**An Action Agenda for Sustainable Development**

*Draft for public consultation – comments welcome until 22 May 2013*

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*Draft report prepared by the Leadership Council of the Sustainable Development Solutions Network*[1]

***Note on the public consultation:***
*This draft has been prepared for public consultation from 7 to 22 May 2013. The SDSN welcomes comments, corrections, and suggestions on the draft report by 22 May 2013. Please use the form for submitting comments available on our website and send your comments via email to info@unsdsn.org. In preparing comments, please consider the decision of the Leadership Council to be concise by limiting the number of "sustainable development challenges" to ten, with three targets each. We apologize in advance that we will not be able to respond directly to every comment received. After 22 May the SDSN will post a consolidation of the comments received.*

*[Executive Summary will be added later]*

The Millennium Declaration and the Millennium Development Goals (MDGs) have successfully focused world attention and action on ending extreme poverty in all its forms[2] and reducing gender inequality. The fifteen-year MDG period will be completed at the end of 2015. The Rio+20 Summit in June 2012 resolved to finish the job of ending extreme poverty and hunger as a matter of urgency. It also endeavored to place poverty reduction within the broader context of sustainable development. The summit's final outcome document, *The Future We Want*, calls for new Sustainable Development Goals (SDGs), including the eradication of poverty and hunger. It also launched an intergovernmental Open Working Group to make recommendations to the UN General Assembly on the design of these goals.

As part of UN Secretary-General Ban Ki-Moon's initiatives to promote sustainable development, the UN Sustainable Development Solutions Network (SDSN) was launched in 2012 to mobilize global scientific and technological knowledge regarding the challenges of sustainable development. The SDSN has had extensive worldwide consultations of its Leadership Council and a broader network of *thematic groups* on the key issues of sustainable development. This document, prepared by the Leadership Council of the SDSN, summarizes the main conclusions of those consultations.

[1]The Sustainable Development Solutions Network (SDSN) engages scientists, engineers, business and civil society leaders, and development practitioners for evidence-based problem solving. It promotes solution initiatives that demonstrate the potential of technical and business innovation to support sustainable development (*www.unsdsn.org*).

[2] We use the term "extreme poverty in all its forms" for the multidimensional concept of poverty embodied in the MDGs, comprising *inter alia* income poverty, hunger, gender inequality, lack of education, poor health and major epidemics, and lack of access to basic infrastructure services.

The SDSN fully supports the Rio+20 vision of sustainable development as a holistic concept addressing four dimensions of society: economic development (including the end of extreme poverty), social inclusion, environmental sustainability, and good governance. Societies aim to achieve all four dimensions. Failures in one area, such as environmental sustainability, can deeply undermine progress in others, such as the eradication of poverty. Poor governance can all too easily undermine progress on economic, social, and environmental objectives.

The *framework document* of the SDSN describes the four dimensions of sustainable development in detail. Here we focus on the operational significance of these four dimensions of sustainable development, examining how they can be summarized in a set of clear, succinct, and useful SDGs. The purpose of the SDGs is to help translate global aspirations into practical actions. In this regard, we subscribe to the Rio+20 agreement that the SDGs should be "*action-oriented, concise and easy to communicate, limited in number, aspirational, global in nature and universally applicable to all countries while taking into account different national realities, capacities and levels of development and respecting national policies and priorities.*"

## I. Updating the Millennium Declaration and the MDGs

The world has changed profoundly since 2000 when the Millennium Declaration and the MDGs were adopted. Four critical shifts will make the coming fifteen-year period, 2015-2030, different from the MDG period through to 2015: (i) a drastically higher human impact on the physical Earth; (ii) rapid technological change; (iii) increasing inequality; and (iv) a growing diffusion and complexity of governance. Here is a brief description of each shift.

1. Human impacts on the physical Earth: The scale of human impact on the physical Earth – climate, ecosystems, and scarce primary commodities – has reached very dangerous levels, more rapidly and disruptively than was foreseen by most in 2000. In parallel, our scientific understanding has improved substantially over the last decade, and we can now understand the challenges and dangers with far more clarity than before.

With a world population now at 7.2 billion people and an annual GDP of nearly US$90 trillion, the world economy using today's technologies is already exceeding several of the earth's "planetary boundaries".[3] Many key ecosystems that are essential for human and societal wellbeing are being threatened or destroyed. Climate change is no longer a future threat but a stark current reality: global temperatures are rising, extreme weather events are becoming commonplace, and the oceans are acidifying. Estuaries around the world are experiencing eutrophication as the result of large, human-caused fluxes of biologically active nitrogen and phosphorus from fertilizer use. Many fisheries are being fished to exhaustion; freshwater withdrawals often exceed sustainable limits; and the earth is in the midst of an unprecedented mass extinction of species. These pressures will increase inexorably with further population and economic growth.

[3] Planetary boundaries define the safe operating space for humanity in the Earth system along nine critical dimensions: greenhouse gas emissions, nitrogen and phosphorus loading, ozone depletion, chemical pollution, freshwater use, ocean acidification, land use change, aerosol loading, and loss of biodiversity.

The world economy is roughly doubling in size every generation (an annual economic growth rate of 4 percent implies a doubling time of just 18 years), as poorer countries experience rapid growth and poverty reduction. Yet this growth will be impossible to sustain unless growth and living standards can be decoupled from resource use. The framework for sustainable development must therefore place a central emphasis on decoupling incomes and economic growth from environmental resource use and pollution. This decoupling will require deep changes to technologies, production systems, and individual behaviors in every country that must be sustained over the long term.

2. Technological change: Rapid technological change, particularly in information and communication technologies, is deepening the integration of the world economy, globalizing supply chains for most products, offering new pathways to decoupling growth from resource use, especially in cities, and opening unprecedented opportunities for low-income countries to join an international production system. New technologies also offer tremendous opportunities to deliver public services, including healthcare, education and basic infrastructure, to more people at a much lower cost.

A central question for the world is how to direct technological change towards sustainable development, for example by harnessing the information revolution to decouple growth and living standards from resource use or by decoupling agricultural productivity from unsustainable land conversion and use of water, energy, fertilizer, chemicals. Nowhere is this challenge better illustrated than in the need to decarbonize the energy sector to mitigate climate change. While significant advances have been made in promoting energy efficiency and cost reductions of low-carbon technologies, these advances are often outpaced by technological progress in the extraction and use of "unconventional" oil and gas resources. The shale gas revolution, drastic reductions in the cost of generating oil from vast deposits of previously uneconomical tar sands, and the first forays into the exploitation of deep-sea methane hydrates are all triumphs of human ingenuity. Yet, they are complicating the challenge of de-carbonization.

3. Inequality and social exclusion: Inequality and social exclusion are widening within many countries, rich and poor alike, partly as a result of rapid technological change and globalization. Current growth patterns are not providing enough decent jobs and are leading to widespread unemployment, particularly among the young and people who have received little or no schooling. As some primary resources become increasingly scarce, poorer and more vulnerable communities are crowded out and fall further behind. The rising inequality is feeding resentment and exacerbating social exclusion. A post-2015 framework must therefore promote gender equality, human rights, decent jobs for all, and social inclusion.

4. Difficulties of global governance: In an age of globalization, governance within and among countries is becoming more diffuse and complex. Whereas in the past national governments took most decisions relating to a country's internal economic development, today they must coordinate with a broad spectrum of actors, including businesses, local governments, regional and international bodies, and civil society organizations. The information and communication revolution is leading to unprecedented transparency and growing demands for participation in key decisions from all segments of society in every country. An action agenda for sustainable development must therefore mobilize governments at all levels as well as civil society and business.

At the international level, the world is becoming multi-polar. It is unquestionably good that no single country or even group of countries can impose its will on others. At the same time this diffusion of global governance makes it enormously challenging to tackle problems that require

global cooperation. As one example, multinational corporations from both high-income and developing countries have become key players in the global economy. They are now central to global trade, finance, production, and technological change. At the same time, globalization allows them to undertake regulatory and tax arbitrage across jurisdictions, undermining the effectiveness of national policies and underscoring the need for global cooperation on taxation and business regulation. Managing globalization would therefore require more global cooperation across countries, but in practice we often observe less cooperation in a multi-polar world.

## II. Business-as-Usual Trajectory versus Sustainable Development Scenario

Today's problems will expand dangerously without an urgent and radical change of course. The world needs an operational sustainable development framework that can mobilize all key actors (national & local governments, civil society, business, science and academia) in every country to move away from the Business-as-Usual (BAU) trajectory towards a Sustainable Development (SD) path. This framework and the SDGs should identify the main objectives and strategies needed to shift from BAU to SD.

The business-as-usual (BAU) trajectory is marked by a failure of international coordination and cooperation. As a result, the BAU trajectory fails to achieve sustainable development in multiple ways. Many countries will prosper and converge rapidly with per capita GDP in high-income countries, while others stagnate and still others fall deeper into poverty. Growing competition among countries will lead to a "race to the bottom" in terms of regulatory standards and taxation. Even the successful countries will struggle to raise the public revenues they need to invest in human capital, infrastructure, and environmental protection.

Global efforts to assist the poorer and more vulnerable countries will remain inadequate. The recent trend towards declining official development assistance (ODA) will intensify. For the vulnerable regions, including the Sahel, Horn of Africa, the Great Lakes region, and part of South and Central Asia, economic, social, and political forces will be unable to overcome endemic poverty and fragility. Many countries, both developed and developing, will fail to provide adequate training and economic opportunities to their young and will face rising youth unemployment and social unrest.

Countries will continue with token efforts to reduce the resource intensity of production and consumption, but the world will continue on a path of environmental degradation. With the global population rising to 9 billion people by 2050 and 10 billion before 2100, the world will experience unprecedented crises of food production, public health, and natural disasters. Food prices will soar, and some parts of the world (coastal areas, today's drylands) may be rendered virtually uninhabitable as a result of climate change.

The reason for the poor outcomes of the BAU trajectory is the failure of global cooperation around a framework for sustainable development. A global market economy without adequate cooperation is not equipped to address environmental threats (especially climate change), support fragile regions, reduce inequalities between skilled and unskilled workers, or guarantee a healthy start for children. In short, the world's current trajectory is a danger for every part of the world.

We highlight the regions likely to suffer moderate (M) and high (H) costs in the BAU trajectory (Table 1). Given global interdependencies, all regions experience significant and avoidable costs.

| | North America | Latin America, Caribbean | Europe | Middle East & North Africa | Sub-Saharan Africa | South & Central Asia | South-East Asia & Pacific | East Asia |
|---|---|---|---|---|---|---|---|---|
| **Poverty** | | | | M | H | H | | |
| **Inadequate Education** | | M | | M | H | H | M | |
| **Food Insecurity** | | | | H | H | H | M | M |
| **Health Insecurity** | | | | M | H | H | M | |
| **Energy Poverty** | | | | | H | H | | |
| **Water Stress & Drought** | M | M | M | H | H | H | | M |
| **High Fertility** | | | | H | H | H | | |
| **Temperature Stress** | M | M | M | H | H | H | H | M |
| **Extreme Storms** | M | | | | H | | H | H |
| **Sea Level Rise** | M | M | H | M | H | H | H | H |
| **Ocean Acidification** | M | H | H | H | M | M | H | M |
| **Biodiversity Loss** | M | H | | M | H | | H | |

**Table 1: Illustrative impacts of a BAU Scenario by region**

A sustainable development (SD) trajectory, instead, builds on a global framework for cooperation to address the economic, social, environmental, and governance dimensions of sustainable development. This framework should be based on three related normative concepts:

1. The right to development: Planetary boundaries are no reason to slam the door on development in today's developing countries; they are a reason to grow differently and sustainably. Every country should enjoy the benefits of modern technologies and economic progress.

