDRs) have measured poverty in ways different than traditional income-based measures. The Human Poverty Index (HPI) was the first such measure, replaced by the Multidimensional Poverty Index (MPI) in 2010" (2010: 3).

The MPI is designed to measure acute poverty, defined by two main characteristics. First, acute poverty includes people living under conditions that do not reach the minimum internationally agreed standards, in indicators of basic functions such as being well-nourished, educated or having access to clean drinking water; second, it refers to people living under conditions that do not reach the minimum standards in several aspects at the same time.

In other words, the MPI measures those experiencing multiple deprivations — people who, for example, are both undernourished and do not have clean drinking water, adequate sanitation or clean fuel. The MPI combines two key pieces of information to measure acute poverty: the incidence of poverty or the proportion

7 See Annex 2 for International Labour Organization (ILO) indicators. Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

of people (within a given population) who experience multiple deprivations is measured with the intensity of their deprivation — the average proportion of deprivations they experience.

Table 2: Oxford Poverty and Human Development Initiative Multidimensional Poverty Index

Topic	Indicators
Education	Years of school
	School attendance
Health	Child mortality
	Nutrition
Standard of Living	Household electricity
	Access to safe drinking water (<30 mins),
	Improved sanitation
	Household flooring (not dirt, sand or dung)
	Cooking fuel (not wood, charcoal or dung)
	Household assets (more than one of radio, television, telephone, bike, motorbike, fridge and own a car)

Multidimensional poverty is a measure of the joint distribution of the outcomes related to several goals aside from income and employment. One issue is that the data required for an MPI is not equivalent to the data collected by the United Nations and national statistical agencies.

The OECD's *Better Life Initiative*, another multidimensional index, measures well-being and looks at both material living conditions and quality of life across the population. It includes several indicators: income, jobs, housing, health, work and life balance, education, social connections, civic engagement and governance, environment, personal security and subjective well-being.[8]

Annual publications such as the World Bank's *World Development Report*, the IMF's *World Economic Outlook*, and the United Nations Development Programme's (UNDP's) *Human Development Report* contain a multitude of statistics and indicators for measuring income, jobs and poverty more generally.

Potential employment indicators include:

- proportion of population living below $2 a day PPP;
- proportion of population living below national poverty line (disaggregated by rural/urban location, regions, child poverty, female-headed households, ethnic/minority communities, religion and so on, to the extent supported by available data);
- ratio of income/consumption of top 20 percent to bottom 20 percent (rural/urban);
- annualized growth rate of per capita expenditure/income (lowest and highest quintiles, total);
- employment rate (disaggregation male-female, rural-urban, regions, age group);
- elasticity of total employment to total GDP (employment elasticity); and
- number of (vulnerable) own-account and contributing family workers per 100 wage and salaried.

Work contributes not only to incomes, but also to self-respect and fulfillment; work is "a constituent part of individual's wellbeing" (Lugo, 2007: 1). One option would retain the current MDG indicators and add indicators reflecting productivity, income and protection.

Additional proposed indicators could include:

- growth rate of GDP per person employed;
- an index of seasonality of income;
- child labour force as share of children;
- deaths from workplace hazards per 100,000 workers; and
- discouraged workers (as share of population).

Candidate Goal 2: Sufficient Food and Water for Active Living

Poverty and hunger were joined together in MDG 1 on the basis that livelihoods, agriculture production, food and nutrition are intrinsically linked for poor people and should, therefore, be conceptually consolidated in one goal. Some argue that food insecurity and water scarcity warrant a goal separate from poverty; that ending hunger and malnutrition is a critical prerequisite for sustainable development and inclusive economic growth. A criticism of the current MDGs is that the targets and indicators on poverty obscured those for hunger. Hunger was lost as an element of goal 1 and progress on hunger has been marginal. Participants concluded that food security is too important to risk being eclipsed by poverty, as it was in the original MDGs.

The UN first adopted a goal to halve world hunger by 2015 at the World Food Summit (WFS) held in Rome in

8 Sample indicators from the OECD publication *How's Life* (chapters on income and wealth and jobs and earning) are in Annex 2. Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

1996.[9] Hunger refers to the supply, access, consumption and intake of food at levels that are insufficient to fulfill human requirements. If the requirements are not met through the adequate absorption and use of essential nutrients, food deprivation and undernutrition occur (Sibrian, 2009). Nutrition is an individual level outcome, influenced by food intake and food availability. Food security is a community level (or higher) outcome and reflects dimensions of persistent poverty. The World Bank (1986) defines food security as "access by all people at all times to sufficient food for an active, healthy life."

The word "sufficient" implies both quantitative and qualitative dimensions, and there are cultural aspects in the definition of what is considered "sufficient." Food and water serve basic human physiological needs, but also moral and cultural ones. What is sufficient in one context and from a mere physiological point of view can be considered inadequate in other contexts for cultural reasons.

If, in the post-2015 framework, food and water are given their own goal to comprehensively address the multidimensional nature of food and nutrition security, then indicators on the availability of food, access to food and adequate food consumption could be added. One view is that an indicator for children less than two years of age will be critical, particularly for stunting. The two-year-old child is the signal of the future and the vital importance of the 1,000-day window is being learned.[10]

Table 3: Current MDG 1: Eradicate Extreme Poverty and Hunger

Target	Indicators
1. C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	• Prevalence of underweight children under five years of age • Proportion of population below minimum level of dietary energy consumption

Seven potential indicators include:

- proportion of population below minimum level of dietary energy consumption (FAO);
- prevalence of underweight children under five years of age (World Health Organization [WHO]);
- food consumption score: number of days per week of intake of eight different food groups;
- percentage of children less than five years of age whose height-for-age is below minus two standard deviations from the median (WHO);
- prevalence of underweight (<2500 grams / 5.5 pounds) infants at birth (WHO);
- prevalence of overweight (weight-for-height above two standard deviations) (WHO); and
- prevalence of stunting in children under two years of age.

Other potential measures could deal with agricultural performance, household food security, micronutrient supplies, post-harvest losses, anemia in women of reproductive age, child mortality rates (International Food Policy Research Institute [IFPRI]), access to basic sanitation and incidence of diarrheal disease in children under five (WHO).[11]

If these are truly to be global goals, an indicator must address the one billion people who are "overnourished" or overweight; this is an expensive public health problem. Although this is a different moral and conceptual issue than lack of access to food, it makes the goal relevant to both developed and developing countries. An indicator on body mass index would simultaneously address obesity and diet problems in developed countries, and hunger and lack of food in developing countries. There is also an argument for process indicators such as identifying a national nutrition focal point, establishing national nutrition plans, and the percentage of national GDP devoted to food and nutrition security.

The consensus coming out of the International Scientific Symposium on Measurement and Assesssment of Food Deprivation and Undernutrition held at the FAO in 2002 (and again in January 2012) focused on the need for a suite of indicators to measure food and nutrition insecurity in its multidimensionality, and concluded that different data sources will have to be tapped and improved in order to better measure and monitor global food insecurity. At the 2012 symposium, panellist Carlo Cafiero (2012) stated, "The undoubted conclusion of the debate so far is that there are indeed many dimensions of well-being associated with food and that there is no hope to come up with a single, measurable, objective parameter that could be deemed superior to any other indicator."

9 The WFS goal calls for halving the number of hungry people, whereas the MDGs aim to reduce hunger by half, in terms of the population proportion. The WFS target, then, was much more ambitious.

10 The WHO currently collects data for stunting in children under five years of age; however, revising it to under two years of age provides sentinel information signalling that individual's future physiology. Furthermore, children stunted at two years old are more likely to go to school later, learn less and have a lower income with less ability to be taxed.

11 See Annex 3 for two other frameworks for measuring hunger. Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

The multidimensional nature of food security and nutrition poses many challenges for measurement. Food insecurity covers a range of problems, from access to food, to issues of dietary quality, to outright hunger; these issues must be unbundled to be properly measured. Furthermore, there are challenges in cross-country comparability of data; reliability of data; and quality, consistency and periodicity of the information being collected. Problems exist with respect to current coverage and timeliness of data collection. Either anecdotal, occasional evidence is gathered through ad hoc projects, usually over such a limited scale that it cannot be deemed representative, or survey-based evidence of broadly defined food expenditures/acquisitions at the household level, is aggregated at a level that, simply put, does not allow for the level of analysis on things such as nutritional adequacy or gender disparity.

Two final considerations for drafting a goal on food are important. Efforts must be made to continue to properly monitor food production, trade and uses, as the global and local availability of food at the macro level is always the starting point for detecting and understanding the most relevant problems in terms of food insecurity. Second, availability of food at the aggregate level is a necessary, but by no means sufficient, condition to guarantee adequate access to all; therefore, the distribution of food consumption among people needs to be monitored.

The FAO report, *The State of Food Insecurity in the World* (2011) raises awareness about global hunger issues, discusses underlying causes of hunger and malnutrition, and monitors progress towards hunger reduction targets (WFS and MDGs). The OECD-FAO *Agricultural Outlook* is an annual publication presenting projections and related market analysis for 15 agricultural products over a 10-year horizon. The world needs to address trade and environmental policies (enabling conditions: see goals 10 and 11) that exacerbate the problems with food management and distribution.[12]

Water

The MDG indicator on improved drinking water was reached in 2010, five years ahead of schedule. However, over 700 million people still rely on unimproved sources for drinking water, and 2.5 billion people lack access to improved sanitation facilities.

Table 4: Current MDG 7: Ensure Environmental Sustainability

Target	Indicators
7. C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	• Proportion of population using an improved drinking water source • Proportion of population using an improved sanitation facility

Water security is defined as the "reliable availability of an acceptable quantity and quality of water for health, livelihoods and production, coupled with acceptable level of water-related risks" (Grey and Sadoff, 2007). To achieve water security, investments in infrastructure are needed to store and transport water, and treat and reuse waste water; robust institutions to make and implement decisions; and information and the capacity to predict, plan and cope.

