



**POST-2015
DEVELOPMENT
AGENDA: GOALS,
TARGETS AND
INDICATORS**

SPECIAL REPORT



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Nicole Bates-Eamer, Barry Carin, Min Ha Lee and Wonhyuk Lim,
with Mukesh Kapila



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ACRONYMS

ACER	Australian Council for Educational Research	OECD DAC	OECD Development Assistance Committee
ADB	Asian Development Bank	OHCHR	Office of the High Commissioner for Human Rights (UN)
Admin	administrative data from national statistics agencies	PIAC	public Internet access centre
ART	antiretroviral therapy	PISA	Programme for International Student Assessment (OECD)
BMI	body mass index	PPM	parts per million
CIGI	The Centre for International Governance Innovation	PPP	purchasing power parity
CIRI	Cingranelli-Richards Human Rights Data Project	SDGs	Sustainable Development Goals
DALY	Disability-Adjusted Life Year Index (WHO)	SE4ALL	Sustainable Energy for All
DOTS	directly observed treatment short course (TB)	SHaSA	Strategy for the Harmonization of Statistics in Africa
EAP	East Asia and Pacific Region (World Bank)	TB	tuberculosis
ECCE	early childhood care and education	TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
EDI	EFA Development Index	UCDP	Uppsala Conflict Data Program
EFA	Education for All (UNESCO)	UN	United Nations
FAO	Food and Agriculture Organization (UN)	UNCTAD	UN Conference on Trade and Development
FCS	food consumption score	UNDP	UN Development Programme
GDP	gross domestic product	UNEP	UN Environment Programme
GHG	greenhouse gas	UNESCO	UN Educational, Scientific and Cultural Organization
GII	Gender Inequality Index	UNFCCC	UN Framework Convention on Climate Change
GNI	gross national income	UN-HABITAT	UN Human Settlements Programme
HALE	Healthy Life Expectancy Index (WHO)	UNICEF	UN Children's Fund
HDI	Human Development Index	UNISDR	UN International Strategy for Disaster Reduction
HDR	Human Development Report	UNODC	UN Office on Drugs and Crime
HPI	Human Poverty Index	USAID	United States Agency for International Development
HS	household survey	VOIP	Voice over Internet Protocol
IAEA	International Atomic Energy Agency	WFS	World Food Summit
ICAO	International Civil Aviation Organization	WMO	World Meteorological Organization
ICT	information and communication technology	WHO	World Health Organization (UN)
IDEA	Institute for Democracy and Electoral Assistance	WTO	World Trade Organization
IEA	International Energy Agency		
IEG	Independent Evaluation Group (World Bank)		
IFRC	International Federation of Red Cross and Red Crescent Societies		
ILO	International Labour Organization		
IMF	International Monetary Fund		
IRF	International Road Federation		
ITU	International Telecommunication Union		
IUCN	International Union for Conservation of Nature		
KDI	Korea Development Institute		
MDGs	Millennium Development Goals		
MHM	menstrual hygiene management		
MPI	Multidimensional Poverty Index		
NCHS	National Center for Health Statistics		
NEPAD	New Partnership for Africa's Development		
OD	open defecation		
ODA	official development assistance (OECD DAC)		
OECD	Organisation for Economic Co-operation and Development		

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Any errors are the responsibility of the authors.

AUTHORS' NOTE

This report has been prepared for a presentation in November 2012 to the United Nations (UN) officials responsible for post-2015 development goals proposals to succeed the Millennium Development Goals (MDGs). It is also being presented to the lead author of the Secretary-General's High Level Panel, to diplomats at the United Nations, to World Bank officials, and to representatives of civil society organizations and researchers in New York City and Washington.

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SUMMARY

“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)

In September 2000, world leaders at the United Nations Millennium Summit recognized a collective responsibility to work toward “a more peaceful, prosperous and just world” (UN, 2000). The MDGs reaffirmed this vision and launched an ambitious global partnership for development, setting specific targets to be met by 2015 and using numerical indicators to measure progress. The MDGs recognized the stark reality of widespread human deprivation and environmental degradation, and galvanized support to reduce poverty, achieve basic education and health, and promote gender equality and environmental sustainability.

By 2015, the world will have met some of the MDGs’ key targets, such as halving the poverty rate, and will get close to completing primary education for all children; but achieving the health goals looks difficult and Africa lags behind, despite the substantial progress it has made since 2000. Overall, the MDGs have been remarkably successful in focusing attention and mobilizing resources to address the major gaps in human development.

Building on the MDGs, the global community should move beyond meeting basic human needs and promote dynamic, inclusive and sustainable development. Future goals must reach beyond traditional development thinking to become sustainable one-world goals that apply to poor and rich countries alike. Surveys show that even for the poorest, meeting basic needs is not enough. The World Bank’s *Voices of the Poor* (2000) exercise, for instance, concluded that the priorities of the poor are jobs, better connections to the rest of the world, reduced threats of violence and ending humiliation and disrespect. The new goals should not only provide for basic human needs, but also ensure essential human rights and create enabling conditions to help individuals realize their potential.

For basic needs, the new goals should strive to do much more than tackling extreme poverty and hunger, and achieving basic education and health. The new goals should seek to deliver better living standards through inclusive growth, for instance, by accelerating income growth and increasing employment, especially for the poorest 20 percent. The education goal should move beyond primary schooling toward universal literacy and numeracy and improved job skills. The health goal should focus on productive life expectancy, for rich and poor countries alike. For essential human rights, the

new goals should promote civil and political rights, and security in addition to gender equality. Without being overly prescriptive, the civil and political rights goal should promote public participation, accountability and transparency. The security goal should seek to reduce violence and vulnerability. For enabling conditions, the new goals should promote universal access to information and communication technology (ICT), transportation and energy infrastructure, in addition to ensuring environmental sustainability, disaster resilience and good global governance, to ensure that dynamic, inclusive and sustainable development can take place without perpetuating aid dependence.

Based on discussions at a meeting at Bellagio, Italy last year and regional consultations this year, this report looks at the potential indicators for 11 potential future “Bellagio Goals”:

- inclusive growth for dignified livelihoods and adequate standards of living;
- sufficient food and water for active living;
- appropriate education and skills for productive participation in society;
- good health for the best possible physical and mental well-being;
- security for ensuring freedom from violence;
- gender equality, enabling men and women to participate and benefit equally in society;
- building resilient communities and nations for reduced disaster risk from natural and technological hazards;
- improving infrastructure for access to essential information, services and opportunities;
- empowering people to realize their civil and political rights;
- sustainable management of the biosphere, enabling people and the planet to thrive together; and
- global governance and equitable rules for realizing human potential.

The availability of appropriate indicators to underpin targets for each of the goals is critical and it is important to note that the behaviour of organizations and individuals is 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 devising suitable indicators that are both measurable and motivational in order to galvanize public support for development. Serious data limitations exist, especially for the purposes of cross-country comparisons. Metrics must be sophisticated — not too crude, but also not too technocratic. Indicators should allow for disaggregation by sex, urban/rural, and identity groups and income bands to unmask the inequalities that hide behind generalized statistics. This report reviews a menu of indicators for the candidate goals to inform the future process of selecting the post-2015 successors to the MDGs.

FOREWORD

Goals are important; they motivate behaviour and investments. 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. We intend to contribute technical inputs to the official UN processes. Rather than advocate any particular issue area, this report, built on a series of meetings followed by consultations with experts in Paris, Beijing, Seoul, Pretoria, Mumbai and Rio de Janeiro, provides a compendium of the indicator options for each potential goal.

There will be temptation, in some quarters, to finesse the difficulties of selecting and defining goals, targets and indicators. The impulse of wise officials, who have no appetite for the vigorous debate involved, will be to publish some unobjectionable principles, leaving it to individual countries to specify their own goals, targets and indicators. This would be the easy way out, avoiding compromises and accepting imperfect results, under the pretext of promoting “country ownership.” But “the perfect,” it is often said, “is the enemy of the good.” It would be unfortunate if the United Nations were to pass on this opportunity to galvanize a “one world” approach to the development agenda.

In developing the Bellagio Goals, we presumed that the principles enshrined in the Millennium Declaration and the Rio+20 outcome document are a sufficient basis on which to build the post-2015 agenda. It is neither necessary nor practical to develop further globally accepted principles; instead, goals should be derived from language already agreed to in international conventions and declarations. It is impractical to use this exercise as the vehicle to develop new norms or values.

Our project examined a long list of potential goals, and while each issue area has fervent advocates, the formulation of goals is an exercise of determining priorities; not everything can be included. If everything is a priority, nothing is a priority; trying to please everybody is a formula for failure. We believe that the world will pursue “unfinished MDG business” by recommitting to more ambitious targets, including minimum standards, on the MDGs with respect to poverty, education, health and gender. Drawing its inspiration from the Millennium Declaration, the post-2015 agenda will likely include, in some form, the dimensions of peace and security, civil and political rights, disaster resilience, connectivity and governance. It will probably highlight inequality, improving food security and some reference to safe water and sanitation, the informal economy and the transition to a “green economy.” A way will be found to incorporate the aspirations of youth. We cannot load everything on the new development agenda; it is asking too much to

expect a single, global, aspirational agreement to align goals of sustainable development with the profit-making focus of, for example, the private business sector or to improve the coherence between macro, social and environmental policies. There is a limit on the number of goals a framework can accommodate. It is, for example, too much to expect a concise statement of the global development agenda to address controversial issues such as population, genetically modified organisms, nuclear power or geo-engineering issues. It would be a strategic mistake to encumber the framework with the issue of burden sharing. We must pursue the art of the possible, avoiding divisive issues that could prevent an agreement.

Goals should address common but differentiated responsibilities. They should create a more coherent global approach by framing global goals, but leave individual countries to devise ambitious targets based on their national contexts. Ideally, goals should be focused on outcomes, but in some cases, input, output or process goals and targets could be appropriate. Indicators should be formulated to provide intermediate milestones of progress. It will be important to improve statistical capacity to monitor any new development goals. A prerequisite for selecting goals and targets is that indicators should exist or can realistically be provided, otherwise tracking progress is impossible. Indicators must be selected based on the availability of suitable administrative data and the feasibility of potential relevant surveys.

BACKGROUND

“Tell me what you’re going to measure;
and I’ll tell you how I’m going to
behave.” (Anonymous)

INTRODUCTION

While the MDGs have undoubtedly been highly successful raising visibility — strengthening governments’ commitments to poverty reduction, rallying the world behind a moral purpose, providing policy direction, setting out specific outcome indicators, catalyzing increased investments in several important areas and sustaining efforts to promote development — periodic reviews of the MDGs have revealed mixed progress.

Their simplicity, concreteness and measurability made them easily transferrable into national monitoring and evaluation frameworks. Low-income countries with little experience in development planning, in particular, found the MDGs quite useful in formulating and implementing national development plans. The MDGs have been criticized, however, as a donor-centric view of development, misinterpreted as national targets and misappropriated as a call for aid. They have been characterized as statist and technocratic in their conceptualization and condemned as donor-driven by a reductionist agenda that pays little attention to locally owned definitions of human dignity and well-being, the crucial enabling factors for globally sustainable and equitable human progress.¹

But can we do better? Can we devise a development framework for the post-2015 era that incorporates the many advantages, but avoids the disadvantages, of the MDGs? The way ahead is a challenging labyrinth with many difficult decisions to make. We grappled with some of these difficult questions in our process:

- What is the philosophical underpinning for post-2015 goals, our aspirations for what is most important to accomplish? Poverty reduction? Public goods? Sustainability?

¹ The MDGs have been criticized as a partial vision; a Western construct lacking a pro-poorest focus. Indeed, MDG averages de-emphasize the poorest: they ignore initial conditions, mislabel high performers as losers (for example, Mozambique is considered way “off track,” despite strong improvements), undermining reformers and feeding skeptics. They disregard inequality and empowerment. Refining or extending the MDGs is criticized as perpetuating the existing yet failed development approach. The current model of development lets aid dollars go to Northern institutions instead of directly to Southern people. The complaint is that the governance framework and arrangements of the International Monetary Fund (IMF) and World Bank are never questioned; rather, failure to develop is attributed to the people, systems and governments of the Global South.

- Can goals be formulated based on past-agreed statements like the Millennium Declaration? Can we build on ratified UN conventions or accepted definitions by UN agencies?²
- Should the targets and timelines of the existing eight goals simply be revised? Or should new dimensions be included?
- What is the maximum number of post-2015 goals, given the many competing priorities and the virtue, indeed the necessity, of limiting their number?
- Should goals be included for issues like security, human rights, democracy, climate change, water, gender and consumption? Should we include goals for secondary and tertiary education, skill development, the global financial system, urbanization, democracy, trade rules, failed states, anti-corruption, tax evasion or land mine clearance?
- Should post-2015 goals apply to the whole world or focus on the poorest and least developed, emphasizing inequality and empowerment?
- Should targets for successor goals measure outputs and outcomes rather than inputs?
- What indicators could best measure the success of each goal?
- To what degree should indicators be required to allow for disaggregation by income, gender, urban/rural or sub-national units, age or other vulnerable groups?

Our discussions over the last 18 months included an overview of the MDGs’ progress to date, their strengths and weaknesses as a framework, the changing context of global development and the criteria for a post-2015 framework. We produced the menu of 11 candidates for a potential post-2015 framework we call the Bellagio Goals.

² For example, the World Health Organization (WHO) definition of health.

Figure 1: Proposed Bellagio Goals



Source: Authors

Based on the traditional North-South aid model, the current MDGs are focused on poverty reduction and human development for “the bottom billion,” aiming to achieve a basic level of income, education, gender equality and health (MDGs 1–6); paying some attention to environmental sustainability, but not enough to the economic and social dimensions of sustainable development (MDG 7); and giving only an afterthought to global public goods (MDG 8), without providing specific numerical targets, unlike the case for all the other goals. The current framework leaves out governance (participation, transparency and accountability) and security (freedom from violence and vulnerability); overlooks inequality in income and access to opportunity (including access to infrastructure); and remains silent on how to meet basic human needs — and beyond — through self-sustaining growth and development.

There is an emerging consensus that, to be relevant, the post-2015 development agenda needs to go well beyond a poverty focus, given the dramatic changes in the international development landscape over the past two decades. In 1990, 80 percent of the world’s poor lived in stable, low-income countries, and the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) countries pushed ahead with their official development assistance (ODA) agenda based on the North-South model. In 2010,

only 10 percent of the world’s poor lived in stable, low-income countries, whereas 66 percent resided in middle-income countries and 24 percent in fragile, low-income countries (Gertz and Chandy, 2011). Emerging countries, such as China, Brazil and India are rapidly increasing their South-South cooperation programs, combining ODA with knowledge sharing, trade and investment. The concept of poverty reduction is being replaced by the more ambitious and challenging notion of inclusive growth, as many developing countries are confronted with the phenomenon of increasing inequality amid declining poverty. On the environmental front, the consequences of climate change are becoming more acute with each passing year. In addition, natural and man-made disasters in recent years have brought the issue of disaster risk reduction and resilience to the forefront of development discourse.

To be relevant to middle- and high-income countries as well as low-income countries and to respond to emerging global challenges, the post-2015 development agenda should be based on a comprehensive and holistic notion of development. Amartya Sen’s “development as freedom” concept (1999) may provide an inspiring vision of development for the post-2015 period. The IFRC has endorsed this approach, stating that “For us, development means that everyone is able to achieve their full potential, and lead productive and creative

lives with dignity according to their needs and choices, whilst fulfilling their obligations and realizing their rights” (2010: 11). Along the same vein, in the run-up to Rio+20, Colombia and Guatemala put the notion of post-2015 sustainability goals, covering economic, social and environmental dimensions, in play.

The UN Task Team report, *Realizing the Future We Want for All*, released in June 2012, has broadly endorsed the need to go beyond poverty reduction to promote holistic development, emphasizing the three principles of human rights, equality and sustainability, and the four dimensions of peace and security, inclusive economic development, inclusive social development and environmental sustainability (UN, 2012). The Task Team also stresses the importance of global public goods or enablers.

Our view of development is a comprehensive and holistic one, consistent with the notions advanced by Sen and the IFRC. We believe that post-2015 goals should focus on the essential endowments necessary for individuals to achieve their fuller potential, the arrangements to protect and promote collective human capital and the effective provision of global public goods.

Goals, targets and indicators should follow from this holistic notion of development, based on a two-track structure of global and country targets under universally agreed principles. 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 Bellagio Goals would apply to both developing and developed countries. They would set global targets and allow for national targets to reflect an individual country's context. Universal goals, formulated through an international consultation process, would be required to provide a sense of direction and coherence for global development, but targets and indicators should be locally adapted to ensure country ownership and development effectiveness.

Unlike the current MDGs, which tried to extrapolate global trends to arrive at global targets, countries should instead be asked to come up with their own targets, preferably above a universally agreed minimum level, in a one-world approach. Each country, based on its own context and patterns, should set its own targets. Global targets could then be deduced by looking at the weighted average of country targets as well as global trends.

Conceptually, after adopting a comprehensive and holistic definition of development that can inspire the global community (Sen's “development as freedom”), we should draw from theory and history to formulate an effective development paradigm and identify development goals that are ends in themselves, as well as proximate causes or enabling conditions for better lives, from rights-based and instrumental perspectives. Ideally, these goals should constitute a logically coherent and comprehensive set of goals for development.