2. Convergence: All regions will continue to raise living standards with poorer countries experiencing higher growth rates. Over time, the gaps between rich and poor countries will narrow substantially. Under the BAU scenario, the poorest and most vulnerable regions will find themselves excluded from economic progress. Under the sustainable development framework, all regions of the world should have the ability to grow and prosper.

3. Shared responsibilities and opportunities: All countries should share in promoting sustainable development. Low-income countries and those with special vulnerabilities (e.g.

drylands, landlocked countries, and small island states) should receive the international support they need to end extreme poverty and access the technologies needed for sustainable development. As today's poor countries develop, they will graduate from ODA, and eventually become providers of development assistance to the dwindling few who are still left behind. Respecting planetary boundaries is a task for all countries, but high-income countries that account for high per capita use of environmental resources will have further to go in reducing the unsustainable per capita use of primary resources and emissions of greenhouse gases.

The priority operational challenges for moving towards a sustainable development trajectory are outlined in the next section. There can be no doubt that these challenges are immense, but fortunately, rapid and positive change on a global scale has become feasible thanks to rising incomes; unprecedented scientific and technological progress; the information revolution; a growing political awareness of the need for sustainable development pathways; and the positive lessons from the MDGs regarding the strength of global partnerships. The world has the tools to end extreme poverty in all its forms, and to combine economic growth, social inclusion, and environmental sustainability. Where new approaches and technologies are needed, particularly to decouple living standards and economic growth from the destructive overuse of environmental resources, these new approaches can be fostered through concerted action and practical problem solving by governments, business, civil society, science, and academia.

The risks of the BAU trajectory are so severe that every country and region of the world will be better off under the SD trajectory. Yet, achieving the required change will not be easy. Many countries – and some cities – will try to free ride on the efforts of other nations. The same will be true for many businesses. For the world to follow a sustainable development trajectory, all countries and businesses must agree to a set of rules and values, and then live up to their responsibilities under a system of transparency, monitoring, and accountability.

## III. Ten Priority Challenges of Sustainable Development

To be effective, a shared framework must mobilize the world around a limited number of priorities and associated goals – probably not more than ten. The Leadership Council of the SDSN has identified ten priority sustainable development challenges described in this section. They are all interconnected, and each one contributes to the four dimensions of sustainable development (Annex 3). These transformations may form a plausible basis for framing the sustainable development goals (Annexes 2 & 3) to trigger practical solutions that countries can pursue with high priority.

The key actors in this transformation include: governments, business, civil society, and expert communities. Civil society itself spans a wide range of activities, including non-governmental actors, social enterprises, community leaders, and religious and cultural organizations. They can hold both governments and businesses to account in terms of performance and honesty, organize and mobilize communities, deliver services, and promote "social enterprises" that work on a business model but do not pursue profit as their sole or main motive. Another important part of civil society is the universities, research centers, and expert communities that will promote innovation for sustainable development and train future leaders. Of course, the growing number civil society organizations and social entrepreneurs also need to commit to transparency and accountability.

Business deserves a special note since it is the principal engine for economic growth and job creation. It will develop and deliver many of the new technologies, organizational models, and management systems that are needed for sustainable development. It also directly accounts for some two thirds of natural resource use. If business embraces the SDGs, then rapid positive change will become possible. If business continues to operate under values and incentives that are misaligned with the objectives of sustainable development, then the transformations outlined in this document will be impossible. We therefore underscore that engagement of business is central to the success of the SDGs.

1. *End extreme poverty including hunger*

As agreed in *The Future We Want*, poverty eradication is the greatest global challenge facing the world today and an indispensable requirement for sustainable development (paragraph 2). The world has made great progress in reducing most forms of extreme poverty since the adoption of the MDGs, so the world now has a realistic prospect of eradicating extreme poverty in all its forms by 2030. Importantly, the World Bank and its Governors have recently endorsed the goal of ending extreme poverty by 2030.

For these reasons, the commitment to end extreme poverty in all its forms, backed by bold and updated MDG targets, should constitute the first of the SDGs. Placing the end of extreme poverty as the clearest priority of the SDGs will ensure continuity in the fight against extreme poverty during the transition from MDGs to SDGs.

Of all of the MDGs, the challenge of ending hunger has proven to be most difficult. As conventionally measured, hunger continues to afflict around 1 billion people, reflected *inter alia* in a high prevalence of childhood stunting. In addition, serious micronutrient deficiencies affect hundreds of millions more people. The dangers of worsening hunger are apparent in the instability of the food supply in many regions as a result of climate change and other environmental threats (e.g. groundwater depletion, land degradation, and loss of biodiversity). Rapid population growth in impoverished, food-deficit regions adds to the challenges. Therefore, we emphasize the urgency and complexity of fighting hunger, and link it to the challenges of sustainable agriculture, climate change, and ecosystem management described under priority 6 below.

While most countries have the domestic resources to end extreme poverty, some 80 or so low-income or otherwise vulnerable countries do not. The most vulnerable regions include: the Horn of Africa (plus Yemen), the Sahel, the Great Lakes region of Central Africa, and parts of South and Central Asia. There are also several landlocked and small-island economies in other parts of the world that remain in considerable distress and whose development challenges are greatly exacerbated by their structural conditions.

Many of the poorest countries and regions are too poor, too remote, too conflict-ridden, too bereft of natural resources, and/or too burdened by other challenges (e.g. natural hazards and high disease burdens) to meet the goals for sustainable development on their own. Often they experience chronic insecurity and armed conflict that are partly driven by lack of development. These vulnerable countries and regions need special international support to break the vicious cycle of lack of economic development, environmental degradation, rapid population growth, insecurity, and conflict. Ending conflicts and ensuring freedom from war often requires international support in

the form of mediation, peacekeeping, and timely assistance to address the underlying economic and social crises that drive such conflicts. Of course such external support can be effective only when national governments also play their part in strengthening the policy and legal frameworks for action. Some vulnerable countries have substantial natural resources (minerals, hydrocarbon, and land) that – if carefully used – can promote poverty reduction and economic development. Special care must be taken, however, to avoid the infamous "resource curse," in the development of these primary resources (see also priority 9 below).

*2. Achieve development within planetary boundaries*

All countries have the right to development, meaning the right to enjoy rising living standards and eventual convergence of living standards with today's high-income countries. Concerns over the environment, for example, must not provide an excuse by which today's rich countries frustrate the economic aspirations of developing countries.

At the same time, however, the entire world must recognize that growth along the current trajectory using today's technologies is bound to fail. It would lead to environmental degradation that will stop growth in its tracks and even threaten major reversals of living standards through famines, floods, displacement, and collapsing productivity. These threats are not in the distant future. Some countries, including some of the poorest, are already feeling the very heavy costs of global environmental change.

Therefore, the right to development is a right to development within planetary boundaries. All countries can and should develop, but all countries must recognize that development, including the convergence of living standards, must take place within a sound environmental framework. In this sense, we need a framework of convergence of living standards that respects environmental realities and that in no way slams the door on developing countries, and the poor in particular. All countries will have to adopt sustainable technologies, policies, and business models, so that all countries converge not only in living standards but also in their global responsibilities to sustainable development. High-income countries have of course a particular responsibility to decouple resource use from incomes and economic growth. They also need to provide support to the poorest countries.

It is possible for countries to grow while respecting the planetary boundaries, mainly by shifting to low carbon energy; improving efficiency of energy, water, and other resource uses; adopting sustainable technologies for agriculture, transport, power, industry, buildings, and other sectors; and restraining various kinds of destructive or wasteful behaviors, including pollution and destruction of biodiversity. The required transformations in agriculture, urban development, the energy system, and management of ecosystems and natural resources are complex and must mobilize all actors of society. They are described in more detail in the priorities below.

Through broad-based and sustainable economic growth, all low-income countries should be able to reach the per-capita income threshold of middle-income countries by 2030. Likewise, today's middle-income countries can become upper-middle-income or high-income countries by 2030, depending on their starting point.

Fertility rates remain too high in many very poor countries with severe consequences for economic development, social inclusion, and environmental sustainability of these countries[4]. Very high fertility rates in poor families lead to inadequate investments per child, including in nutrition, health, and education. High fertility rates raise overall population growth rates, reduce the growth rate of income per capita, and greatly impede the eradication of extreme poverty. High fertility rates also create health risks for women, undermine gender equality, and put unmanageable demands on the natural environment, leading for example to excessive water use, habitat destruction, and loss of biodiversity.

The highest fertility rates in the world are found in sub-Saharan Africa. Even under the medium-fertility scenario of the UN Population Division, which assumes a significant though gradual reduction of fertility rates in the coming decades, the population of sub-Saharan Africa is projected to quadruple between 2010 and 2100, from around 850 million to 3.4 billion. Such a large increase, we fear, would be incompatible with sub-Saharan Africa's aspirations for ending extreme poverty and for sustainable development more generally.

We therefore urge governments in countries with high-fertility populations to take measures to accelerate the voluntary transition to lower fertility. Such measures include expanding access to voluntary family planning and reproductive healthcare, investing in child survival, promoting an understanding of the benefits of small families, investing in girls' education, and adopting a holistic approach to the empowerment of women. Accelerating the reduction of fertility has the potential to usher in a period where the age distribution of the population becomes especially beneficial for economic growth, as the number of potential workers rises in relation to that of children and older persons. Many middle-income countries have benefitted from this "demographic dividend," caused by the decline of fertility.

### *3. Ensure Effective Learning for All Children and Youth for Life and Livelihood*

Giving children (typically defined as ages 0-14) and youth (ages 15-24) the opportunity to realize their full potential is a central responsibility of all societies. It is, after all, the essential measure to ensure a healthy and productive society in the next generation. High-quality education is also a central component of strategies to reduce inequalities and ensure equal opportunities for all children. To achieve that goal, societies should take a "life-cycle" perspective, focusing on the needs of individuals at each stage of the life cycle.

Evidence accumulated in recent years shows that programs for early childhood development (ECD)[5] play an important role in ensuring a healthy entry to school and preparation for later life. All

[4] The extremely low per capita use of primary resources in these countries means that they currently contribute little to the global pressures on planetary boundaries, but the local environmental implications of high fertility are nevertheless severe, e.g. in deforestation caused by charcoal use, or in habitat loss due to the spread of farmland and pastureland. Even worse, though, are the consequences of high fertility on low per-child investments in health, nutrition and education.