The scope of the water goal could include indicators that address both a narrow definition focusing on households and a broader definition focusing on water for livelihoods and safety from water-related disasters such as floods and droughts. The outcome for the narrow definition would be households that use safe and reliable sources of water close enough to their dwelling to access adequate quantities and in conditions of security at an affordable cost. The desired outcomes for the broader definition would be adequate reliable water supply to meet food and livelihood needs, and reduced vulnerability/greater resilience to drought and flood.

Proposed indicators:

- Proportion of households that obtained a sufficient quantity of water from a "safe" source, for *x* days a year;
- Proportion of population at risk (below a particular flood line (100 year, 10 year), or with rain-dependent livelihoods at risk of drought); and
- Percentage of available water stored.[13]

Framed this way, access to basic sanitation would be categorized under the health goal. This is still up for debate. Under this formulation, issues of trade, infrastructure (dams), and environmental policies that exacerbate the problems with food and water management, and distribution would be dealt with under other goals.

The UN Educational, Scientific and Cultural Organization (UNESCO)'s World Water Assessment

12 For a discussion on extending special and differential treatment in agriculture for developing countries, see the FAO paper "Extending special and differential treatment (SDT) in agriculture for developing countries." Available at: www.fao.org/DOCREP/005/Y3733E/y3733e0b.htm.

13 This is contentious with environmentalists, but is telling of water management capacity and necessary for resilience.

Program (WWAP) has programs with indicator work: WWAP Expert Group on Indicators, Monitoring and Bases and WWAP Pilot Study on Indicators (UNESCO 2012b).[14]

The Global Assessment of Annual Assessment of Sanitation and Drinking Water (GLAAS) is a combined effort of the WHO, UNICEF and UN Water's Joint Monitoring Programme for Water Supply and Sanitation. The GLAAS report brings together survey data from 42 countries and 27 external support agencies, and overlays this information with information from other databases, on the data presented by the Joint Monitoring Programme for Water Supply and Sanitation regarding access to, and use of, basic sanitation and safe drinking water. It includes indicators for measuring a country's status, sector budget/expense, policies and institutions, planning and evaluation, financial planning and resources, human resources and overall perception.[15] The GLAAS is used to inform decision makers of the Sanitation and Water for All Partnership.

Candidate Goal 3: Appropriate Education and Skills for Productive Participation in Society

Education brings a wide variety of benefits and creates opportunities both directly and indirectly; it is also an enabling factor to achieve other development goals. There would be profound and positive social, economic and political implications if special attention were placed on secondary school completion for girls. A broad range of education indicators are available. Some refer to inputs (for example, school enrollment, educational expenditures and school resources); others refer to throughputs and outputs (for example, graduation rates, completed years of schooling, standardized test measures of achievement in terms of literacy and numeracy). The choice of indicator should depend on the stage of a country's development and the goal of the evaluation exercise (Stiglitz, Sen and Fitoussi, 2009).

The original MDG failed to emphasize education quality (despite the literacy indicator). The indicators focused on the inputs of enrollment and attendance.

Table 5: Current MDG 2: Achieve Universal Primary Education

Target	Indicators
2. A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	• Net enrollment ratio in primary education • Proportion of pupils starting grade 1 who reach last grade of primary • Literacy rate of 15–24 year-olds, women and men

In determining indicators for post-2015, there are three challenges to consider:

- appropriate balance between retaining the emphasis on the goals set in the MDG/Education for All (EFA) frameworks (given that many countries have yet to reach these goals), and setting more ambitious goals for the future;
- priority of cross-national comparisons; and
- source and quality of the data — from regular administrative sources or from special surveys, and the timeframe that each entail (annual data collection presents a challenge, MDGs/EFA monitoring required data that was not easily collected on an annual basis).

Furthermore, the post-2015 indicators should extend beyond children to include all age groups of the population. Ideally, targets and indicators for the education goal should focus on outcomes: learning, skills and literacy levels (although this data is difficult to collect). Access indicators (inputs/outputs) can also be useful, especially for countries where enrollment and completion rates are low. Access indicators are cheap and easy to monitor but should be extended beyond primary enrollment to primary completion, and to enrollment and completion of secondary and tertiary education.

The issues that matter most are the hardest to measure. In addition to access, indicators should measure quality, political commitment to education and equity issues, and should be disaggregated by gender. Access and political commitment are the easiest to measure. Quality indicators raise several issues: they are difficult to measure, especially in comparable cross-country; they require special surveys; good indicators of literacy show lower levels of progress and are, therefore, a disincentive for countries to use; and literacy measures are expensive. Despite these measurement challenges, incorporating quality measures into the post-2015 goals is too important to omit, and research should be accelerated for good baseline data and for measuring education quality. For some, the ultimate goal of education is employment, so assessments that make this connection could provide insightful data.

14 For other frameworks from the UNESCO and UN Water, see Annex 3. Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

15 For an extensive list of indicators, see the GLAAS UN Water Global Annual Assessment Annex (2010: 84): http://whqlibdoc.who.int/publications/2010/9789241599351_eng_Annexes.pdf.

UNESCO's conclusion regarding its EFA Development Index of indicators, highlighted problems with country coverage and provides the general cautionary note on the EFA website:

> A word of caution: any index that takes a complex and multifaceted reality and compresses it into something much simpler will always do injustice to the original. For this reason, it is important to realize that indexes may be useful for particular purposes, but they also have limitations. Data and indicators should be viewed within the broader picture of a dynamic and specific country context that is itself evolving within a larger sub-regional or regional environment. Therefore data must be interpreted with care as good data and good measuring tools are often lacking where needed most.

Potential indicators include:

- the proportion of pupils starting grade one who reach last grade of primary/secondary/tertiary;
- the survival rate to grade five;[16]
- the proportion of girls completing secondary education;
- the average of the three gender parity indexes (GPI) for primary education, secondary education and adult literacy, with each being weighted equally;
- literacy[17] and numeracy rates of the population;
- the percentage of GDP devoted to education and/or ratio of government subsidies for education to poorer families; and
- universal primary education: the percentage of primary school-age children who are enrolled in either primary or secondary school.

In terms of assessments for creating internationally comparable data on education levels, the OECD's Programme for International Student Assessment (PISA) test involves 64 countries and tests 15-year-olds' knowledge and skills in reading, math and science. In 2010, nine additional countries participated in the PISA 2009+ project, including: Costa Rica, Georgia, India (Himachal Pradesh and Tamil Nadu), Malaysia, Malta, Mauritius, Venezuela (Miranda), Moldova and the United Arab Emirates (Australian Council for Educational Research [ACER], 2011). The principles that underpin PISA 2009+ could be applied to the post-2015 MDGs for developing a "PISA light."[18] With any assessments, however, pass rates are valuable only if they are correlated with better jobs, incomes, social and economic outcomes.

Barrett proposes a Millennium Learning Goal that focuses on process targets, framed as learning rather than achievement, and includes qualitative targets on "participation in different educational levels and non-formal education programmes set at the national level… national assessment tools and practices…inspection systems effective in monitoring and improving educational processes" (2011: 130). Barrett and other proponents of this approach call for a future MDG to "be focused on the international work of holding governments accountable for provision of an education of acceptable quality for all and supporting governments in their efforts to provide education for all within their borders" (2011: 129).[19]

Candidate Goal 4: Good Health for the Best Possible Physical and Mental Well-Being

A broader health goal would consolidate the three specific health goals of the original MDGs.

The WHO Disability-Adjusted Life Year (DALY) index could frame the health goal. DALYs are the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability. According to the WHO's health statistics and health information systems website, "One DALY can be thought of as one lost year of 'healthy' life. The sum of these DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability." The DALY index provides statistics on health concerns in both the developed and developing world.

16 A UNESCO EFA indicator for quality.

17 The UNESCO Literacy Assessment and Monitoring Programme (LAMP) monitors and assesses the literacy levels of the population and with further research could be used for measuring quality. LAMP builds national statistical/education systems' capacity to measure the literacy of a population sample and then to use a synthetic estimation methodology to link proxy measures of literacy (such as years of schooling completed) to estimate national levels of literacy.

18 Some participants challenged this as being controversial and condescending, going against the approach of trying to get countries on equal footing.

19 See Annex 4 for an index of other ways to measure education. Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm. The annex includes the EFA Development Index, a composite index focusing on four of the most easily quantifiable EFA goals: goal 2, universal primary education; goal 4, adult literacy; goal 5, gender parity and equality; and goal 6, quality of education. The EDI for each country is the arithmetic mean for each of its components, each weighted equally (UNESCO, 2011).

The indicator accounts for communicable diseases such as HIV/AIDS, malaria, TB, and diarrheal and childhood diseases, among others, as well as non-communicable conditions such as cancers, cardiovascular and respiratory diseases, and diabetes.

Countries could adopt targets and indicators for their most pressing health problems. Using DALYs to measure health achievement is globally applicable, provides a comprehensive framework and allows countries to self-select indicators and targets of greatest concern. DALYs are criticized for being too technocratic and not having the mobilizing power of the original goals. Used at an indicator level, however, they allow each country to decide upon their burden of disease and develop the primary, secondary and tertiary systems to deal with it. Perhaps more than any other goal, health targets and indicators should be set nationally to tackle specific national health challenges. Sample targets could include those on child mortality, maternal health, infectious diseases, non-communicable diseases and disability services.

