Abridged Report:

Indicators and a Monitoring Framework for the Sustainable Development Goals

Launching a Data Revolution

SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS

A report to the Secretary-General of the United Nations by the
Leadership Council of the Sustainable Development Solutions Network

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June 12, 2015

This abridged version of the report does not contain any annexes; to view the full report including all annexes, please visit unsdsn.org/indicators.

About this report

This report is the result of over 18 months of consultative work led by the SDSN with the contributions of nearly 500 organizations and thousands of individuals – draft versions of the report have so far been downloaded over 80,000 times. The SDSN Thematic Groups, a large number of UN agencies and other international institutions, national statistical offices, civil society organizations, academia, and businesses have provided expert input that has helped us improve the indicator framework. We are particularly grateful for the detailed comments received during two public consultations, the first from February to March 2014, and the second in January 2015. Comments submitted during these consultations and changes made to our report are provided on our website.

This is the final version of the report, though the list of Global Monitoring Indicators may be periodically updated as experts agree on metrics or new ones are developed to fill the identified gaps. These updates will be made on our new indicator web platform: http://unsdsn.org/indicators.

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We are immensely grateful to professionals working at the following organizations who have provided critiques and suggestions for improving the report and the proposed indicator framework. None of these organizations or individuals were asked to endorse the final report. All remaining errors and inaccuracies remain the responsibility of the SDSN Secretariat.

1,000 Days Partnership | 11.11.11 - Coalition of the Flemish North-South Movement| A38 | A4ID | AbleChildAfrica | Aboriginal Rights Coalition Australia | Access Global Ltd| Action Against AIDS Germany | Action Against Hunger | Action for Global Health | ActionAid International| Active Remedy Ltd | ADD International| Addis Ababa University | AEEFG| Africa Freedom of Information Centre| Africa Network Campaign on Education For All (ANCEFA)| African Medical and Research Foundation | Aga Khan University | Agirre Lehendakaria Center for Social and Political Studies, Basque Country University | AGRECO | AIG | American Public Health Association (APHA) | American Red Cross | Amis des Etrangers au Togo (ADET)| Amnesty International | Anheuser-Busch InBev | AquaFed | ARGE Consulting| Asia-Europe Foundation| Asian Development Bank | Asian Pacific Resource and Research Centre for Women (ARROW)| Associated Country Women of the World| Association pour la Formation et l' Insertion de l'Adolescent et de la Femme | Australian Refrigeration Association| Austrian Federal Ministry of Labour, Social Affairs and Consumer Protection | Aviva | Badan Pusat Statistik Indonesia | Baruch Professional Services Ltd| Beer Canada | Belgian Development Cooperation | Beyond Copenhagen Coalition | Bingham Centre for the Rule of Law| Bioregional| Bioversity International | Bokma Multilink | Brazilian Society for Ecological Economics | Bread for the World, Germany| Bridging Agriculture and Conservation Initiative (BACI)| Bundesvereinigung Lebenshilfe | Business Innovation Research Development (BIRD) | CAFOD| Cambodian Child's Dream Organization | Caribbean Policy Development Centre | Caritas Austria | Caritas Germany | CBM | Center for International Earth Science Information Network (CIESIN), Columbia University | Center for Sustainable Development, Bangalore | Center for Sustainable Development, Udayana University | Centre for Communication and Development Studies | Centre for Community Economics and Development Consultants Society | Centre for Development, Environment and Policy, SOAS (University of London) | Center for Global Child Health, Hospital for Sick Children | Centre for Global Mental Health, King's College London | Centre for Poverty Analysis (CEPA) | Centre for Public Mental Health, Department of Psychiatry and Mental Health, University of Cape Town | Centre for Public Mental Health, University of Cape Town| Centre for Sustainable Community Development, Simon Fraser University | Centre for Sustainable Food Systems, Wilfrid Laurier University | CESR| CGIAR Consortium of International Agricultural Research Centers |

Change Planet Partners Climate Innovation Foundation - CPPCIF | ChildFund Alliance | Children of the Earth | Children's Investment Fund Foundation| Christ is calling you (Cristo te llama) | Chung-hua Institution for Economic Research | CIMMYT| CIRCE - Research Center for Energy Resources and Consumption| Citizens United to Promote Peace & Democracy in Liberia | Civil Society Working Group on HIV | Columbia University | Commons Action for the UN | Commonwealth Youth Council | Commonwealth Youth Programme | Communitas Coalition| Community Peacebuilding and Cultural Sustainability (CPCS) | Congregation of Our Lady of Charity of the Good Shepherd | Consejo Nacional de Evaluación de la Política de Desarrollo Social| Conservation for the Oceans Foundation| Consumers India | Consumers International (CI)| Corporación Globalización Ciudadana CGC | Countdown 2015 Europe | Counterfactual Consulting and Advocacy | D. Mendeleev University of Chemical Technology of Russia | Dance4life foundation| DataShift, CIVICUS| Demographic and Health Survey (DHS) Program | Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) | Deutsche Stiftung Weltbevoelkerung | Deutsche Welthungerhilfe e.V. (WHH)| Developmental Media Inc | Dignitas International | Disability & Development Cooperation (bezev) | Disability Rights Fund| DSW| Earth Institute | Earth System Science Group, University of Exeter| Education International | End Water Poverty | ENDA Tiers Monde| Endangered Wildlife Trust| ENERGIA, International Network on Gender and Sustainable Energy| ENERTEC-SARL | Environment Research Cente, University of Technology, Iraq | Equity for Children| Ericsson | Esri| Ethical Markets Media | EuroNGOs | European Federation of Older Persons | Eurostat | Every Newborn Action Plan (ENAP) Metrics Group| Family Care International | FEMNET (The African Women's Development & Communications Network)| FIA Foundation | Fondazione Achille Sclavo | Fondazione Eni Enrico Mattei (FEEM) | Food and Agriculture Organization (FAO) | Forest Stewardship Council | FOS| Free Trade Union Development Center| French Water Partnership| Friends of Franbarnie International (FOFI) | Friends of the Chair Group on Broader Measures of Progress | Frontline Health Workers Coalition| Future Earth ecoHEALTH and EcoHealth Alliance| Gallup | Gender and Development Network| Gender and Disability Advisory Committee| Gender and Water Programme Bangladesh | Gender Links| GenderInSITE | German Federal Ministry for Economic Cooperation and Development| German NGO Forum on Environment and Development | Gerontology Centre Belgrade, Serbia | Girls Not Brides | GlaxoSmithKline| Global Alcohol Policy Alliance| Global Alcohol Producers Group | Global Alliance for Clean Cookstoves| Global Alliance on Armed Violence (GAAV) | Global Alliance to Prevent Prematurity and Stillbirth (GAPPS) | Global Campaign for Education (GCE) | Global Coalition for Social Protection Floors| Global Crop Diversity Trust | Global Ecovillage Network | Global Financial Integrity| Global Forest Coalition (GFC)| Global Forum for Media Development| Global Health Technologies Coalition | Global Initiative to End All Corporal Punishment of Children | Global Network for Disaster Reduction | Global Network for Neglected Tropical Diseases/Sabin Vaccine Institute | Global Public-Private Partnership for Handwashing with Soap (PPPHW) | Global Reporting Initiative| Global Soap Project | Global Water Partnership | Goal Patrol| Habitat for Humanity| Habitat International Coalition (HIC)| Handicap International | Harvard University | HDS systems design science| Health Workforce Advocacy Initiative| HelpAge International | Hertie School of Governance | High-Level Task Force for the ICPD| HNB Garhwal Central University | Horizon International, Yale University | Human Rights Defenders Alert | ICCA Consortium | IDEAS For Us | Institut pour un Développement Durable | Institute for Advanced Sustainability Studies - Potsdam| Institute for Global Health - University College London| Institute of Applied Manpower Research, Planning Commission | institute of Noahide | Instituto Politécnico Nacional-México | Inter-American Development Bank | Interessenvertretung Selbstbestimmt Leben in Deutschland | International AIDS Vaccine Initiative| International Alliance Of Women| International Budget Partnership| International Center for a Research on Women (ICRW)| International Center for Alcohol Policies | International Center for Not-for-Profit Law| International Collaboration for Essential Surgery (ICES) | International Council on Social Welfare | International Disability Alliance (IDA) | International Disability and Development Consortium (IDDC) | International Environment Forum| International Federation for Family Development | International Federation of Freight Forwarders Association | International Federation of Surgical Colleges (IFSC) | International Fertilizer Industry Association (IFA) | International Forum for Volunteering in Development | International Gay and Lesbian Human Rights Commission (IGLHRC)| International Institute for Applied Systems Analysis (IIASA)| International Labor Organization (ILO) | International Movement ATD Fourth World | International Organisation for Migration (IOM) | International Pediatric Association (IPA) | International Planned Parenthood Federation| International Plant Nutrition Institute (IPNI) | International Risk Governance Council| International Service | International Union for Conservation of Nature (IUCN) | IntraHealth International| IPPF EN | IRENA| IREX | Islamic Relief Worldwide| Islands and Small States Institute, University of Malta | Istituto per lo Sviluppo della Formazione Professionale dei Lavoratori (ISFOL) | Japan International