[5] Early Childhood Development (ECD) programs refers to all programs and policies designed for children in the 0-6 years range including pre-school education, nutrition, child protection, and health interventions. They cover the objectives identified in the *Education for All Goal 1* of comprehensive early childhood care and education for all children.

countries should therefore include universal access to ECD programs as a central element of their development strategies.

Once children are in school, life-cycle thinking should emphasize an adequate level of education and skill development, and an effective transition from school to work. The MDGs emphasize access to primary education, but this will no longer be enough in today's knowledge-based economy. We urge all countries to ensure universal access to at least secondary education and job-skill development.

Access to education still falls woefully short of needs in many countries and especially amongst nomadic populations, geographically remote groups, and the socially and economically disadvantaged. Universal access is important, but access alone will not be enough. The quality of education and the relevance of education for acquiring the skills needed to earn a living through employment or self-employment are also crucial.

Quality education and skill development are becoming ever more important since labor markets around the world are undergoing unprecedented changes driven in large part by globalization and technological change. Workers with inadequate education are increasingly finding themselves without marketable skills, and as a result face unemployment or wages at or near poverty levels. In rural and forest regions education systems all too often alienate children from traditional family professions, such as farming, fishing, or living of forest products, without providing the skills the children need to prosper in rapidly developing urban economies. Education systems need to do both: equip children with skills for the jobs and livelihoods of the future, and also confer skills to upgrade traditional livelihoods in agriculture, fishing, forest management or other areas.

Most countries lack adequately trained and qualified teachers, especially at the secondary level. Countries need to promote the central role of teaching in society, support teachers with new skills, and work proactively with the teaching community to identify ways of improving education and making it more relevant. We believe countries need to look beyond traditional models of formal schools and explore how new approaches, including through ICT, can expand access to knowledge and skills at all levels of education. For example, online curricula, e-books and journals, school-to-school programs, online teacher training, and other ICT tools can improve access to quality education and expand school curricula to cover the needed life skills.

Another focus should be placed on promoting adult literacy, which demonstrably empowers individuals, improves learning outcomes of parents' children, enhances civic participation, and facilitates reductions in high fertility rates. On current trends adult literacy (measured by the ability to decipher and write simple text and numbers) is expected to exceed 90 percent by 2030. This is an encouraging trend, but not enough since the basic definition of literacy must be expanded to emphasize functional literacy. National adult literacy programs therefore should aim to reach the 90 percent mark, but using such an expanded definition. In many countries women's literacy is substantially below national averages, so countries should aim for at least 90 percent functional literacy among both men and women.

As demonstrated by a small number of countries, most famously Germany and Switzerland, targeted institutions of vocational training and apprenticeships can train a large number of skilled workers, support the school-to-work transition, and help keep youth unemployment low. Equivalent institutions are missing in most rich and poor countries alike. Much more frequently, many students

leave school without connections to work, and with only weak prospects for decent jobs. This is an area where the business community can play an important leadership role to help identify sectors with high employment potential, develop and improve curricula, supply trainers, and help absorb students into the workforce. In many developing countries, the unorganized sector of the economy will continue to be a large provider of work, requiring appropriate labor market institutions to provide job training and matching that can help guide today's students towards decent jobs or livelihoods.

Finally, knowledge societies cannot develop without investments in centers of knowledge and learning at the tertiary level. Developing countries need to invest in creating high quality academic environments where research and teaching can come together to push the frontiers of human knowledge and work to address the specific development challenges of their societies.

*4. Achieve Gender Equality, Social Inclusion, and Human Rights*

Despite major progress, gender inequality persists in many societies, and violence against women and girls remains widespread. In addition, discrimination against ethnic minority groups, indigenous peoples, people with disability, and geographically isolated populations is widespread throughout the world. Gender inequality and other forms of discrimination violate the universal standards of justice enshrined in the Universal Declaration of Human Rights. They undermine sustainable development and rob societies of the full productive potential of large shares of their populations.

In response, many countries have successfully instituted legal and administrative reforms to realize the economic and social rights of all members of society, with a specific view to reducing disparities by gender and other dimensions. Some countries have also aggressively supported children in poor households as a way to ensure that poverty is not "vertically transmitted" from parents to children. Societies and political systems differ in their responses to inequality. Some resist it strongly through aggressive policies and transfers; others seem to tolerate even very high levels of inequality. We call on all societies to ensure that all households, rich or poor, can join the mainstream of the economy. To ensure sustainable development, economic gains must not only be inclusive, but the quality of social interactions that are based on trust, honesty, voluntarism, and altruism needs to be enhanced through the promotion of social ethics and the observance of basic rights for all.

An ambitious objective should be that every country halve "relative poverty", defined as the percentage of households in a country that earn less than half the median household income in that country. Pathways towards addressing inequalities, overcoming discrimination, and improving social capital are complex and uncertain. Yet there is strong evidence that policies and investments targeted towards social inclusion can play an important role in lowering inequalities and promoting equal opportunities for all. These include greater respect for the rule of law; equal access to education, health, and basic infrastructure services; effective administrative reforms and measures to combat corruption; promoting human rights and combatting discrimination; affirmative action programs for the poor and marginalized; and social safety nets to better manage the risk of sickness and the consequences of ageing.

The most important public good is peace and security, including personal security. Civil conflict is a mortal threat to development, and development cannot thrive without safety from personal and psychological violence. Peace should be strongly promoted including through civil society organizations. Governments should use the tools they have to significantly reduce pervasive

violence against women and children, through public awareness and enforcement of the laws. Personal security, ending conflict, and consolidating peace are all essential components of good governance for sustainable development.

*5. Achieve Health and Wellbeing at all Ages*

The health MDGs have demonstrated that tremendous progress in health outcomes can be achieved even in a short period of time. The gains in public health, notably in the reductions of child mortality (MDG 4), maternal mortality (MDG 5), and the control of epidemic diseases (MDG 6), reflect increased investments in public health; improved diagnostics and medicines; and improved primary health systems, including the deployment of community health workers. These gains point the way to further dramatic reductions in deaths and disease, and the extension of primary health services to include many high-burden non-communicable diseases such as hypertension, metabolic disorders, some cancers, and mental illness.

By 2030, every country should be well positioned to ensure universal health coverage for all citizens at every stage of life, with particular emphasis on the provision of comprehensive primary health services delivered through a well-resourced health system. In particular, the MDG health targets need to be updated and expanded. Preventable child deaths and maternal mortality should be ended by 2030. Likewise, major infectious diseases including HIV/AIDS, TB, and Malaria should be controlled and comprehensively treated in all countries. And women and men around the world should have access to reproductive health and family planning services to avoid unwanted pregnancies.

To achieve the health goals, health systems also need to be supported by enabling actions in other sectors, including gender equality, education, access to basic infrastructure services, healthy cities, and cleaning up air and water. Modern technologies including ICT can make a major contribution towards lowering the cost of healthcare provision and increasing its efficacy, particularly in poor countries.

Public health and wellbeing also depends on healthy life choices by individuals, including healthy diets, physical exercise, and reduced alcohol and tobacco use. Healthy behaviors are especially important in view of the obesity epidemic, which is sweeping across many countries and reflects the dangers of inadequate physical activities and imbalanced diets. Public policies can help in promoting healthy behaviors, such as by restricting the advertising of unhealthy food products (especially to children), ensuring that cities promote healthy lifestyles, taxing alcohol and tobacco products, and restricting the use of trans-fats by the food industry.

*6. Improve Agriculture Systems and Raise Rural Prosperity*

The food system remains one of the greatest challenges for sustainable development. The problems are many, varied, and complex. First, the global food system is under considerable stress. Human-induced climate change, freshwater depletion, loss of biodiversity, ocean acidification, and other environmental dangers all threaten our ability to feed the world population. Too much food is wasted due to inefficient harvesting and processing, lack of storage, and spoilage. In many poor countries smallholder farmers go hungry because they do not produce enough food to feed their families, and the urban poor suffer because they cannot afford adequate nutrition and food supply. Second, the demands on the global food system are rising rapidly. By 2050 another 2 billion people

might need to be fed. At the same time per capita food consumption is rising rapidly because people can afford to buy more food and because they increasingly prefer meat and other protein-rich food, which requires much more grain to be produced. Finally, the agricultural system is a major cause of environmental stress, contributing to large-scale greenhouse gas emissions, loss of habitat and biodiversity, overuse of freshwater, deforestation and desertification, over-fishing, excess fluxes of nitrogen and phosphorus, and other unsustainable practices.

Farming is also the main livelihood of the poor and a mainstay of many countries' economies. When farming is productive, poverty is reduced. When farming is unproductive and is buffeted by environmental stresses, poverty is intensified. Therefore, improvements in farm productivity constitute one of the most important pathways to eradicate extreme poverty in rural areas as well as in cities where abundant, inexpensive food increases the purchasing power and health status among the urban poor. The economic potential of agriculture goes of course beyond poverty eradication. The experience of many upper-middle-income countries demonstrates that a well-developed agriculture sector can support prosperous rural areas and high living standards.

Current estimates suggest that the global net food production might need to rise by about 70 percent by 2050, with significant gains in each part of the world, but also with significant differences among regions and food categories.[6] Such increased production must be achieved without significantly expanding agricultural land and thereby destroying or degrading ecosystems. Increased food production must also anticipate the threats of unavoidable climate change and enable farmers to adapt to the increasing frequency and severity of natural disasters. These gains will require unprecedented investments in increased crop yields and animal productivity, more resource-efficient production systems and value chains, improved resilience to climate change, and drastically reduced post-harvest losses. This will only be possible if farming can become an attractive business and job opportunity for everyone involved, particularly hundreds of millions of smallholder farmers all over the world, yet still keeping food prices within reach of the poor. Major productivity gains will be essential.

Putting these pieces together, we can say that the challenge of sustainable agriculture confronts every region of the world. Making agriculture sustainable, resilient, and achieving the needed increases in food production, is vital to achieving all other SDGs. Adopting best management practices that stay within planetary boundaries is equally vital for poor smallholder farmers as for large agricultural business in rich countries. Such best practices will help protect the environment, reduce hunger, raise rural prosperity, and end extreme poverty.

Farming systems and technologies – including crop varieties, land use, soil nutrient management, biodiversity conservation, water use, harvesting methods, and food processing and marketing – are highly varied and depend on local conditions. There is no one-size-fits-all strategy for sustainable agriculture. Every region and locality requires its own diagnostics and approaches, though it can draw upon lessons from other regions and a toolkit of advanced agricultural principles and technologies. As in other SDGs, technology will play a vital role in enabling agriculture to become more productive and sustainable. Genetic improvement, soil mapping, precision dosing of fertilizers, agricultural advisory systems, weather forecasting, machinery, and reduced post-harvest

[6] The actual percentage increase in food needs will depend on dietary choices – such as the role of meat products in the diet – as well as demographic trends.

losses of food in the supply chain to markets, are all areas where technologies, including ICT, can play an important role.