We drew from the principles enshrined in the Millennium Declaration and the Rio+20 outcome document to arrive at the 11 candidate goals for the post-2015 agenda. Any one goal is multidimensional in nature, and if we had only one goal (for example, poverty reduction), we would have to deal with the multidimensional aspects of the goal (for example, income poverty, health poverty, education poverty and security poverty) in our design of targets and indicators. However, since we have 11 goals, rather than only one (as in the case of single-issue devoted frameworks), we do not have to make any one goal do all of the “heavy lifting.” What we need, instead, is the coordination and division of labour among the goals.

For instance, for water security, the availability and quality of water, and security from water-related disasters are typically dealt with because the sector experts would like to cover the full range of water-related issues under the single goal of water security. In our framework, however, security from water-related disasters would more appropriately belong in disaster risk reduction and resilience. In other words, our notion of water security, focused on the availability and quality of water, is narrower than the one used by water experts. Similarly, while sanitation is intimately linked to the quality dimension of water security (that is, safe drinking water), sanitation belongs just as well with the health or infrastructure goals, because sanitation includes other health- and infrastructure-related elements that are not connected to safe drinking water.

The question we have to ask, then, is whether we should cover all basic sanitation (water-related or not) issues under health, or whether it is better to focus primarily on safe drinking water under food and water security. The key issue we should consider in this context is how to deal with a single medium (for example, water) that has multiple functions and issues, such as health, disaster risk, motive power and a subsidiary goal (for example, sanitation in relation to health) that has links to other medium-based goals, such as water security and access to infrastructure.

Our premise is that aspirational statements are useless without metrics; that there cannot be any sensible discussion about targets if we are unable to measure

progress in agreed areas. There are a number of lessons to learn from the old MDGs in this regard. Practical ways of measuring progress in agreed-upon areas must be made clear. 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 the 11 broad candidate Bellagio Goals.

Our research consortium reviewed the framework of the Bellagio Goals and the quality of available indicators in a series of consultations around the world. Insightful points raised include:

- Process matters: be wary of focusing only on outcomes. Provisions for participation, transparency and accountability influence outcomes.
- There should be a minimum measure for every individual — perhaps the poverty line — that differs in each country. One suggestion was to select a target percentage of people to reach half the median income in each country (relative poverty).
- There is a risk that universal global goals will de-emphasize the focus on the poorest countries.
- There is a concern that early consideration of post-2015 successor goals will divert attention from efforts to achieve the current MDGs.
- While there is a wealth of potential indicators for health goals, there is a paucity of reliable indicators for civil rights, equitable economic rules and global governance.
- We should not be captive to existing data sources; if necessary, we can mandate new statistical activity or surveys, or change existing surveys so that they would be better aligned with the post-2015 development agenda.

CHALLENGES

“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 UN Department of Economic and Social Affairs [UNDESA], 2012)

This section lists the challenges to making the selection of targets and applying the criteria in choosing indicators, and the difficulties regarding the availability of data.

An ideal set of global targets should have the attributes listed by Jan Vandemoortele (2011). Targets should:

- 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, we originally proposed a tentative architecture of 12 post-2015 goals, which is now 11; this may still be too many.³ Earlier this year, Claire Melamed wrote, “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).

Our intention, brave and foolish though it may be, in proposing these goals is to provide a set of options to be included in a future framework and to begin thinking through the complexities and the intellectual and practical issues that decision makers will encounter in their official process of selecting targets and indicators. We do not expect these goals to succeed the current eight, nor do we believe that anything but the inclusive consultative process led by the United Nations will be the 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. Our intention is to contribute to the debate by assessing the strengths and weaknesses of potential indicators of progress.

While indicators are useful and can mobilize activity and enable comparisons, they are not the complete story. 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

³ The current eight MDGs are broken down into 21 targets measured by 60 indicators.

choice of targets is constrained by the availability of appropriate indicators and is informed by the analysis of their trends and projections. 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 country's population has x percent of the national income, while the top 10 percent has y percent.
- *Indicators 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 actually 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. The classic example is neonatal morbidity and mortality that can best be improved only by addressing a wide range of health and nutrition factors. If multiple indicators are used, they should cover quite different aspects of the general goal so that together, these mutually exclusive indicators produce a comprehensive picture of progress on the goal.
- *Already agreed upon indicators* from relevant international organizations (for example, UN Food and Agriculture Organization [FAO] guidelines on malnutrition and food insecurity) are exploited.
- *Potential responses of behaviour change to meet the indicator* ("studying to the test" rather than studying for the test) are not allowed to mask 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. 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.

- *Direct measures are preferred to ones based on perceptions*, for reasons of comparability, robustness and legitimacy, but for goals such as civil and political rights, popular perceptions may matter as much as hard statistics.
- *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, as stipulated in the constitution). Form is not enough. Valid indicators need to assess the practice.
- *Disaggregated 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).

In sum, in attempting to meet these criteria, the MDG revision process will face significant pitfalls and challenges. A future framework must provide for:

- 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).

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;
- a lack of international standards;
- the failure to adopt existing international standards at the national level;
- a 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; and
- think long term: be persistent and flexible.

In general terms, indicators 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 proposed options for targets and indicators for each of the 11 candidate Bellagio Goal areas in turn, building on the current MDG targets and indicators. It is hoped that participants in future consultation processes leading to a global consensus on post-2015 goals will find these indicators useful.

POTENTIAL INDICATORS AND TARGETS FOR CANDIDATE GOALS

“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)

CANDIDATE GOAL 1: INCLUSIVE ECONOMIC GROWTH FOR DIGNIFIED LIVELIHOODS AND ADEQUATE STANDARDS OF LIVING

Growth is the single most important factor in reducing poverty. In the World Bank’s (2000) *Voices of the Poor*, one of the four main priorities of the poor who were surveyed was having a job. Employment allows people to meet their basic needs and make choices about their lives. Good indicators on livelihoods and income should reflect both quality and quantity. An important consideration is the distribution of income. Growth must go beyond improving gross domestic product (GDP) to incorporate equity, be pro-poor and generate jobs. We reframed MDG 1, which combined poverty and hunger, because “poverty” is more than just measuring GDP, purchasing power parity (PPP), poverty lines or poverty ratios. In the proposed Bellagio Goals, hunger is addressed separately in the candidate goal on food security.

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 in their work on the Multidimensional Poverty Index (MPI), “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 ...MPI...in 2010” (2011: 3). Multidimensional poverty is a measure of the joint distribution of the outcomes related to several goals aside from income and employment. The data required for an MPI, however, differs from

the data collected by the United Nations and national statistical agencies. Regardless, the MPI could be a more comprehensive way to track poverty around the world (although more time-intensive and costly) than traditional poverty measures.

Growth is necessary but not sufficient.⁴ 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 and median levels, the distribution and the extreme tail across indicators. There is also the suggestion to measure relative poverty, as well as absolute poverty via the US\$1.25 PPP per day (Ravaillon, 2012). One measure of 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 constant 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. In our consultations in Beijing, Chinese experts were adamant about the need for the future agenda to address income gaps and inequality.

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 traditional economic indicators are insufficient for measuring the multidimensional phenomenon of poverty (Trebeck, 2012). *The Report on the Commission of Measurement of Economic Performance and Social Progress* (also known as the “Stiglitz Report”), calls for new measures of growth and economic performance to incorporate well-being (Stiglitz, Sen and Fitoussi, 2009).

⁴ As the saying goes, a rising tide raises all boats, but what if your boat has a hole in it, or worse, you have no boat?

Figure 2: Three Policy Pillars of Inclusive Growth



Source: Zhuang, 2010, cited in ADB, 2011.

The poverty target of MDG 1 — to halve the proportion of people whose income is less than one dollar a day between 1990 and 2015 — has been met. Despite the large gains in economic growth and poverty reduction, many countries still face severe challenges with non-income factors such as hunger, child mortality and educational achievements. Economic growth is not creating jobs or opportunities for large segments of societies; there is a growing gap between the rich and the poor. The Asian Development Bank (ADB) advocates for inclusive growth that generates equal opportunities so that everyone can participate in and benefit from the growth process (2011). The ADB developed a framework of inclusive growth indicators, divided into three pillars: growth and expansion of economic opportunity; social inclusion; and social safety nets, with poverty and inequality as an overarching concept and good governance and institutions as a foundation.

The ADB framework proposes 35 indicators for developing Asian economies; a third of these indicators are also for the MDGs. The focus of the framework is on inclusive growth, and several of the indicators recommended in Paris and during our regional consultations align with those in this new framework;

in fact, inclusive growth was a prominent theme throughout this project.

Inequality has emerged as a major focus of the post-2015 discussions. The UN Task Team has aligned equality, along with sustainability and human rights, as one of three fundamental principles for the post-2015 agenda (UN, 2012). The post-2015 agenda provides an opportunity for a fundamental rethinking of how we measure and distribute growth. Indicators that best address elements of income distribution and equality of opportunity would be useful. The ADB's framework could provide value to the post-2015 framework and we have borrowed from it for our candidate indicators in Table 1. The indicators are divided into three categories: inclusive growth, livelihoods and standards of living. We have included livelihoods and standards of living to reflect inclusive growth that creates quality opportunities. There was also strong support for indicators on shelter and social safety nets; we have elected to put them here. (See Table 1 on page 30 of the Annex.)

CANDIDATE GOAL 2: SUFFICIENT FOOD AND WATER FOR ACTIVE LIVING

Poverty and hunger were joined together in MDG 1 on the basis that livelihoods, agricultural production, food and nutrition are intrinsically linked for poor people and should, therefore, be conceptually consolidated in to one goal. A criticism, however, is that the targets and indicators on poverty obscured those for hunger. Hunger was overshadowed as an element of MDG 1 and progress on hunger has been marginal. We concluded that food and water warrant a goal separate from poverty, that ending hunger and malnutrition is a critical prerequisite for sustainable development and inclusive economic growth. As a basic necessity for survival, food and nutrition are too important to risk being eclipsed by poverty as they were in the MDGs. Safe drinking water, also required for basic survival, is intrinsically linked to food and, therefore, we grouped water together with food in our candidate goal 2.

We also include sanitation in food and water. Throughout our consultations, we received different advice. Some said it should be here, others argued it should be linked with goals on health, infrastructure or omitted completely. While the discussion on where to put it continues, for the purposes of this report, indicators on sanitation are listed with food and water.

The United Nations first adopted a goal to halve world hunger by 2015 at the World Food Summit (WFS) held in Rome, 1996.⁵ 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 under-nutrition occur (Sibrian, 2009). 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 we are learning the vital importance of the 1,000-day window.⁶ 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 these are truly to be global goals, an indicator must address the one billion people who are “over-nourished” or overweight; this is an expensive public health problem. Although this is a different moral and conceptual issue than the lack of access to food, it makes the goal relevant to both developed and developing countries. An indicator on body mass index (BMI) would simultaneously address obesity and diet problems in developed countries (and emerging economies) and hunger and lack of food in developing countries. An argument could also be made 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 Assessment of Food Deprivation and Undernutrition held at the FAO in 2002 (and again in January 2012) was the need to develop a suite of indicators to measure food and nutrition insecurity in its multidimensionality. It was concluded that different data sources will have to be tapped and improved in order to better measure and monitor global food insecurity. The multidimensional nature of food security and nutrition pose 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. The indicators proposed a focus on dietary quality. Further, there are challenges in the cross-country comparability of data, the reliability of data and the quality, consistency and periodicity of the information being collected. Problems exist with respect to current coverage and timeliness of data collection. Either we have anecdotal, occasional evidence gathered through ad hoc projects, usually over such a limited scale that it cannot be deemed representative, or we have survey-based evidence of broadly defined food expenditures and acquisitions at the household level aggregated at a level that — simply put — does not allow for the level of analysis on dimensions such as nutritional adequacy and gender disparity.

5 The WFS goal called for halving the number of hungry people; whereas the MDG aims to reduce hunger by half *in terms of the population proportion*; the WFS goal, then, was much more ambitious. In the Declaration of the 2009 World Summit on Food Security, 60 heads of state and government and 192 ministers from 182 countries unanimously agreed “to undertake all necessary actions required at national, regional and global levels and by all states and governments to halt immediately the increase in — and to significantly reduce — the number of people suffering from hunger, malnutrition and food insecurity.” See <ftp://ftp.fao.org/docrep/fao/Meeting/018/k6050e.pdf>.

6 The WHO currently collects data for stunting in children under five; however, revising it to under two provides sentinel information signalling that individual’s future physiology. Furthermore, children stunted at two years are more likely to go to school later, learn less and, ultimately, have lower incomes.

Two final considerations for drafting a goal on food are important. First, we must 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, the availability of food at the aggregate level is a necessary, but by no means sufficient, condition to guarantee adequate access to all; therefore, we need to monitor the distribution of food consumption among people.

The MDG target 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. As recommended by the WHO/United Nations Children's Fund (UNICEF) Joint Monitoring Programme for Water Supply and Sanitation, a post-2015 framework should drop the "improved" and "unimproved" terminology and adopt a basic global minimum or threshold for everyone (Hutton, 2012).

Water 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) that, in our framework, would be covered by the candidate goal of resilience and disaster risk reduction. The narrow definition's objective would be to ensure that households have safe and reliable sources of water, close enough to the dwelling to be accessed in adequate quantities and in secure conditions at an affordable cost. The desired outcomes for the broader definition would be the adequate and reliable supply of water to meet food and livelihood needs, and reduced vulnerability or greater resilience to drought and flood. Conceptually, for the candidate goal on food and water, water will be limited to the narrow definition — this may receive strong criticism from those arguing that different components of water resource management cannot be practically divided.

Grey and Sadoff (2007) define water security as the "reliable availability of an acceptable quantity and quality of water for health, livelihoods and production, coupled with [an] acceptable level of water-related risks." To achieve water security, we need investments in infrastructure to store and transport water, and to treat and reuse waste water; robust institutions to make and implement decisions; and information and the capacity to predict, plan and cope with issues affecting water security. Another way to conceptualize this is to meet the following criteria of a service, ensuring that water is sufficient in quantity, continually serviced, safe for health, aesthetically acceptable, of an appropriate time and distance to collect, suitable for use by all —

including disabled and vulnerable groups, affordable and non-discriminatory.

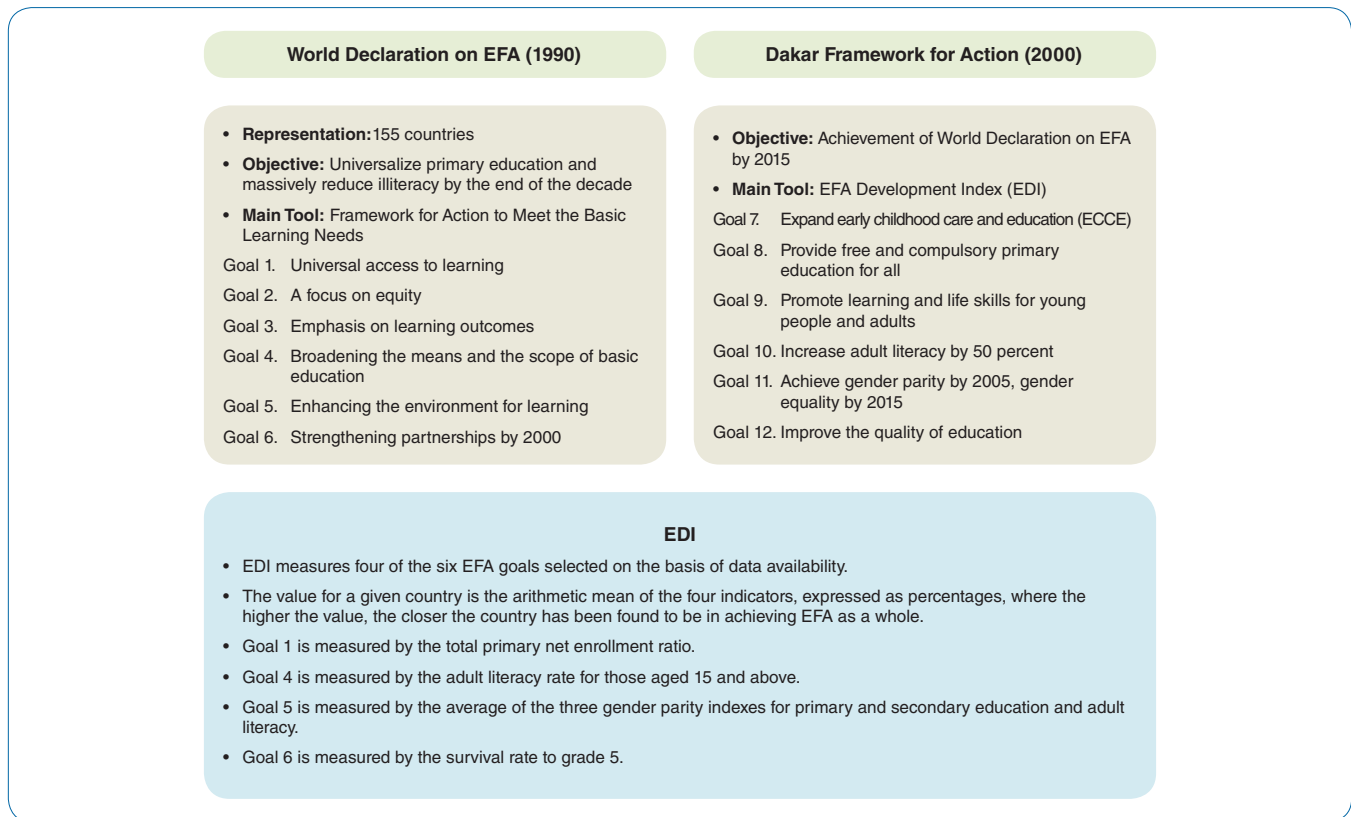
The WHO/UNICEF Joint Monitoring Programme's Post-2015 Sanitation Working Group presentation proposed an overall sanitation goal with the objective of "universal use of sustainable sanitation services that protect public health and dignity" (Hutton, 2012: slide 14). The working group defines "adequate" sanitation as that which "separates excreta from human contact and ensures that excreta does not re-enter the immediate household environment; safe; durable; household or shared toilet within or nearby the plot, shared by no more than 5 families or 30 people, whichever is fewer, and used by people who know each other; accessible at all times; accessible to all members of household, including those with disabilities; and protects users from culturally-inappropriate exposure or invasion of privacy." (See Table 2 on page 33 of the Annex.)