Cooperation Agency (JICA) | JSD and co Consulting | Kalpavriksh | Kiel Institute for the World Economy | Kindernothilfe | King's College London| Kinga Africa | KPMG International | Kwame Nkrumah University of Science and Technology | L'Institut de recherche pour le développement (IRD) | l'Intégration et le Développement Durable au Burundi-AIDB | Landesa | Learning Metrics Task Force Secretariat | Leonard Cheshire Disability | Leverhulme Centre for Integrative Research on Agriculture and Health (LCIRAH) | Liberia Action Network on Small Arms (LANSA) | Liberia NGOs Network (LINNK) | Liberians United to Expose Hidden Weapons | Light for the World| London School of Hygiene and Tropical Medicine | Major Group for Children and Youth| MARCH Centre London School of Hygiene & Tropical Medicine (LSHTM)| March of Dimes | Materia de Cooperación Internacional al Desarrollo de la Universidad Católica Boliviana, La Paz | Medical Mission Sisters| Melbourne Sustainable Society Institute | Micronutrient Initiative | Millennium Alliance for Humanity and the Biosphere | Millennium Project| Ministry for Foreign Affairs, Sweden | Ministry of Labor and Social Affairs of the Czech Republic | Misereor | Momma Bear| Movement for peace - MPDL| NASA Goddard Institute for Space Studies/Columbia University| National Campaign on Dalit Human Rights (NCDHR) | National Planning Commission, Johannesburg, South Africa | Natural Resources Defense Council | NAWO (National Alliance of Women's Organisations, UK)| NCD Alliance | NERC Centre for Ecology & Hydrology| New Economics Foundation (NEF) | New York University Program in Global Mental Health | Newcastle University | Nigerian National Bureau of Statistics| NORRAG | NPS Italia onlus | Occupy Canada | Office of the High Commissioner for Human Rights | Omniclimate| On The Way| Open Contracting Partnership| Open Society Foundations | Open Society Justice Initiative | Orchid Project| Organisation for Economic Co-operation and Development (OECD)| Otto & Associates | Overseas Development Institute (ODI) | Oxfam | Oxfam India | Oxford Poverty and Human Development Initiative (OPHI) | Pace University | PARIS21 | Partnership for Maternal, Newborn and Child Health | Partnership on Sustainable Low Carbon Transport (SLoCaT)| Peace Child International| Pforzheim University | Phenix Center for Economic and Informatics Studies| Plan Bleu (UNEP-MAP) | Plan International| Planetafilia | PLANETE 21| Population and Sustainable Development Alliance (PSDA) | Population Matters | Population Media Center | Practical Action| Programme for the Conservation of Forest in Peru – Ministry of Environment | Reacción Climática| ReAct - Action on antibiotic resistance| RIPESS - Intercontinental Network for the Promotion of Social Solidarity Economy | Roll Back Malaria - Monitoring and Evaluation Reference Group | Royal Belgian Institute for Natural Sciences | Royal Society| RRI| Rutgers WPF | Saferworld | Samajik Augraon Foundation | Save the Children | Saving Newborn Lives| ScEnSers Independent Expertise| SDSN Youth| Secretariat of the Convention on Biological Diversity (SCBD)| Secretariat of the International Land Coalition (ILC)| Senior Policy Advisor, Fragile States| Sensoa | Seton Hall University| SFU Ctr for Sust Comm Dev| Siemens | Sightsavers International | SIL International | SIPC, Aboriginal Rights Coalition joint submision| Sisters of Saint Anne Social Justice Office | SIWI| SJ Around the Bay | Society for Development Studies (SDS) | SOLIDAR| Sonke Gender Justice | SOS Children's Villages| Statistics Canada | Stockholm International Peace Research Institute | Stockholm International Water Institute | Stockholm Resilience Centre | Stop AIDS Alliance| STOPAIDS | SUST4IN| Sustainabilitycorp.net | Sustainable Energy Associates| Task Team on CSO Development Effectiveness and Enabling Environment| Tellus Institute| Texas A&M University | The Church of Sweden| The Ecumenical Foundation for Africa | The Fertilizer Institute (TFI) | The Foundation for Civilizational Transformation and Conscious Evolution | The Girl Generation: Together to End FGM| The Global Alliance for Surgical, Obstetric, Trauma, and Anaesthesia Care (The G4 Alliance)| The Global Coalition on Aging | The International Real Estate Federation (FIABCI) | The Johanniter International Assistance | The Land Alliance Inc| The Rainforest Foundation UK| The Society for Upliftment of Masses (SUM) | The Sustainability Report | The Wecskaop Project (What Every Citizen Should Know About Our Planet)| The Wellbeing Foundation| The WILD Foundation| Thornicroft| To Love Children Educational Foundation International Inc. | Tsere lamba | UK Department for International Development (DFID)| UK Health Forum | UK Office of National Statistics| UN Economic Commission for Europe - Population Unit, Statistical Division | UN Foundation | UN Peacebuilding Support Office | UN Secretary-General's Advisory Board on Water and Sanitation | UN Statistics Division | UN-Habitat | UN/CSD Education Caucus | UNAIDS | UNECE - Working Group on Ageing | UNEP| UNESCO Institute for Statistics| UNF Global Alliance for Clean Cookstoves | UNFPA | UNICEF | UNIDO | United Nations Economic Commission for Europe| Universidad Iberoamericana Ciudad de México | Universidade Federal do Ceará | Universitat de València | Université de Djibouti| University College London | University of California, Berkeley | University of Edinburgh | University of Hawai'i | University of Hong Kong | University of Pennsylvania| University of Siena | University of the Witwatersrand | University of Washington | University Research Company | UNSCN| UNSG Advisory Board on Water and Sanitation | USAID Office of Population and Reproductive Health | Verband