Table 6: Current MDG 4, 5, 6

Target	Indicators
Current MDG 4: Reduce Child Mortality	
4. A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	• Under-five mortality rate • Infant mortality rate • Proportion of one-year-old children immunized against measles
Current MDG 5: Improve Maternal Health	
5. A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	• Maternal mortality ratio • Proportion of births attended by skilled health personnel
5. B: Achieve, by 2015, universal access to reproductive health	• Contraceptive prevalence rate • Adolescent birth rate • Antenatal care coverage (at least one visit and at least four visits) • Unmet need for family planning
Current MDG 6: Combat HIV/AIDS, Malaria and Other Diseases	
6. A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	• HIV prevalence among population aged 15–24 years • Condom use at last high-risk sex • Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS • Ratio of school attendance of orphans to school attendance of non-orphans aged 10–14 years
6. B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	• Proportion of population with advanced HIV infection with access to antiretroviral drugs
6. C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	• Incidence and death rates associated with malaria • Proportion of children under five sleeping under insecticide-treated bed nets • Proportion of children under five with fever who are treated with appropriate anti-malarial drugs • Incidence, prevalence and death rates associated with tuberculosis • Proportion of tuberculosis cases detected and cured under directly observed treatment short course

Discussing the challenges associated with health measurement indices, Stiglitz, Sen and Fitoussi argue that "The variety of dimensions of people's health has led to several attempts to define a summary measure that combines both mortality and morbidity. However, although several combined indices of people's health exist, none currently commands universal agreement. Further, they all inevitably rest on ethical judgments that are controversial, and on weights for various medical conditions whose legitimacy is not always clear" (2009: 46). Further, Carla AbouZahr suggests that measures should be incorporated to reflect emerging patterns of mortality and morbidity, particularly in relation to non-communicable diseases. While DALYs offer a useful metric for estimating the distribution of the burden of ill health across disease areas, they are difficult to understand and do not readily translate into motivational targets.

The WHO's Healthy Life Expectancy (HALE) is a metric that could have greater relevance in people's daily experience, would be easier to understand and be accessible to the sophisticated lay reader. This metric has the advantages of the DALY, in that it reflects both fatal and non-fatal health outcomes, but it is easier to understand and offers a counterpoint to the widely understood measure of life expectancy at birth. Calculating HALE, like DALYs, requires a lot of information on mortality and morbidity that is not widely available in many countries; as a result, the indicator is often based on estimates by agencies such as the WHO. Moreover, HALE is relatively slow to change, from year to year, and is a measure with little in the way of disaggregation.

The MDG framework included mortality indicators reflecting maternal and child mortality along with major infectious diseases. The post-2015 framework could include mortality indicators (and related targets) reflecting the growing contribution of non-communicable diseases to ill health. These could include:

- child mortality rate (with subcomponents infant and neonatal mortality);
- maternal mortality rate;
- adult mortality rate between the ages of 15 and 60 (45q15);[20] and
- unconditional probability of dying between ages 30 to 70 from cardiovascular disease, cancer, diabetes or chronic respiratory disease.[21]

Only about two-thirds of countries have vital registration systems that capture the total number of deaths reasonably well. Accurate reporting of the cause of death on the death certificate is a challenge, even in high-income countries. Although total all-cause mortality may be reported reasonably well, significant accuracy problems exist for cause-specific certification and coding in a large number of countries.

The definition of concepts will determine how they are measured. Michael Thieren (2005) of the WHO expresses the concept of effective coverage as factors of:

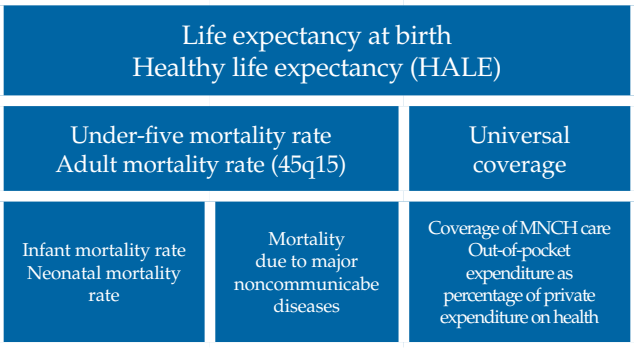
- price of intervention offered by provider;
- disposable income of an individual;
- geographic location of a provider offering the intervention in relation to the individual;
- cultural and social acceptability of the intervention offered by the provider;
- availability of necessary technology to provider for delivering intervention;
- expected health gain from the intervention;
- performance provider in relation to intervention; and
- adherence of the individual to intervention.

To measure *effective coverage* requires knowing the values of all of the factors that go into the definition. This highlights the importance of national definition and selection. Effective coverage has not actually been measured anywhere. Two alternative coverage suggestions include:

- Universal health coverage, defined as a situation where everyone can use critical health services without the fear of impoverishment. The main indicator currently being used is "out-of-pocket expenditure as percentage of private expenditure on health." This indicator is measured in countries that have systems of national health accounts and is also estimated for all countries by the WHO.
- Coverage of essential maternal and child health interventions, an index based on the use of services including immunization, maternal care, care for childhood illnesses and family planning.

This leads to a suggestion to identify a set of nested indicators that would have life expectancy and HALE at the top, with more readily measureable and responsive measures, reflecting both outcome and processes, below as in the chart below, from Carla AbouZahr.

Figure 2: Nested Health Indicators



When measuring matters of health, mortality and morbidity only tell part of the story. As mortality at the extremes of life may have a limited economic impact,

20 45Q15 is the percentage risk of a 15-year-old dying from a particular disease by the time they reach 60 years of age.

21 This WHO proposal is linked to a target of a 25 percent relative reduction in overall mortality from cardiovascular disease, cancer, diabetes or chronic respiratory disease.

one might look to reduce the impact that people dying during their "most productive" years has on society and the economy. Alongside mortality and DALYs, "Potentially Productive Years of Life Lost" should be measured, which can provide better representation of the impact that diseases have upon the young and, therefore, the impact this has on society more broadly; although less in absolute numbers, these deaths have a greater negative impact upon society and the economy.

As patients tend to put their trust in hospital-based specialist services, doctors migrate to these specialties. Primary care is perceived as being of a lesser status for doctors and is nearly always less profitable. Hospital-based service, then, remains a concern for the foreseeable future and should receive more attention. The role of surgery in public health, for instance, is generally overlooked. It is often seen as too "high tech" and high cost, when it is, in fact, as cost effective for common life-threatening conditions as most immunization programs. "Safe surgery," for example, is essential to safe obstetric care, as it is the only recourse to prolonged obstructed labour; such surgery is also used to treat the victims of road traffic accidents which, as a result of rapid urbanization, are becoming a major threat in developing countries. The burden of injury falls disproportionately on the poor, who often live, work and travel in unsafe environments (Zhou et al., 2003); children are particularly vulnerable to traffic collisions. The introduction of preventive measures will address childhood mortality as safe surgery addresses maternal mortality.

To deliver a sustainable level of good health care, a country must grow and retain its own health care workers — not only at grassroots nursing and medical treatment levels, but also at research and teaching levels. The traffic of health-care workers from poor to rich countries is a significant factor in the health of populations at both ends of the road. Simply providing health-care workers is not enough: some patients cannot afford the cost of an appointment with a health care professional, a stay in hospital or the medication that is prescribed; controlling the cost of health care must be strived for.

These considerations suggest the need for indicators for "safe hospitals," "safe surgery," safety legislation, monitoring migration of medical workers and controlling the cost of health care:

- hospital mortality rates for common conditions, hospital-acquired infections, needle stick injuries and staff-to-patient ratio;
- post-operative mortality rates, surgical staff/anaesthetist-to-patient ratio and the implementation of the WHO surgical checklist (World Alliance for Patient Safety, 2008);
- implementation of seat belt, child restraint and motorcycle helmet legislation (FIA et al., 2009);
- inward and outward migration of health care workers; and
- the ratio of disposable income to cost of drugs/consultation/hospital stay/procedures.

The annual WHO report *World Health Statistics* provides health information on all WHO member states. Additionally, country reports summarize health statistics for major health topics relevant for each member state (193) of the WHO.[22]

The second group of four goals is concerned with protecting and promoting collective human capital.

Candidate Goal 5: Security for Ensuring Freedom from Violence

Freedom — from fear of violence, oppression or injustice — is one of the fundamental values espoused by the Millennium Declaration (UN, 2000). Respondents to the World Bank's project *Voices of the Poor* identified a reduction in violence as a basic value. Post-2015 development goals could include a goal on freedom from violence, but its scope and definition will prove difficult. Is the focus on personal or community security? How will data be disaggregated?

Some countries may resist adopting indicators on violence against children and domestic violence. There will be challenges with tracking and monitoring. Decisions need to be made on how data on violence is defined, measured and monitored. Indicators could be based on domestic violence reports, statistics on violence against women and the treatment of migrants, minorities, displaced persons and refugees. Statistics could be presented on the numbers of people physically affected by armed conflict or violence.

Reflecting on these perspectives, one option is to focus on the personal experience of physical violence committed against individuals by external actors, including state and non-state agencies, community members or family members, but such personal perspectives may be limiting the scope of what can be objectively verified. Other dimensions of violence, for example, emotional

22 There are other examples of measuring health: the WHO's *Better Health for All* used a goal framework in 1983 and included national indicators (selected by each country), as well as global indicators; the OECD's Health at a Glance series measures quantitative indicators annually; and the OECD's Measuring Well-Being index includes a perception indicator on self-reported health status / people reporting good/very good health. These frameworks are found in Annex 5. Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

violence and threats of violence, are assumed to have a correlation to measurable physical violence.

Other relevant dimensions of violence are taken up more appropriately under the remit of other goals. Suicides, prenatal termination on the grounds of gender (health and gender goals); forced marriages (gender and civil rights goals); repression (civil/political rights goal); and interstate tensions and wars, arms proliferation and military expenditures (goals toward good global governance). Indicators could be framed as rates per 100,000 of the general population, and disaggregated by gender, economic group, subnational administrative units and minority or specific vulnerable groups. Such indicators might include:

- direct deaths and injuries from armed conflict (internal and external);
- direct deaths and injuries from crime;
- reported crimes (including against persons, property);
- intimate partner violence;
- persons in unlawful detention;
- persons trafficked from and into a country; and
- gun/weapon holding in society (including civilian police agencies and any non-governmental forces, but excluding official government military forces).

For each of these indicators, databases exist and can be improved with suitable investment. Estimates from standardized survey methods may be needed for the latter four indicators.