CANDIDATE GOAL 3: APPROPRIATE EDUCATION AND SKILLS FOR FULL 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. Education equips, and hence empowers, people with the knowledge and skills they need for better, more dignified lives. While it is one of the basic human rights (the Universal Declaration of Human Rights holds that every child and adult is entitled to education), it is also one of the most important enabling instruments, providing the only path towards a virtuous cycle of equal opportunity, fair competition and just rewards. The global education movement began at the World Conference on Education for All (EFA) in 1990, where the world leaders agreed to "universalize primary education and massively reduce illiteracy by the end of the decade." The UN Educational, Scientific and Cultural Organization (UNESCO) reported the progress on EFA in their 2010 report, *Education Counts*, highlighting the significant contributions of education to other development objectives.

Under the lead of UNESCO, the world leaders met again at the World Education Forum in Dakar in 2000. The major items were stipulated and announced as the "Dakar Framework for Action." (See Table 3 on page 35 of the Annex.)

Figure 3: EFA Declaration and Framework UNESCO



Source: Authors

UNESCO's conclusion regarding its EFA development index (EDI) of indicators highlighted problems with country coverage and provides the general cautionary note on the EFA website:

"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" (UNESCO, 2012).

The MDG on universal primary education, which grew out of this earlier EFA declaration, was criticized for not being ambitious enough and for its lack of attention on the quality of education. There would be profound social, economic and political implications if special

attention were placed on secondary school completion, particularly for girls. Additionally, at our consultations in Brazil and India, we were reminded of the importance of pre-primary schooling for young students. The post-2015 indicators could extend beyond children, to include all age groups of the population.

In addition to access, indicators should measure the quality of political commitment to education and equity issues and they should be disaggregated by gender; indeed, access and political commitment are the easiest to measure. Quality indicators, however, raise several issues: they are difficult to compare cross-country; they require special surveys; good indicators of literacy may show lower levels of progress and, therefore, be a disincentive for countries to use; and literacy measures are expensive. Despite these measurement challenges, incorporating quality measures into the post-2015 goals is far too important to omit and research should be accelerated to ensure that there is good baseline data for measuring education quality.

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, mathematical

and scientific literacy. In 2010, 10 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 (ACER, 2011). The principles that underpin the PISA 2009+ project could be applied to the post-2015 MDGs, developing a “PISA light.” Because of the resources involved, a full-fledged PISA for all countries would not be practical. We propose a two-track structure, where a universal “PISA light” would be complemented by a full PISA in countries that can afford both. With any assessments, however, pass rates are valuable only if they correlate with subsequent improvements, such as better jobs, incomes, and social and economic outcomes.

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

- an appropriate balance between the emphases on the goals set in the MDG and EFA frameworks, respectively (given that many countries have yet to reach these goals), and setting more ambitious goals for the future;
- the priority of cross-national comparisons; and
- the source and quality of the data, from regular administrative sources or from special surveys, and the time frame that each entails. Annual data collection presents a challenge, and MDGs and

EFA monitoring required data that was not easily collected on an annual basis.

A broad range of education indicators is 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 achievements in terms of literacy and numeracy). The choice of indicators should depend on the stage of a country’s development and the goal of the evaluation exercise (Stiglitz, Sen and Fitoussi, 2009).

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 and 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.

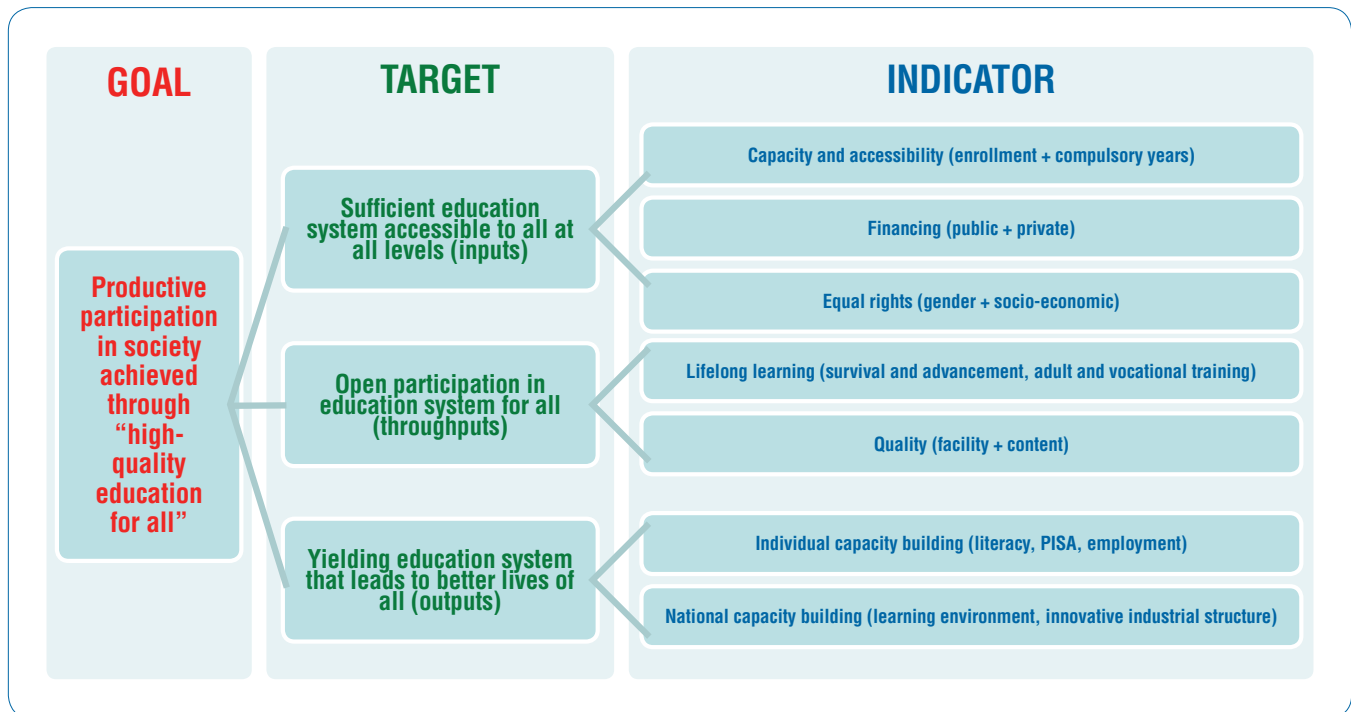
Our proposal is to bring EFA into the post-2015 development agenda framework by expanding current MDG 2 on “Universal access to Primary Education” to encompass productive participation in society achieved through high-quality EFA. (See Table 4 on page 36 of the Annex.)

Figure 4: Top Policy Priorities for EFA Accomplishment (Mid-term Monitoring Report, 2008)

- Increased participation, equity and quality can be promoted together through a mix of adequately financed universal and targeted measures that encompass all six EFA goals.
- Education policies must focus on inclusion, literacy, quality, capacity development and finance.
- In addition, the international architecture for EFA must be made more effective.

Source: Authors

Figure 5: High-Quality EFA



Source: Authors

CANDIDATE GOAL 4: GOOD HEALTH FOR THE BEST POSSIBLE PHYSICAL, MENTAL AND SOCIAL WELL-BEING⁷

A broader health goal would consolidate the three specific health goals of the original MDGs to better address the emerging patterns of mortality and morbidity, particularly in relation to non-communicable diseases. Good health contributes to development, as healthy people are better able to participate in development. Health is a beneficiary of policies in other sectors: agriculture, food, water, environment, transport, energy and urban planning, education and security. Health is also an indicator of what development is about; it reflects progress across economic, social, environmental and security spheres.

The WHO Disability-Adjusted Life Year (DALY) index is one option for framing 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. The indicator accounts for communicable diseases such as HIV/AIDS, malaria, tuberculosis (TB), and diarrheal and childhood diseases, among others, as well as non-communicable conditions such as cancers, cardiovascular and respiratory diseases, and diabetes. While DALYs offer useful metrics 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 might 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 DALYs, 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. For these reasons, each country could identify a set of nested indicators that would have life expectancy and HALE at the top, with more readily

⁷ Carla AbouZahr conceptualized the goal on health and much of what appears here is based on her work. We are indebted to her for this. We are also grateful to Eric Buch and Tony Redmond for their contributions.

measurable and responsive measures, reflecting both outcome and processes.

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). Furthermore, 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 a 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. During our South African consultation, we were reminded of the complexities surrounding the language in common health indicators.

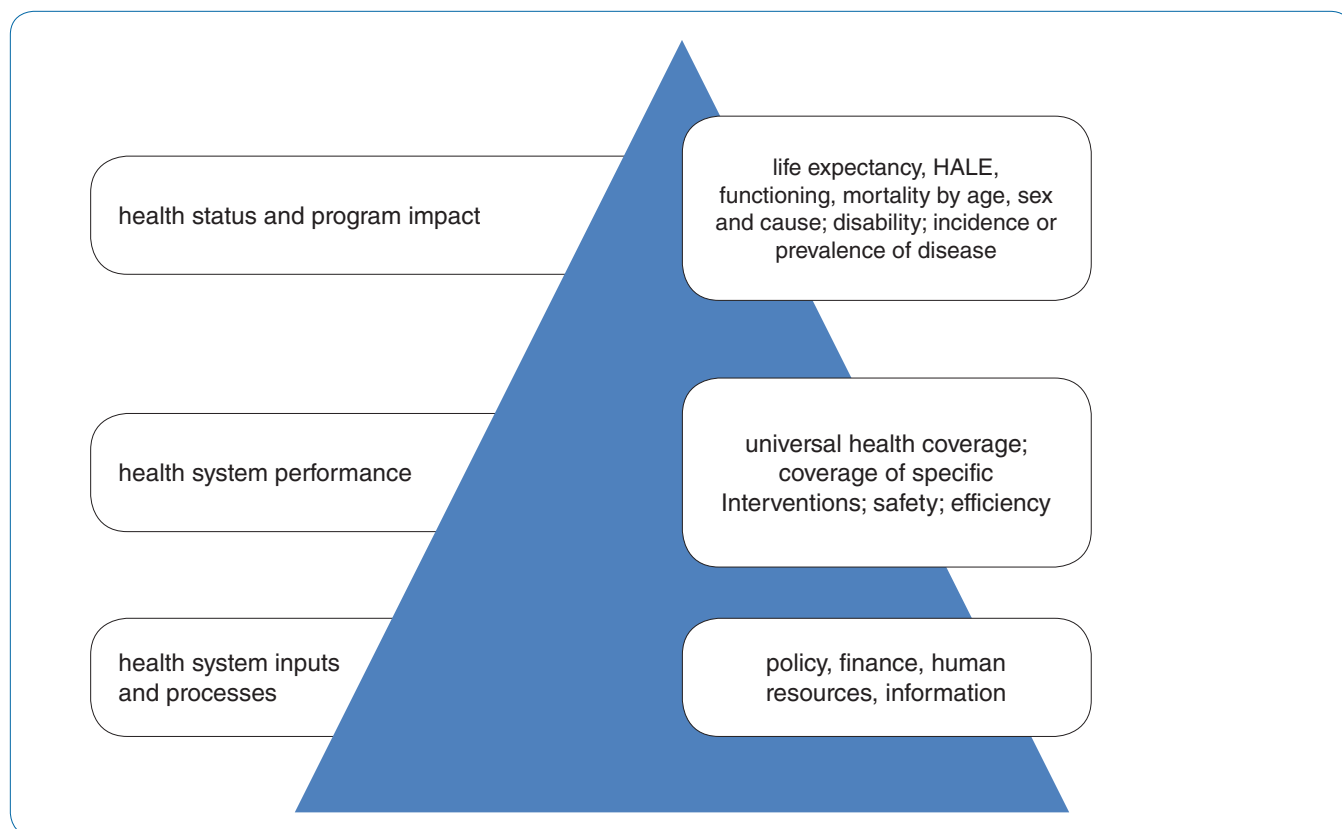
The health system is a factor in maintaining people’s health. Effective coverage is an important component

of the health system, but it is difficult to measure. Two alternative coverage suggestions are:

- Universal health coverage — where all people can use the critical health services they need without the fear of impoverishment. The main indicator currently being used is *out-of-pocket expenditure as a 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 WHO.
- Coverage of essential maternal and child health interventions — an index based on use of services including immunization, maternal care, care for childhood illnesses and family planning.

To deliver a sustainable level of good care to its people, a country must grow and retain its own health care workers, not only at grassroots nursing and medical 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 either end of the road. Providing health care workers is not enough if patients cannot afford the cost of seeing a health care professional, a stay in hospital or the medication that is prescribed.

Figure 6: A Hierarchy of Health-system Goals and Targets (Global Level)



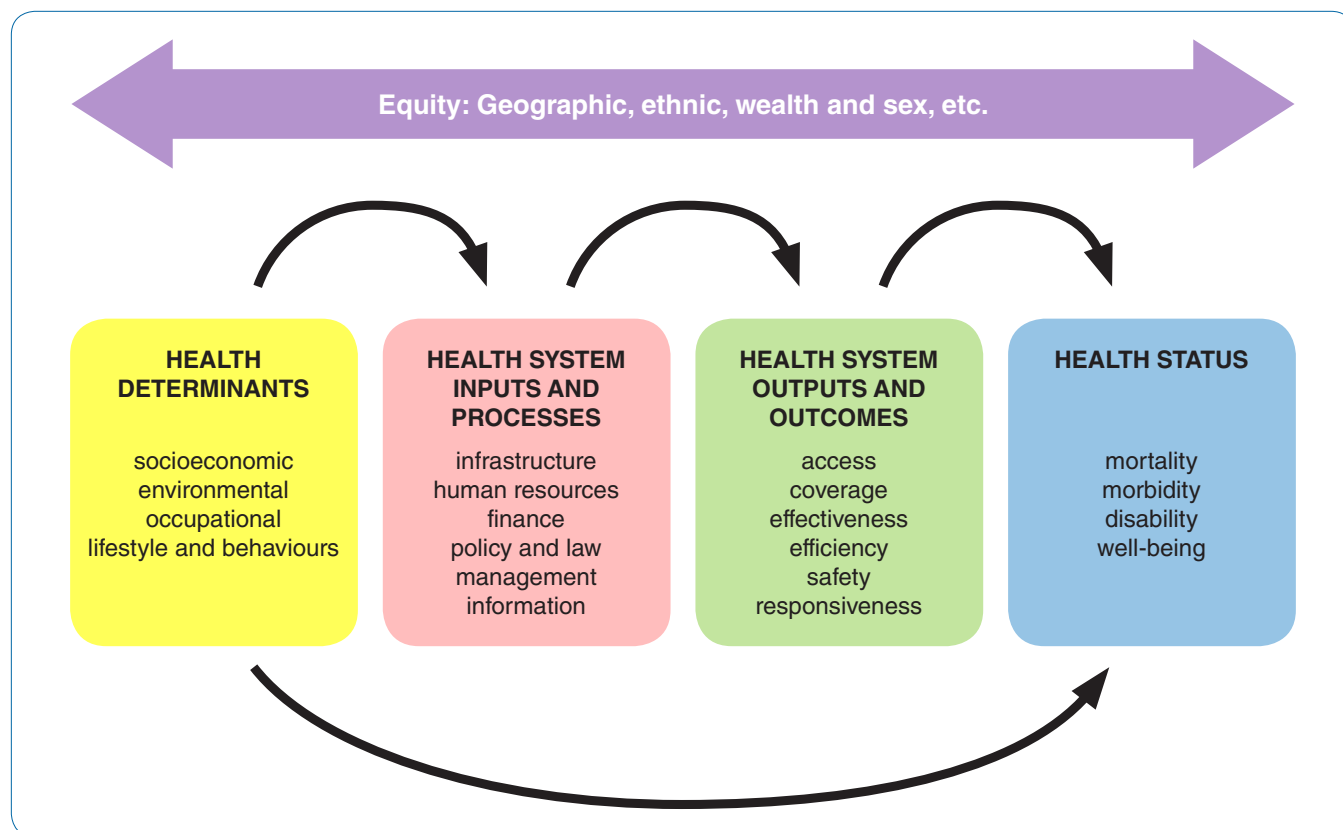
Source: Carla AbouZahr

When measuring matters of health, mortality and morbidity tell only part of the story. As mortality at the extremes of life may have a limited economic impact, one argument is that we need to reduce the impact that people dying during their “most productive” years has on society and the economy. Alongside mortality and HALEs, we need to measure the “Potentially Productive Years of Life Lost,” which can provide a better representation of the impact that diseases have upon the young and, therefore, the impact this has on wider society.