Entwicklungspolitik deutsche Nichtregierungsorganisationen (VENRO) | Village Water| Volvo Group | VSO| Walmart | WaterAid | WECF International| White Ribbon Alliance| Women Deliver| Women for Women's Human Rights (WWHR)-NEW WAYS| Women in Alternative Action | Women NGOs Secretariat of Liberia (WONGOSOL) | Women's Environment and Development Organization| World Aquarium| World Association of Girl Guides and Girl Scouts | World Bank | World Food Programme | World Future Council| World Obesity Federation| World Society for the Protection of Animals (WSPA) | World Values Survey | World Vision International | WSSCC| Wuppertal Institute Climate, Energy and Environment | WWF| Yale Center for Environmental Law & Policy| YouAct | Young Lives| Youth Network for Good Leadership in Nigeria | Zonta International| Zoological Society of London (ZSL)

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Acronyms and Abbreviations

AFOLU - Agriculture, Forestry and Other Land Use
BIS - Bank for International Settlements
CEB - UN Chief Executive Board for Coordination
CO2 - Carbon dioxide
ECOSOC - UN Economic and Social Council
EITI - Extractive Industries Transparency Initiative
ECLAC - Economic Commission for Latin America and the Caribbean
EPR - Employment to population ratio
FAO - Food and Agriculture Organization
GAVI - Global Alliance for Vaccines and Immunizations
GMI - Global Monitoring Indicators
GDP - Gross domestic product
GHG - Greenhouse gas
GNI - Gross national income
GNP - Gross national product
GRI – Global Reporting Initiative
HLP - High-level Panel of Eminent Persons on the Post-2015 Development Agenda
HLPF - High-Level Political Forum on Sustainable Development
IAEG-MDG - Inter-agency and Expert Group on MDG Indicators
IASB - International Accounting Standards Board
ICT - Information and communications technology
IEA - International Energy Agency
IEAG - Independent Expert Advisory Group on the Data Revolution
IFA - International Fertilizer Industry Association
IFRS - International Financial Reporting Standards
IGN - Intergovernmental Negotiation on Post-2015
IIRC - International Integrated Reporting Council
ILO - International Labor Organization
IMF - International Monetary Fund
IPT - Intermittent preventive treatment
IPU - Inter-Parliamentary Union
ITU - International Telecommunication Union
IUCN - International Union for Conservation of Nature
LDCs - Least Developed Countries
MDGs - Millennium Development Goals
MNCs - Multi-national corporations
NEET - Not in education, employment or training
NSOs - National statistical offices
NTDs - Neglected Tropical Disease
ODA - Official Development Assistance
OECD - Organisation for Economic Co-operation and Development
OWG - Open Working Group on Sustainable Development Goals
PGA - President of the UN General Assembly
PM - Particulate matter
PMTCT - Preventing mother to child transmission
PPP - Purchasing power parity
SDGs - Sustainable Development Goals
SEEA - System of Environmental-Economic Accounting
SDSN - Sustainable Development Solutions Network
SG - UN Secretary-General
TB - Tuberculosis
TBD - To be determined
UN DESA - UN Department of Economic and Social Affairs
UNAIDS - Joint UN Programme on HIV and AIDS
UNDG - UN Development Group
UNDP - UN Development Programme
UNEP - UN Environment Programme
UNESCO - UN Educational, Scientific and Cultural Organization
UNFCCC - UN Framework Convention on Climate Change
UNFPA - UN Population Fund
UNHCR - UN High Commissioner for Refugees
UNICEF - UN Children's Fund
UNIDO - UN Industrial Development Organization
UNISDR - UN International Strategy for Disaster Reduction
UNOCHA - UN Office for the Coordination of Humanitarian Affairs
UNODC - UN Office on Drugs and Crime
UNSC - UN Statistical Commission
UNSD - UN Statistics Division
WBCSD - World Business Council for Sustainable Development
WHO - World Health Organization
WIPO - World Intellectual Property Organization
WTO - World Trade Organization

Executive Summary

In September 2015, a summit of heads of state will adopt the Sustainable Development Goals (SDGs). The experience of the Millennium Development Goals (MDGs) underscores the importance of thinking through the indicators as early as possible; we cannot afford a lag of several years before we start to measure progress towards achieving the SDGs. The international community has rightly begun to shift attention to the indicator framework and associated monitoring systems. In June 2015, the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs) will convene to start the technical work of defining an SDG indicator framework.

This report is offered as a contribution to the multi-stakeholder debate in support of the SDGs. It outlines how a comprehensive indicator framework might be established to support the goals and targets proposed by the Open Working Group on the SDGs (OWG). The report is the result of 18 months of intensive global discussions involving thousands of experts from UN organizations, academia, civil society, business, and a large number of national statistical offices (NSOs). The large number of detailed comments received from all parts of the world and all areas of expertise gives us confidence that it is possible to measure the full spectrum of SDGs and their targets through a compact indicator framework.

Indicators will be the backbone of monitoring progress towards the SDGs at the local, national, regional, and global levels. A sound indicator framework will turn the SDGs and their targets into a **management tool** to help countries develop implementation strategies and allocate resources accordingly, as well as a **report card** to measure progress towards sustainable development and help ensure the accountability of all stakeholders for achieving the SDGs.

The mechanics of SDG monitoring are still being worked out, but an emerging consensus suggests that the focus of SDG monitoring will be at the national level. Complementary monitoring will occur at regional and global levels. Moreover, each major thematic community, such as health, education, agriculture, and so forth, will mobilize, analyze, and communicate data on progress towards achieving its objectives. Such thematic monitoring and review will be an important complement to official monitoring and review at national, regional, and global levels.