To ensure rural prosperity and productive agriculture, countries will need to ensure universal access to basic infrastructure in rural areas, including a safe water supply, universal access to sanitation, modern energy services (including electricity and clean cooking fuels), modern transport, and connectivity to mobile telephony and broadband. Improved transport, storage, logistics, and communications can help to reduce food losses and improve rural-urban linkages that are vital for reducing poverty and promoting economic development. Ongoing climate change will underscore the importance of ensuring resiliency of the infrastructure, for example, in access to freshwater and power.

### *7. Empower Inclusive, Productive and Resilient Cities*[7]

Half the world's seven billion people live in cities, and roughly three-quarters of economic activity is urban. Cities are also home to extreme deprivation and environmental degradation with about one billion people living in slums. The dynamism of cities makes urban development and sustainable cities a major sustainable development challenge and opportunity: Between 2010 and 2050, the urban population will grow significantly, perhaps by 2.5 to 3.0 billion people, increasing the urban share to two-thirds of the world's population, with accompanying increases in the shares of global GDP and investments.

Most countries are inadequately prepared for this massive increase in the urban population and the ensuing changes to the structure of their economies. Slums are expanding; infrastructure is inadequate and outmoded; environmental hazards and climate risks are rising significantly. Moreover, cities are massive users of resources: e.g. water and energy for transportation, industry, heating and cooling of buildings and appliances. New energy, water, and transportation infrastructure for cities will last many decades, as will choices around land use and spatial structure. These decisions will be vital in determining the future trajectory of greenhouse gas emissions.

In an increasingly urban world, we can fairly say that cities are central to global economic development, employment creation, and ending extreme poverty. The success of the SDGs will be determined heavily in the world's cities, resting on improvements in the quality of urban governance, sound investments, and cities' ability to innovate.

To reduce urban poverty in all its forms, end slum formation, and increase productivity, cities will need to ensure universal access to basic urban infrastructure and services: housing, water, sanitation, waste management, low-carbon energy and transport, and modern information and communication technologies. Urban areas will need to clean up their air and water to ensure healthy living conditions. Cities will also need to invest in resilience to disasters, more frequent extreme weather events and other threats of climate change. Modern technologies, particularly ICT, can help improve city governance, energy and resource use efficiency, delivery of urban services and create new employment opportunities. ICT can underpin smart grids for urban power, water and transport, as well as innovative education and public health systems.

[7] In this document we use the terms "cities" and "urban" areas interchangeably to denote metropolitan areas and all urban centers that have economic or political importance.

To harness the potential of sustainable urbanization, urban governance will have to be improved in virtually every country. Metropolitan areas and urban local governments will be at the center of decision-making and therefore need to be empowered, but they must work with many actors: national governments, local authorities, businesses, knowledge institutions, and civil society. Together these actors must mobilize the needed financial, institutional and human resources across a broad range of urban issues, such as jobs, housing, services, and infrastructure. There can be no doubt that the complexity of the urban governance challenge is enormous.

*8. Curb Human-Induced Climate Change and Ensure Clean Energy for All*

Climate change is an existential threat to human development in all countries. Despite having signed the UN Framework Convention on Climate Change more than 20 years ago, the world remains dangerously off course in mitigating human-induced climate change. If anything, the situation is far more perilous today than in 1992. Global emissions continue to rise sharply as the global economy expands; dependence on fossil fuels remains very high; and progress in decarbonizing the world's energy systems remains frustratingly slow.

The world has tentatively settled on the goal of avoiding a 2 degree Celsius (°C) rise in average global temperatures above the pre-industrial baseline. Emission-reduction trajectories announced to date by UN member states are not adequate to achieve this goal. Even worse, the goal itself might well be insufficient to avoid very dangerous climate changes. Increasing scientific evidence suggests that a 2 °C rise in average temperatures could mean catastrophic climate changes in many parts of the world, including significant sea level increases and a very sharp increase in extreme events, including storms, droughts, and floods. Moreover, actions that produce a 2 °C rise in temperatures in the coming decades might lead to much larger temperature and sea-level rises in the longer-term as positive feedbacks in the earth systems amplify the effects of greenhouse gases on the Earth's average temperature and climate patterns. The results would include catastrophic ocean acidification and dramatic sea level rise.

All of these grim realities underscore the crucial need to reduce greenhouse gas emissions sharply by mid-century, even as the world economy expands. While reductions will be needed in emissions of all greenhouse gases, the most important will be to reduce $CO_2$ emissions from fossil fuel use. In short, the main challenge will be to "de-carbonize" the world's energy system, meaning to achieve a dramatic reduction of $CO_2$ emissions in both the aggregate and per unit of energy. The current rate of emissions of around 34 billion tons of $C0_2$ per year from fossil fuel use should decline by half or more, even as the world economy expands perhaps three-fold in the same period. Therefore, the $CO_2$ per dollar of world output must decline by more than 80 percent by 2050 with rich countries facing steeper reductions in per capita greenhouse gas emissions.

Most recent studies concur that to achieve such deep reductions in greenhouse gas emissions by 2050, several critical steps will be necessary: (1) major gains in energy efficiency, including denser urban layouts; (2) electrification of vehicle transport and the heating and cooling of buildings; (3) intelligent grids and almost $CO_2$-free electricity generation by 2050 using renewables (essentially

wind, solar, hydro), possibly nuclear[8] and carbon capture and storage (CCS) technologies; (4) advanced biofuels for a small but significant share of transport; (5) reduced deforestation and emission reduction in agriculture (notably nitrous oxide, methane, and $CO_2$ from land-use change); and (6) reduction of certain industrial gases with high warming potential (e.g. HFC, $N_2O$, $SF_6$). Achieving such a deep transformation of the energy, industrial, and agricultural systems over the next few decades will represent perhaps the greatest technical and organizational challenge that humanity has faced.

A complex and interconnected set of policies will be needed to drive this transformation, including research and development of new technologies; massive support for technology transfer to poor countries; adequate market pricing of energy, including an end to fossil-fuel subsidies; and a social price on carbon (such as a carbon tax) that reflects the external damages caused by $CO_2$ emissions. Also, rich countries will have to follow through on their promises to help finance the transformation of energy systems in low-income countries, including a flow of at least $100 billion per year by the year 2020, much of it through the new Green Climate Fund established under the auspices of the UN Framework Convention on Climate Change (UNFCCC).

The de-carbonization of countries' economies must not deflect attention from the urgent need to provide access to clean energy, including electricity and cooking fuels to the rural and urban poor. We address sustainable energy for all with other infrastructure challenges under the rural and urban priorities 6 and 7 above.

Even under the most optimistic scenarios, some severe climate change has by now become unavoidable. In the coming decades the frequency and severity of extreme weather events will further increase, putting pressure on agriculture, water supply, and infrastructure, particularly in coastal cities and cities in drylands. Some coastal areas will likely be flooded, some fragile regions may become uninhabitable, many more coral reefs will bleach, and biodiversity loss will accelerate. As a result, strategies to achieve economic, social, environmental, and governance objectives must be made "climate resilient" by promoting adaptation to climate change. These challenges of resilience and climate change adaptation are incorporated in several of the other priority areas.

### *9. Secure Ecosystem Services, Biodiversity and Good Management of Natural Resources*

Ecosystems, such as oceans and seas, coastal zones, forests, mountains, drylands, and wetlands, underpin human life on earth (see Millennium Ecosystem Assessment for more details). Yet, they are heavily degraded everywhere, and the world is experiencing an unprecedented mass extinction of species. As one important example, an estimated 60 percent of marine ecosystems are used unsustainably or degraded as a result of overfishing, pollution, eutrophication, warming, sea level rise, and acidification, which is driven by human-induced climate change. To sustainably manage oceans and coastal regions it will be crucial to harmonize national and regional maritime policies, strengthen cooperation in ocean observation and marine spatial planning, and improve our scientific understanding of how these systems react to different impacts and policies.

[8] Studies differ on whether nuclear power is needed for deep decarbonization and whether its safety issues can be managed adequately.

As a second example, many countries face growing water stress and must improve the integrated management of their water resources. This will require long-term strategies involving governments, business, and communities to balance sustainable supply and use, reduce waste, improve water retention, and lower pollution. As demand for water grows, impoundment or redirecting freshwater flows to the detriment of key ecosystems needs to be avoided. In many countries subsidies for the extraction of ground and surface water will need to be reconsidered.

Management of biodiversity and ecosystems must be transformed to ensure robust and healthy ecosystems everywhere. Successful strategies for biodiversity management and ecosystem preservation are complex to design and require coordinated policies over a long time frame. They will need to be based on sound science, but also draw on the tools of social mobilization and behavior change that civil society and modern social media can facilitate. The diversity and specificity of ecosystems around the world makes it very difficult to distill a small number of quantified global targets that are applicable in every country. A better approach therefore is to set broad parameters and invite every country to define its own outcome targets and management strategy. Such national targets should for example include timetables to halt conversion of natural terrestrial ecosystems, particularly forests, wetlands, and savannahs, into other land uses.

A common element in most management strategies must be to ensure that governments, businesses, and individuals pay the full social cost of ecosystem services use and pollution. Governments and businesses need to commit to the "polluter pays" and "payments for ecosystem services" principles and explain how they will be applied transparently. As outlined in Annex 1, the SDGs could include targets for the application of these principles.

A related management challenge concerns ecosystems that are of regional or global significance as well as trans-boundary issues. Scientists have identified six critical biomes that constitute key "global regulating systems": polar regions, tropical rainforests, ocean and coastal systems, permafrost regions, temperate forests, and savannahs. These regulating systems are of concern for humanity as a whole, irrespective of where one lives. They therefore require targeted and coordinated international management strategies to which all concerned countries and large businesses must contribute.

A central element of national, regional, and global management strategies for ecosystems and biodiversity is the need for better data. The world is flying blind with regard to the true state of many ecosystems, so management strategies must be underpinned by targeted efforts to inventory and monitor biodiversity, principal ecosystem functions, and services at biome and national scales.

A consequence of the growing demand for primary commodities and stresses on the world's food supplies is the sharp rise in the market values of land, minerals, hydrocarbons, freshwater, and other primary resources. In turn, the rising market values of primary resources are leading to a new scramble by many nations to secure their own access to primary commodities. As a result, the scale of global investments in exploration and development of hydrocarbon reserves, minerals deposits, and farmland is rising sharply, including in some of the world's poorest countries. These increased economic activities can help promote growth and economic development in poor regions. Yet, history also teaches that increased investments in primary commodities can also produce a "resource curse", marked by rising corruption, massive environmental degradation, land grabs, the dispossession of traditional landowners, and a siphoning off of resource revenues by a small elite.

We therefore underscore the importance of sustainable practices in the extractive industries, including mining, hydrocarbons, and large-scale land development. Governments and the associated extractive industries involved need to commit to the effective and transparent management of the minerals, hydrocarbon resources, and agricultural land holdings in order to support inclusive economic development and the achievement of all SDGs. This may include strengthening governments' negotiation capacities to obtain fairer deals, seizing opportunities for resource-based industrialization, long-term strategies for investing natural resource rents to support inclusive development, maximizing opportunities for skill transfer, and establishing transparent platforms for public participation and decision making.