The MDGs included maternal and child mortality indicators along with major infectious diseases. The post-2015 framework could include mortality indicators (and related targets) reflective of the growing

contribution of non-communicable diseases to ill health. Maternal mortality, the best indicator of health system performance, should be prominent. There are many factors that influence the health of a population; access to information and health care, as well as the quality of health care, are important inputs from the health sector. Indicators could be grouped around health determinants (socioeconomic, environmental, occupational, lifestyle and behavioural), health system inputs and processes (infrastructure, human resources, finance, policy and law, and management information), health system outputs and outcomes (access, coverage, effectiveness, efficiency, safety and responsiveness), and health status (mortality, morbidity, disability and well-being). (See Table 5 on page 38 of the Annex.)

Figure 7: Health System Equity



Source: Carla AbouZahr

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 priority. The United Nations Task Team on the Post-2015 UN Development Agenda posits “Peace and Security” as

one of the four core dimensions in *Realizing the Future We Want for All* (UN, 2012).

Human security refers to the protection of individuals; it is people-centric versus state-centric. It means, at a minimum, freedom from violence, and from the fear of violence. If individuals are not secure, the community is not secure and, therefore, the state is not secure. The challenge, then, is to find the balance between basic

security (bodily integrity) and the security of the state (territorial integrity) and the spectrum in between.

Broadly defined, human security can incorporate traditional security threats, such as war or conflict, or more development-focused threats, such as those to health, poverty and the environment. Freedom from violence, as well as economic, food, health and environmental security are all building blocks of survival, dignity and livelihoods; these are essential for development. The broader components of human security, however, are addressed or included in the other goals; therefore, we presume the scope of a post-2015 goal would be limited to freedom from violence.

A lot of work has been done on measuring violence. The Global Campaign for Violence Prevention for the period 2012–2020 “aims to unify the efforts of the main actors in international violence prevention and identify a small set of priorities for the field, by presenting six national level goals towards which efforts can be directed” (WHO, 2012). The six goals focus primarily on violence prevention within global public health, ongoing violence prevention efforts and evidence-based violence prevention strategies. The OECD’s *A New Deal for Engagement in Fragile States* lays out five goals: legitimate politics, justice, security, economic foundations, and revenues and services (OECD, 2011). The Global Peace Index uses 23 indicators to measure a nation’s degree of peace.⁸ The UN Office on Drugs and Crime (UNODC) has a manual on victimization surveys documenting the complexities of measuring crimes and victims. The post-2015 framework could build on existing initiatives to establish a goal for improving security and reducing violence.

One option is to focus on the individual’s personal experience of physical violence committed against them by external actors, including state and non-state agencies, community members or family members. Other dimensions of violence, such as emotional violence and threats of violence, are assumed to have a correlation to measurable physical violence. The key categories of violence considered could be armed conflict, violent crime, domestic and family violence, and human trafficking and unlawful detentions.

Some countries may resist adopting indicators on violence against children and domestic violence. As politically and culturally uncomfortable as it makes some countries, gender-based violence, as one of the most prevalent forms of violence, must receive more attention and efforts in the post-2015 framework. There will be challenges with tracking and monitoring. Nations will need to make decisions 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.

At our consultation in South Africa, we were reminded that the majority of the world’s armed conflicts occur in Africa, and insecurity (broadly defined) is the everyday experience for much of the population. Countries experiencing conflict are also the furthest away from achieving the MDGs; according to the UN Task Team report, “no low-income country affected by violence or fragility has achieved a single MDG target” (UN, 2012: 24). In India, however, experts were skeptical regarding a goal on violence because of regional political sensitivities concerning interstate issues.

Indicators could be framed as rates per 100,000 of the general population, and disaggregated by gender, economic group, sub-national administrative units and minority or specific vulnerable groups. For each of the indicators, databases exist and can be improved with suitable investment. Estimates from standardized survey methods may be needed for several of the indicators. Data for this goal is unreliable and a great deal of work will have to go into standardized capturing of data. Furthermore, as violence patterns vary, countries could select indicators that are most relevant to them. (See Table 6 on page 41 of the Annex.)

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. This was universally recognized as early as 1979, in the *United Nations Convention on the Elimination of All Forms of Discrimination against Women*. Empowering women combats poverty, hunger, disease and stimulates economic activity. Gender equality, however, is not *just* about women; it is about equality between men and women. This is not sameness. It is important to recognize the inherent differences between men and women, and their different roles in society to ensure the norms that underpin these roles result in the equality of opportunity.

Commitment 7(d) of the Johannesburg Plan of Implementation was to “Promote women’s equal access to and full participation in, on the basis of equality with men, decision-making at all levels, mainstreaming gender perspectives in all policies and strategies, eliminating all forms of violence and discrimination against women and improving the status, health and

⁸ See www.visionofhumanity.org/gpi-data/.

economic welfare of women and girls through full and equal access to economic opportunity, land, credit, education and health-care services” (UNDESA, 2004).

Although indicators for all goals must be disaggregated by sex, there is strong support for a specific goal on gender equality. The UN Task Team report states that “Discrimination against women and girls impairs progress in all other areas of development. The global development agenda should seek not only to address and monitor the elimination of specific gender gaps, but also to transform the structural factors that underpin the widespread persistence of gender inequalities, gender-based violence, discrimination and unequal development progress between women and men, girls and boys. The empowerment of women and girls and the protection of their rights should be centre-pieces of the post-2015 agenda” (UN, 2012).

At each regional consultation, there was a lively debate regarding gender. Some were adamant that it must be streamlined across all goals; others voiced support for expanding the gender goal to a “discrimination” goal that would include vulnerable groups and people with disabilities; and still others noted its significance for reaching all the other goals. We were also advised that gender equality should address discrimination against both men and women. We kept a goal on gender, focused on discriminations against women and girls, because this is the most dominant form of gender discrimination in the world.

A major challenge to monitoring gender equality is limitations in data. The United Nations Development Programme’s (UNDP’s) *Human Development Report* (2010) identifies several difficulties with data collection: the influence of gender roles defining how men and women spend their time (for example, the 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;⁹ and that community-level indicators for participation in political decision 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*. The report concludes that “gender equality is not adequately mainstreamed into national reports; traditional gender roles 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).¹⁰

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 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 International Food Policy Research Institute and the Oxford Poverty and Human Development Initiative.

The 2010 Human Development Report introduced three new multidimensional measures of poverty and inequality: the inequality-adjusted Human Development Index (HDI), the Gender Inequality Index (GII) and the MPI. The GII includes five indicators on educational attainment, economic and political participation, and reproductive health in accounting for overlapping inequalities at the national level.

There is no shortage of information, research and resources for developing a more comprehensive goal on gender equality. The post-2015 framework could build on the initiatives listed above or the work of the UN’s Committee on the Elimination of Discrimination against Women and the Beijing Platform for Action. In the course of our research, we proposed framing the gender goal based on the following three considerations, corresponding to the GII and the work of Pauline Stockins; this was met with general support in our regional consultations. These three considerations include:

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

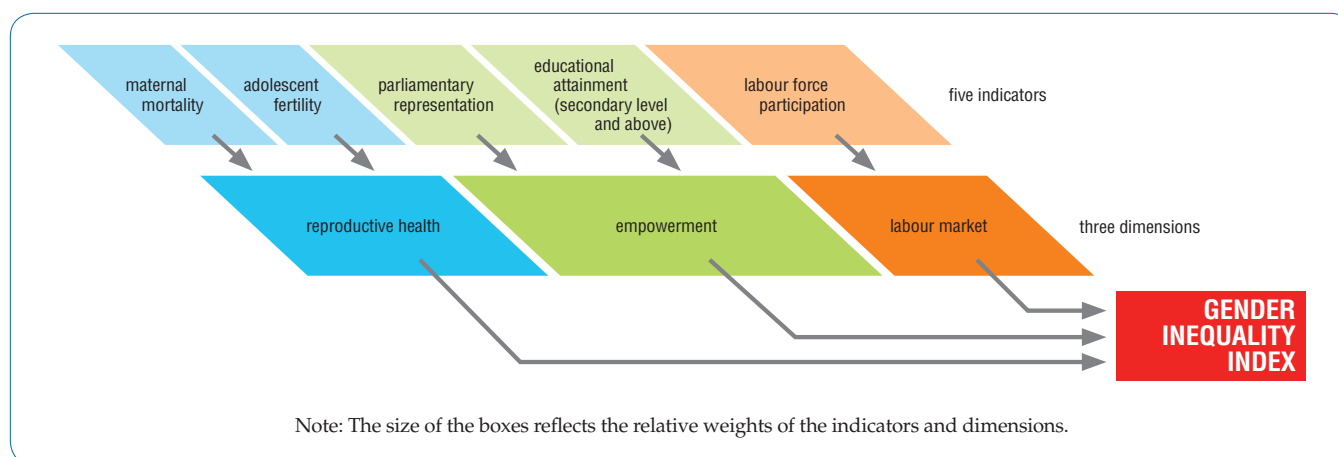
⁹ Data on violence against women can come from two sources: administrative and criminal statistics (which suffer from major under-reporting of such offenses) and surveys. Surveys may provide more accurate data, but are harder for national and international comparisons.

¹⁰ Corner reframed the existing MDGs — targets and indicators — to include a gender and rights-based approach.

Physical autonomy could include targets on reproductive rights and violence against women, economic autonomy could include targets on participation and capacity for

women to earn their own income and decision-making autonomy could include targets in both the public and private spheres. (See Table 7 on page 44 of the Annex.)

Figure 8: Gender Inequality Index



Source: UNDP Human Development Report Office

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, disasters and poverty. Losses from disasters are increasing and climatic events cause a large percentage 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 differ 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.

The United Nations Environment Programme (UNEP) created a model of the factors influencing levels of human losses from natural hazards at the global scale, for the period 1980–2000. This model was designed by the UNEP for the UNDP as a building block of the Disaster Risk Index to monitor 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.

The UNISDR has been working on ways to measure implementation of the Hyogo Framework and progress towards disaster risk reduction, with a target date of 2015. In 2005, they proposed 81 indicators for measuring the Hyogo Framework.¹¹ The framework identified five priority areas in which to develop indicators: policy and institutional aspects; understanding risk; knowledge management and education; reducing underlying risks; and strengthening response. A more recent UNISDR/World Meteorological Organization (WMO) “Thematic Think Piece” (2012) argues that global goals and targets for disaster risk reduction and resilience raise the profile of the issues. Goals, targets and indicators should relate as closely as possible to human development indices, especially as vulnerability increases. Therefore, goals and targets for risk reduction at the global level are based on the measurement and estimation of either mortality or economic loss suffered because of the impact of natural hazards on vulnerable populations and assets.

Practical and inclusive research and debate on goals, targets, indicators and ways to measure progress for disaster risk reduction and resilience are still required. The debate needs to address the strategic dimension of proposed targets to ensure relevance and measurability

¹¹ For key documents in this discussion see www.unisdr.org/2005/HFDialogue/backdocs.htm.

and not solely be seen through a technical lens. The consultations on a post-2015 framework for disaster risk reduction present an opportune platform to provide critical inputs, while relating to relevant discussions on possible goals in the post-2015 development agenda. (See Table 8 on page 45 of the Annex.); (See Table 9 on page 46 of the Annex.)

CANDIDATE GOAL 8: QUALITY INFRASTRUCTURE FOR ACCESS TO ENERGY, TRANSPORTATION AND COMMUNICATION

Candidate goal 8 was originally called “connectivity” for our regional consultations, but we learned that despite our intent to include energy and transportation, the goal was interpreted as being limited to ICT (which was included in the original MDG 8). We reframed the goal as “infrastructure” to include access to energy, transportation and communication services.

Sufficient infrastructure is at the very heart of economic and social development. The infrastructure that connects people constitutes a major economic sector in its own right and contributes to raising both living standards and quality of life. The significance of infrastructure, especially of ICT, has evolved so dramatically in recent years that it now determines the ways that individuals, businesses and governments interact. Numerous studies have found a positive impact on economic growth: for example, a 10 percent increase in broadband penetration has been found to increase economic growth from a low of 0.24 percent to a high of 1.5 percent.¹² Weak infrastructure has been identified as a major constraint to growth and to achieving the MDGs.¹³

Apart from being an enabling factor to other development goals, infrastructure has become an end in and of itself: the establishment of good infrastructure for universal access to eliminate the gap in information and knowledge.¹⁴ According to the International Telecommunication Union (ITU) statistics, global Internet user penetration reached 30 percent in 2010, a milestone in penetration achieved in developed

countries in 2001. Such a “digital divide” or “gap” is partially due to the expense: while it cost less than 2.5 percent of gross national income (GNI) per capita in the 40 most connected nations, broadband subscriptions cost over 100 percent per capita GNI in the 30 countries with the lowest level of broadband penetration. If this issue fails to receive appropriate measures at the global level in a near future, developing economies are at a high risk of exclusion from successful integration into the global digital economy.

Under these circumstances, and acknowledging the crucial elements of connectivity for better lives identified in *Voices of the Poor* (World Bank, 2000), the UN Task Team on the Post-2015 UN Development Agenda has listed unequal distribution of connectivity as another form of inequality that should be tackled together with uneven distribution of wealth and benefits: the “knowledge challenge.” (See Table 10 on page 46 of the Annex.)

Furthermore, the growing demands for governance to control the less desirable consequences of physical infrastructures and virtual networks should be appropriately addressed. For instance, although some progress has been made in terms of regulations and market reform of a traditionally monopolized sector, unresolved issues remain — from traditional concerns of increased traffic created by road expansions, environmental disruptions caused by additional power plants and dams, to new challenges arising from emerging cross-border business models. Examples of ICT problems that need to be addressed are the free-flow of information regardless of its authenticity, and the misuse of private information.

In *Voices of the Poor*, a respondent from Cameroon questioned the incentives to produce more than a family needs if there are no roads to access the market (World Bank, 2000). The significance of connectivity, especially of ICT, has evolved dramatically in recent years. The infrastructure that connects people is an ingredient for economic growth, allowing rural dwellers to reach cities and markets; ensuring the functioning of day-to-day business; and providing access to markets, government services, information and knowledge. Research supports investments in infrastructure. A World Bank report found that returns to investment on infrastructure averaged 30–40 percent for telecommunications, more than 40 percent for electricity generation and 80 percent for roads (Estache, 2007). While reductions in transportation and communication costs are a suitable vehicle to speed up growth (van Zon and Mupela, 2010), access to energy and transportation must include considerations of sustainability and minimal environmental impacts.

The inclusion of infrastructure at the goal level in the post-2015 development agenda would serve to establish universal connectivity for secure and innovative use.

¹² See World Bank Broadband Strategies Toolkit for details: <http://broadbandtoolkit.org/en/home>.

¹³ At a joint OECD/UN/World Bank global forum on the knowledge economy, held in Paris on March 4–5, 2003, Karima Bounemra ben Soltane, from the UN Economic Commission for Africa, also stated that ICTs can do much to help Africa reach the MDGs.

¹⁴ “An Evaluation of World Bank Group Activities in Information and Communication Technologies: Capturing Technology for Development,” published by the World Bank IEG (2011), points out that ICT’s potential development benefits are based on the premise that technology alone cannot provide solutions and may lead to growing, rather than diminishing divides between and within countries. See <http://ieg.worldbankgroup.org/content/ieg/en/home/reports/ict.html>.