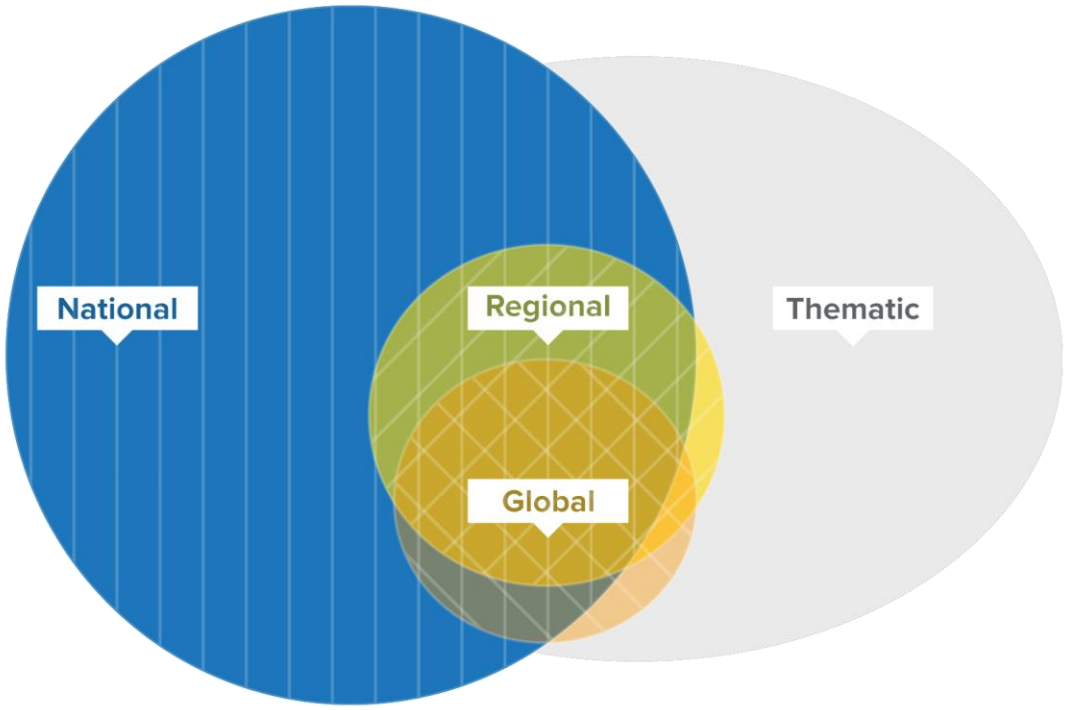
Each level of monitoring requires different types of indicators (see Figure 1 and Annex 5 for an illustration). This report proposes **100 Global Monitoring Indicators**, accompanied by suggestions for **Complementary National Indicators**, which together track the full range of SDGs and targets in an integrated, clear, and effective manner (see Tables 1 and 2). Based on discussions with a large number of statistical offices, including Eurostat, BPS Indonesia, the OECD, the Philippines, the UK, and many others, we believe 100 to be the maximum number of global indicators on which NSOs can report and communicate effectively in a harmonized manner. This conclusion was strongly endorsed during the 46th UN Statistical Commission in March 2015, as well as the preceding Expert Group Meeting on SDG indicators.

Each country should pick the number and range of Complementary National Indicators that best suit its needs and capacity to collect and analyze data. Given the breadth of country circumstances we expect substantial variation in the number and type of national indicators that countries will adopt. This report includes some initial suggestions for such indicators. We underscore that the preliminary list of Complementary National Indicators is far from exhaustive and meant only for inspiration and illustration.

All SDG indicators need to be considered as an integrated package and must work in harmony with one another. Many important issues, such as gender equality, health, sustainable consumption and production, and nutrition, cut across goals and targets. The goals and targets are themselves interdependent, and must be pursued together, since progress in one area often depends on progress in other areas. As a result many indicators contribute to monitoring more than one target (Table 2). An SDG indicator and monitoring framework must also give careful thought to tracking cross-cutting issues so that it can support integrated, systems-based approaches to implementation (see Annex 1, page 67).

This report outlines ten principles for Global Monitoring Indicators (GMIs), so they track the range of SDG priorities in a clear and effective manner. Inter alia such indicators should be limited in number; simple, intuitive, and policy-relevant; consensus-based, in line with international standards; relevant to all countries and all people; and able to be disaggregated to track progress for all relevant groups.

Figure 1: Schematic illustration with explanation of the indicators for national, regional, global, and thematic monitoring



National monitoring is the prerogative of each national government. Each country decides on number and nature of national indicators, which follow national standards and may not all be internationally comparable. A limited set of Global Monitoring Indicators will also be integrated into national monitoring efforts. Although likely to be drawn from official data sources, countries may also decide to include non-official data among their national indicators.

Global monitoring is based on a set of Global Monitoring Indicators that are harmonized to common global standards and would form basis for review at the High Level Political Forum. GMIs would be predominantly drawn from official data. GMIs are generally applicable to all countries, but some my only cover a subset (e.g. malaria does not apply to countries in temperate zones and landlocked countries do not report on oceans).

Regional monitoring provides a platform to foster knowledge-sharing, peer review, and reciprocal learning across regions. Regional indicators comprise Global Monitoring Indicators, Complementary National Indicators, and possibly a small number of indicators targeting specific regional priorities. Regional monitoring mechanisms should build on existing regional mechanisms.

Thematic monitoring comprises specialist indicators reported on by epistemic communities. They can include input and process metrics as helpful complements to official indicators. Many communities may also use other sources of unofficial data and experiment with creative and novel ways of collecting, analyzing, and presenting data.

This report identifies a number of urgent technical priorities that need to be addressed over the coming months to develop an effective indicator framework for the SDGs. They include filling gaps in available indicators; harnessing new, innovative sources of data; and moving towards annual monitoring. Annual monitoring is particularly crucial if the SDG indicators are to serve as a management tool, informing national planning and budgetary processes, as well as global follow-up (see Annex 2, page 92). In contrast to the MDGs, where data was spotty and produced infrequently with long lags, SDG indicators should be *reported* annually, though not all data will be *produced* annually. For some metrics, interim annual estimates can be produced using robust estimation methodologies.

Implementing the changes outlined in this report and ensuring effective data for the SDGs will require increased resources. Working with major leading international organizations and in consultation with large number of NSOs, the SDSN has detailed the investment needs for robust SDG monitoring. We project that $1 billion will be required each year to monitor the SDGs. At least half of this will need to be raised through domestic resource mobilization, but at least $100-200m will be required in incremental ODA.