Annex 6[23] contains three other frameworks for measuring security: the Global Peace Index, the Mo Ibrahim Index and indicators on armed violence. The Global Peace Index gauges ongoing domestic and international conflicts, safety and security in society, and militarization in 153 countries. The index is composed of 23 qualitative and quantitative indicators from respected sources, which combine internal and external factors. The Mo Ibrahim Index, "Africa's leading assessment of governance," has indicators under four categories (Safety and Rules of Law; Participation and Human Rights; Sustainable Economic Opportunity; and Human Development), 14 subcategories, and 86 indicators to measure the effective delivery of public goods and services to African citizens. The *Expert Workshop on Indicators of Armed Violence* established a foundational list of potential indicators for measuring armed violence (Kisielewski, Rosa and Asher, 2009).

There are other frameworks to measure violence. The University of North Carolina's Political Terror Scale records the global and regional trend data on human rights abuse in the developing world using a composite indicator that captures core human rights abuses such as torture, extra-judicial executions, and "disappearances" backed by death squads (Wood and Gibney, 2010). The Nuclear Threat Initiative's Nuclear Materials Security Index assesses 32 countries with one kilogram or more of weapons-usable nuclear materials toward improved global nuclear materials security conditions using five categories and 18 indicators (Nuclear Threat Initiative, n.d.).

Candidate Goal 6: Gender Equality Enabling Men and Women to Participate and Benefit Equally in Society

For development to be sustainable, it must involve all members of society, especially women. Gender discrimination is the most dominant form of discrimination in the world. Empowering women combats poverty, hunger, disease and stimulates economic activity. Although indicators for all goals must be disaggregated by sex, there are many proponents for a specific goal on gender equality.

Table 7: MDG 3: Promote Gender Equality and Empower Women

Target	Indicators
3. A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	• Ratios of girls to boys in primary, secondary and tertiary education • Share of women in wage employment in the non-agricultural sector • Proportion of seats held by women in national parliament

A major challenge to monitoring gender equality is limitations in data. The UNDP's *Human Development Report* (2010) identifies several difficulties with data collection: the influence of gender roles on how men and women spend their time (for example, division of housework and care giving duties); available information about economic assets owned by women; that violence against women is prevalent, but not documented in an internationally comparable way;[24] and that community-level indicators for participation in political decision

23 Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

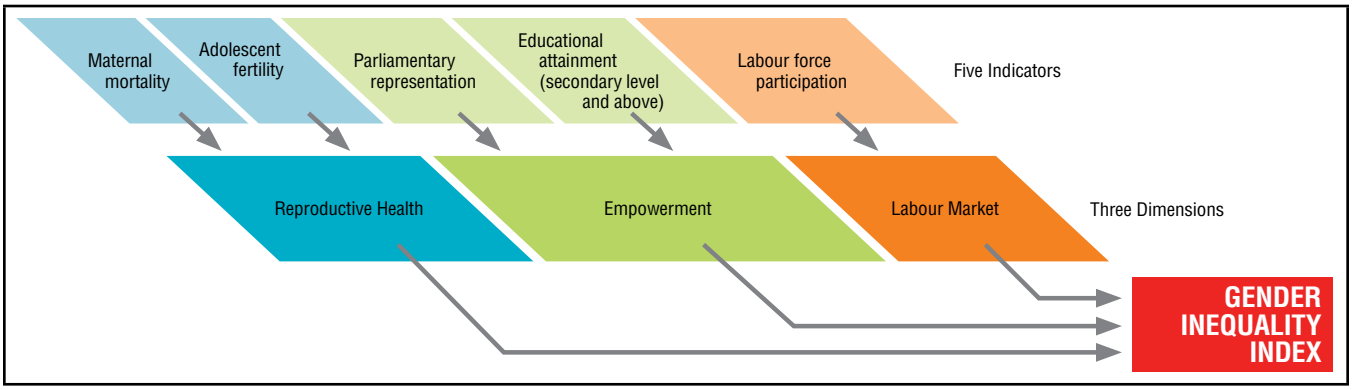
24 Data on violence against women can come from two sources: administrative and criminal statistics (which suffer from major underreporting of such offenses) and surveys. Surveys may provide more accurate data, but are harder for national and international comparisons.

making (for example, representation, leadership and electoral turnout) are not readily available.

In 2008, the United Nations Development Fund for Women released *Making the MDGs Work for All: Gender-Responsive Rights-Based Approaches to the MDGs* (Corner, 2008). The report concludes that "gender equality is not adequately mainstreamed into national reports; traditional gender role and trait stereotyping persists; an instrumentalist rather than a rights-based focus frames approaches to gender equality; sex-disaggregated quantitative data is not supplemented by qualitative data or adequate gender analysis; the nature of reporting makes invisible the cross-linkages between targets and indicators across goals; and involvement of gender equality advocates in the preparation of MDG reports across all the goals is lacking" (Corner, 2008: vii). In response, Corner reframed the existing MDGs — targets and indicators — to include a gender and rights-based approach.

The 2010 *Human Development Report* introduced three new multidimensional measures of poverty and inequality: the inequality-adjusted Human Development Index, the Gender Inequality Index and the MPI (discussed above). The Gender Inequality Index includes educational attainment, economic and political participation, and female-specific health issues in accounting for overlapping inequalities at the national level.

Figure 3: Gender Inequality Index



Note: The size of the boxes reflects the relative weights of the indicators and dimensions.

Source: UNDP Human Development Report Office

The original MDG on gender was criticized for not addressing violence against women. Annex 7[25] includes two frameworks: the *Indicators to Measure Violence Against Women*, developed by the United Nations Division for the Advancement of Women, the United Nations Economic Commission for Europe and the United Nations Statistical Division (UN, 2007); and *Measuring Women's Empowerment: Participation and Rights in Civil, Political, Social, Economic and Cultural Domains* (Moghadam and Senftova, 2005). Both frameworks provide useful indicators on violence against women; a post-2015 goal on gender should include such indicators.

Considerations for the gender goal should include:

- *Economic autonomy*: Can women generate their own income and control their assets and resources?
- *Physical autonomy*: Do women have control over their own bodies?
- *Decision-making autonomy*: Do women have full participation in decisions that affect their lives and communities? (Stockins, 2011: slide 17)

A set of indicators that address these three considerations could include:

- maternal mortality;
- women's wage income as a proportion of men's for equal work;
- proportion of women who make decisions about or control the household income; and
- percentage of women who have experienced physical violence during the past year/yesterday.

The UN Economic Commission for Caribbean and Latin America proposed complementary and additional indicators to current MDGs 1 and 3, based on their regional and contextual needs. Complementary indicators are:

- population without incomes of their own (by sex);

25 Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

- poverty gap ratio by sex of head of household of poorest quintile in national consumption, men and women;
- percentage of population employed in low productivity sectors of the labor market, by sex; and
- whether a country has a quota law at the parliamentary level.

Additional potential indicators are:

- poverty femininity index;
- proportion of poor female-headed households;
- female and male unemployment rates, population aged 15 years and over;
- wage income of women as a proportion of men's;
- percentage of males and females aged 12 and over who participate in household tasks;
- average daily hours spent on household tasks, by sex and according to length of workday;
- unmet need for family planning;
- percentage of unwanted fertility; and
- percentage of women that are currently (or were formerly) engaged in relationships who have suffered from physical, sexual or psychological violence.

The United States Agency for International Development (USAID)'s Women's Empowerment in Agriculture Index "focuses on five areas: decisions over agricultural production; power over productive resources such as land and livestock; decisions over income; leadership in the community; and time use. Women are considered to be empowered if they have adequate achievements in four of the five areas. The index also takes into consideration the empowerment of women compared with men in the same household, based on asking women and men the same survey questions" (USAID, 2012). The index was developed by USAID, the IFPRI and the OPHI.

UNESCO's *World Atlas of Gender Equality in Education* maps boys' and girls' access, participation in and progress through education, from primary to tertiary levels.

Candidate Goal 7: Resilient Communities and Nations for Reduced Disaster Impact from Natural and Technological Hazards

The United Nations International Strategy for Disaster Reduction (UNISDR) defines resilience as "the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions" (2009: 24). There are linkages between climate change, disasters and poverty. Losses from disasters are increasing and climatic events cause 90 percent of disasters: windstorms, floods, hurricanes and droughts. A resilient community is one that is able to prepare for, adapt to and live through such shocks, while preserving its basic assets, but the criteria that make communities resilient differs from place to place. While a common understanding of the concept of resilience exists, its meaning has to be adapted at local levels and translated into concrete, specific indicators for each community.

No Current MDG

The UNISDR has been working on ways to measure implementation of the Hyogo Framework and to help foster progress towards disaster risk reduction. In 2005, it proposed 81 indicators for measuring the Hyogo Framework.[26] The UNISDR suggested modifications to the MDGs to capture disaster risk reduction, including the following potential indicators:

- Share of poorest quintile in national consumption does not decline in years of extreme weather and hazards (cyclones, earthquakes and floods).
- Prevalence of underweight children (under five years of age) does not increase during occurrence of major hazard event.
- Proportion of population below minimum level of dietary energy consumption does not increase in years of major hazard events.
- Percentage of primary schools certified to be in conformity with hazard resistant standards relevant for the region or in areas identified as high risk on hazard-risk maps.
- Percentage of area complying with enforcement of no development or no construction by laws, on lands classified in land-use-plans to be at high risk as per hazard-risk maps.
- Proportion of population with sustainable access to a safe water source not susceptible to destruction or depletion by natural hazards like floods, droughts, and seismic and cyclone risks.
- Proportion of people with access to secure land tenure not located in high-risk, hazard-prone zones

26 For key documents in this discussion, see "Assessing progress towards disaster risk reduction within the context of the Hyogo Framework," available at: www.unisdr.org/2005/HFdialogue/backdocs.htm.

(for example, land-slide, flood-prone or seismic zones) (UNISDR, 2008).