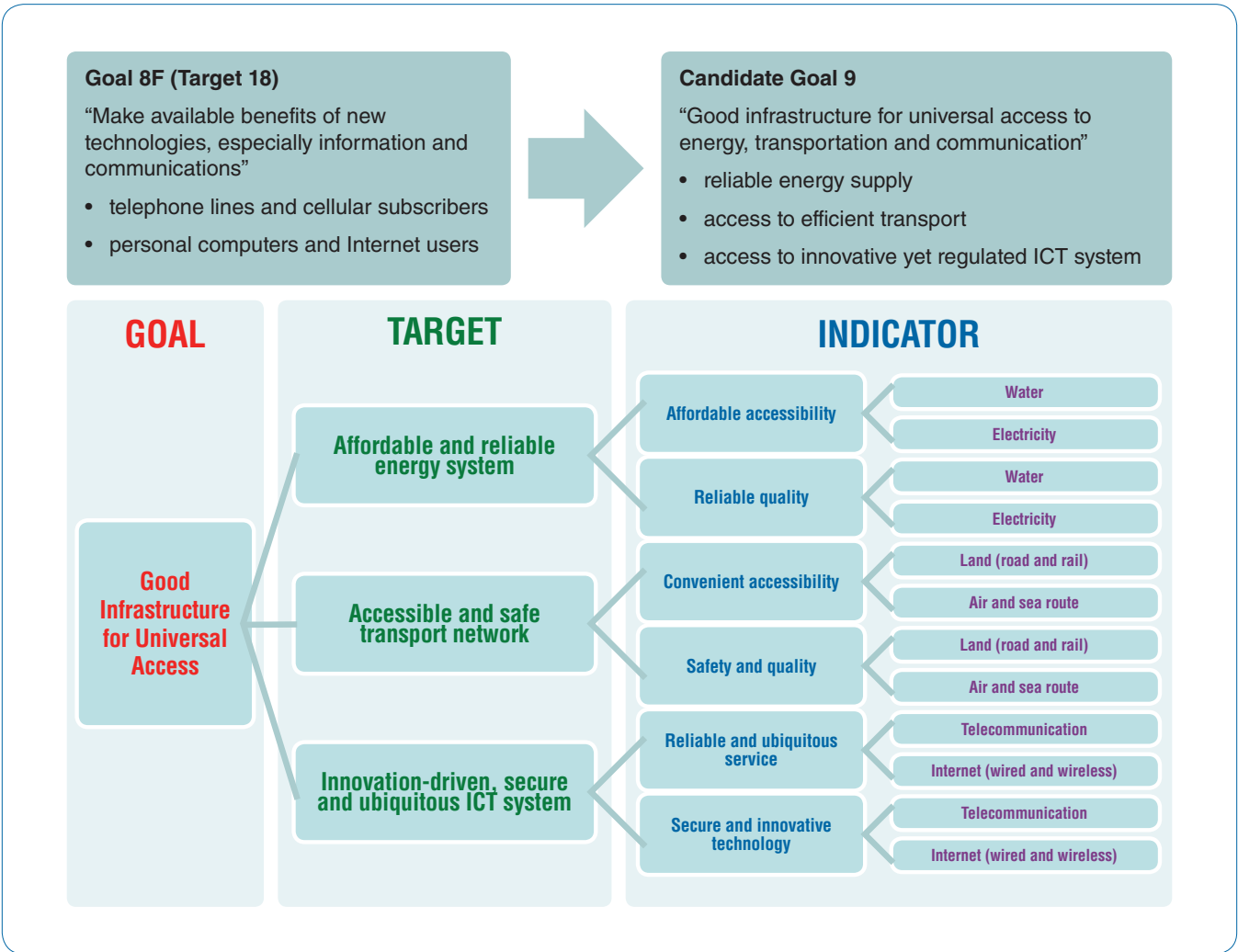
Nations could customize targets differentiated to best address their domestic priorities. They could include considerations of accessibility and affordability, safety and quality control, and secure and innovation-driven service. For developed countries that already have nearly universal connectivity, targets could focus on establishing effective international regulatory systems for cross-border business models and global partnerships for the widespread use of environmentally friendly connectivity. Emerging economies could work to establish better connectivity, while aiming for environmental friendliness and technology innovation for better service at a lowered cost. Economies with weak connectivity platforms, such as Africa and South Asia, could guarantee household accessibility to affordable energy sources and national and international ICT connections for all communities at affordable prices. (We

include indicators for water again in addition to goal 2 on food and water).

The design and management of such comprehensive goals and country-specific targets, however, impose a number of challenges. From a technical perspective, data sets are imperfect — statistical data for ICTs is still under construction or only available at the national level.¹⁵ It will be difficult to construct a cohesive set of indicators that encompass the conceptually similar, but practically disparate, elements of the goal. Indicators would be grouped into the three categories: affordable and reliable energy systems, accessible and safe transport networks, innovation-driven and secure and ubiquitous ICT systems. (See Table 11 on page 47 of the Annex.)

15 Core ICT indicators, endorsed at UN Statistical Committee in 2007 and the World Bank East Asia and Pacific Infrastructure Flagship, are not available.

Figure 9: Proposal for a New Goal on Infrastructure for the Post-2015 Development Agenda



Source: Authors

CANDIDATE GOAL 9: EMPOWERING 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 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.

In our regional consultations, participants raised concerns about the logic of singling out political and civil rights, while omitting economic, social and cultural rights. Instead of taking a "rights-based approach" mainstreamed across all goals, we presumed that civil and political rights are the cornerstones of 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. There is a view that people are the prime agents of development and should influence decision-making processes.

As the UNDP has argued, "Statistical indicators are a powerful tool in the struggle for human rights. They make it possible for people and organizations — from grassroots activists and civil society to governments and the United Nations — to identify important actors and hold them accountable for their actions" (UNDP, 2010). 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 the 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.

Ideally, the emphasis should be on outcome indicators that monitor the results of governments' and institutions' efforts, but it is important to note that they are more difficult to measure. Furthermore, success measured by structural and process indicators such as human rights treaties, norms and policies do not necessarily translate into practice.

There are considerable challenges with data. Several indicators are quantifiable and can be obtained from administrative data, while others are qualitative and can be derived only 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). There is no incentive for governments to provide information that reflects poorly on themselves. The number of reported violations may be misleading — the most oppressive regimes can have the worst reporting mechanisms. Civil and political rights are inherently a quality issue; thus selecting indicators that provide a reliable measure on any of these dimensions will be difficult.

One approach is to develop international surveys. Although perception-based data can be problematic, good practice can provide useful data. An excellent example is the Strategy for the Harmonization of Statistics in Africa (SHaSA).¹⁶ It is intended to build on the UN Statistical Commission's commitment in 2002 to investigate statistics on democracy, governance and human rights¹⁷ and the values laid out in the New Partnership for Africa's Development (NEPAD) Declaration. The Afrobarometer is another source of inspiration, as is the Mo Ibrahim Index and its data providers.¹⁸ The UNDP Oslo Governance Centre works with developing countries to produce indicators to monitor democratic governance reform.¹⁹ Of course, proponents of surveys must take care in crafting value-laden questions²⁰ and presenting results in one-

16 For details, see www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/AfDB,%20SHaSA_web.pdf.

17 The commitment was prompted by the 2000 Montreux Conference on Measuring Democracy, Governance and Human Rights. See www.paris21.org/sites/default/files/2806.pdf.

18 See www.afrobarometer.org and www.moibrahimfoundation.org/en/section/the-ibrahim-index/methodology.

19 See www.undp.org/content/undp/en/home/ourwork/democraticgovernance/oslo_governance_centre/governance_assessments/.

20 See "Yes Minister" on leading questions in opinion polls: www.youtube.com/watch?v=G0ZZJXw4MTA.

dimensional indicators, like the HDI. One must look out for latent interests or controversial theories embedded in the choice of the index's components or weights, such as those deemed "business-friendly." An indicator similar to the easy-to-follow HDI should also display its key components, to demonstrate robustness.

In any case, the most convenient source for tracking indicators may be the UNDP's Governance Assessment Portal. The portal website links to 34 sources of governance indicators from around the world, including the Corruptions Perceptions Index, the Press Freedom Survey, the Gender Empowerment Measure and Human Rights Indicators.²¹ The Human Rights Indicators project (from Denmark) measures governments' commitments to civil and political rights, based on violations of eight core human rights standards from international and regional conventions. These include: extra-judicial killings or disappearances, torture and ill-treatment, detention without trial, unfair trial, participation in the political process, freedom of association, freedom of expression and discrimination, except gender discrimination which is measured separately. The US State Department, Human Rights Watch and Amnesty International are the three sources that provide information on whether or not a government has violated these standards.

Indicators could address dimensions of peoples' participation and governments' accountability. Participation focuses on rights-holders: people and their ability to influence and participate in decision-making processes. 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. (See Table 12 on page 54 of the Annex.)

CANDIDATE GOAL 10: SUSTAINABLE MANAGEMENT OF THE BIOSPHERE, ENABLING PEOPLE AND THE PLANET TO THRIVE TOGETHER

There has been little progress at the international level on environmental challenges and addressing climate change. Better management of the biosphere requires decoupling the economy from fossil fuels to low-carbon energy sources and other politically contentious actions for which there is little political support or agreement on burden sharing. The governments of Colombia and Guatemala originally promoted the idea of replacing the MDGs with Sustainable Development Goals (SDGs), and suggested combining the revision of the MDGs and

the post-2015 agenda with SDGs. Support for SDGs gained momentum at Rio+20 and there is currently a UN working group trying to conceptualize these goals before September 2013. Are there goals on which consensus and an agreed road map are feasible?

The UN Task Team has included environmental sustainability as one the core dimensions of the post-2015 agenda. The Task Team recognizes several priorities: ensuring a stable climate, stopping ocean acidification, preventing land degradation and unsustainable water use, sustainably managing natural resources and protecting the natural resource base, including biodiversity (UN, 2012: 27). The major challenge is that "sustainability" means different things to different people.

One option is to mainstream environmental sustainability across all goals (income, jobs and growth must be "green"; food and water considerations and infrastructure must be sustainable). Unanimously across the regions, experts were concerned that if environmental sustainability were mainstreamed, the content would be lost. Stiglitz, Sen and Fitoussi (2009) identified 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 "over-consumed," including the ecological footprint. There is no dispute with eclectic, broad and diverse sources, but the larger the dashboard, the more impractical and ineffective it will be. Composite indices suffer from arbitrary measurements and the impenetrability of sensitivity calculations (sustainability indices may not be as robust as the MPI). Correcting for imperfections in GDP may be 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* that focuses on four areas — climate change, biodiversity, freshwater and health impacts of pollution — and assesses the future trends in these areas (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 and other matters 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 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

²¹ To access the portal resources, see www.gaportal.org/global-initiatives/source-guide-to-global-indicators.

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. It “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” (Global Footprint, 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” (Global Footprint, 2009). This methodology, although complex, could provide a mechanism for managing the limited planetary space, but how, exactly, remains a question.

There is an already agreed-upon target and indicator for climate change and there is an agreement to aim for limiting increase in temperature by 2050 to 2 degrees Celsius.²² This translates into a probability distribution of atmospheric CO₂ concentration — with 450 parts per million (ppm) equivalent to 50 percent probability of limiting temperature increase to 2 degrees. Concentration of 450 ppm yields a cumulative “budget” of 1400 gigatonnes of emissions by 2050. This converts to an average of some 35 billion tonnes per year — we were at 34 billion tonnes in 2011. Converting the cumulative budget into a trajectory of annual emissions yields an annual “budget” of 12 billion tonnes in 2050. This is equivalent to an estimated 2 tonnes per capita in 2050, less than half of today’s figure. Of course there is no agreement on the distribution of national targets that would be consistent with the “budget.”

Another approach is to argue that energy is a central, if not “the” central, variable in achieving environmental sustainability. The *Sustainable Energy for All* (SE4ALL) initiative launched by UN Secretary-General Ban Ki-moon has three interlinked objectives that address access, efficiency and renewable energy. An extensive list of energy indicators is contained in *Energy Indicators*

for Sustainable Development: Guidelines and Methodologies (International Atomic Energy Agency [IAEA] et al., 2005). One apparently simple approach is to build on the G20 commitment to phase out inefficient fossil fuel subsidies.²³ But the devil is in the details. On closer review, challenges include issues such as the omission of a formal definition of subsidy and the fact that several countries exclude the sale of domestically produced fuels at below-market prices from their definition if direct production costs are covered. Others exclude targeted subsidies and report only a small portion of the policies that the definition includes.²⁴

We heard MDG 7 described as a “dog’s breakfast,” and it is a worthy challenge to establish a comprehensive set of indicators to address the multiplicity of issues within an “environmental sustainability” goal. The challenge is to get, or develop, metrics that are simple and measurable, but not one-dimensional. Perhaps the best place to start would be with indicators clustered around climate change, biodiversity, other planetary thresholds and energy. (See Table 13 on page 56 of the Annex.)

CANDIDATE GOAL 11: GLOBAL GOVERNANCE AND EQUITABLE RULES FOR REALIZING HUMAN POTENTIAL²⁵

Going into the meeting in Paris and the regional consultations, we presented “Establishing Rules for Managing the World Economy for the Fairly Shared Benefits for all Nations” as Goal 11, distinct from “Good Global Governance for Transparent and Accountable International Institutions and Partnerships” as Goal 12. The idea was that the goal on global governance dealt with the fairness of the deliberative and decision-making processes of international institutions and the goal for “fair” rules applied to the substantive outcome of the decisions of these institutions. But in each of the consultation events, our formulation was vigorously questioned. Opinions ranged from the amorphous nature of governance and the difficulty of reaching consensus on indicators, to the criticism that governance is simply the process for which rules are the outcomes. So we bowed to the near-unanimous view that logic demands collapsing these two original Bellagio Goals into one.

There are two approaches to seeking governance indicators that are mutually compatible. First, we can design a simple checklist of questions based on

22 See http://unfccc.int/meetings/cancun_nov_2010/meeting/6266.php. This is not as straightforward as it seems — see <http://theenergycollective.com/davidhone/104341/how-important-two-degree-target>.

23 See www.oecd.org/environment/fossilfuelsubsidies.htm.

24 See www.earthtrack.net/blog/g20-fossil-fuel-subsidy-reform-flexible-definitions-make-compliance-easy.

25 This section was largely crafted by Danny Bradlow; however, any errors remain the responsibility of the authors.

internationally agreed legal principles. Second, we can adopt the graded scoring system of the One World Trust's Global Accountability Framework.

We define global governance arrangements to 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 the rules of the global game. In formal international institutions, characteristics suggested for the definition of good governance include participation, transparency, accountability, consensus-orientation, following the rule of law, efficiency and effectiveness, responsiveness and equity. Targets and 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 and 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:

- the 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 which of the other goals amount to a reasonable definition of “development” for these purposes? Development must be a comprehensive and holistic process integrating the economic, social, political, environmental and cultural aspects in dynamic fashion. The ability of global governance institutions to help all states achieve their developmental objectives depends on how effectively they incorporate this 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 to preserve as much independence and policy space as is consistent with effective global governance. The second is non-discrimination that ensures 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 mechanisms 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 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 limited and specialized mandates. It requires, first, that 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 produce results that are predictable and understandable. Finally, stakeholders should be able to hold the institutions accountable for decisions and actions.

Institutions must meet the following checklist of internationally agreed principles:

- Does each global governance institution have an official document that articulates its vision of development and how its policies, operations and activities contribute to promotion of that vision?
- Is there independent evaluation of policies', operations' or activities' contributions to the promotion of the vision?
- Do the foundational instrument, 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 require environmental and social impact assessments?
- Does the foundational document clearly delineate the mandate of each institution or arrangement for global governance?
- Are there mechanisms 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 or recommendations of the coordination mechanism?
- Do these coordination mechanisms offer grievance process for stakeholders who are not satisfied with the decisions of the coordination mechanism?
- 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 grievance process for stakeholders who are not satisfied with the decisions of the institution?

In effect, the questions on this checklist are a good place to start because, at first glance, they are answerable with either a “yes” or “no.”

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.

Turning to equitable rules, the processes of good global governance should deliver outcomes redressing imbalances in the world economy, ensuring fair trade rules and equal access to markets and international financial institutions, leading to a “level playing field” for economic transactions within the global economy. 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. 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.

This will be a very contentious domain — especially the definition of “fairness” (Ringius, Torvanger and Underdal, 2002; Jagers, Löfgren and Strippel, 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 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” (International Labour Organization [ILO] cited in Cantillon and Marx, 2005: 177).

The ILO has further argued that “uniform rules for unequal partners can only produce unequal outcomes” and 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 Trade-Related Aspects of Intellectual Property Rights (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 license. 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 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: national treatment (that is, treating foreigners and locals equally); predictability through binding agreements and transparency; promoting fair competition (rules on subsidies, dumping and intellectual property); and special and differential treatment for developing countries. 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.

The formulation of “rules” is also 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. One could argue that there are still significant gaps in terms of equitable rules. (See Table 14 on page 58 of the Annex.)

CONCLUSION

“What gets measured gets done, what gets rewarded gets repeated.”²⁶

THE CHALLENGE

To reach agreement on a framework to succeed the MDGs, the United Nations will be tested in consulting and negotiating through the maze of complexities and interests. The United Nations must reject the easy way out, and must not replace the MDGs with empty rhetorical or aspirational statements where progress cannot be evaluated. It would be simpler to duck the technical and political work required to adopt a future set of goals, targets and indicators. There are major gaps in data, challenges with measurement, and complex questions on process, context and content. But it would be a shame to lose the opportunity to update the development paradigm and motivate global action.

Measurement is important. Skeptics are fond of quoting the aphorism that legend ascribes to be on a wall plaque in Einstein’s office: “Not everything that counts can be counted; not everything that can be counted counts.” But without indicators we can neither monitor nor report on progress. Indicators stimulate debate and raise awareness. Progress reports on indicators will sensitize public opinion and highlight countries with best practices. Measurement provides an opportunity for improved coordination and will influence development priorities. Perhaps most importantly, measurement affects behaviour.

There are intimidating challenges in selecting indicators. Ideally, they should measure outcomes and outputs, not inputs and processes. Outcome indicators avoid a prescriptive means-based approach. If an indicator focuses on an outcome, then the country can decide what inputs it uses to reach the desired outcome. Indicators should also be accessible to lay readers. For some goals, where outcome indicators are not available, input, output and process indicators may be appropriate. The choice of indicators must be sensitive to potential behaviour response. Ideally, given the need to minimize the number of indicators, they should be summative, reflecting whole sector outcomes (for example, using maternal mortality as an indicator for the effectiveness of the public health system).

Preferably, indicators should be direct measures, not indices. (Indices are tempting because they summarize a wide range of information, but the choice of weights can distort

26 Varad Pande reminded us of this maxim — attributed to Peter Drucker, Tom Peters, Edwards Deming, Lord Kelvin and others — at our regional meeting in Mumbai, August 28, 2012.

results.²⁷) If at all possible, we should avoid perception-based measures, but in the absence of administrative data, surveys are the only recourse. Norms influence data collection, the selection of wording and the interpretation of statistics. Value judgments are embedded in statistics, surveys and questionnaires. Information can be obtained from people's perceptions and expert assessments. Survey data could complement administrative data on key parameters, but it is expensive and subjective, and care must be taken in survey design — recall the cliché “Tell me the answer you want, then I'll tell you the survey question.” There are trade-offs with relying solely on either surveys or administrative data.