Another key step will be the establishment of a Global Partnership for Sustainable Development Data, to help drive the Data Revolution. This Partnership can bring together public and private stakeholders to fill gaps in our knowledge, establish global norms and standards to increase the ease and security of sharing and using data, help countries develop robust national strategies for data development, and – crucially – help mobilize urgently needed financial resources. If adequately resourced, a Global Partnership for Sustainable Development Data would empower countries around the world to make the SDGs a real management tool for sustainable development.

Our confidence in the robustness and feasibility of the steps towards a data revolution for the SDGs that are outlined in this report is based on extensive, in-depth consultations with the world's leading experts and stakeholders involved in the SDG process. In our broad, global consultations with the technical communities, as well as other stakeholders, we have witnessed outstanding expertise and tremendous enthusiasm for making the SDGs and their monitoring a success. We are convinced that the practical steps discussed in this report can be taken in a timely fashion. The SDSN will continue to work with other interested partners to help develop a sound SDG indicator and monitoring framework, and to realize the great potential of the data revolution for sustainable development.

Designing Indicators and an Integrated Monitoring Framework for the Sustainable Development Goals

In September 2015, a summit of heads of state will adopt the Sustainable Development Goals (SDGs). The goals will chart out a universal, holistic set of objectives to help set the world on a path towards sustainable development, by addressing all three dimensions of economic development, social inclusion, and environmental sustainability.

Following more than a year of inclusive and intensive deliberations, a set of 17 Sustainable Development Goals and 169 accompanying targets was proposed by the Open Working Group on the SDGs (OWG), in mid-2014. The UN Secretary-General has endorsed the conclusions of the OWG in the synthesis report *The Road to Dignity by 2030*.[1] Member States have agreed that the agenda laid out by the OWG is the main basis for the Post-2015 intergovernmental process.[2] Through to September 2015, Member States will review the goals and targets and consider the means of implementation. They will also consider a framework for monitoring, follow-up and review of implementation.

The High-Level Panel on the Post-2015 Development Agenda (HLP) and the Independent Experts Advisory Group on the Data Revolution (IEAG)[3] have highlighted the opportunities and promise of a data revolution for the SDGs, using big data, new forms of social and geophysical data, and innovative means of data sharing. We are firmly convinced that such a data revolution for the SDGs is possible and that it will generate substantial benefits for all countries. As a contribution to this data revolution, this report outlines how a comprehensive indicator framework might be established to support the goals and targets proposed by the Open Working Group on the SDGs (OWG).

This report is the result of 18 months of intensive global discussions involving thousands of experts from UN organizations, academia, civil society, business, and a large number of national statistical offices (NSOs). The large number of detailed comments received from all parts of the world and all areas of expertise gives us confidence that it is possible to measure the full spectrum of SDGs and their targets through a compact indicator framework that is technically robust, operationally feasible, and provides the information that governments and other stakeholders need.

The report is organized as follows: it starts by outlining the rationale and criteria for a set of integrated indicators, including suggestions for the different levels of monitoring. It then lays out a roadmap for action to develop a robust SDG indicator and monitoring framework. Table 1 summarizes the proposed Global Monitoring Indicators and the suggested Complementary National Indicators arranged by OWG Goals. The same indicators are mapped to OWG Targets in Table 2. Annex 1 (page 67) describes how the proposed indicator and monitoring framework addresses major cross-cutting issues in a consistent and coherent way. Annex 2 (page 92) discusses the feasibility of annual SDG monitoring to help ensure that the SDGs can become a management tool for governments and other stakeholders. Annex 3 (page 96)

[1] UN Secretary-General (2014). *The Road to Dignity by 2030: Ending Poverty, Transforming All Lives and Protecting the Planet*. Synthesis Report of the Secretary-General on the Post-2015 Agenda.
[2] See conclusions of the sixty-eighth session of the General Assembly: http://www.un.org/en/ga/68/meetings
[3] High Level Panel Report (2013). *A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development*; and Independent Expert Advisory Group on the Data Revolution (2014). *A World That Counts*.

explains how indicators might be disaggregated so inequalities in SDG achievement can be monitored, to ensure no one is left behind. Annex 4 (page 99) provides more details on the four levels of monitoring and discusses which types indicators might be best suited to national, regional, global, and thematic monitoring. Annex 5 (page 103) describes each Global Monitoring Indicator in detail and defines suggested Complementary National Indicators. Annex 6 (page 211) answers frequently asked questions in relation to SDG indicators and this report.

I. Towards a Data Revolution for the SDGs: the Role of Indicators

Indicators will be the backbone of monitoring progress towards the SDGs at the local, national, regional, and global levels. A sound indicator framework will turn the SDGs and their targets into a **management tool** to help countries and the global community develop implementation strategies and allocate resources accordingly. They will also serve as a **report card** to measure progress towards sustainable development and to help ensure the accountability of all stakeholders for achieving the SDGs. The monitoring framework and indicators for the SDGs should reflect the lessons learned from the MDGs (Box 1).

Box 1: The Importance of Metrics and Indicators – Lessons from the MDGs

There have been great improvements in data gathering under the MDGs, but it has been insufficient for the goals to serve as either a management tool or a real-time report card. MDG data comes with too great a time lag – often three or more years – and too often is incomplete and of poor quality.

MDG monitoring also gave too little attention to what should be measured, so, to this day, we lack some important metrics for key development priorities. Similarly, there was too little investment in strengthening statistical capacity to ensure effective real-time monitoring of the MDGs and to establish statistical standards and quality requirements.

The SDGs require annual reporting of high-quality data from all countries. This, in turn, will require much greater investments in building independent, impartial national statistical capacities and strengthening statistical quality and standards. NSOs must be actively involved in the development of global and national SDG indicator frameworks, through the Inter-agency and Expert Group on SDG Indicators that will be convened by the UN Statistical Commission. The SDGs will be goals for the world – applicable to all countries, as well as to multiple, diverse actors. In developing the goals, as well as the accompanying monitoring architecture the best statistical input from business, science, academia, and civil society should be sought.

Time is of the essence in developing an integrated indicator and monitoring framework for the SDGs, if the world is to start implementing the Goals in 2016. Both existing and new data systems will require continuous strengthening over coming decades. Many aspects of a comprehensive SDG monitoring system can only be implemented over several years, but important decisions will need to be taken soon.

The 46th Session of the UN Statistical Commission provided an important moment in the development of an SDG monitoring system, and has put in place a multi-stakeholder process to devise the SDG indicators, via an Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs). Meanwhile, the July 2015 Financing for Development Conference will be a crucial opportunity to mobilize the necessary means, so that the full indicator framework and a sound baseline can be adopted in time for the first High-Level Political Forum (HLPF) of the SDG era in July 2016. An effective annual review of the whole set of Global Monitoring Indicators will take some time to achieve, but by 2018 at the latest, we hope the international system, notably the UN organizations and partner institutions (OECD, World Bank, WTO, and others) will have in place an accurate and effective annual monitoring system.