### *10. Transform Governance for Sustainable Development*

Sustainable development requires good governance at local, national, and global levels, and by all sectors of society: governments, businesses, and civil-society organizations. All stakeholders must commit to supporting the SDGs with transparency, accountability, and without corruption. Where necessary, rules for international trade, finance, taxation, business accounting, and intellectual property need to be reformed to become consistent with achieving the SDGs.

Governments need to uphold and promote the rule of law as well as basic economic and social rights. They must mobilize the necessary resources and provide the public goods needed for sustainable development. Public policy decisions must be made on the basis of reliable evidence and sound scientific analysis, guided by a genuine spirit of understanding and learning from the various social policy models that are available globally.

As emphasized throughout this document, businesses must be an integral part of any strategy to address the sustainable development challenges. Good corporate governance calls for all companies, especially the major multinational companies, to adopt sustainable development goals, and to hold themselves accountable for those goals vis-à-vis their investors, customers, suppliers, employees, and society at large.

Where needed, companies need to work responsibly and constructively with governments to address market failures, help mobilize the needed resources, and ensure that private incentives become more fully aligned with public objectives. They must be accountable for adverse environmental and social consequences of their actions, along the lines of the "polluter pays" and "payment for ecosystem services" principles. In particular, this will require better ways of measuring the value and true performance of companies by internalizing externalities in companies' reporting and ensuring independent evaluation for all major corporations.[9] Where sustainable development requires structural transformations in business models, for example to decarbonize the energy system, governments must lead, working with business to enable the needed transformations. Transitional support may be required to deal with "stranded assets", such as polluting power plants and high-carbon fossil fuel reserves, in a responsible manner.

[9] Examples are the environmental profit and loss statements developed by Puma, Integrated Reporting (IIRC), The Economics of Ecosystems and Biodiversity (TEEB) for Business, Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB) pricing of externalities.

As part of a governance transformation for sustainable development, the world also needs a fair and viable financing strategy for ending poverty and providing global public goods. The bulk of investment in sustainable development can be financed through private finance and national public resource mobilization. Yet, poor countries and some global public goods will require official development assistance (ODA), adequate climate finance, and other public financing from rich countries and emerging economies.

Given that per capita incomes are converging rapidly across countries clear criteria are required for resource mobilization and graduation from development assistance. Every high-income country should aim to provide 0.7 percent of its GNI as ODA during a transitional period till around 2025. Thereafter aid can decline as a share of GNI as more of today's poor countries enter the ranks of middle-income countries. To support more effective domestic resource mobilization in all countries, rich countries should take the lead in curtailing abusive transfer pricing, and work to close havens that encourage tax evasion and capital flight from poor countries.

Global problems require global institutions that are representative of the world they seek to govern. The voting rights and shares in many international institutions reflect the world as it was after the Second World War and not the world as it is today. This imbalance ought to be addressed so that global institutions can speak and act with greater legitimacy. At the same time, today's emerging economies will need to take greater responsibility in the financing of these institutions and of global public goods more generally.

Many international negotiations proceed on the basis that "nothing is agreed until everything is agreed", which becomes a recipe for gridlock. Such gridlock can be exacerbated by rules under the WTO and multilateral institutions (e.g. bilateral investment treaties) that make it hard for individual countries to enact stronger environmental standards without either violating rules or increasing competition from non-compliers. For example, a growing number of researchers and policy-makers advocate border carbon taxes as a necessary means to allow individual countries to enact tighter curbs on their own greenhouse gas emissions without threatening their industrial base. Trade and other international rules should therefore meet the test of whether they are consistent with the objectives of sustainable development. Where this is not the case reasonable safeguards need to be put in place to allow individual countries to move forward on stronger environmental standards.

## IV. Framing Sustainable Development Goals

The ten sustainable development challenges must be addressed at global, regional, national, and local scales. Well-crafted SDGs, perhaps along the lines of our suggestions in Annex 1, will help guide the public's understanding of complex sustainable development challenges, inspire public and private action, and promote accountability. The SDGs will be complementary to the tools of international law, such as global treaties and conventions, by providing a shared normative framework. Children everywhere should learn the SDGs to help them understand the challenges that they will confront as young adults. The SDGs can also promote integrated thinking and put to rest the futile debates that pit one dimension of sustainable development against another. They will mobilize governments and the international system to strengthen measurement and monitoring for sustainable development.

As agreed at the Rio+20 Summit, the SDGs should be universal. They should address all four dimensions of sustainable development (see Annex 3), apply to rich and poor countries alike, and

target governments at all levels as well as business and civil society. This does not mean that every goal must be a "stretch goal" for every country. Rich countries, for instance, are likely to have met most goals relating to ending extreme poverty. Yet every country will face significant challenges on at least some of the goals. Poor countries that cannot meet the goals out of their own domestic resources should receive international financial support to do so.

Giving the poor a voice will be a critical part of operationalizing sustainable development. Any process for implementing the sustainable development challenges will need to ensure the participation and voice of the poor in decision-making. Moreover, a central objective of the SDGs should be to ensure universal access to social services, basic infrastructure, and other public goods. This universal access to basic services – including early childhood development, primary and secondary education, job training, public health services, sustainable energy, and mobile and broadband connectivity – will help to reduce existing income and social inequalities. We urge that targets and metrics be disaggregated according to gender, geography, socioeconomic status, and other dimensions to ensure that public goods and social services are indeed reaching all segments of the population.

Universities and research institutions will have a powerful role to play in helping societies in developing long-term strategies for addressing the sustainable development challenges, designing metrics, monitoring, and the research and development of new technologies. For this reason, the Sustainable Development Solutions Network has been created by UN Secretary-General Ban Ki-Moon to promote the role of these centers of knowledge and technology. The SDSN will help to mobilize the expertise of local universities and scientific experts to support local decision making, with the support of global knowledge networks.

The MDGs have highlighted the need for better statistical data systems to track progress towards the international goals, and to support management efforts aimed at achieving the goals. Therefore, the new set of goals for sustainable development must also be bolstered by significant improvements in local, national, and global data collection and processing, using new tools (GIS, remote sensing, social networking, etc.) as well as existing ones. As a result of the information revolution, the SDGs can and should be supported by online, real-time, place-based, and highly disaggregated data.

The SDGs must be dynamic and incorporate changes over the next 15 years that are impossible to anticipate fully today. In some areas, such as climate change, the global consensus on the type and ambition of action to be undertaken by governments may evolve, chiefly through negotiations under the UNFCCC. The SDGs must be flexible, to better reflect the evolving global consensus. Likewise, technical progress and business innovation may make it much easier to achieve some goals. Here the world should increase the level of ambition. In other areas, improved scientific knowledge will change our understanding of safe thresholds that must not be surpassed, which in turn must be reflected in the framing of goals, targets, and indicators.

## Annex 1: Preliminary Ideas for the Sustainable Development Goals (SDGs) and Targets

The General Assembly of the United Nations will adopt the post-2015 goals following an intergovernmental process of negotiation. That process has now gotten underway. The Secretary-General's High Level Panel on the Post-2015 Development Agenda will help to inform it. We hope that significant progress will be made at the Special Session of the UN General Assembly on 25 September 2013. As our contribution to this important debate, the Leadership Council of the Sustainable Development Solutions Network (SDSN) has identified ten plausible sustainable development goals and associated targets. These draft goals are accompanied by a short preamble drawing on the Rio+20 outcome document, and by a question and answer document (Q&A) document (Annex 2).

The draft goals reaffirm the need to achieve sustainable development by promoting economic development, social inclusion, environmental sustainability, and good governance. The challenges addressed by the draft goals are inherently integrated, so sustainable development will require that the goals be pursued in combination, rather than individually or one at a time. For example, sustainable management of freshwater resources cuts across the agriculture, urban, rural, and ecosystem goals.

We have ordered the goals in such a way as to stay close to the structure of the Millennium Development Goals. They are not ordered by priority. All are very important and work in harmony with the others.

A central objective of these draft goals is to ensure social inclusion, by calling for the equal provision of core social services, infrastructure, and other critical public goods for all segments of the population within all countries. The burdens and progress of the most vulnerable people and groups should therefore be measured. Statistical agencies should also strive to disaggregate data by geography, gender, socioeconomic status, ethnicity, and other relevant dimensions in order to monitor and promote fairness and social inclusion.

**Draft Sustainable Development Goals (SDGs) and Targets**

*Goals and Targets are for 2030 unless otherwise noted.*
*Targets marked with (*) need to be specified at country or sub-national level.*

**Preamble**[10]

The Sustainable Development Goals (SDGs) reaffirm the need to achieve sustainable development by promoting economic development, social inclusion, environmental sustainability, and good governance. Eradicating poverty is the greatest global challenge. The goals commit the world to freeing humanity from poverty and hunger as a matter of urgency, in both urban and rural areas. The goals also underscore that policies to curb climate change, ensure sound water management, and secure robust and productive ecosystem services are crosscutting challenges. The unsustainable use of the world's primary resources and ecosystems undermines the ability of all countries to achieve sustainable development and threatens food security and the viability and survival of nations. The goals reaffirm the importance of gender equality and human rights, including the right to development, and peace and security for all. They place a strong emphasis on investing in health and education of all people. These goals are universal and apply to all countries, national and local governments, business and civil society. Sustainable development will require that the goals be pursued in combination, rather than individually or one at a time.

**Goal 1: End Extreme Poverty including Hunger**

End extreme poverty in all its forms, including hunger and child stunting, and support highly vulnerable states (MDGs 1-7).

Targets might include:

- End absolute income poverty and hunger, including achieving food security, the end of child stunting, and appropriate nutrition (MDG 1).
- [Other suitably revised targets of MDGs 2-7 included here or below]
- Enhanced support for highly vulnerable states and Least Developed Countries, to address the structural challenges facing those countries, including violence and conflict.*

**Goal 2: Achieve Development within Planetary Boundaries**

All countries have a right to development that respects planetary boundaries and that helps to stabilize the global population by mid-century.

Targets might include:

- Each country reaches at least the next level in the World Bank country classification.[11]
- Countries respect planetary boundaries[12] in national policies and incorporate them together with other environmental and social indicators into an expanded measure of GDP.*

[10] Preamble based on Rio+20 outcome document.
[11] E.g. Low-Income Countries become at least Lower-Middle-Income Countries.

- Rapid voluntary reduction of fertility in countries with total fertility rates above [3] children per woman.*

**Goal 3: Ensure Effective Learning for All Children and Youth for Life and Livelihood**

All children participate in adequate early childhood development programs, and receive primary and secondary education to prepare them for the challenges of modern life and decent livelihoods. All youth and adults have access to continuous lifelong learning to acquire functional literacy, numeracy and skills to earn a living through decent employment or self-employment.

Targets might include:

- All girls and boys have access to early childhood development (ECD) programs.
- All girls and boys receive quality primary and secondary education that focuses on learning outcomes defined for each stage of schooling, and on reducing the dropout rate for each grade to zero.
- Youth unemployment rate is below [10] percent.