Data must be available at a reasonable cost, with disaggregation possible for several dimensions. The MDGs were criticized because the appropriate data was just not available or reliable enough to track progress. Data availability in the international series for the assessment of trends for all MDGs has continued to improve.²⁸ The selection of post-2015 goals is an opportunity to further develop national statistical capacities.

OUR ADVICE

One approach that will help the United Nations to screen the flood of suggestions for new post-2015 goals and targets is to insist that practical and cogent indicators are available for nominated goals. Without solid information, we cannot measure where we are, nor can we prescribe what needs to be done. This requirement will reduce the number of suggestions to a manageable number — valid indicators do not exist for many worthy aspirational goals.

Following our previous work on potential post-2015 goals, we held consultations in Paris, Beijing, Seoul, Pretoria, Mumbai and Rio de Janeiro. Participants reflected on our Bellagio Goals and provided expert advice on indicators that could be employed to measure progress. The objective was to identify some of the key problems with measurement in each goal area, identify potential indicators and present a menu of options on potential indicators for a wide range of goals.

There was near unanimity that the future set of goals should apply to both developed and developing countries. The new agenda should be as universally applicable as possible.

²⁷ Indices must be interpreted with care. Statistics are not value-free; indeed, as the adage goes, “statistics are like sausages — you like them better if you do not know what is in them.”

²⁸ In 2011, 122 countries had data for at least two points in time for 16 to 22 indicators; in contrast, only four countries had this data coverage in 2003. See <http://mdgs.un.org/unsd/mdg/Resources/Static/Products/Progress2012/English2012.pdf>.

Goals should be aspirational — about the world we want — but we must consider the impact on acceptability. There are political challenges with some of the current goals and indicators. For example, some countries will be averse to a goal on civil and political rights (notwithstanding having signed various UN declarations and conventions); others will dislike goals on restructuring international institutions. The inclusion of goals on equitable rules and global governance in the framework was criticized most heavily (that is, some said “this is not the place to deal with international institutional reform”) and the difficulty in finding measurable indicators.

Several questions are very contentious. Health advocates will be concerned about consolidating the three MDG health goals into one goal. There is concern about separating hunger from poverty in our framing of food and water — which positioned water in a less prominent position — that safe water concerns could be crowded out by food, just as hunger was crowded out by poverty in MDG 1. There was confusion about splitting safe water, which we associate with food security, from sanitation — which some thought should be included with the goal on infrastructure. Of course, these are arguable points, but the underlying question is the availability of suitable indicators.

There is concern that, in jumping from goals to indicators, we de-emphasize targets — “the core of the whole thing.” There are two basic options. First, establish the global framework within which targets can be set, but leave the actual targets to countries, or second, establish a global standard below which no country should fall. Targets are the motivating factor, determining the destination and mobilizing the agenda. Proposing indicators first, however, identifies whether progress towards targets can be assessed.

Disaggregation was less than ideal in the original MDGs and must be better handled in the post-2015 framework. Household data aggregates across gender. Where we have individual data, we should maximize the amount of disaggregation (gender, income quintile, minority groups, age, sub-national units, disability and urban/rural).

The MDGs had a significant impact on development policy, perhaps more so than anyone originally anticipated. There are high expectations for a future framework to improve upon the substantial amount of progress already made. 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 post-2015 framework should comprise “stretch” goals that address current challenges and anticipate future issues. Difficult decisions are required for addressing the trade-offs in metrics, structure and content. CIGI, KDI and our partners hope that our work here, in providing a menu of options, will facilitate progress on designing the post-2015 framework.

ANNEX

Table 1: Candidate Indicators on Inclusive Growth, Livelihoods and Standards of Living

Inclusive Growth

Target	Indicator	Definition	Data Source
Inclusive Growth	Income Poverty	Proportion of people living below the national poverty line	Household survey (HS) / Administrative data (Admin) / World Bank
		Proportion of people living below US\$2 a day at 2005 PPP	
		Ratio of income/consumption of the top quintile to the bottom quintile	
	Economic Growth	Growth rate of GDP per capita at PPP	HS / Admin / World Bank / ILO
		Growth rate of average per capita income/consumption PPP for lowest and highest quintile and total	
		Growth rate of GDP per person employed	

Livelihoods and Employment

Target	Indicator	Definition	Data Source
Livelihoods and Employment	Opportunities	Employment rate	ILO
		Elasticity of total employment to total GDP	
		Number of own-account and contributing family workers per 100, wage and salaried workers	
		Seasonality of income index	
	Conditions	Children in wage employment or self-employment activity rate (percent by age)	HS / ILO
		Deaths from workplace hazards	ILO
		Discouraged workers (as a share of the population)	OECD

Standards of Living

Target	Indicator	Definition	Data Source	
Standards of Living	Shelter	Proportion of households living in a housing unit considered “durable”	Built on a non-hazardous location and has a structure both permanent and adequate enough to protect its inhabitants from the extremes of climatic conditions such as rain, heat, cold and humidity. The following locations should be considered hazardous: housing settled in geologically hazardous zones (landslide, earthquake and flood areas); housing settled on garbage mountains; housing around high industrial pollution areas; and housing around other high-risk zones (such as railroads, airports and energy transmission lines). The following durability factors should be considered when categorizing housing units: quality of construction (for example, materials used for wall, floor and roof); and compliance with local building codes, standards and by-laws.	HS / Admin / United Nations Human Settlements Programme (UN-HABITAT)
		Proportion of households with more than three persons per room	A house is considered to provide a sufficient living area for the household members if three or less people share the same room.	HS / Admin / UN-HABITAT
		Proportion of people with secure tenure	Secure tenure is the right of all individuals and groups to effective protection by the state against unlawful eviction. Secure tenure can be considered as the first component of the progressive realization of the right to housing. The granting of secure tenure will not, in and of itself, solve the problem of homelessness, poverty, unsafe living environments and inadequate housing. However, secure tenure is one of the most essential elements of a successful shelter strategy.	UN-HABITAT
	Well-being	Population unable to make ends meet	Share of the population who declare that they are having great difficulty making ends meet. Relies on the same question across countries, although contextual factors and cultural effects may affect comparisons.	European Union Statistics on Income and Living Conditions (Currently EU only)
	Social Security	Social protection and labour rating	“Social protection and labor assess government policies in social protection and labor market regulations that reduce the risk of becoming poor, help those who are poor to better manage further risks, and ensure a minimal level of welfare to all people.”	World Bank
		Government expenditure on social security and welfare as percentage of total government expenditure	Government expenditure on social security and welfare (consists of expenditure by government to provide benefits in cash or in kind to persons who are sick, fully or partially disabled, of old age, survivors or unemployed, among others) expressed as a percentage of total government expenditure.	Admin
		Share of population aged 65 and above benefitting from a pension	No agreed/universal/international definition.	ILO

Table 2: Candidate Indicators on Food, Water and Sanitation

Food

Target	Indicator	Definition	Data Source
Food	Nutrition Inputs	Proportion of population below minimum level of dietary energy consumption	Admin / FAO
		Food Consumption Score (FCS)	HS / World Food Programme
	Nutrition Outputs	Prevalence of underweight children under five years	Admin / UNICEF
		Prevalence of stunting in children under two years	WHO
		Prevalence of stunting in children under five years	
		Prevalence of underweight infants (<2,500 g or 5.5 lbs) at birth	HS / WHO
		Percentage of anemic women at reproductive age	Admin / WHO
		Prevalence of overweight	
		BMI	

Water and Sanitation

Target	Indicator	Definition	Data Source
Water	Proportion of households that obtained a sufficient quantity from a “safe” source for x days a year	Proportion of households with drinking water collected from a source that supplies 50 L per capita per day year-round (without daily or weekly interruptions in supply), requiring no more than 10 minutes to collect, and no more than 30 minutes each way, with no detectable E. coli in a 100-mL sample.	Admin / HS
	Incidence rate of diarrheal disease in children under five years	Diarrhea: three or more watery stools in a 24-hour period, a loose stool being one that takes the shape of the container (WHO), or other local definition of diarrhea. Episode of diarrhea: a 24-hour period with three or more loose or watery stools. An episode of diarrhea is considered to have ended after 48 hours without three or more loose watery stools within a 24-hour period. Incidence of diarrhea morbidity: total number of episodes of diarrhea during a one-year period among the children surveyed.	HS / WHO
Sanitation	Reduce Open Defecation	Percentage of households in the lowest wealth quintile practicing open defecation (OD)	HS / WHO
		Percentage of total, urban and rural households practicing OD	
		Percentage of households in which OD is practiced by any members of household	
	Households	Percentage of population using an adequate sanitation facility	HS / UNICEF
		Percentage of households using adequate sanitation facility (disaggregated urban and rural and by wealth quintiles)	
		Percentage of households in which the sanitation facility is used by all members of the household (including men and women, boys and girls, the elderly and people with disabilities) whenever needed	HS
	Public Facilities	Percentage of schools with separate and adequate facilities for boys and girls	HS / UNICEF
		Percentage of health facilities with separate and adequate facilities for men and women	

Table 3: Significant Contributions of Education to Other Development Objectives

MDGs	Estimated Effects of Education
MDG 1: Poverty Reduction	12 percent additional cut in world poverty if all students in low-income countries left school with basic reading skills.
MDG 3: Gender Equality	22 percent productivity improvement if female farmers are given the same level of education as their male partners.
MDG 4: Child Mortality	A child born to a mother who can read is 50 percent more likely to survive past age five.
MDG 5: Maternal Health	Proportion of births assisted by skilled personnel increases with the mother's education level.
MDG 6: Combat against HIV / AIDS	Education of large numbers of community-based health workers reduced deaths from malaria by 66 percent in Zambia in six years.
MDG 7: Environmental Sustainability	Successful implementation and actual use of new, affordable technologies for sanitation in Africa came with education.

Table 4: Candidate Indicators on Education

Target			Indicator	Definition	Data Source
Establish Sufficient Education System Accessible to All at All Levels (Inputs)	Capacity and Accessibility	Accessible School System	Adjusted net intake rate (percentage of population in the same age group)	Total enrollment in primary education of pupils of official primary school entrance age, expressed as a percentage of the population of the same age in a given school year. It is equivalent of the age-specific enrollment rate of official primary entrance age.	UNESCO Institute for Statistics
			Age-specific enrollment rate (percentage of cohort)	Enrollment of a specific single age enrolled, irrespective of the level of education, as a percentage of the same age.	
			ECCE	Programs that, in addition to providing children with care, offer a structured and purposeful set of learning activities, either in a formal institution or as part of a non-formal child development program. ECCE programs are typically designed for children aged three years and over, occurring before primary education.	
	Sufficient Financing	Public Expenditure	Government expenditure on education to poorer families	No agreed/universal/international definition.	World Bank
			Public expenditure on education, total (percentage of GDP)	Total public expenditure (current and capital) on education, expressed as a percentage of the GDP in a given year.	
			Public expenditure on education, total (percentage of government expenditure)	Current and capital expenditures on education by local, regional and national governments, expressed as a percentage of total government expenditure on all sectors.	
			Expenditure per student, per level (percentage of GDP per capita)	No agreed/universal/international definition.	
		Private	Total private expenditure on educational institutions and educational administration, as percentage of GDP	Expenditure by private on educational institutions and administration at a given level of education, expressed as percentage of GDP.	World Bank
	Equal Right to Education	Gender Equality	Ratio of female to male by level of education (percentage)	No agreed/universal/international definition.	World Bank
			Ratio of female to male net intake rate (percentage)	No agreed/universal/international definition.	UNESCO Institute for Statistics
			Percentage of female teachers	Number of female teachers at a given level of education, expressed as a percentage of total number of teachers at the same level in a given school year.	
		Socio-economic Equality	Duration of compulsory school years	No agreed/universal/international definition.	World Bank
			Children out of primary school, female and male (percentage of cohort)	Number of children of official primary school age who are not enrolled in primary or secondary school, expressed as a percentage of the population (by gender) of official primary school age.	UNESCO Institute for Statistics
			Economically active children, ages 7–14, female and male (percentage of cohort)	Economically active children refer to children involved in economic activity (non-school attendance) for at least one hour in the reference week of the survey.	World Bank
			Ratio of school attendance of orphans to school attendance of non-orphans	No agreed/universal/international definition.	
			Population from 5–24 years of age by school attendance, urban and rural residence	No agreed/universal/international definition.	UN Statistics Division Demographic Statistics

Target	Indicator	Definition	Data Source
Ensure Active Participation in EFA (Throughputs)	Survival Ratio	Percentage of repeaters	UNESCO Institute for Statistics
		Dropout rate by grade (percentage)	
		Attendance rate (percentage)	
		Survival rate by grade	
		Persistence to last grade of primary, female and male (percentage of cohort)	World Bank statistics
		Primary completion rate, female and male (percentage of cohort)	
	Lifelong Learning	Firms offering formal training	UNESCO Institute for Statistics
		Adult education	
		Number of students in tertiary education	
		Year input per graduate	
	Advancement	Promotion rate by grade	
		Effective transition rate	
		New entrants to primary education with ECCE	
		Students enrolled by type of institution	OECD statistics

Table 5: Candidate Indicators on Health

Target		Indicator	Definition	Source
Impact	Health Status	Life expectancy at birth	Average number of years that a newborn is expected to live if current mortality rates continue to apply.	WHO
		HALE	Average number of years that a person can expect to live in “full health” by taking into account years lived in less than full health due to disease and/or injury.	
		Maternal mortality ratio	Number of maternal deaths per 100,000 live births during a specified time period, usually one year.	
		Child mortality ratio (under five years)	The probability of a child born in a specific year or period dying before reaching the age of five, if subject to age-specific mortality rates of that period.	WHO / UNICEF
		Infant mortality ratio (under one year)	The probability of a child born in a specific year or period dying before reaching the age of one, if subject to age-specific mortality rates of that period.	
		Mortality due to major cause of death (by sex and age)	The age-standardized mortality rate is a weighted average of the age-specific mortality rates per 100,000 persons, where the weights are the proportions of persons in the corresponding age groups of the WHO standard population.	WHO mortality database
		DALY	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. DALYs for a disease or health condition are calculated as the sum of the years of life lost due to premature mortality in the population and the years lost due to disability for incident cases of the health condition.	WHO
	Financial Risk Protection	Out-of-pocket (as percentage of total health expenditure)	Out-of-pocket expenditure is any direct outlay by households, including gratuities and in-kind payments, to health practitioners and suppliers of pharmaceuticals, therapeutic appliances and other goods and services whose primary intent is to contribute to the restoration or enhancement of the health status of individuals or population groups.	World Bank

Target		Indicator	Definition	Source
Outcomes	Coverage of Interventions	Antenatal care coverage (percentage)	Women who utilized antenatal care provided by skilled health personnel, for reasons related to pregnancy at least once during pregnancy, as a percentage of live births in a given time period.	HS
		Births attended by skilled health personnel (percentage)	Percentage of live births attended by skilled health personnel in a given period of time.	
		DTP3 immunization coverage	DTP3 (combined vaccine for diphtheria, tetanus toxoid and pertussis) immunization coverage is the percentage of one-year-olds who have received three doses of the vaccine in a given year.	Admin / HS
		Need of family planning satisfied, expressed as percentage	The proportion of women of reproductive age (aged 15–49) who are married or in a union and who have an unmet need for family planning (who do not want any more children or want to wait at least two years before having a baby), and yet are not using contraception.	HS / UN Population Fund
		Antiretroviral therapy (ART)	Percentage of people with advanced HIV infection receiving ART, according to nationally approved treatment protocol (or WHO / Joint UN Programme on HIV and AIDS standards), among the estimated number of people with advanced HIV infection.	Admin
		Cervical cancer screening	Proportion of women (aged 20–69) reporting to have undergone a cervical cancer screening test within the past three years.	
	Prevalence of Major Risk Factors	Condom use during higher risk sex	Percentage of young people (aged 15–24) years reporting the use of a condom during the last sexual intercourse with a non-regular partner among those who had sex with a non-regular partner in the last 12 months.	HS
		Tobacco use (adults)	Prevalence of current tobacco smoking (including cigarettes, cigars, pipes or any other smoked tobacco products). Current smoking includes both daily and non-daily or occasional smoking.	WHO
		Low birth weight among newborns	Percentage of live born infants with a birth weight of less than 2,500 g in a given time period. Low birth weight may be subdivided into very low birth weight (less than 1,500 g) and extremely low birth weight (less than 1,000 g).	Admin / HS
		Children under five who are stunted	Percentage of children stunted describes how many children under five years have a height-for-age below minus two standard deviations of the National Center for Health Statistics (NCHS) / WHO reference median.	HS / WHO

Target		Indicator	Definition	Source
Outputs	Quality and Safety	30-day acute myocardial infarction (heart attack) in-hospital mortality rate	The risk-adjusted rate of all causes of in-hospital deaths occurring within 30 days of first admission to an acute care hospital with a diagnosis of acute myocardial infarction.	Admin
		TB DOTS (directly observed treatment short course) treatment success rate	The proportion of new smear-positive TB cases registered under DOTS in a given year that successfully completed treatment, whether with bacteriologic evidence of success ("cured") or without ("treatment completed"). At the end of treatment, each patient is assigned one of the following six mutually exclusive treatment outcomes: cured; completed; died; failed; defaulted and transferred out with outcome unknown. The proportions of cases assigned to these outcomes, plus any additional cases registered for treatment but not assigned to an outcome, add up to 100 percent of cases registered.	WHO
		Waiting time for elective surgery (cataract)	Waiting times for elective surgery is the time between the patient being advised that they needed care and the appointment. Since there are no universally accepted definitions of waiting times, data derived from different sources may not be fully comparable.	Admin
		Surgical wound infection rate (percentage of all surgical operations)	No agreed/universal/international definition.	WHO
	Access and Service Readiness	Outpatient visits per person per year	Outpatient visits per capita are the number of visits to health care facilities per capita, including repeat visits.	World Bank