This report is offered as a contribution to the multi-stakeholder debate on SDG indicators. It was developed over the course of 18 months drawing on numerous detailed comments and expert inputs

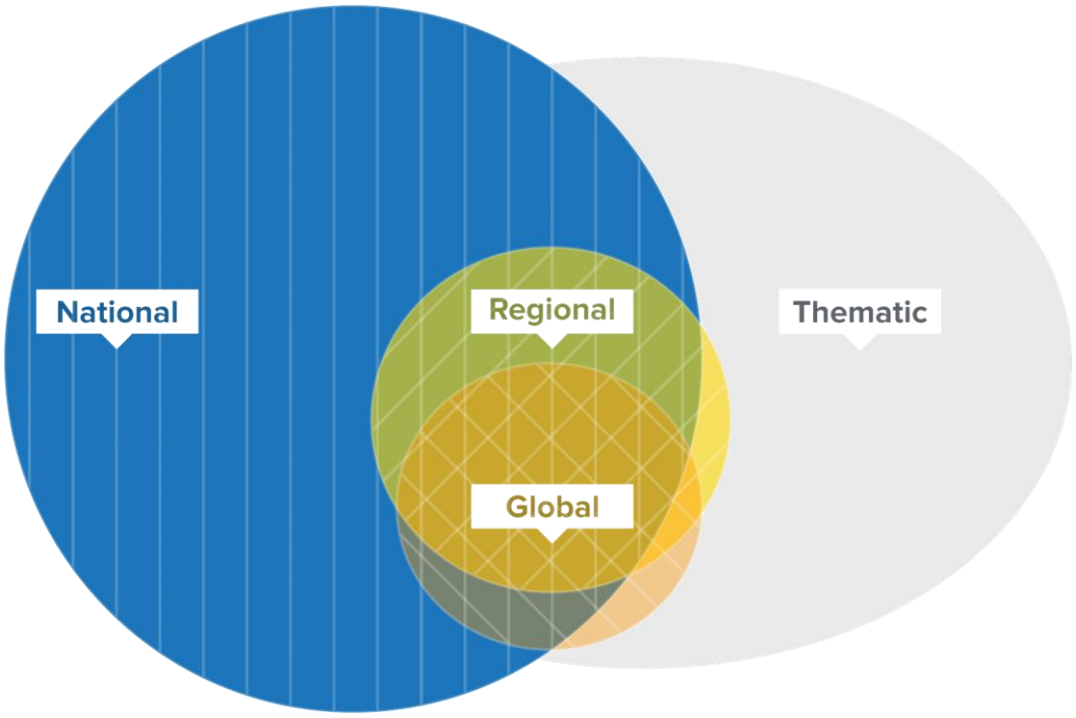
from UN and specialist agencies, academia, civil society, business, and national statistical offices (NSOs). We propose a framework of 100 Global Monitoring Indicators, accompanied by Complementary National Indicators. We also outline principles for effective SDG monitoring, unpack the possible levels of review, and present a roadmap for action. Urgent technical priorities will include filling gaps in available indicators, harnessing new innovative sources of data, and moving towards annual monitoring. Annual monitoring is particularly crucial if the SDG indicators are to serve as a management tool, informing national planning and budgetary processes, as well as global follow-up (see Annex 2, page 92).

II. An Integrated Monitoring Framework: Multi-level Review Processes and Indicators

As underscored by the OWG, the focus of SDG monitoring must be at the national level. Each country will choose the national SDG indicators that are best suited to track its own progress towards sustainable development. Given the breadth of country circumstances, we expect substantial variation in the number and type of national indicators that countries will adopt. This report includes some initial suggestions for such indicators, though the list is far from exhaustive and meant only for inspiration and illustration.

Yet, the Goals also describe a global agenda, including some global public goods that cannot be implemented by any country on its own. Success will require international coordination and collaboration, which in turn requires accountability and monitoring at the global level. Unless an effective global monitoring framework complements national efforts, the SDGs cannot be achieved in time. Global monitoring requires a harmonized and universal set of indicators, which we tentatively refer to as Global Monitoring Indicators. To ensure effective global monitoring, the Global Monitoring Indicators for the SDGs would be tracked in every country and reported periodically at the global level and by each country.

Figure 2: Schematic illustration of the indicators for national, regional, global, and thematic monitoring



In addition, regional monitoring and accountability will play a critical role in fostering the regional collaboration and coherence in strategies to pursue the SDGs. A fourth and critical level of monitoring occurs in each thematic or epistemic community, such as health, education, agriculture, and so forth.

Each community will mobilize, analyze, and communicate data on progress towards achieving its objectives.

These four levels of monitoring – national, regional, global, and thematic – are laid out in the Secretary-General's synthesis report[4] and illustrated in Figure 2. As described in the technical report by the Bureau of the UNSC, these levels of monitoring should be "organized in an integrated architecture."[5]

Below we briefly review each level of monitoring and implications for the choice of suitable indicators. Annex 4 (page 99) illustrates the use of national, global, and thematic indicators of proposed SDG 14 ("Conserve and sustainably use the oceans, seas and marine resources for sustainable development") as one example for how the global indicator framework might be organized.

1. National monitoring

National monitoring is the most important level of monitoring and will rely on nationally defined sets of indicators. National ownership at all levels of the SDGs is critical, and national monitoring must respond to national priorities and needs. As recognized in *The Road the Dignity by 2030*, national monitoring of the SDGs should "build on existing national and local mechanisms and processes, with broad, multi-stakeholder participation."[6] Countries can thus define the nature of the indicators, their specifications, timing, data collection methods, and disaggregation to suit their national needs and priorities.

Each country needs to decide whether such indicators should comprise only official data collected and vetted by the respective NSO or whether other official and non-official indicators should also be considered. For example, countries may consider data from privately operated satellites, surveys conducted by NGOs, business metrics, and a range of other data sources. Such "unofficial" data can add richness to the monitoring of the SDGs. Given the breadth of the SDG agenda, countries may choose to foster broad, multi-stakeholder participation in national monitoring.

This report presents two sets of indicators that together map out national indicators. Global Monitoring Indicators are harmonized across countries to ensure comparability and support global SDG monitoring. The vast majority of Global Monitoring Indicators are collected in every country. Complementary National Indicators allow each country to track country-specific challenges. The need for Complementary National Indicators derives from the fact that harmonized global indicators impose substantial costs on the collection and processing of data by NSOs and other stakeholders. A trade-off exists between the need for harmonized global data and countries' need to ensure that data is collected in a manner and subject to standards that reflect local needs and priorities.