Asian Disaster Preparedness Centre: Key Indicators of Community Resilience

In its guidance on community-based disaster risk management, the Asian Disaster Preparedness Centre has drawn up the following list of qualitative indicators of a "minimum level of resiliency." In the US context, the Community and Regional Resilience Institute has come up with indicators for measuring disaster-resilient communities (Cutter, Emrich and Burton, 2009). See Annex 8 for these two sets of indicators.[27]

The United Nations Environment Programme's Disaster Risk Index presents a model of factors influencing levels of human losses from natural hazards at the global scale, for the period 1980–2000. This model was designed for the UNDP as a building block of the Disaster Risk Index, monitoring the evolution of risk. Assessing which countries are most at risk requires considering various types of hazards, such as droughts, floods, cyclones and earthquakes. These four hazards were tested with a model of population distribution in order to estimate human exposure before assessing risk. Human vulnerability was measured by comparing exposure with selected socio-economic parameters. The model evaluates to what extent observed past losses are related to population exposure and vulnerability.

A conceptual framework for seismic resilience

Resilience for physical and social systems can be further defined as consisting of the following properties:

- *Robustness*: strength, or the ability of elements, systems and other units of analysis to withstand a given level of stress or demand without suffering degradation or loss of function.
- *Redundancy*: the extent to which elements, systems or other units of analysis exist that are substitutable, that is, capable of satisfying functional requirements in the event of disruption, degradation, or loss of functionality.
- *Resourcefulness*: the capacity to identify problems, establish priorities and mobilize resources when conditions exist that threaten to disrupt some element, system or other unit of analysis; resourcefulness can be further conceptualized as consisting of the ability to apply material (that is, monetary, physical, technological and informational) and human resources to meet established priorities and achieve goals.
- *Rapidity*: the capacity to meet priorities and achieve goals in a timely manner in order to contain losses and avoid future disruption. (Bruneau et al., 2003)

Resilience can also be conceptualized as encompassing four interrelated dimensions:

- *Technical*: the ability of physical systems (including components, their interconnections and interactions, and entire systems) to perform to acceptable/desired levels when subject to earthquake forces.
- *Organizational*: the capacity of organizations that manage critical facilities and have the responsibility for carrying out critical disaster-related functions to make decisions and take actions that contribute to achieving the properties of resilience outlined above, that is, that help to achieve greater robustness, redundancy, resourcefulness and rapidity.
- *Social*: measures specifically designed to lessen the extent to which earthquake-stricken communities and governmental jurisdictions suffer negative consequences due to the loss of critical services as a result of earthquakes.
- *Economic*: capacity to reduce both direct and indirect economic losses resulting from earthquakes.

These four dimensions of community resilience — technical, organization, social and economic — cannot be adequately measured by any single measure of performance; instead, different performance measures are required for different systems under analysis.

Candidate Goal 8: Connectivity for Access to Essential Information, Services and Opportunities

Connectivity development is a subset of infrastructure, with a focus on linking two or more points in a system. It goes beyond access to information and communication technology (which was included in original MDG 8) to include access to energy, transport and information, and communication technology services.

Table 8: Current MDG 8: Develop a Global Partnership for Development

Target	Indicators
8. F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	• Fixed telephone lines per 100 inhabitants • Mobile cellular subscriptions per 100 inhabitants • Internet users per 100 inhabitants

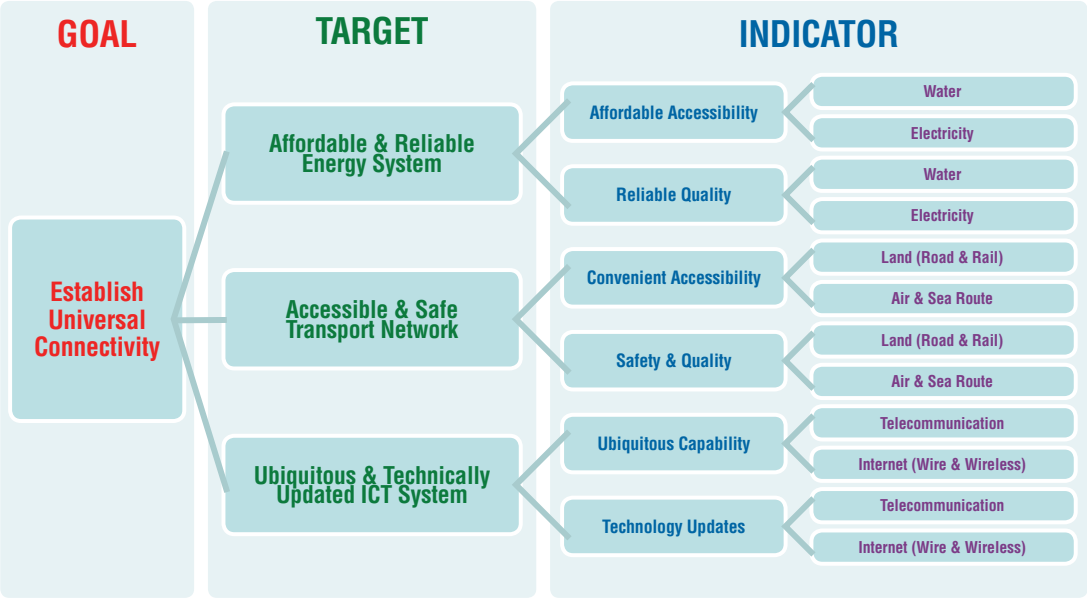
27 Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

Improved connectivity was one of the four crucial elements that respondents identified in *Voices of the Poor* (World Bank, 2000). Connectivity provides access to economic, social and political opportunity; impacts transaction costs that facilitate market integration, competition and cooperation; delivers enabling infrastructure in education, health and freedoms; and supports the technological platforms that smart infrastructure requires to take advantage of advances in engineering sciences and ecologically sound systems design. This goal should include considerations of access and quality, environmental impact (smart infrastructure) and non-traditional ways of connecting (for example, group banking or mobile phone use) that are more difficult to measure.

As conceptualized by Wonhyuk Lim (2012), the goal could be to establish universal connectivity with three specific targets: affordable and reliable energy systems; access and safe transport network; and ubiquitous and technically updated information and communication technology systems. These targets could be customized to best address national priorities in accordance with national capacities for accessibility and affordability; safety and quality control; and technology innovation and environmental friendliness. For a detailed description of the proposed framework for connectivity, see Annex 9.[28]

28 Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

Figure 4: One Goal, Three Targets, Six Indicators and Modal Sub-Indicators



The third group of four goals deals with the effective provision of global public goods.

A starting point for the proposed twelve goals was that development should be framed within a context of freedom and justice. Conditions need to be created to facilitate development not just within nations, but across them too; indeed, progress on many issues requires international cooperation. As the Millennium Declaration states, "while globalization offers great opportunities, at present its benefits are very unevenly shared, while its costs are unevenly distributed" (UN, 2000). This final set of goals is about encouraging the world community to take shared responsibility to help people to lead productive and creative lives with dignity, and to realize their rights while fulfilling their obligations to respect others. The environmental sustainability goal is the only one below with a corresponding MDG; the other three goals arise from the meeting in Bellagio.

Candidate Goal 9: Empowerment of People to Realize their Civil and Political Rights

Guarantees of civil and political rights are enshrined in the UN's *International Covenant on Civil and Political Rights*, which recognizes that "In accordance with the Universal Declaration of Human Rights, the ideal of free human beings enjoying civil and political freedom and freedom from fear and want can only be achieved if conditions are created whereby everyone may enjoy his civil and political rights, as well as his economic, social and cultural rights" (UN, 1966). This provided the basis for the Millennium Declaration and, in turn, the MDGs. Several of the existing goals align with the nine core international treaties on human rights and include goals addressing economic, social and cultural rights, but none of the current MDGs highlight civil and political rights.

Civil and political rights are the cornerstones of empowerment. In discussions at the Bellagio meeting, however, it was concluded that "empowerment" could not be distilled into a single goal. This reasoning resulted in the formulation of three candidate goals to enable conditions leading to civil and political empowerment. The goal on civil and political rights focuses on people's ability to participate in, negotiate with, influence, control and hold accountable the institutions that affect their lives.[29] People are the prime agents of development and need to be part of the decision-making process that transforms the structures that created and contributed to their poverty.[30]

In June 2008, the UN Office of the High Council of Human Rights released the *Report on Indicators for Promoting and Monitoring the Implementation of Human Rights* (UN, 2008). The report undertook an extensive survey of the use of quantitative information in monitoring human rights, assessing the literature and prevalent practices among national and international organizations. Lists of illustrative indicators were elaborated for both civil and political rights as well as economic, social and cultural rights. Three types of human rights indicators were identified: structural, process and outcome. Structural indicators track ratification and adoption of international treaties, their incorporation into domestic legislation and the existence of basic institutional mechanisms for realization of the rights; process indicators show states' policy instruments and efforts to implement human rights; and outcome indicators measure the result of states' efforts, the efficiency and effectiveness of their policies and the enjoyment of rights by their peoples.

Although outcome indicators are more difficult to measure, they would highlight the results of efforts of governments and institutions. Furthermore, success measured by structural and process indicators, such as human rights treaties, norms and policies, do not necessarily translate into practice. Ideally, the emphasis should be on outcome indicators.

Six potential indicators address the dimensions of people's participation and government accountability. Participation focuses on rights holders: people and their ability to influence and participate in decision making. This includes indicators on free and fair elections, freedom of association and freedom of expression. Accountability focuses on duty bearers: governments, national and local authorities, public officials and service providers and the ways in which they are held to account.

Indicators for people's participation are:

- Percentage of voter turnout in national and local elections, by sex and target groups.
- Number of journalists and other media persons who reported sanctions, political or corporate pressure for the publication of information.
- Percentage representation of different minorities in public, private and civil sector bodies.

Indicators for government accountability are:

- Percentage of people who have been solicited for a bribe in the past month (proxy for transparency/corruption in institutions).
- Percentage of people with access to effective mechanisms for redressing violations of their civil rights — both judicial and non-judicial.
- Percentage of people who reported experiencing discrimination based on race, gender, age, religion or disability.