Table 6: Candidate Indicators for Security

Target	Indicator	Definition	Source
Armed Conflict	Number of direct deaths and injuries from armed conflict	Uppsala Conflict Data Program (UCDP) defines conflict as “a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a year.” Fatality statistics relate to military and civilian lives lost as a direct result of an armed conflict; figures relate to the country that is the main area of conflict.	International Prevention Research Institution / UCDP / International Institute for Strategic Studies / Global Peace Index
	Number of conflict-related sexual violence incidents	Number of incidents or patterns of sexual violence (rape, sexual slavery, forced prostitution, forced pregnancy or enforced sterilization) or any other form of sexual violence of comparable gravity against women, men or children. Such incidents or patterns occur in conflict or post-conflict settings or other situations of concern. They also have a direct or indirect nexus with the conflict or political strife that is temporal, geographical and/or causal link.	UN
	Rate of injuries and deaths from land mines, cluster munitions and other explosive remnants of war and improvised explosive devices	Number of individuals killed or injured in incidents involving devices detonated by the presence, proximity or contact of a person or a vehicle, such as anti-personnel mines, anti-vehicle mines, Abandoned Explosive Ordnance, Unexploded Ordnance and victim-activated improvised explosive devices.	Landmine and Cluster Munition Monitor
	Rate of children recruited by armed groups and violent gangs	The number of children under the age of 18 who have been coerced or induced to take up arms as a proportion of the total number of children under the age of 18 (state militaries, non-state armed groups, criminal gangs).	UNICEF / Child Soldiers Coalition
	Rate of population displacement due to violence	Refugee population by country or territory of origin, plus the number of a country’s internally displaced people as a percentage of the country’s total population.	International Displacement Monitoring Centre / UN High Commissioner for Refugees

Target	Indicator	Definition	Source
Violent Crime	Direct deaths and injuries from crime	No agreed/universal/international definition.	
	Rate of reported violent crimes	Number of reports of assault, sexual violence, robbery, child pornography and kidnapping recorded by the police in a country.	UNODC
	Crime victims as proportion of the population	No agreed/universal/international definition.	
	Number of firearm-related casualties	No agreed/universal/international definition.	Admin
	Rate of persons subjected to sexual violence	No agreed/universal/international definition.	
	Number of homicides per 100,000 people	Intentional homicide refers to death deliberately inflicted on a person by another person, including infanticide. Total number of penal code offences or their equivalent, excluding minor road traffic and other petty offences, brought to the attention of the police or other law enforcement agencies and recorded by one of those agencies.	UNODC
	Number of gang-related violent incidents	No agreed/universal/international definition.	
Domestic Violence	Rate of intimate partner violence	Proportion of women (aged 15 and over) subjected to physical or sexual violence by current or former partner over the total number of women (aged 15 and over) who have or had an intimate partner. Definition varies by country and region.	HS / WHO / UNICEF
	Rate of child abuse	Proportion of children who have indicated via self-reports that they have been victims of violence at home or school in the last 12 months.	HS / UNICEF

Target	Indicator	Definition	Source
Other	Persons in unlawful detention Proportion of arrests and detentions declared unlawful by national courts	Reported cases of arbitrary detentions, including post-trial detentions (for example, those reported to the UN Working Group on Arbitrary Detention) in the reporting period.	Office of the High Commissioner for Human Rights (OHCHR)
	Persons trafficked from and into a country	Number of persons identified by state authorities as “victims of trafficking in persons” by age, gender, citizenship, type of exploitation suffered and year. “Trafficking in persons” shall mean the recruitment, transportation, transfer, harbouring or receipt of persons by means of: threat; use of force or other forms of coercion; abduction; fraud; deception; the abuse of power or of a position of vulnerability; or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.	
	Rate of bullying	No agreed / universal / international definition.	UNICEF
	Military expenditure as a proportion of total government expenditure	All current and capital expenditures on the armed forces, including peacekeeping forces, defense ministries and other government agencies engaged in defence projects, paramilitary forces (if these are judged to be trained and equipped for military operations) and military space activities. Such expenditures include military and civil personnel, including retirement pensions of military personnel and social services for personnel, operation and maintenance, procurement, military research and development, and military aid (in the military expenditures of the donor country).	Stockholm International Peace Research Institute / World Bank
	Rate of population with an elevated perception of fear of violence in society	How satisfied are you with your personal safety? (measured by survey questions) What is the level of perceived criminality in society? (scale: 0–4) (measured by survey questions) Do you feel safe walking alone at night in the city or area where you live? (World Gallup Poll / OECD)	HS / World Gallup Poll / UNODC

Table 7: Candidate Indicators on Gender Equality

Target	Indicator	Definition	Data Source
Physical Autonomy	Reproductive Rights	Unmet need for family planning	HS
		Percentage of unwanted pregnancy	HS / WHO
		Contraceptive prevalence rate	
	Violence	Percentage of women who have experienced physical violence during the past year	UN
		Percentage of women who are currently or were formerly engaged in a relationship, who suffered from physical, sexual or psychological violence	HS / WHO / UNICEF
		Number of cases of violence against women	Admin
Economic Autonomy	Participation	Gender earnings ratio	World Bank
		Percentage of women without incomes of their own	
		Poverty gap ratio of head of household of the poorest quintile (by gender)	
		Percentage of population employed in low-productivity sectors of the labour market (by gender)	
	Capacity	Average daily hours spent on household tasks, according to length of workday (by gender)	
		Ratio of male to female completion rates by all levels of school, including vocational training	World Bank
		Number of women-owned businesses starting up	
		Proportion of women-owned sole proprietorships	

Target	Indicator	Definition	Data Source
Decision-making Autonomy	Private	Percentage of women who control the household income	HS
		Percentage of women who make decisions about the household income	HS
		Housing title or land ownership, disaggregated by male and female, jointly held	
	Public	Proportion of voters who are women, by level of government	Admin
		Number and size of women's quota in the national parliament	Inter-Parliamentary Union / World Bank
		Proportion of candidates standing for election who are women, by level of government	Admin

Table 8: Candidate Indicators for Disaster Reduction and Resilience

Target	Indicator	Definition	Data Source
Process	Vulnerability	Proportion of population at risk due to rainfall	UNISDR / MDG
		Proportion of people with secure access to land tenure not located in high-risk, hazard-prone zones	
		Proportion of population with sustainable access to a safe water source not susceptible to destruction or depletion by natural hazards like floods, droughts, seismic and cyclone risks	
	Capacity	Percentage of schools meeting regional building standards for hazard resistance	UNISDR / WMO
		National disaster risk reduction and resilience plans adopted and referenced in national development plans	Admin
		Percentage of communities with an early warning system	Hyogo Framework, 3.2.3
		Percentage of area complying with enforcement of no development or construction (by law) on lands classified as high risk	UNISDR / MDG

Target	Indicator	Definition	Data Source
Impact	Human	Crude mortality rate	Disaster deaths per 1,000 inhabitants; number of persons deceased, missing and presumed dead, as a direct result of a disaster.
		Prevalence of underweight children does not increase during occurrence of and in years following a major hazard event	UNISDR / MDG
		Proportion of population below minimum level of dietary consumption does not increase in years following major hazard event	
	Economic	Direct economic losses as percentage of GDP	UNISDR
		Share of poorest quintile in national consumption does not decline in years of extreme weather and hazards	UNISDR / MDG

Table 9: The Importance of Infrastructure Goals

Infrastructure Goal	MDGs	Source
Improving paved road ratio by 50 percent in 2030 from current level (19 percent in Sub-Saharan Africa, 2006)	1, 2, 4, 5, 6	<i>Infrastructure to 2030</i> (OECD, 2006)
Raising worldwide electrification rates from 74 percent in 2002 to 83 percent in 2030	1, 2, 4, 5, 6	World Bank Independent Evaluation Group (IEG)
Wider application of e-services (such as certifications, e-learning, e-government, e-banking)	1, 2, 3, 4, 5, 6, 7, 8	"The Contribution of ICTs to Achieving the MDGs" (OECD, 2005)
Raising Internet penetration in developing world and Africa from 21 percent and 11 percent, respectively, in 2010	1, 2, 3, 4, 5, 6, 7, 8	ITU/UNESCO Broadband Commission*
Improving water management structure	1, 3, 7	"Infrastructure and the MDGs" (OECD, 2004)
Wider range of online publication: database, financial and policy statements, and educational materials	1, 2, 3, 4, 5, 6, 7, 8	World Bank IEG

* ITU and UNESCO set up the Broadband Commission for Digital Development in response to the UN Secretary-General's call to step up UN efforts to meet the MDGs. The commission, established in May 2010, aims to boost the importance of broadband on the international policy agenda and believes that expanding broadband access in every country is the key to accelerating progress towards these goals by 2015.

Table 10: Infrastructure Goals

Principles	Core Dimension	Implication on Infrastructure Goal
Human Rights	Inclusive social development	Universal access to modern energy service that is also adequate and affordable to the most deprived groups. Universal access to modern telecommunication networks to eliminate exclusion from the new global digital society.
	Inclusive economic development	Universal access to credit information and market for fair trade, and better management of price shocks and climate risks.
Equality	Inclusive social development	Universal connectivity in recognition of the growing risk of "digital divide" among and within nations.
	Inclusive economic development	Affordable access to technology and knowledge for enhanced inter-businesses and inter-governmental cooperation.

Table 11: Candidate Indicators for Infrastructure

Electricity and Clean Water

Target		Indicator	Definition	Data Source	
Provide Reliable Electricity and Clean Water at Affordable Price to All	Proportion of Population with Access to Affordable Electricity	Capacity and Access	Electricity installed capacity for all sources	Existing electric power production capacity from various sources, including coal, petroleum, natural gas, nuclear, hydroelectric, wind, solar, wood, geothermal, renewable and others.	International Energy Agency
		Access to electricity (percentage of population)	Percentage of population with access to electricity.	World Bank	
		Proportion of households with electricity	Electricity access at the household level comprising commercially sold electricity, both on-grid and off-grid. It also includes self-generated electricity for those countries where access to electricity has been assessed through surveys by government or government agencies.	Core ICT Indicators endorsed at UNSC 2007	
		Time required to get electricity	Number of days required to get electricity access.	World Bank statistics	
		Actual Usage	Spending on energy services	Average share of total household expenditure spent on energy services	World Bank East Asia and Pacific Region (EAP) Infrastructure Flagship
			Average household spending on electricity as percentage of income	This is the average residential electricity tariff multiplied by the average household electricity consumption and then divided by the average household income.	World Bank
	Net national electricity consumption		Electricity production + electricity import - electricity export = net national consumption.		
	Proportion of Population with Access to Clean Water	Capacity and Access	Total annual freshwater withdrawals (measured in billion cubic metres)	Total water withdrawals (measured in billion cubic metres), not counting evaporation losses from storage basins. Withdrawals also include water from desalination plants in countries where they are a significant source.	FAO AQUASTAT (FAO)
			Renewable internal freshwater resources per capita (measured in cubic metres)	Renewable internal freshwater resources flows refer to internal renewable resources (internal river flows and groundwater from rainfall) in the country. Renewable internal freshwater resources per capita are calculated using the World Bank’s population estimates.	World Bank
			Proportion of total water resources used	Measured as a percentage of the total reserve.	UN statistics, MDG

Target		Indicator	Definition	Data Source
Provide Reliable Electricity and Clean Water at Affordable Price to All	Reliability of Electricity Supply	Service Quality against Unit Cost	Average residential electricity tariff	World Bank EAP
			Average industrial electricity tariff	
			Hours of power outages from public grid	
			Average residential water tariff	
			Average industrial water tariff	
			Hours of power outages from public grid (water)	
		Delay in obtaining electrical connection	Number of days delayed in obtaining the connection.	World Bank statistics
			Power outages in firms	
		Transmission and distribution losses (percentage of output)	Both technical and non-technical losses, including electricity losses due to operation of the system and the delivery of electricity, as well as those caused by unmetered supply. This comprises all losses due to transport and distribution of electrical energy and heat.	World Bank EAP
		Safety and Future Plan	Reported number of electrical accidents	Admin
			National expenditure on electricity generator	
			Total national expenditure on electricity supply system	
			Electricity operation reserve	
			Investment in energy with private participation	World Bank statistics

ICT

Target		Indicator	Definition	Data Source	
Connect All Through Readily Available Communication Technology	Proportion of Population Consistently Connected to the World	Capacity	Mobile base station density by subscribers	Number of base stations that generate frequency to provide mobile cellular telecommunication service divided by the number of mobile subscribers.	ITU statistics and database
			Total capacity of local public switching exchanges	Corresponds to the maximum number of fixed telephone lines that can be connected. This number includes, therefore, fixed telephone lines already connected and fixed lines available for future connection, including those used for the technical operation of the exchange (test no).	
			Domestic Internet Bandwidth (in megabits per second [Mbit/s])	Total capacity of domestic Internet bandwidth (Mbit/s). If capacity is asymmetric (that is, more download than upload), the download capacity should be provided.	
			Percentage of population covered by mobile cellular telephone network	This indicator measures the percentage of inhabitants that are within range of a mobile cellular signal, irrespective of whether or not they are subscribers.	
			Percent coverage of mobile cellular network (land area)	Proportion of total mobile cellular coverage of the land area, calculated by dividing the land area covered by a mobile cellular signal by the total land area.	
			Internet bandwidth (in kilobits per second [kb/s] per capita)	It is measured as the sum of the capacity of all Internet exchanges offering international bandwidth. The data was rescaled for the sake of readability.	
			Percentage of the population with access to a public Internet access centre (PIAC)	Measures the number of inhabitants enjoying PIAC coverage as a proportion of the country's total population. When a locality (village, town, city) has at least one PIAC, then the entire population living in this locality is considered to be served by that PIAC.	ITU
			Access	Daily newspaper (per 1,000 people)	Daily newspapers refer to those published at least four times a week and calculated as average circulation (or copies printed) per 1,000 people.
	Active fixed telephone lines (per 100 people)	Fixed telephone lines that connect a subscriber's terminal equipment to the public switched telephone network, and that have a port on telephone exchange. Integrated services, digital network channels and fixed wireless subscribers are included.		ITU	
	Percentage of localities with telephone services	This indicator reflects the percentage of localities that have telephone services, fixed or mobile or both. To enhance usefulness, the total number of localities should be provided as well as the population of localities covered by telephone service			
	Mobile cellular subscriptions	Mobile subscriptions to a public mobile telephone service using cellular technology, which provides access to the public switched telephone network. Post-paid and prepaid subscriptions are included.			Core ICT Indicators endorsed at UNSC 2007
	Internet users	Number of people (per 100 people) with access to the Web.			
	Proportion of households with Internet access	Access (not use of) the Internet at home by in-scope households.			
	Percentage of localities with PIACs	PIACs include telecentres, digital community centres, Internet cafés, libraries, education centres and other similar establishments that offer Internet access to the general public. All such centres should have at least one public computer for Internet access.			
	Fixed broadband Internet subscribers (per 100 people)	Number of broadband subscribers with a digital subscriber line, cable modem or other high-speed technology.			

Target		Indicator	Definition	Data Source
	Actual Usage	Proportion of individuals who used Internet in the last 12 months	Internet use in the previous 12 months from any location by in-scope individuals.	Core ICT Indicators endorsed at UNSC 2007
		Domestic fixed-to-fixed telephone traffic	Domestic fixed telephone traffic consists of completed local and long-distance fixed telephone voice traffic. The indicator should be reported as the number of minutes of traffic, which should exclude minutes used for dial-up Internet access.	ITU
		Internet dial-up traffic (in minutes)	The total volume in minutes of dial-up sessions over the public switched telephone network to access the Internet.	
		Domestic mobile telephone traffic (in minutes)	Total number of minutes made by mobile subscribers within a country (including minutes to fixed telephone and minutes to mobile phone subscribers.	
		Mobile cellular telephone prepaid tariffs per month	Calculated in terms of percentage of monthly per capital income.	
		Voice over Internet Protocol (VoIP) subscriptions	Number of VoIP fixed-line subscriptions. Refers to fixed telephone line VoIP subscriptions that have generated in- or outbound traffic within the past three months.	
		Fixed broadband Internet access tariffs (per month)	Calculated in terms of percentage of income in US dollars.	
		Residential monthly telephone subscription plus connection charge	Recurring fixed charge for a residential subscriber to the public switched telephone network plus the one-time charge involved to install the basic telephone service for residential purposes.	World Bank EAP Infrastructure Flagship
		Price of three-minute local call	Local call refers to the cost of a peak rate three-minute call within the same exchange area.	