Some Complementary National Indicators are only applicable to a subset of countries, such as indicators for neglected tropical diseases (NTDs). Others give countries greater scope in applying complex concepts, such as inequality, to their specific needs, and/or allow for greater specificity on issues of national concern. The Complementary National Indicators presented in this report offer a menu of options for countries that want to expand their national level monitoring. We underscore throughout

[4] UNSG (2014), para 146.
[5] Bureau of the United Nations Statistical Commission, (March 2015), *Technical report on the process of the development of an indicator framework for the goals and targets of the post-2015 development agenda - Working draft*.
[6] UNSG (2014), para i.

this report that the list of Complementary National Indicators is far from exhaustive and meant only for inspiration and illustration. In practice, many countries will track many additional indicators that are not listed in this report.

The MDGs provide several powerful examples of how countries successfully adapted global indicators to suit their national priorities. For example, Mongolia developed a 9th MDG on Strengthening Human Rights and Fostering Democratic Governance, which were seen as necessary preconditions for the achievement of all the other MDGs.[7] This new goal was supported by additional targets and indicators to track progress towards democratic governance and human rights. The indicators included nationally specific measures, such as "Expert evaluation of conformity of Mongolian laws and regulations with international human rights treaties and conventions (percentage)," as well as perceptions-based indicators such as "People's perception on press and media freedom."[8] Similarly, Bangladesh adapted the MDGs to meet local needs by setting new targets and indicators for promoting women in local government bodies, as well as separate targets on access to reproductive health services. Continuing in this vein, Bangladesh prepared a detailed national proposal for potential SDG indicators in their 2012 MDG report.[9]

Given the greater breadth and universality of the SDG agenda, we expect that national adaptation of the goals, targets, and supporting indicators will play a bigger role than under the MDGs. For this reason, a very large number of Complementary National Indicators may emerge over time that may surpass the indicators presented in this report.

2. Global monitoring

Global monitoring is a vital complement to national monitoring to ensure global coordination, support strategies for managing global public goods, and to indicate which countries and thematic areas are in need of greatest assistance. A global dialogue on SDG progress will also encourage knowledge-sharing and reciprocal learning. To this end, a set of Global Monitoring Indicators for the SDGs is required, and should be reported to the HLPF.

Global Monitoring Indicators are designed to be truly universal indicators, but some (such as malaria metrics) may not apply to every country (Figure 2). Similarly, some Global Monitoring Indicators track global commons, such as the oceans, and may therefore not be reported at the country level.

The majority of Global Monitoring Indicators proposed in this report will be derived from NSOs, drawing on official data sources such as administrative data from ministries, censuses, civil registration and vital statistics, and household surveys. A small number of Global Monitoring Indicators may be prepared by specialist agencies, for example where no suitable, comparable official data exists. To ensure comparability, Global Monitoring Indicators must be harmonized across countries. We therefore recommend that each Global Monitoring Indicator has at least one lead technical or specialist agency, responsible for coordinating data standards and collection, ensuring harmonization, and providing technical support where necessary (Table 1).

[7] See UNDP Mongolia website: http://www.mn.undp.org/content/mongolia/en/home/mdgoverview
[8] Government of Mongolia (2009). *The Millennium Development Goals Implementation: Third National Report*.
[9] Government of Bangladesh Planning Commission (2013). *The Millennium Development Goals: Bangladesh Progress Report 2012*. See Annex 3.

Global Monitoring Indicators should be limited in number to minimize the monitoring burden on national statistical offices. In our consultations with NSOs, it has become clear that 100 Global Monitoring Indicators represent the upper limit of what can be reported at a global level (Box 2).[10] The indicator selection process should also play close attention to encouraging integration across the goals. As highlighted in Table 2, indicators may be used multiple times, across various goals, to track all the dimensions of sustainable development in an integrated way (see Box 4).

Box 2: Why 100 Global Monitoring Indicators?

The much broader SDG agenda will require a richer and broader set of indicators than covered under the 60 MDG indicators. During extensive, global consultations with NSOs, hundreds of experts, and other stakeholders, it has become clear that the number of harmonized Global Monitoring Indicators needs to be limited for three reasons.

First, globally harmonized indicators impose additional cost and time requirements on NSOs and the global data system. Senior statisticians from the statistical offices of Eurostat, BPS Indonesia, the OECD, the Philippines, the UK, and many others have told the SDSN that 100 Global Monitoring Indicators represent the upper limit of feasibility. Since some of these offices are among the best-resourced statistical agencies in the world, it seems that 100 really does constitute an upper bound. In fact many experts believe that the number of globally harmonized indicators should be lower. The need for a limited number of global indicators was strongly endorsed at the 46th UN Statistical Commission in March 2015, as well as the proceeding Expert Group Meeting on SDG indicators.

Second, even if the data can be collected, globally harmonized indicators may not correspond to national priorities and preferences. Many countries have expressed a desire for nationally appropriate indicators, which in turn limits the scope for global indicators. Third, a very large number of indicators would be difficult to communicate during the HLPF discussions.

The proposed Global Monitoring Indicators and the Complementary National Indicators track the full range of SDG priorities in a clear and effective manner (Tables 1 and 2). Over time, the data revolution may make it possible to collect vastly greater volumes of data to serve the SDGs, in a globally harmonized manner.

Based on the MDG experience reviewed in Box 1, we underscore the critical need for annual monitoring of Global Monitoring Indicators to the HLPF. The data should be collected from NSOs within the preceding year or based on robust estimations. Annex 2 (page 92) provides more information on the feasibility of annual monitoring.

The timing of the annual review needs to be considered carefully by member states. Currently the HLPF is scheduled to meet at the margins of the UN Economic and Social Council (ECOSOC) in June/July, so the annual SDG data would need to be available towards the second quarter of each year. The advantage of annual monitoring in the middle of a calendar year is that the outcomes of the review might still affect

[10] For comparison, the MDGs have some 60 indicators. As emphasized above, there should be no limit to number of Complementary National Indicators that countries will use to adapt the SDGs and their monitoring to national priorities and needs.
See UN Statistical Commission, (March 2015), *Draft Report from the 46th session.*

the annual budget cycle for the following year, so that resources can be mobilized in response to progress or shortfalls in SDG implementation. On the other hand, SDSN consultations with several NSOs and international organizations suggest that mid-year monitoring would make it technically impossible to consider data from the previous calendar year, since most NSOs generate such data by the middle of the following calendar year. A 2-year gap between data collection and global review could undermine the SDGs' role as a real-time report card and management tool. On balance, it seems that a strong case exists to move the annual monitoring on the SDGs towards the end of a calendar year. Clearly, such a decision involves complex political and organizational issues that require careful consideration by member states.