There are considerable challenges with data for this goal. Several indicators are quantifiable and can be obtained from administrative data, while the bribe and redress indicators are qualitative and derive from surveys or subjective expert assessments. Accountability data should come from sources external to the government to ensure it is reliable and unbiased, but most MDG statistics come from national statistics agencies and, as a further challenge, there is no incentive for governments to provide information that reflects poorly on them. The number of reported violations may be misleading, as the most oppressive regimes can have the worst reporting mechanisms. Civil and political rights are inherently a quality issue; selecting indicators that provide a reliable measure on any of these dimensions will be difficult.

Annex 10[31] provides examples from the Mo Ibrahim Index and the World Governance Indicators. Mo Ibrahim includes indicators on the categories of participation, rights and accountability in a composite index that compiles data from various sources. This makes it difficult to track over time and to know what exactly is in the indicator. The Worldwide Governance Indicators are for cross-country comparisons of governance, and they consist of six composite indicators of broad dimensions of governance covering over 200 countries since 1996. These indicators are based on several hundred variables obtained from 31 different data sources, capturing governance perceptions as reported by survey respondents, non-governmental organizations,

29 Equitable economic rules and governance of international institutions are the other two enabling goals.

30 This framing of development is not accepted universally across the world.

31 Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

commercial business information providers and public sector organizations worldwide (Kaufmann, Kraay and Mastruzzi, 2010).

Candidate Goal 10: Sustainable Management of the Biosphere for Enabling People and the Planet to Thrive Together

One of the era's most pressing challenges is the environment and managing climate change. The governments of Colombia and Guatemala are promoting the idea of replacing the MDGs with Sustainable Development Goals (SDGs). They suggest a "process that could converge with the revision of the MDGs given that it will soon be necessary to undertake this exercise as the MDGs have a deadline of 2015" (Government of Colombia, 2012: 2). The Preparatory Committee for Rio+20 published a "zero draft," *The Future We Want*, which proposes that SDGs would reflect an "integrated and balanced treatment of the three dimensions of sustainable development, are consistent with the principles of Agenda 21, and are universal and applicable to all countries but allowing for differentiated approaches among countries… could include sustainable consumption and production patterns as well as priority areas such as oceans, food security and sustainable agriculture; sustainable energy for all; water access and efficiency; sustainable cities; green jobs, descent work and social inclusion; and disaster risk reduction and resilience…should complement and strengthen the MDGs in the development agenda for the post-2015 period, with a view to establishing a set of goals in 2015 which are part of the post-2015 UN Development Agenda" (UNSCD, 2012).

Table 9: Goal 7: Ensure Environmental Sustainability

Target	Indicators
7. A: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources 7. B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	• Proportion of land area covered by forest • CO_2 emissions, total, per capita and per $ GDP PPP • Consumption of ozone-depleting substances • Proportion of fish stocks within safe biological limits • Proportion of total water resources used • Proportion of terrestrial and marine areas protected • Proportion of species threatened with extinction
7. D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	• Proportion of urban population living in slums[1]

1 The actual proportion of people living in slums is measured by proxy, represented by the urban population living in households with at least one of the four characteristics: lack of access to improved water supply; lack of access to improved sanitation; overcrowding (three or more persons per room); and dwellings made of non-durable material.

One option is to mainstream environmental sustainability across all goals: income, jobs and growth must be green; food and water considerations must be sustainable. Stiglitz, Sen and Fitoussi identify four ways to measure sustainability: large and eclectic dashboards; composite indices; indices that consist of correcting GDP in a more or less extensive way; and indices that essentially focus on measuring how far resources are currently "overconsumed," including the ecological footprint (2009). There is no dispute with eclectic, broad and diverse sources, but the larger the dashboard, the more impractical and ineffective it will be, while composite indices suffer from arbitrary measurements and the impenetrability of sensitivity calculations. Correcting for imperfections in GDP is the least controversial of the approaches, and overconsumption indices have the advantage of apparent simplicity.

The OECD has a long history of constructive work on environmental indicators, including the recent *Environmental Outlook to 2050*, which focuses on four areas: climate change; biodiversity; freshwater; and health impacts of pollution and assesses trends in these areas in the future (OECD, 2012). The OECD Environmental Data Compendium is revised regularly and "presents data linking pollution and natural resources with activity in such economic sectors as energy, transport, industry and agriculture. It shows the state of air, inland waters, wildlife, etc., for OECD countries and describes selected responses by government and enterprises" (OECD, 2008: para 1). Ten key environmental indicators were selected from the compendium's core set of indicators. These include the environmental pollution issues of climate change, ozone layer, air quality, waste generation and freshwater quality; and the natural resource and asset issues of freshwater, forest, fish and energy resources, and biodiversity. The selection of these indicators was based on their policy relevance with respect to major challenges for the first decade of the twenty-first century; their analytical soundness; and their measurability.

The Global Footprint Network has developed its own methodology for measuring ecological resources. The Global Footprint "measures the amount of biologically productive land and sea area an individual, a region, all of humanity, or a human activity requires to produce the

resources it consumes and absorb the carbon dioxide emissions, and compares this measurement to how much land and sea area is available" (2009: para 2). Current Ecological Footprint Standards use global hectares as a measurement unit, which makes data and results globally comparable. "The Ecological Footprint, as defined by the Ecological Footprint standards, calculates how much biologically productive area is required to produce the resources required by the human population and to absorb humanity's carbon dioxide emissions. Approximately 90 percent of all leading Ecological Footprint practitioners worldwide have joined Global Footprint Network and have agreed to adhere to these standards and to use a common set of data" (2009).

Another approach is to argue that energy is a central, if not *the* central, variable in achieving environmental sustainability. The UN Sustainable Energy for All Initiative, launched by Secretary-General Ban Ki-moon, has three interlinked objectives that it aims to achieve by 2030:

- Ensure universal access to modern energy services;
- Double the global rate of improvement in energy efficiency; and
- Double the share of renewable energy in the global energy mix. (UN, 2012)

This energy-centric approach would deal with the biodiversity, oceans and forestry issues by using indicators from the Convention on Biological Diversity (2012) targets, including:

- trends in extent of selected biomes, ecosystems and habitats;
- trends in abundance and distribution of selected species;
- coverage of protected areas;
- change in status of threatened species; and
- trends in genetic diversity of domesticated animals, cultivated plants and fish species of major socioeconomic importance.

The three Sustainable Energy for All Initiative objectives would have as their respective associated indicators:

- the number of people in each country without access to energy;
- the amount of renewable energy from various sources and as a share in the energy mix of each city, region, nation and globally;
- the number of: new or retrofitted buildings with new renewable sources of energy and meters to monitor, and manage grid use and contributions; power storage units utilized within buildings; electrical- or hydrogen-powered vehicles sold; and extent of use of digital grids developed and utilized; and
- CO2 emissions, total, per capita and per $ GDP PPP.

Mohan Munasinghe (2011) tabled the Millennium Consumption Goals (MCGs) in January 2011 during preparations for Rio+20. The MCGs emphasize the need to change to more sustainable consumption and production patterns in economic, environment and social terms. They apply to both developed and developing countries, but primarily focus on motivating the world's rich to change their consumption habits. The MCG Network launched the MCG Initiative at the United Nations and is aiming to establish an international mandate for their proposal at Rio +20.[32]

Candidate Goal 11: Establishing Rules for Managing the World Economy for the Fairly Shared Benefit of All Nations

The purpose of this goal is to redress imbalances in the world economy, ensure fair trade rules and equal access to markets and international financial institutions. Such rules come in many forms, for example, subsidies and restrictions of various kinds on exports and imports, foreign investments, intellectual property, concessional finance, competition, procurement, capital requirements and health and product safety. The formal institutions and informal arrangements shaping these rules include the World Trade Organization (WTO), the IMF, the World Intellectual Property Organization, the FAO, and the WHO. The purpose of the WTO was to get an agreed set of rules, a "level playing field," for economic transactions within the global economy. Fair economic rules should create conditions enabling economic growth, which is required for progress in a variety of areas, and maximizes the potential for countries to participate in the global economy. The goal for "fair" rules applies to the substantive outcome of the decisions of these institutions. Goal 12 deals with the fairness of the deliberative and decision-making processes of these institutions.

32 Robert W. Kates, Thomas M. Parris and Anthony A. Leiserowitz (2005) summarize 12 indicator initiatives on sustainable development: Commission on Sustainable Development; Consultative Group on Sustainable Development Indicators; Well-being Index; Environmental Sustainability Index; Genuine Progress Indicator; Global Scenario Group; Ecological Footprint; US Interagency Working Group on Sustainable Development Indicators; Costa Rica; Boston Indicator Project; State Failure Task Force; and Global Reporting Initiative. See Annex 11 for full description. Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

Table 10: Current MDG 8: Develop a Global Partnership for Development	
Target	**Indicators**
8. A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system	• Proportion of total developed country imports (by value and excluding arms) from developing countries and least-developed countries, admitted free of duty • Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries • Agricultural support estimate for OECD countries as a percentage of their GDP • Proportion of official development assistance provided to help build trade capacity

This will be a very contentious domain — especially the definition of "fairness" (See Ringius, Torvanger and Underdal, 2002; and Jagers, Löfgren and Stripple, 2009). Complications to establishing fairness include the reality of very unequal endowments, dramatically different states of economic development and diverse national systems and points of view. Most people would agree that fairness means respecting the rights and interests of all the stakeholders — but it is much more difficult to gain agreement to definitions.

The report of the *World Commission on the Social Dimension of Globalization and its Significance* suggests that, in terms of global social regulation, "the rules of the global economy should be aimed at improving the rights, livelihoods, security and opportunities of people, families and communities around the world. That includes fair rules for trade, finance and investment, measures to strengthen the respect for core labour standards and a coherent framework for the cross border movement of people" (ILO cited in Cantillon and Marx, 2005: 177).

The ILO has further argued that "uniform rules for unequal partners can only produce unequal outcomes," that "fairness" involves affirmative action where the obligations of countries are a function of their state of development (ILO, 2004: 85). Dani Rodric (2011) suggests that:

> What we need are traffic rules for the global economy that help vehicles of varying size, shape, and speed navigate around each other, rather than imposing an identical car or a uniform speed limit. We should strive to attain maximum globalization consistent with the maintenance of space for diversity in national institutional arrangements… the architects of the next global economic order…must comprehend the ultimate paradox that...Globalization works best when it is not pushed too far.