**Goal 4: Achieve Gender Equality, Social Inclusion, and Human Rights**

Ensure gender equality, human rights, the rule of law, and universal access to public services. Reduce relative poverty and other inequalities that cause social exclusion. Promote freedom from violence, especially for women and children.

Targets might include:

- End discrimination and inequalities in public service delivery, the rule of law, and participation in political and economic life on the basis of gender, ethnicity, religion, disability, national origin, social or other status.
- Reduce by half the proportion of households with incomes less than half of the national median income (relative poverty).
- Sharply reduce violence against individuals, especially women and children.*

**Goal 5: Achieve Health and Wellbeing at all Ages**

Achieve universal health coverage at every stage of life, with particular emphasis on primary health services, including reproductive health. All countries promote policies to help individuals make healthy and sustainable decisions regarding diet, physical activity, and other individual or social dimensions of health.

Targets might include:

- Ensure universal access to primary healthcare that includes reproductive healthcare and family planning, and the prevention and treatment of communicable and of non-communicable diseases.

[12] Planetary boundaries define the safe operating space for humanity in the Earth system. They include greenhouse gas emissions, nitrogen and phosphorus loading, ozone depletion, chemical pollution, freshwater use, ocean acidification, land use change, aerosol loading, and loss of biodiversity.

- Reduce child mortality to [20] or fewer deaths per 1000 births, maternal mortality to [40] or fewer deaths per 100,000 live births, and deaths of people under 70 years of age from non-communicable diseases (NCDs) by at least 30 percent compared with the level in 2015.
- Countries report indicators of subjective wellbeing and social capital.*

**Goal 6: Improve Agriculture Systems and Raise Rural Prosperity**

Improve farm practices and rural infrastructure to raise yields, reduce environmental impacts, promote rural prosperity, and ensure resilience to climate change.

Targets might include:

- Achieve high-yield food production systems with low post-harvest food losses and sustainable use of water, nutrients, and energy.*
- Halt forest and wetland conversion to agriculture, protect soil resources, and ensure that farming systems are resilient to climatic extremes.*
- Universal access in rural areas to basic infrastructure services (water, sanitation, modern energy, transport, and mobile and broadband communication).

**Goal 7: Empower Inclusive, Productive and Resilient Cities**

Make all cities socially inclusive, economically productive, environmentally sustainable, and resilient to climate change and other risks. Develop participatory, accountable, and effective city governance to support rapid and equitable urban transformation.

Targets might include:

- End extreme urban poverty, expand employment and productivity, and raise living standards, especially in slums.*
- Universal access to a secure and affordable built environment and basic urban services: housing; water, sanitation and waste management; low-carbon energy and transport; mobile and broadband communication.
- Ensure safe air and water quality for all, and integrate reductions in greenhouse gas emissions; efficient land and resource use; and climate and disaster resilience into investments and standards.*

**Goal 8: Curb Human-Induced Climate Change and Ensure Clean Energy for All**

Curb greenhouse gas emissions from energy, industry, agriculture, built environment, and land-use change to head off the rapidly growing dangers of climate change,[13] while promoting access to clean energy for all.

Targets might include:

[13] The Fourth Assessment Report of the IPCC (2007) has defined this level as global average temperatures that are 2°C above the pre-industrial level. Recent scientific evidence suggests the need to reduce the long-term temperature increase to 1.5 °C or less. The global emission reduction target should be regularly updated in view of the growing body of scientific evidence.

- Decarbonize the energy system, ensure clean energy for all, and improve energy efficiency, with targets for 2020, 2030, and 2050.*
- Reduce non-energy related emissions of greenhouse gases through improved practices in agriculture, forestry, and industry.*
- Adopt incentives, including pricing greenhouse gas emissions, to curb climate change and promote technology transfer to developing countries.*

**Goal 9: Secure Ecosystem Services, Biodiversity and Good Management of Natural Resources**

Marine and terrestrial ecosystems as well as natural resources are inventoried, managed, and monitored to ensure the continuation of robust planetary life support systems, and to support inclusive economic development.

Targets might include:

- Ensure robust and productive ecosystems (including oceans and seas, coastal zones, forests, mountains, drylands, and wetlands) by adopting policies that address drivers of habitat and biodiversity loss, and requiring individuals, businesses and governments to pay the social cost of their pollution and use of environmental services.[14]*
- Participate in and support regional and global arrangements to inventory, monitor, and protect biomes and environmental commons of regional and global significance (e.g. oceans, tropical rainforests, polar regions) and curb trans-boundary environmental harms, with robust systems in place no later than 2020.
- All governments and businesses commit to the transparent management of agricultural land, mining, and hydrocarbon resources to support inclusive economic development and the achievement of all SDGs.*

**Goal 10: Transform Governance for Sustainable Development**

The public sector, business, and other stakeholders commit to transparency, accountability and good governance without corruption. The international rules governing international finance, trade, corporate reporting, technology, and intellectual property are made consistent with achieving the SDGs. The financing of poverty reduction and global public goods including climate change are strengthened and based on a graduated set of global rights and responsibilities.

Targets might include:

- Governments (national and local) and business commit to the SDGs and provide annual reports, including independent evaluation of integrated reporting for all major companies starting no later than [2020].*
- Adequate domestic and international public finance for ending extreme poverty, providing global public goods, capacity building, and transferring technologies, including 0.7 percent of GNI in ODA for all high-income countries, and an additional $100 billion per year in official climate financing by 2020.
- Rules for international trade, finance, taxation, business accounting, and intellectual property are reformed to be consistent with achieving the SDGs.

[14] Indicators for this target could track the share of ecosystems that have been fully inventoried.

## Annex 2: Questions and Answers (Q&A) on the draft SDGs

### 1. Who prepared these draft goals and for what purpose?

The draft goals and targets were prepared by the Leadership Council of the Sustainable Development Solutions Network (SDSN) to help inform the debate around sustainable development goals (SDGs), including the work of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda and the Open Working Group established at Rio+20. The Leadership Council took into consideration proposals emerging from the thematic and national consultations organized by the UN Task Team, other processes, and numerous reports issued by civil society and research organizations (Annex 4).

### 2. Why does the world need sustainable development goals?

The Millennium Development Goals (MDGs) demonstrate the power of global goals, backed by quantitative targets, in building momentum for national and local action. Addressing the challenges of sustainable development requires a shared focus on ending extreme poverty in all its forms and a structural transformation in the way that national and local economies operate. The necessary focus and collaboration across actors and countries can best be achieved through shared global objectives for sustainable development. That is why the Rio+20 Summit called for SDGs. Of course setting global goals – even if based on shared values – will have little impact unless followed up by concerted action, but averting the business-as-usual (BAU) trajectory will be nearly impossible without an ambitious and universal set of SDGs.

Well-crafted SDGs will guide the public understanding of complex long-term challenges, inspire public and private action, and promote accountability. They will build on existing global initiatives and bring together ongoing efforts in sustainable development. The SDGs will be complementary to the tools of international laws, such as global treaties and conventions, by providing a normative framework for the global partnership needed to address the interconnected challenges the world faces. Children around the world will learn a simplified version of the goals as a clear introduction to sustainable development. For businesspeople, government officials, civil society, and others, the goals will promote integrated thinking and help to stave off the futile debates that often pit one dimension of sustainable development against another. They will mobilize governments and the international system to strengthen measurement and monitoring for sustainable development.

### 3. The scope of the SDGs and the global policy agenda

The SDGs are one part of the global policy framework for the period after 2015. Just as the MDGs were part of the Millennium Declaration, which goes well beyond the MDGs to include issues of war and peace, the SDGs will be one part of the global policy agenda after 2015. The broader agenda will include issues of war and peace, ridding the world of nuclear weapons as per the Non-Proliferation Treaty, and addressing major macroeconomic challenges such as reform to global financial systems to prevent a repeat of the devastating 2008 financial crisis.

### 4. Why are the draft goals called “Sustainable Development Goals”?

The Rio+20 Conference adopted the principle of sustainable development goals to be crafted and adopted by UN member states before the end of 2015. The draft goals outlined by the SDSN are one of many inputs into this debate.

**5. Who would such goals apply to? What would be the role of civil society and business?**

The SDGs should be universal. We also suggest that they should have a 15-year time frame, like the MDGs. The SDGs should address all four dimensions of sustainable development (economic, social, environmental, and governance); apply to rich and poor countries alike; and set objectives for governments at all levels as well as for business and civil society. Not every goal will be a "stretch goal" for every country. Rich countries, for instance, will have met those goals relating to the end of extreme poverty. Yet all countries lag behind on some dimensions of sustainable development.

Business deserves a special note since it is the principal engine for economic growth and job creation. It will develop and deliver many of the new technologies, organizational models, and management systems that are needed for sustainable development. It also directly accounts for some two thirds of natural resource use. If business embraces the SDGs, then rapid positive change will become possible. If business continues to operate under values and incentives that are misaligned with the objectives of sustainable development, then the transformations outlined in this document will be impossible. We therefore underscore that engagement of business, supported by correct market incentives, is central to the success of the SDGs.

There also can be no sustainable development without civil society doing its part. The SDGs are a guide and standard for civil society as well. Civil society includes universities and other expert communities, NGOs, philanthropies and foundations, environmental groups, social enterprises, and others. Each of these civil-society actors will have their own distinctive role to play in support of the SDGs.

**6. How do the proposed goals relate to the Millennium Development Goals (MDGs)?**

The MDGs are the world's shared goals for ending extreme poverty in all its forms and will expire at the end of 2015. They have supported tremendous progress, including the reduction by half of the poverty rate of the developing countries taken as a group. However, the job of ending extreme poverty in all its forms is far from accomplished country by country, particularly among disadvantaged groups and regions within countries. For this reason we propose that the SDGs start with a clear commitment to finishing the work of the MDGs by resolving under SDG 1 to end extreme poverty and hunger by 2030. We are pleased that the World Bank has recently committed itself to the goal of ending extreme poverty by 2030. Member states may decide to include suitably updated MDG targets under SDG 1 as measures of extreme poverty in all its forms. Alternatively, the targets on ending extreme poverty may be distributed across the corresponding SDGs.

**7. How do the goals relate to sustainable development and its dimensions? How do the goals deal with integration?**

As described in this document and illustrated in Annex 3, the world's challenges are interconnected and must therefore address all four dimensions of sustainable development (economic development and ending poverty, social inclusion, environmental sustainability, and good governance). To reflect the need for integration, the proposed ten SDGs and thirty targets have been designed to address multiple dimensions of sustainable development.