Target		Indicator	Definition	Data Source
	Service Quality against Unit Cost	Percentage of fixed telephone lines connected to digital exchange	Percentage obtained by dividing the number of active fixed telephone lines connected to digital telephone exchanges by the total number of fixed telephone lines. This indicator does not measure the percentage of exchanges that are digital, the percentage of inter-exchange lines that are digital or the percentage of digital network termination points.	ITU
		Analog cellular monthly subscription charge	Recurring charge for a cellular subscriber. The charge should cover the rental of the line but not the rental of the terminal (telephone set) where the terminal equipment market is liberalized.	World Bank EAP Infrastructure Flagship
		Total number of low- and medium-speed access	Number of mobile cellular subscriptions with access to data communication at downstream speeds below 256 kbit/s.	ITU
		Price of analog cellular three-minute call	Cellular cost of three-minute local call during peak time.	World Bank EAP Infrastructure Flagship
		Average Internet subscription tariff	Average tariff for residential Internet subscription (including initial installation fee).	
		Secure Internet servers (per one million people)	Servers using encryption technology in Internet transactions.	ITU statistics and database
	Safety and Future Plan	Total national expenditure on telecommunication	Includes all types of government (national and local) expenditure on telecommunication systems, including expansion, maintenance and research and development for more reliable system development or cost reduction efforts.	
		ICT goods imports (percentage of total goods imports)	Includes: telecommunications, audio and video, computer and related equipment; electronic components; and other ICT goods.	COMTRADE database
		Total ICT related exports (percentage of total exports)	ICT service plus goods exports.	

Transportation

Target		Indicator	Definition	Data Source
Establish Well-Maintained Transport System for Both Private and Business Purposes	Proportion of Population able to Access Transport Network	Capacity and Access	Air transport, registered carrier departures worldwide	International Civil Aviation Organization (ICAO)
			Airport density (per one million people)	International Air Transport Association
			Road density (in km of road per 100 km ² of land area)	International Road Federation (IRF), World Road Statistics
			Total road network (in km)	
			Other rural roads	World Bank EAP Infrastructure Flagship
			Motorways, highways, main or national roads	
			Public transport network (bus and subway)	
			Number of rural people living within 2 km of an all-season road	World Bank EAP Infrastructure Flagship
		Actual Usage	Air transport, freight (in million tons)	ICAO, Civil Aviation Statistics of World
			Air transport passengers carried	
			Road sector diesel fuel consumption per capita	IRF, World Road Statistics
			Road sector energy consumption (percentage of total energy consumption)	
			Goods transported by roads (in million tonnes)	
			Passengers transported by roads	
			Goods transported by railways (in million tonnes)	World Bank, Transportation, Water, and ICT Department, Transport Division
			Passengers transported by railways	
			Rail lines (total route in km)	

Target		Indicator	Definition	Data Source
Establish Well-Maintained Transport System for Both Private and Business Purposes	Proportion of Population Able to Access Transport Network	Actual Usage	Total daily traffic	World Bank EAP Infrastructure Flagship
			Daily traffic on motorways, highways, main or national roads	
			Daily traffic on secondary or regional roads	
			Railway passenger fare revenue	
			Vehicles (per km of road)	World Bank indicators
Establish Well-Maintained Transport System for both Private and Business Purposes	Availability of Safe and High Quality Transport System	Service Quality	Quality of airport	SKYTRAX World Airport Awards
			Quality of port infrastructure	World Economic Forum, Global Competitiveness Report
			Paved roads (percentage of total roads)	IRF, World Road Statistics and electronic files
			Main (national) road agency administration cost	World Bank EAP Infrastructure Flagship
		Safety and Future Plan	Capital investment	
			Maintenance expenditure	
			Annual road expenditure	
			Number of fatalities from road accidents	
			Number of railway passenger fatalities	
			Size of investment made on annual base by the private sector	World Bank statistics

Table 12: Candidate Indicators on Civil and Political Rights

Target	Indicator	Definition	Data Source
Participation in the Political Process	Percentage of voter turnout in national and local elections	Percentage of registered voters who actually voted.	Institute for Democracy and Electoral Assistance (IDEA)
	Percentage of voting age population registered to vote	Number of names on the voters' register at the time that the registration process closes (cut-off date), as reported by the electoral management body, as a percentage of the total eligible voters.	IDEA
	Freedom of expression	Number of journalists and other media persons who reported sanctions, political or corporate pressure for the publication of information.	
	Freedom of association	Freedom of Assembly and Association Index	Cingranelli-Richards Human Rights Data Project (CIRI)
		Do you have the freedom to join any political organization? (survey question)	Afrobarometer
	Number of journalists killed, imprisoned, missing or in exile	No agreed/universal/international definition.	Committee to Protect Journalists
	Percentage of different minorities in public, private and civil sector bodies	Percentage of different minorities as a proportion to the total population.	
	Number of voluntary non-profit organizations registered or with premises in the city (per 10,000 population)	Includes non-governmental organizations, political, sporting and social organizations.	

Target	Indicator	Definition	Data Source	
Accountability	Human Rights	Number of reported extrajudicial killings and disappearances	Extrajudicial killings are killings by government officials without due process of law. They include murders by private groups if instigated by government. These killings may result from the deliberate, illegal and excessive use of lethal force by the police, security forces or other agents of the state whether against criminal suspects, detainees, prisoners or others. Disappearances are cases in which people have disappeared, agents of the state are likely responsible, political motivation may be likely and the victims (the disappeared) have not been found.	Amnesty International / CIRI
		Number of reported cases of torture and ill-treatment	Torture refers to the purposeful inflicting of extreme pain, whether mental or physical, by government officials or by private individuals at the instigation of government officials. This includes the use of physical and other force by police and prison guards that is cruel, inhuman or degrading, and deaths in custody due to tangible negligence by government officials.	Amnesty International / CIRI
		Number of reported cases of unfair trials	Number of reported cases of miscarriage of justice and proportion of victims who received compensation in a reasonable time.	OHCHR
		Number of reported cases of political imprisonment	Political imprisonment refers to the incarceration of people by government officials because of: their speech; their non-violent opposition to government policies or leaders; their religious beliefs; their non-violent religious practices including proselytizing; or their membership in a group, including an ethnic or racial group.	Amnesty International / CIRI
	Transparency	Percentage of people with access to effective mechanisms for redressing violations of their civil rights	No agreed/universal/international definition.	
		Percentage of people who reported experiencing discrimination based on race, gender, age, religion, disability	No agreed/universal/international definition.	
		Number of state organizations that regularly place reports of their budgets and expenditures on their websites	No agreed/universal/international definition.	

Target	Indicator	Definition	Data Source
Accountability Corruption	Percentage of people who have been solicited for a bribe in the past 12 months	No agreed/universal/international definition.	Global Corruption Barometer (Transparency International)
	Bribe Payers Index	The Bribe Payers Index is a unique tool capturing the supply side of international bribery, specifically focusing on bribes paid by the private sector. The 2011 Bribe Payers Index is the fifth edition of the index, ranking 28 of the world's largest economies, according to the likelihood of firms from these countries to bribe when doing business abroad.	Transparency International
	Public perception of corruption in public administration	Several qualitative measurements of corruption in areas such as magnitude of corruption in public services, corruption-prone services and sectors, formal practices of corruption in public services and public attitudes to petty corruption.	Survey (Mongolian MDG 9)
	Perception of corruption in political organizations, judicial and law enforcement institutions	Quantitative measurement/score calculated as an average of scores assigned by a pool of experts (business and financial sector experts, civil society experts) on the basis of their perception of corruption in different areas of political life and government functions, such as magnitude of corruption in politics, most corruption-prone sectors, institutional leaderships, organizations, forms and practices of corruption, and socio-economic cost of corruption.	Survey (Mongolian MDG 9)

Table 13: Candidate Indicators on Environmental Sustainability

Target	Indicator	Definition	Data Source
Climate Change	Total carbon dioxide (CO ₂) emissions	Estimates of total CO ₂ emissions include anthropogenic emissions and removal by atmosphere of CO ₂ . Emissions from all national activities are considered. The typical sectors for which CO ₂ emissions/removals are estimated are energy, industrial processes, agriculture, waste and the sector of land use, land-use change and forestry.	Admin / UN Framework Convention on Climate Change (UNFCCC)
	CO ₂ emissions per capita	Per capita are measured as the total amount of carbon dioxide emitted by the country as a consequence of all relevant human (production and consumption) activities, divided by the population of the country.	Admin / UNFCCC
	CO ₂ emissions per GDP (PPP)	Total CO ₂ emissions divided by the total value of the GDP, expressed in PPPs.	Admin / UNFCCC
	Greenhouse gas (GHG) emissions	Total emissions of CO ₂ (emissions from energy use and industrial processes, such as cement production), CH ₄ (methane emissions from solid waste, livestock, mining of hard coal and lignite, rice paddies, agriculture and leaks from natural gas pipelines), nitrous oxide (N ₂ O), hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.	UNFCCC / OECD / Admin
	Global surface temperature	Annual surface air temperature anomaly relative to base period 1951–1980.	NASA Goddard Institute for Space Studies

Target	Indicator	Definition	Data Source
Biodiversity	Proportion of land area covered by forests	Proportion of forest area to total land area and expressed as a percentage. Forest is defined in the FAO's Global Forest Resources Assessment as land spanning more than 0.5 hectares with trees higher than five metres and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ.	Admin / FAO
	Proportion of fish stocks within safe biological limits	Percentage of fish stocks of which abundance is at or above the level that produces the maximum sustainable yield.	Admin / FAO
	Proportion of species threatened with extinction	Change in threat status of species in their natural habitat, based on population and range size and trends, as quantified by the categories of the International Union for Conservation of Nature (IUCN) Red List of Threatened Species™.	Admin / IUCN
	Trend in ecological footprint and/or related concepts	Aichi Target A.4 measures the demands that our use of ecological assets places on the regenerative capacity of productive ecosystems.	Global Footprint Network
Planetary Boundaries	Ocean acidification	pH and saturation state have both been suggested as viable options. pH reflects the changes in acidity and alkalinity that are taking place in the ocean, while saturation state indicates how available carbonate ions are and whether or not calcium carbonate structures are likely to dissolve. In-depth discussions need to address this issue so as to identify the most effective indicator for ocean acidification.	Intergovernmental Panel on Climate Change
	Ozone	No agreed/universal/international definition.	
	Nitrogen/phosphorus cycles	No agreed/universal/international definition.	
	Total actual renewable water resources per person	Total resources that are offered by the average annual inflow and runoff that feed each hydro system (catchment area or aquifer) and "available" per person (indicates the reality of human pressure on renewable but finite resources).	FAO / AQUASTAT
	Change in land use	Percentage of land lost to deforestation or soil degradation.	
Energy	Renewable energy share in energy and electricity	Percentage of renewable energy in total primary energy supply, total final consumption, and electricity generation and generating capacity (excluding non-commercial energy).	Admin / International Energy Agency (IEA)
	Non-carbon energy share in energy and electricity	Percentage of non-carbon energy sources in total primary energy supply and in electricity generation and generating capacity.	Admin / IEA
	GHG emissions from energy production and use (per capita and per unit of GDP)	Emissions of GHGs from energy production and use, per capita and per unit of GDP, including CO ₂ , CH ₄ and N ₂ O.	Admin / UNFCCC

Table 14: Candidate Indicators for Global Governance

Target	Indicator	Definition	Data Source
Economic Rules	Tariffs	Proportion of total developed country imports (by value and excluding arms) from developing countries and least-developed countries, admitted duty free	WTO / UN Conference on Trade and Development (UNCTAD)
		Average tariffs imposed by developed countries on subsets of selected items (agricultural products, textile and clothing exports) that are deemed to be of interest to developing countries. Average tariffs are the simple average of all applied <i>ad valorem</i> tariffs (tariffs based on the value of the import) applicable to the bilateral imports of developed countries. Agricultural products comprise plant and animal products, including tree crops but excluding timber and fish products. Clothing and textiles include natural and synthetic fibres, and fabrics and articles of clothing made from them.	WTO / UNCTAD
	Capacity	Agricultural support estimate for OECD countries as a percentage of their GDP	OECD DAC
		Proportion of ODA provided to help build trade capacity	WTO/ OECD Trade Capacity Building Database
		This proportion is obtained by dividing the ODA to help build trade capacity by the total sector allocable ODA to achieve a percentage. Activities to help build trade capacity enhance the ability of the recipient country: To formulate and implement a trade development strategy and create an enabling environment for increasing the volume and value-added tax of exports, diversifying export products and markets, and increasing foreign investment to generate jobs and trade. To stimulate trade by domestic firms and encourage investment in trade-oriented industries. To participate in the benefit from the institutions, negotiations and processes that shape national trade policy and the rules and practices of international commerce. Those activities are further classified by the First Joint WTO/OECD Report on Trade-Related Technical Assistance and Capacity-Building (2002) under two main categories: trade policy and regulations (divided into 19 subcategories) and trade development (divided into six subcategories). Donors differ in defining what constitutes a single “activity.” Some donors split individual activities into components in order to obtain detailed data on aid allocated to each subcategory. Others classify the whole activity under the most relevant subcategory.	
		Number of claims filed for / against individual countries in the Dispute Settlement Body	WTO

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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 IFRC, convened expert groups to shape international policy approaches to succeed the 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 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



POST-2015 GOALS, TARGETS AND INDICATORS CONFERENCE REPORT, APRIL 10-11, PARIS, FRANCE

Barry Carin and Nicole Bates-Eamer

PDF available at: www.cigionline.org/publications/2012/5/post-2015-goals-targets-and-indicators.



TOWARD A POST-2015 DEVELOPMENT PARADIGM (II) CONFERENCE REPORT, JUNE 20-24, 2011, BELLAGIO, ITALY

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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; global security; the environment and energy; and global development.

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.

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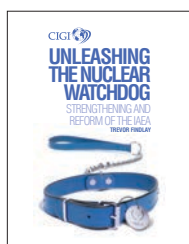
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RECENT CIGI PUBLICATIONS



UNLEASHING THE NUCLEAR WATCHDOG: STRENGTHENING AND REFORM OF THE IAEA

Trevor Findlay

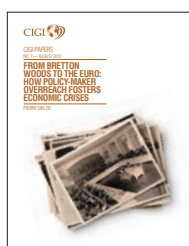
Since its establishment in 1957, the IAEA has evolved deftly, and today, fulfills irreplaceable functions in the areas of nuclear safeguards, safety and the promotion of peaceful uses of nuclear energy. Based on more than two years of research, this paper concludes that while the IAEA does not need dramatic overhaul, it does need strengthening and reform.



UN PEACEKEEPING: 20 YEARS OF REFORM

Louise Fréchette
with the assistance of Amanda Kristensen

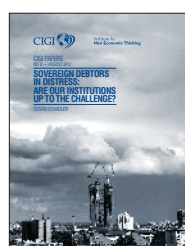
The end of the Cold War opened a new chapter in UN peacekeeping. This paper reviews key reforms implemented by the UN, concluding that real progress has been achieved. Serious weaknesses remain, however, and the UN must make every effort to continue to improve its performance.



FROM BRETTON WOODS TO THE EURO: HOW POLICY-MAKER OVERREACH FOSTERS ECONOMIC CRISES

Pierre Siklos

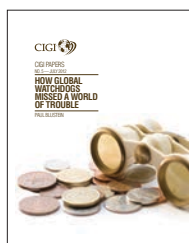
This paper considers the relevance of the Bretton Woods system for the prospects of reform of the international monetary system and in the context of the ongoing euro area financial crisis, exploring the challenges that must be met in attempting to reform the current international monetary system and euro area policies.



SOVEREIGN DEBTORS IN DISTRESS: ARE OUR INSTITUTIONS UP TO THE CHALLENGE?

Susan Schadler

A CIGI and INET conference brought together global experts on sovereign debt crises. This paper expands on the ideas put forward during the discussion, highlighting relevant recent history and research, and proposes an action plan.



HOW GLOBAL WATCHDOGS MISSED A WORLD OF TROUBLE

Paul Blustein

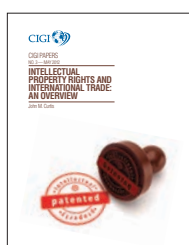
Based on interviews with scores of policy makers who worked on the Financial Stability Forum (FSF) and thousands of pages of previously undisclosed documents, this paper examines the FSF and brings to light the failure of regulators to keep pace with the globalization of the financial system.



A FLOP AND A DEBACLE: INSIDE THE IMF'S GLOBAL REBALANCING ACTS

Paul Blustein

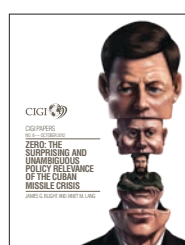
The need for economic cooperation among major powers is greater than ever, and a well-coordinated plan aimed at shrinking imbalances is seen as highly desirable. This paper is a detailed account of the initiatives, led by the IMF, to address imbalances prior to the 2008 global financial crisis.



INTELLECTUAL PROPERTY RIGHTS AND INTERNATIONAL TRADE: AN OVERVIEW

John M. Curtis

This paper examines extraordinary changes in intellectual property law and policy over the last 20 years, many as the result of their intersection with international trade and numerous international trade agreements brought into force during this period.



ZERO: THE SURPRISING AND UNAMBIGUOUS POLICY RELEVANCE OF THE CUBAN MISSILE CRISIS

James G. Blight and Janet M. Lang

Drawing on a quarter century of research on the Cuban missile crisis, this paper argues that given what is now known about what actually happened in Cuba by October 1962, the escape from nuclear catastrophe seems even more miraculous and the drive to rid the world of nuclear weapons is even greater, with zero being the right number of nuclear weapons the world should possess.

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