The TRIPS Agreement allows governments to make exceptions to meet social goals. For example, the 2001 Doha Declaration on TRIPS and Public Health enables countries that cannot make pharmaceuticals themselves to import pharmaceuticals made under compulsory licence. The WTO provides for special and differential treatment for developing countries. Perhaps indicators are required that reflect the appropriateness and effectiveness of those measures. Are there indicators that gauge whether the rules have delivered the envisaged outcomes?

Agricultural export credits and subsidies disadvantage less-developed countries. Perhaps the target should be to phase out these measures, much like the G20 call to end inefficient fossil fuel subsidies. Indicators could the track progress on this commitment. In addition, tariffs and discriminatory tariff rate quotas for products that originate in developing countries could be decreased over time. It appears that it will be difficult to improve on the current four MDG indicators relating to market access.

A significant share of products from developing countries still faces substantial tariff barriers. Agricultural support in OECD countries remains high, reaching US$366 billion in 2010 and distorting trade. In particular, support to agricultural producers in OECD countries has a strong adverse impact on production and trade of developing countries. Aid for Trade commitments have not been met.

Potential indicators could be derived from the principles of the most-favoured-nation trading system: treating other people equally; national treatment: treating foreigners and locals equally; predictability: through binding and transparency; promoting fair competition; and encouraging development and economic reform (WTO, 2012). One could argue that there are still significant gaps in terms of equitable rules.

The World Bank publishes five categories of indicators: trade policy, external environment, institutional environment, trade facilitation and trade outcome (World Bank, 2011). The World Bank's Trade Restrictiveness Index could also be a useful source.

- Some candidate indicators are: proportion of total developed country imports (by value and

excluding arms) from developing countries and least developed countries, admitted duty free;

- Average tariffs imposed by developing countries on agricultural products and textiles, and clothing from developing countries;
- Agricultural support estimate for OECD countries as a percentage of their GDP;
- Proportion of official development assistance provided to help build trade capacity; and
- Number of claims filed for/against individual countries in the Dispute Settlement Body or something about the number of WTO agreements upheld.

The formulation of "rules" is very contentious in the areas of intellectual property rights, access to concessional finance, provision for adequate liquidity and emergency responses in terms of global macroeconomic management, prudential regulation of international financial markets and institutions, and restrictive business practices and abuse of dominant power. The selection of indicators will be no less contentious.

Candidate Goal 12: Good Global Governance for Transparent and Accountable International Institutions and Partnerships[33]

Global governance arrangements include the structure and functions of individual international organizations and the other forums and mechanisms in which the "rules of the global game" are made and monitored, as well as the relations among these various organizations, forums and mechanisms and other state and non-state actors who influence and are influenced by the rules of the global game. In formal international institutions, characteristics suggested for the definition of good governance include participation, transparency and accountability, consensus-oriented, follows the rule of law, efficiency and effectiveness, responsiveness and equity (ESCAP, n.d.). Currently, the major concerns range from voting rights to leadership selection in international organizations. Indicators must assess the effectiveness with which each individual organization, mechanism and forum is able to produce "good" global governance as well as the collective performance of these arrangements.

Because global governance is a complex aggregated concept, it is difficult to identify clear, easily measured, objective indicators of quality. Nevertheless, four factors and associated indicators, each requiring a considerable degree of judgment and likely to be the object of intense debate, offer a means for assessing global governance. The four factors are:

- definition of a holistic vision of the goal of development;
- respect for applicable international law;
- coordinated specialization; and
- good administrative practice.

The ultimate objective of global governance is to promote "development" for all societies and individuals. This, of course, begs the question of what is meant by "development"? To some extent, the sum of the other goals amount to a reasonable definition of "development" for these purposes. Development is a comprehensive and holistic process in which the economic, social, political, environmental and cultural aspects are integrated into one dynamic process. The ability of global governance institutions to help all states achieve their developmental objectives depends on how effectively they incorporate this holistic vision of development into their operating policies, procedures and practices. Global governance has to be assessed at three levels: the global, the national and the local. This is necessary, because if global governance is functioning well, it will be possible to see development opportunities expanding at each of these levels.

The institutional arrangements for international governance should comply with three sets of international legal principles. The first is respect for national sovereignty. While it is inevitable in an integrated global system that states forego some autonomy, the principle of national sovereignty helps preserve as much independence and policy space as is consistent with effective global governance. The second is non-discrimination, which ensures both that all similarly situated states and individuals are treated in the same way. In the case of states, this requires adapting the principle of special and differential treatment to international governance. This may require the creation of special communication and accountability mechanism that enable weak and poor states to meaningfully participate in international decision-making structures and institutions. It will also require states to accept responsibility for the way in which they treat all natural and legal persons, regardless of their national origins, within their borders. It is important to note that different states may have different obligations, depending on which human rights treaties they have signed and ratified. The third requires all international governance institutions to fully understand the environmental and social impacts of their operations and practices.

Coordinated specialization acknowledges that international governance requires institutions with

33 Danny Bradlow conceptualized much of this section.

limited and specialized mandates. It requires, first, the mandate of each of the institutions of international governance must be clearly defined; and second, transparent and predictable mechanisms for coordination and dispute settlement with other organizations.

The arrangements for global governance should be guided by the same principles — transparency, predictability, participation, reasoned and timely decision making and accountability — as are applicable to any public institution. They must conduct their operations pursuant to transparent procedures that provide all stakeholders with opportunities for participation and which produce results that are predictable and understandable. Finally, stakeholders should be able to hold the institutions accountable for decisions and actions.

Indicators — Vision:

- Does each global governance institution have an official document that articulates its vision of development and how its policies/operations/activities contribute to the promotion of that vision?
- Is there independent evaluation of policies/operations/activities contributions to the promotion of the vision?

Indicators — Rule of Law:

- Do the foundational instrument and policies and procedures for global governance address the issue of respect for the sovereignty of each member state?
- Does each institution or arrangement of global governance require both equal treatment for each similarly situated member state and special and differential treatment for weak and poor member states?
- Does each explicitly require that its policies and actions respect the internationally recognized rights of all natural persons affected by its policies or operations?
- Does each institution or arrangement of global governance explicitly require its member states, based on their international legal obligations, respect the rights of those natural and legal persons subject to their jurisdiction?
- Does each require environmental and social impact assessments?

Indicators — Coordinated Specialization:

- Does the foundational document clearly delineate the mandate of each institution or arrangement for global governance?
- What mechanisms exist for facilitating coordination between all institutions or arrangements that are active within or relevant to a particular sector or topic area?
- Are the available coordination mechanisms used?
- Do they, in fact, comply with the guidance/decisions/recommendations of the coordination mechanism?
- Do these coordination mechanisms offer a grievance process for stakeholders who are not satisfied with the decisions of the coordination mechanism?

Indicators — Administrative Practice:

- Does each arrangement for global governance have a transparent and participatory rule-making procedure?
- Does each arrangement for global governance have a decision-making process that is transparent, easy to understand and that offers all stakeholders a meaningful opportunity to participate?
- Does each arrangement for global governance offer each of its stakeholders access to an appropriate independent mechanism through which it can be held directly accountable for its own decisions and/or actions, as opposed to those of its member states?

One World Trust conducts research, develops recommendations and advocates reforms to make policy and decision-making processes in global governance more accountable to the people, and to ensure that international laws are strengthened and applied equally to all. They recently revised their Global Accountability Framework to employ a graded scoring system. It employs 65 qualitative indicators of five dimensions of good practice standards: transparency, participation, evaluation, complaint and response mechanisms and evidence of an organization's ability to exercise leadership on accountability (See Annex 12).[34]

CONCLUSION

The United Nations has a challenging task over the next few years. A future set of development goals and their corresponding targets and indicators must be decided upon to succeed the MDGs. There is an enormous amount of technical and political work required to construct the future set of goals. There are major gaps in data, challenges with measurement and complex questions on process, context and content.

34 Report annexes are available at: www.cigionline.org/project/toward-post-2015-development-paradigm.

As a continuation of previous work on a potential future set of goals, participants in Paris reflected on the 12 proposed goals and provided expert advice on indicators that could be employed to measure progress. The objective was not to select indicators, but to identify potential indicators and identify some of the key problems with measurement in each goal area. Goals 11 and 12 were criticized most heavily based on their inclusion in the framework ("this is not the place to deal with international institutional reform") and the difficulty in finding measureable indicators. There was a debate about separating hunger from poverty. Health advocates were concerned about consolidating the three MDG health goals into one goal. There was concern that the framing of food and water positioned water in a less prominent position and that it would be crowded out by food (just as hunger was crowded out by poverty in MDG 1). At this very preliminary stage, there is need for highly technical work on smart and parsimonious indicators for every single candidate goal. Participants' future work will maintain the 12-goal structure — though not advocates for a framework or any particular goals — in order to inform the process that will select the post-2015 goals. Since credible future goals will require a persuasive case for associated targets and indicators, it is helpful to present a menu of options on potential indicators for a wide range of goals.

A future set of goals should apply to both developed and developing countries. The new agenda should be as universally applicable as possible. This is a crucial consideration for identifying indicators (for example, over- and under-nutrition, relevance of US$2 per day poverty line). The discussion paper needs to evolve to better account for this, that is, to propose indicators that are relevant to everyone.

There are political challenges with some of the current goals and indicators. Goals should be about the world we want — aspirational — but the impact on acceptability must be considered. For example, some countries will be averse to a goal on civil and political rights; others will dislike goals on restructuring international institutions.

Information can be obtained from people's perceptions and expert assessments or from administrative data (for example, from national statistical agencies, UN stats). There are major problems with data availability, reliability and usability. Survey data could complement administrative data on key parameters, but it is expensive, subjective and could not be obtained annually (although it could be timed to align with UN needs). There are trade-offs with relying on solely on one or the other. Moreover, value judgments are embedded in statistics, surveys and questionnaires. Norms influence data collection, selection of wording and interpretation of statistics.