**8. What are the reasoning and criteria behind crafting the goals and targets?**

Several criteria have been identified for crafting the goals. They should be:

i. Universal: The goals should be applicable to all countries. In particular they should address the needs of low-income, middle-income, and high-income countries.

ii. Comprehensive: Together, the ten goals should spell out the principal challenges of sustainable development and provide a normative framework for the global partnership needed to address the profound and interconnected challenges the world faces. For example the SDSN feels that climate change is such an important challenge that these words need to appear in the title of one of the goals.

iii. Operational: To the extent possible, each goal should address and mobilize clearly defined knowledge communities comprising government departments, business, civil society, international organizations, and academia/research.

iv. Jargon-free and easy to understand: Children should be able to learn the goals at school as a clear introduction to sustainable development. To this end the wording of the goals needs to be free of jargon. Where important technical concepts (e.g. ecosystems) are needed these should be included and become part of the introduction to sustainable development.

v. SMART Targets: In general, targets should be "SMART": specific, measurable (though some targets should remain fairly general and may require the setting of national/local targets or new metrics – see Questions 9 and 10 below), attainable (though some will be "stretch" goals that can be attained only with considerable effort), relevant (to the four dimensions of sustainable development), and time bound through to 2030 or earlier.

vi. Applicable to all stakeholders: The goals should apply to governments at all levels, business, civil society, international organizations, and other stakeholders.

vii. Integrated: The goals should promote integrated thinking and put to rest the futile debates that pit one dimension of sustainable development against another (see also Question 7).

viii. Limited in numbers: The SDSN believes that ten is the maximum practical number. Beyond 10, the goals would lose the benefit of public understanding and motivation. Yet we also did not find a way to reduce the SDGs to fewer than 10.

**9. What does reducing to "zero" or "universal access" mean?**

Many targets call for "universal access" (e.g. to infrastructure) or "zero" deprivation (e.g. extreme poverty, hunger). For each such target, the technical communities and member states will need to define the precise quantitative standard for their commitment to "universal access" or "zero" deprivation. We hope that in most cases these standards will indeed be 100 percent or 0 percent, respectively, but there may be areas where it is technically impossible to achieve 100 percent access or 0 percent deprivation.

**10. Why are some targets not quantified?**

It is important that every target can be measured at the national or local level, but not every target can be defined globally in a meaningful way, for three distinct reasons:

i. The starting points may differ too much across countries for a single meaningful quantitative standard at the global level;

ii. Some targets need to be operationalized and quantified locally or may be relevant only in subsets of countries (e.g. those that refer to specific ecosystems);

iii. For some targets no global consensus exists today, and these still need to be negotiated, as is the case with greenhouse gas emission reduction targets. In the meantime, countries should establish their own plans and targets.

**11. How do the goals define poverty?**

We use the term "extreme poverty in all its forms" for the multidimensional concept of poverty encapsulated in the MDGs, comprising inter alia income poverty, hunger, gender inequality, lack of education, poor health, and lack of access to basic infrastructure services. Extreme income poverty or "absolute income poverty" is defined by the World Bank as per capita income less than $1.25 per day. We measure social inclusion in part by the use of "relative poverty," defined by the OECD as the proportion of households with incomes less than half of the national median income.

**12. How do the goals deal with inequalities?**

The proposed SDGs deal with inequalities in several ways:

i. Goal 4 has explicit targets on ending discrimination and reducing relative poverty, which as just noted describes the proportion of households with incomes less than 50 percent of the national median. Relative poverty is a widely used measure of inequality.

ii. Many of the goals emphasize universal access to various public services and infrastructure that give every person a fair chance at prosperity (note in particular Goals 3 - 9). Achieving universal access will require that special strategies address deep-rooted inequalities across regions, gender, ethnicities, income levels, and other dimensions.

iii. We recommend that the SDG indicators be disaggregated as much as possible by geography, incomes, socio-economic groups, and other identifiers to track inequalities in SDG outcomes (as described in the introduction to Annex 1).

**13. What is the reasoning behind the focus on highly vulnerable states?**

Certain parts of the world, including the Sahel, the Horn of Africa, the Great Lakes Region, and parts of Central Asia, face extraordinary challenges as the result of the combination of extreme poverty, weak infrastructure, chronic violence, rapid population growth, and inherently difficult geographical conditions, such as being landlocked, small island states, extremely arid, highly vulnerable to droughts and floods, and/or having a high burden of communicable diseases such as malaria. Countries facing these tremendous and interconnected challenges need special international support, including timely and adequate external assistance. They also need a regional focus, since many of the problems (weak transportation, cross-border nomadism, displaced populations, droughts, epidemics, and conflicts) occur at the regional scale and must be addressed in part at that scale.

**14. What is the reasoning behind Goal 2 (Development within Planetary Boundaries)?**

Modern earth systems science (including geology, climate science, hydrology, and ecology) makes clear that human activity is now dangerously impinging on vital Earth functions, including climate, water cycle, nitrogen cycle, biodiversity, ocean acidification, particulate pollution, and more. Scientists are identifying certain thresholds or "planetary boundaries" beyond which human activity can have dire effects on human wellbeing and on ecosystem functions everywhere. Unless human development respects these planetary boundaries, people in all countries are likely to face severe environmental degradation that could severely set back human development. Yet it is possible for countries to grow while respecting these boundaries, mainly by improving efficiency, shifting to sustainable technologies, restraining various kinds of wasteful behaviors, and by decelerating population growth more rapidly. The proposed Goal 2 therefore underscores the right to development for all countries within planetary boundaries.

**15. Why is there no draft Goal called "Sustainable Consumption and Production"?**

As emphasized throughout this document and in the "Framework of Programmes on Sustainable Consumption and Production Patterns" adopted at Rio+20, the use of environmental resources and pollution must be decoupled from rising living standards and economic growth. This decoupling needs to happen in many different areas around which governments, business, and civil society need to be mobilized. Examples include the energy system, the food production system, urban development, as well as ecosystem and biodiversity management. We propose to define the SDGs as precisely as possible by areas of activity, so that each goal can mobilize and guide the corresponding actors and "knowledge communities".

On a related note, we try to avoid the terms "unsustainable consumption" or "overconsumption" since it is not clear against which variables these terms apply. The world does not consume too much energy, but it does emit too much $CO_2$. Increased energy use through renewable solar and wind power, for example, will be welcome and needed. So the key question is not "consumption" or "production" per se, but their primary resource, pollution, and ecosystem implications. Consumption (in the economic sense) and production can grow provided they are decoupled from pollution and natural resource use. The potential for decoupling is tremendous, and credible studies suggest – for example – that the world can decarbonize the global energy system without stopping economic growth and at a modest overall cost (e.g. on the order of 1 percent of GDP per annum to 2050).

**16. The UNFCCC deals with climate change. Why do we propose a goal on climate change?**

The UNFCCC will set legally binding targets among nations. The SDGs will not be legally binding and will not replace or hinder the work of the UNFCCC. Rather, the SDGs, like the MDGs today, will provide a global, easily understood, normative framework to mobilize all stakeholders in the fight for sustainable development, which must include efforts to curb human-induced climate change. The SDGs should therefore help the public to understand the critical issues, the solutions, and urgency of changing course. Similar considerations apply to biodiversity, human rights, and other areas where legally binding international conventions have been adopted, but which also need to be addressed by the SDGs. The SDGs should get to the crux of the matter on climate change: heading off the rapidly growing dangers of climate change. Since the science of climate change evolves, it is important to define the SDG climate goal so that it can evolve with progress of scientific understanding and reflect new and hopefully stronger commitments made under the UNFCCC. Today's consensus on avoiding a 2°C increase in temperature, for example, may not be ambitious enough according to a growing body of scientific evidence, which is especially troubling since the world if far off course from achieving the 2°C target.

**17. How do the goals deal with jobs, particularly for the young?**

Reducing youth unemployment is a core priority for most countries. The proposed Goal 3 focuses on high-quality primary and secondary education and on effective institutions (such as apprenticeships) that can help youth prepare for decent work. The third target focuses directly on the youth unemployment rate. Likewise, the agriculture goal (SDG 6) includes the need for rural job creation and development, whereas the urban goal (SDG 7) addresses urban employment under its first target.

**18. Almost every goal applies to cities. Why do we need a separate urban[15] goal?**

Urban development is a central challenge and a major opportunity for most countries, as urban and slum populations are rising rapidly. The share of the world's population in urban areas is expected to rise from 52 percent in 2010 to around 67 percent in 2050, and the share of urban areas in GDP and employment will rise commensurately. If managed well, urbanization can create employment and prosperity, and become a central driver for ending extreme poverty and for strengthening social inclusion. If managed poorly, cities will deepen social exclusion and fail to generate enough jobs.

Urban sustainable development is complex, involving not only many sectors but also many political entities, ranging from local neighborhoods to the city government, to metropolitan areas to the national government, which must empower cities and link them to rural areas. As a result, strategies for cities pose highly complex yet crucial challenges. An urban SDG is therefore important to mobilize and bring together the efforts of multiple actors and stakeholders (e.g. national governments, local authorities, businesses, knowledge institutions, civil society) across a range of urban issues (e.g. urban jobs, housing, infrastructure, governance, disaster risk reduction, climate change adaptation and mitigation) and mobilize the financial, institutional, and human resources to make this possible.

**19. Why is there no stand-alone goal on infrastructure?**

Access to infrastructure is essential for ending extreme poverty in all its forms and promoting sustainable development. The draft SDGs divide the challenges of providing access to infrastructure between urban (SDG 7) and rural areas (SDG 6). This division is motivated by the fact that infrastructure technologies, delivery models, and responsible actors vary significantly between urban and rural areas.

**20. How do the draft goals deal with water?**

Providing access to safe water and sanitation, ensuring sound management of freshwater resources, and preventing water pollution are priority challenges of sustainable development. All three must become central components of the SDGs. Delivery models, technologies, and responsible actors for access to water and sanitation differ between urban and rural areas, so we propose to assign these challenges to the urban and rural goals, respectively. This has the added advantage of combining water supply and sanitation, which are often closely linked. Integrated water resources management is a cross-cutting requirement across all goals. Here water needs for agriculture (accounting for some 70 percent of freshwater withdrawals) and the healthy functioning of ecosystems (sometimes referred to as "green water") stand out as major challenges. Water resources management cannot be pursued in isolation from the management of agriculture or ecosystems, so we propose to include it in the rural/agriculture (SDG 6) and ecosystem (SDG 9) goals. A final water management challenge concerns pollution, which to a significant extent describes and urban challenge and must be tackled under this goal. Undoubtedly some will argue for a stand-alone water goal, but we believe that our proposals provide a sound basis for managing the various water challenges within the framework of the SDGs.

[15] In this document we use the terms "cities" and "urban" areas interchangeably to denote metropolitan areas and all urban centers that have economic or political importance.

**21. Why is there no stand-alone goal on peace and security?**

Goal 1 includes a focus on vulnerable regions, including post-conflict regions, and a target to address conflict and violence. Goal 4 includes a target on reducing violence against individuals, especially women and children that needs to be operationalized at the country level. This target addresses issues of gender-based violence as well as personal security, which represents a critical challenge in conflict and post-conflict settings. The broader political issues of peace and security, which are typically addressed in the Security Council of the United Nations, go beyond the proposed scope of the draft SDGs. The post-2015 global policy framework, which will include more than the SDGs themselves, should also draw global attention to the long-standing but still unfulfilled objective of ridding the world of nuclear weapons.