Goals and indicators should focus on outcomes, versus inputs or outputs. For some goals, selecting outcome indicators will not be possible, but the premise is that if an indicator focuses on an outcome then the country can decide what inputs it uses to reach the desired outcome. Outcome indicators avoid a prescriptive means-based approach.

Some voiced concern that, in jumping from goals to indicators, the discussion "missed the core of the whole thing" — targets. If so, there are potentially three options: allow every country to set its own targets; internationally define areas where targets should be set and then countries can determine the pace and balance at which they move towards them, setting the framework within which targets can be set, but leaving the actual targets to countries; or whatever countries set for themselves as targets there should be a global standard below which no country should be allowed to fall.

Targets are the mobilizing factor. They inspire and mobilize the agenda with a determination of the destination. Proposing indicators first, however, identifies the measurability of the goal; additionally, targets cannot be set globally when each country determines their targets. Further thinking is required on this issue.

Disaggregation did not work in the original MDGs and must be better handled in the post-2015 framework. Where individual data is available, the amount of disaggregation that can be done should be maximized (for example, gender, income quintile). Even with household data, we are aggregating.

The United Nations has an unenviable task. There are high expectations for a future framework to improve upon the amount of progress already made. The MDGs made a significant impact on development policy, perhaps more so than anyone originally anticipated. The world continues to change rapidly: the majority of the world's poor now live in middle income countries, the burden of disease has changed and technology advances unpredictably. The next set of goals must address current challenges and anticipate future ones. Difficult decisions are required for addressing the trade-offs in metrics, structure, and content. CIGI, KDI and partners will continue to work on these issues.

Over the next six months, this working paper will facilitate discussions in China, Korea, South Africa, India and Brazil. The objective is to solicit regional responses to the potential goals and encourage the debate to contribute to the post-2015 framework.

AGENDA

POST-2015 DEVELOPMENT GOALS: POTENTIAL TARGETS AND INDICATORS

Experts workshop hosted by the OECD/DAC | Paris, April 10-11, 2012

Tuesday, April 10, 2012

Co-Chairs: Brian Atwood/DAC Chair & Barry Carin/CIGI

09:30 **Welcome / Opening** (Angel Gurria/OECD SG, Brian Atwood/DAC Chair, Mukesh Kapila/ representative of the Bellagio Group)

10.00 **UN approach to post 2015** (Rob Vos/UNDESA)

10.30 **OECD messages to post 2015 (Chair: Rintaro Tamaki/OECD Deputy SG)**

- Messages from the DCD (Serge Tomasi/DCD Deputy Director)
- Messages from the STD (Martine Durand/Director STD)
- Messages from the OECD Development Centre (Mario Pezzini/Director DEV)
- Importance of impacts (Howard White/Executive Director 3ieimpact)

11.30 **Introductory Remarks / Pitfalls and Challenges of Choosing Metrics**

(Barry Carin/CIGI, Marcelo Neri/Getulio Vargas Foundation)

12.00 **12 proposed goals**

Four goals dealing with the effective provision of global public goods

Proposed goal no. 12: Good global governance for transparent and accountable international institutions and partnerships

Speaker: Danny Bradlow/University of Pretoria

Discussants: Kjetil Hansen/DCD

Proposed goal no. 11: Establishing rules for managing the world economy for the fairly shared benefit of all

Speakers: Tom Bernes/CIGI, Xiaoyun Li/IPRCC

Discussants: Ben Dickinson/DCD

13:00 **Buffet lunch** hosted by DAC/DCD

14:00 **Potential indicator and target design continued**

Proposed goal no. 9: Empowerment of people to realize their civil and political rights

Speaker: Nicole Bates-Eamer/Centre for Global Studies

Discussants: Zsuzsanna Lonti/GOV

2nd group of four goals concerned with protecting and promoting collective human capital

Proposed goal no. 5: Security for ensuring freedom from violence

Speaker: Mukesh Kapila/ HCRI/University of Manchester

Discussants: Erwin van Veen/DCD

Proposed goal no. 6: Gender equality for enabling males and females to participate and benefit equally in society

Speaker: Janka Andaharia/Tata Center for Disaster Management

Discussants: Patti O'Neill/DCD, Somali Cerise/DEV

Proposed goal no. 7: Resilient communities and nations for reduced disaster impact from natural and technological hazards

Speakers: Mukul Bhola/IFRC, Astier Almedom/Copenhagen School of Global Health, Janki Andharia/Tata Center for Disaster Management

Discussants: Monica Brezzi/GOV

Proposed goal no. 8: Connectivity for access to essential information, services and opportunities

Speaker: Wonhyuk Lim/Korea Development Institute

Discussant: Pierre Montagnier/STI

17.30 **Stocktaking:** Richard Manning, Serge Tomasi/Deputy Director DCD

Wednesday, April 11, 2012

Co-Chairs: Mario Pezzini/Director DEV & Barry Carin/CIGI

09.30 – 12.30 **Potential indicator and target design continued**

Four goals concerned with the necessary endowment for individuals to achieve their fuller potential

Proposed goal no. 1: Adequate livelihoods and income levels for dignified human existence

Speakers: Sabina Alkire/Director OPHI, Kaushal Joshi/Asian Development Bank, Emma Samman/ODI

Discussants: Bill Nicol/DCD, Johannes Jutting/DEV, Jonathan Brooks/TAD, Marco Mira D'Ercole or Conal Smith or Romina Boarini/STD

Proposed goal no. 2: Sufficient food and water for active living

Speakers: Carlo Cafiero/FAO, Lynn Brown/WFP, Mike Muller/Global Water Partnership

Discussants: Karim Hussein/APF, Anthony Cox/ENV

Proposed goal no. 4: Good health for the best possible physical and mental well-being

Speaker: Tony Redmond/HCRI/University of Manchester

Discussants: Marc Pearson/ELS, Elisabeth Sandor/DCD

Proposed goal no. 3: Appropriate education and skills for productive participation in society

Speakers: Denise Lievesley/King's College London

Discussants: Andreas Schleicher/EDU, Koji Miyamoto/EDU, Michael Ward/DCD

Fourth goal dealing with the effective provision of global public goods

Proposed goal no. 10: Sustainable management of the biosphere for enabling people and the planet to thrive together

Speaker: Colin Bradford/CIGI

Discussants: Helen Mountford/ENV, Shardul Agrawala/SGE/SHPA

12.30 – 13.00 **Concluding Remarks**: Jan Vandemoortele, Brian Atwood/DAC Chair

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TOWARD A POST-2015 DEVELOPMENT PARADIGM PROJECT

Barry Carin, Mukesh Kapila and Wonhyuk Lim, Project Leaders

Toward a Post-2015 Development Paradigm is now in its second phase, following a successful initial stage of work in 2011. The project aims to conduct critical examinations of policy options for a future set of development goals. The first phase, spearheaded by CIGI and the International Federation of the Red Cross and Red Crescent Societies (IFRC), convened expert groups to shape international policy approaches to succeed the United Nations Millennium Development Goals (MDGs) in 2015. The final product of the first phase was a proposed set of future development goals to provoke debate on the post-2015 agenda.

With additional partners, including the Korea Development Institute (KDI), the project will build on the past work by CIGI and IFRC, reviewing the potential goals, determining their associated quantifiable targets and indicators, and gauging their acceptability in different regions around the world.

BACKGROUND

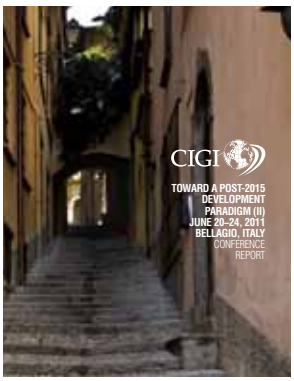
In 2011, CIGI and IFRC assembled a group of development and governance experts to explore a range of research questions and create a set of recommendations for international action. These experts considered issues of development and sustainability, in the spirit that efforts should be measurable and enduring. This work resulted in the first set of potential successor goals to the MDGs. Described as "the most interesting specific proposals," they have been cited by a number of national governments and international development organizations.

ACTIVITIES

In 2012, the objective is not to provide the answer to post-2015 MDGs, but to filter through some of the challenging questions and issues involved in designing a new set of global development goals leading to the best policy choices.

An initial baseline report on the current state of indicators and measurement for development was produced and served as a background report for a gathering of experts at the OECD in Paris on April 10-11, 2012. Regional consultations hosted by Brazilian, Chinese, Indian and South African partners will follow this initial meeting, in order to sharpen a draft options paper. The final publication of the collaboration will be presented to UN officials in the fall of 2012.

RELATED PUBLICATIONS



Toward a Post-2015 Development Paradigm (II) Conference Report, June 20-24, 2011, Bellagio, Italy

Barry Carin and Mukesh Kapila

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ABOUT CIGI

The Centre for International Governance Innovation is an independent, non-partisan think tank on international governance. Led by experienced practitioners and distinguished academics, CIGI supports research, forms networks, advances policy debate and generates ideas for multilateral governance improvements. Conducting an active agenda of research, events and publications, CIGI's interdisciplinary work includes collaboration with policy, business and academic communities around the world.

CIGI's current research programs focus on four themes: the global economy; the environment and energy; development; and global security.

CIGI was founded in 2001 by Jim Balsillie, then co-CEO of RIM (Research In Motion), and collaborates with and gratefully acknowledges support from a number of strategic partners, in particular the Government of Canada and the Government of Ontario.

Le CIGI a été fondé en 2001 par Jim Balsillie, qui était alors co-chef de la direction de RIM (Research In Motion). Il collabore avec de nombreux partenaires stratégiques et exprime sa reconnaissance du soutien reçu de ceux-ci, notamment de l'appui reçu du gouvernement du Canada et de celui du gouvernement de l'Ontario.

For more information, please visit www.cigionline.org.

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