**22. Why are the targets under Goal 9 (biodiversity and ecosystems) not quantified?**

There are two challenges involved in setting quantitative global targets under this Goal. First, ecosystems and biodiversity are so diverse that setting a small number of quantitative global targets could not do justice to the diversity of ecosystems that require better management. How would one choose which ecosystems to propose quantitative targets for, and – by extension – which ones not to include in such targets? In response, the draft Targets call for policies to ensure robust and productive ecosystems. A central objective of such policies must be to address the drivers of ecosystem degradation and biodiversity loss, which includes applying the "polluter pays" and "payment for ecosystem services" principles. Suitable indicators, including halting the loss of biodiversity, can and should be constructed at national/local and regional/global levels to measure the achievement of this target across a broad range of ecosystems.

Second, ecosystems and their sustainable management are site and context specific. As the long history of environmental agreements makes clear, it is very difficult to set quantitative global goals that are operational where it matters, particularly at regional, national and sub-national levels. Global goals for ecosystem management will invariably need to be "localized". We propose to distinguish between ecosystem management at the national and subnational level (first target) and regional or global efforts (second target). The latter are inherently more complex and require different institutional arrangement. Both are critical for sustainable development.

**Annex 3: Illustrative contributions of the draft SDGs to the four dimensions of sustainable development**

*The table is for illustration purposes only and not intended to outline every contribution that the draft SDGs make to each of the four dimensions.*

| | **Economic Development & Eradication of Poverty** | **Social Inclusion** | **Environmental Sustainability** | **Governance** |
|---|---|---|---|---|
| **Goal 1: End Extreme Poverty including Hunger** | Ends extreme poverty including hunger & empowers all citizens to be productive | Reduces inequality by raising incomes and nutritional status of those at the bottom of the curve | Reduces pressure on the environment that is partly driven by poverty (e.g. slash & burn agriculture and high fertility) | Focus on improving governance and service delivery, particularly in low-income and vulnerable countries, including those struggling with conflict |
| **Goal 2: Achieve Development within Planetary Boundaries** | A global norm of convergence or "right to development" will support economic growth in all countries | Economic growth offers opportunities for investing in the poor to strengthen social inclusion | This will promote environmental sustainability by combining the "right to development" for all with the need to respect planetary boundaries | Acknowledging the rights and aspirations of all countries to pursue economic development will strengthen the global partnership for sustainable development |
| **Goal 3: Ensure Effective Learning for All Children and Youth for Life and Livelihood** | Effective learning is critical for creating job opportunities and livelihoods for people at all ages, which in turn drives economic development | Effective learning is critical for creating job opportunities and livelihoods for people at all ages, which in turn promotes social inclusion | Improved education and awareness, including education in sustainable development, will generate innovation and leadership for environmental sustainability | Educated and informed citizens will contribute to and uphold good governance |
| **Goal 4: Achieve Gender Equality, Social Inclusion, and Human Rights** | Mobilize and empower all members of society for economic development, thereby enhancing productivity and incomes | Promotes social inclusion | Excluded populations are often left to forage in forest areas, causing environmental harms | Rule of law, respect for human rights, improved security and participation are central components of good governance |
| **Goal 5: Achieve Health and Wellbeing at all Ages** | Health and personal wellbeing are prerequisites and central inputs into economic development and poverty eradication | Health and personal wellbeing are central for achieving gender equality and improving social inclusion | Improving health will inter alia have to address environmental causes (e.g. air and water pollution); healthy behavior promotes environmental sustainability | Effective and responsive service delivery is a core component of good governance |

| | | | | |
|---|---|---|---|---|
| **Goal 6: Improve Agriculture Systems and Raise Rural Prosperity** | Increasing agricultural output will help reduce extreme poverty, fight hunger, and promote economic growth | Improving the lives of smallholder farmers will strengthen social inclusion including gender equality; sustainable low-cost food supply will increase the purchasing power of the rural and urban poor | Sustainable agriculture will reduce pressure on ecosystems (e.g. water abstraction) and planetary boundaries (e.g. lower greenhouse gas emissions, improved nitrogen and phosphorus cycles), agriculture | Universal access in rural areas to basic infrastructure services is a core component of good governance |
| **Goal 7: Empower Inclusive, Productive and Resilient Cities** | Productive cities will drive economic growth, accelerate technological change, produce jobs and reduce extreme poverty | Inclusive cities will improve social inclusion in urban areas (e.g. by improving the lives of slum dwellers, creating decent jobs, and promoting gender equality) | Sustainable cities will ensure clean air and water, use land and resources efficiently, reduce greenhouse gas emissions, and increase disaster and climate resilience | Effective, participative, and accountable urban governments will help ensure rapid and equitable urban transformations |
| **Goal 8: Curb Human-Induced Climate Change and Ensure Clean Energy for All** | Curbing climate change can impose short-term economic costs, which are far exceeded by the long-term economic benefits from a stable climate and short-term opportunities for "green growth" | If left unchecked, climate change will gravely harm the livelihoods and lives of the poor | Addressing climate change is one of the pivotal environmental (and economic) challenges the world faces | An effective global response to climate change is central for maintaining the trust and cooperation needed to strengthen the global partnership |
| **Goal 9: Secure Ecosystem Services, Biodiversity and Good Management of Natural Resources** | Healthy ecosystems and biodiversity will meet the needs of the poor and sustain an important foundation for economic prosperity | If left unchecked, the collapse of biodiversity will gravely harm the livelihoods and lives of the poor | Ensuring sustainable ecosystems and biodiversity are at the core of environmental sustainability | Focus on good governance of extractive and land resources by the public and private actors |
| **Goal 10: Transform Governance for Sustainable Development** | Good public and private governance, adequate development finance and a global partnership are essential transformations for economic growth and the eradication of extreme poverty | Strengthening social inclusion and tackling discrimination requires good public and private governance | A transformation of governance, including a global partnership around global public goods, such as a stable climate, and good public/private governance are central to ensure environmental sustainability | Good governance of the private and public sector, global partnership |

## Annex 4: Further reading

*A vast number of scientific articles and reports have been issued on the sustainable development challenges outlined in this document. Below we highlight some of the documents that have informed this document. Additional documentation is available online:* www.post2015.org, www.worldwewant2015.org, *and* www.unsdsn.org.

**International agreements**

United Nations. *United Nations Millennium Declaration*. Resolution adopted at the fifty-fifth session of the General Assembly; A/RES/55/2. 2000. Available at *http://www.un.org/millennium/declaration/ares552e.pdf*.

United Nations. *The Future We Want, Our Common Vision*. Outcome document of the Rio+20 Conference; A/CONF.216/L.1. 2012. Available at *https://rio20.un.org/sites/rio20.un.org/files/a-conf.216l-1_english.pdf.pdf*.

**Thematic consultations organized by the United Nations**

Conflict, Violence, and Disaster. *Concept Note; Impact of Conflict, Violence and Disaster on Long-Term Development.* Co-led by UNDP, PBSO, UNISDR and UNICEF, with support from the Government of Finland. 2013. Available at *http://www.worldwewant2015.org/conflict*.

Education. *Summary of Outcomes, Dakar Meeting, March 18-19.* Co-led by UNDP and OHCHR with support from the Government of Canada. 2013. Available at *http://www.worldwewant2015.org/education2015*.

Energy. *Background Paper for Global Energy Consultation.* Co-led by UN-Water and UNICEF. 2013. Available at *http://www.worldwewant2015.org/Energy2015*.

Environmental Sustainability. *Co-Chairs Summary of the Leadership Meeting.* Co-led by UNEP and UNDP with support from the Government of France. 2013. Available at *http://www.worldwewant2015.org/sustainability*.

Environmental Sustainability. *Summary Report of Submitted Discussion Notes.* Co-led by UNEP and UNDP with support from the Government of France. 2013. Available at *http://www.worldwewant2015.org/sustainability*.

Food Security and Nutrition. *Food Security and Nutrition for All; A Vision and Building Blocks for a Global Agenda*. Co-led by FAO and WFP with support from the Government of Spain. 2013. Available at *http://www.worldwewant2015.org/food2015*.

Governance. *Key Outcomes and Recommendations from Pre-Meetings to the Post-2015 Global Thematic Consultation on Governance*. Co-led by UNDP and OHCHR with support from the Government of Germany. 2013. Available at *http://www.worldwewant2015.org/governance*.

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Growth and Employment. *Report of the first thematic consultation on the post-2015 framework for development*. Co-led by UNDP and ILO with support from the Government of Japan. 2013. Available at *http://www.worldwewant2015.org/employment*.

Health. *Health in the Post-2015 Agenda*. Task Team for the Global Thematic Consultation on Health in the Post-2015 Development Agenda. Co-led by WHO and UNICEF with support from the Government of Sweden and Government of Botswana. 2013. Available at *http://www.worldwewant2015.org/health*.

Inequality. *Addressing Inequalities: Synthesis Report of Global Public Consultation*. Co-led by UNICEF and UN Women with support from the Government of Denmark and the Government of Ghana. 2013. Available at *http://www.worldwewant2015.org/inequalities*.

Population. *A Call to Integrate Population Dynamics into the Post-2015 Development Agenda*. Co-led by UN-DESA, UNFPA, UN-HABITAT and IOM with the support of the Governments of Bangladesh and Switzerland. 2013. Available at *http://www.worldwewant2015.org/population*.

Water. *Water in the Post-2015 Development Agenda.* Co-led by UN-Water, UNDESA, UN Habitat and UNICEF with support from the Governments of the Netherlands and Switzerland. 2012. Available at *http://www.beyond2015.org/sites/default/files/Position%20paper%20Water.pdf*.

Water. *Water Thematic Consultation Report Draft Version for Comments.* Co-led by UN-Water, UNDESA, UN Habitat and UNICEF with support from the Governments of the Netherlands and Switzerland. 2012. Available at *http://www.worldwewant2015.org/water*.

**General reports on MDGs and post-2015**

Bates-Eamer, Nicole, Barry Carin, Min Ha Lee and Wonhyuk Lim, with Mukesh Kapila. *Post-2015 Development Agenda: Goals, Targets And Indicators.* The Centre for International Governance Innovation and the Korea Development Institute. 2012. Available at *http://www.cigionline.org/sites/default/files/MDG_Post_2015v3.pdf*.

Brooks, Douglas H., Kaushal Joshi, John W. McArthur, Changyong Rhee, and Guanghua Wan. *A ZEN Approach to Post-2015: Addressing the Range of Perspectives across Asia and the Pacific*. Asian Development Bank Economics Working Papers Series No. 327. 2013. Available at *http://johnmcarthur.com/wp-content/uploads/2012/04/Zen-Approach-to-Post-2015-Brooks-et-al-Jan-2013.pdf*.

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Save the Children. *Ending Poverty in Our Generation; Save the Children's vision for a post-2015 framework*. 2012. Available at *http://www.savethechildren.org.uk/sites/default/files/images/Ending_Poverty_in_Our_Generation_Africa.pdf*.

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