Assuming end-of-year monitoring of the SDGs, an indicative schedule for preparing the annual report might look as follows:

> (1) During the first half of each calendar year, the NSO and/or specialized agencies gather the national data to complete the national reports on that indicator, no later than [June 30] of the new year.
>
> (2) The national tables are then forwarded to the international organization(s) tasked with preparing the Annual SDG Report. This agency (or agencies) would have [six] weeks to compile and prepare the draft report of the preceding year's data.
>
> (3) The draft report would be presented at the UN to the Secretary General (SG) and the President of the General Assembly (PGA) in [early September], for a final review and a cover statement.
>
> (4) The preliminary report would be prepared for publication and translation by [September] to be available to HLPF or ECOSOC meetings in [October-November].
>
> (5) In [December] the report will be finalized with corrected and updated data, and the final report disseminated and posted online.

This approach is ambitious and will obviously push all countries and participating organizations hard, but the goal will be to turn the SDG indicators into useful tools for real-time national and sub-national management. This monitoring cycle will be unattainable without dedicated financing to improve the statistical infrastructure and capacity of each country. As highlighted by the UN Statistics Division, "the main challenge is that the required capacity to measure the full range of sustainable development indicators currently does not exist in most countries."[11] The 46th Statistical Commission also highlighted the urgency of investments in national statistical capacity to "enable national statistical offices to play a leading and coordinating role" in post-2015 monitoring processes.[12]

3. Regional monitoring

Regional monitoring can play an important role in fostering knowledge-sharing, reciprocal learning, and peer review across countries in the same region. It will also promote shared accountability for regional priorities, such as shared watersheds, regional conflicts, or regional infrastructure.

[11] UN Statistics Division, in collaboration with the Friends of the Chair group on broader measures of progress (2014). *Compendium of statistical notes for the Open Working Group on Sustainable Development Goals*, para. 1.8.

[12] UN Statistical Commission, (March 2015), *Draft Report from the 46th session*, p.3. See also Espey, J. et al.(2015*) A Needs Assessment for SDG Monitoring and Statistical Capacity Development*, SDSN Report, Paris France and New York, USA: SDSN.

As a result, indicators for regional monitoring extend beyond the scope of the Global Monitoring Indicators and may include a small number of metrics not considered under Complementary National Indicators (Figure 2). We do not endeavor to identify regional indicators in this report, as this work should be undertaken by the Regional Economic Commissions and other competent bodies in each region. These bodies also have an important complementary role in promoting best practices, providing technical cooperation and capacity building, and developing and disseminating methodologies to adapt and harmonize indicators. Examples of ongoing statistical harmonization work include Eurostat's macroeconomic statistics harmonization in EU member states, the ECLAC Working Group on Harmonization of Statistics on Income Poverty and Public Transfers, and the AU Strategy for the Harmonization of Statistics in Africa (SHaSA).

Where possible, regional monitoring should build on existing regional mechanisms, such as the Regional Economic Commissions, the Africa Peer Review Mechanism, or the Asia-Pacific Forum on Sustainable Development.[13] Regional monitoring processes can also broker a link between the national and global levels. The Regional Economic Commissions may play a particularly important role in preparing inputs to the HLPF, under the auspices of ECOSOC, since Regional Commissions are already subsidiary bodies of the Economic and Social Council.

4. Thematic monitoring

To achieve the SDGs, complex challenges must be addressed across a broad range of sectors and thematic areas, such as health, education, agriculture, nutrition, the water-energy nexus, sustainable consumption and production patterns, or infrastructure design. Lessons learned in one country can inform progress in other countries. Similarly, implementation challenges and technology gaps are often common across countries, so major thematic communities need to be mobilized globally in support of the SDGs. These thematic or epistemic communities should focus on monitoring progress and challenges in implementation.

Thematic communities – often under the leadership of specialized international organizations –develop specialist indicators for monitoring and accountability that are tracked in countries across the globe. Often these indicators include input and process metrics that are helpful complements to official indicators, which tend to be more outcome-focused (Figure 2).

The implementation of the MDGs provides good examples for effective thematic monitoring under the auspices of international organizations, universities, civil society organizations, and business groups (Box 3). In particular, the health sector provides important lessons on how increased collaboration between diverse groups has improved the frequency and quality of data.[14] What was previously a fragmented sector successfully managed to bring together data producers, users, and analysts, and, as a result, the health-related MDG indicators have the highest level of data availability and reporting frequency.[15]

For example, the UN Inter-Agency Group on Child Mortality Estimation, which has developed a specialist hub responsible for analyzing, checking, and improving mortality estimation. This group, and its

[13] UNSG (2014), para 149, ii.
[14] SDSN is preparing a forthcoming Issue Brief that will aim to examine the case study on health sector data and draw conclusions for thematic reporting.
[15] Cassidy, M. (2014). "Assessing Gaps in Indicator Availability and Coverage." Briefing paper. Paris, France and New York, USA: SDSN.

associated database CME Info, is a leading source for child morality information for both governments and non-governmental actors. [16] The group, which consists of UN agency specialists supported by a technical advisory group of academic and scientific experts, has pioneered innovations in statistical modeling to generate accurate estimates of child mortality despite limited availability of high-quality data for many low- and middle-income countries.

In some cases, universities have a leading role in thematic monitoring. For example, the Université Catholique de Louvain maintains the EM-DAT database on disasters; the University of Maryland Institute of Human Virology has one of the most extensive e-databases on virology and HIV in low and lower-middle income countries;[17] and the University of Washington hosts the Institute for Health Metrics and Evaluation (IHME). IHME has become a leading and internationally trusted repository for collecting, vetting, and harmonizing key public health data, specifically population health, its determinants, and the performance of health systems. IHME recently renewed its partnership with WHO to continue working on improving data used to generate estimates of levels and trends in health.[18] This work informs the ongoing Global Burden of Disease (GBD) study, which includes information essential for informing health policies such as on levels and trends for age-sex-specific mortality.

In other cases, businesses may have access to data that can underpin thematic SDG monitoring (Box 3). In the agriculture sector, the International Fertilizer Association (IFA) maintains one of the most extensive databases on fertilizer supply, production, and use around the world. Data from companies' supply chains can help track food loss and waste, and ICT companies can share data on the use of modern communication technologies.

Thematic reporting is also an opportunity to go beyond global indicators and develop specialized and sector-specific indicators. Sustainable Energy For All, Roll-Back Malaria, and UN Water (through the Joint Monitoring Programme) have demonstrated the power of collective multi-stakeholder monitoring of specific thematic priorities.

To coordinate thematic monitoring under the SDGs, each thematic initiative may have one or more lead specialist agencies or "custodians" as per the IAEG-MDG monitoring processes. Lead agencies would be responsible for convening multi-stakeholder groups, compiling detailed thematic reports, and encouraging ongoing dialogues on innovation. These thematic groups can become testing grounds in launching a data revolution for the SDGs, trialing new measurements and metrics that in time can feed into the global monitoring process. As suggested in the UN Secretary-General's synthesis report, thematic reports are needed on an annual basis and may benefit from in-depth technical examination of specific concerns each year.[19]

[16] See the CME Info database online at www.childmortality.org
[17] Ritz, D. (2014). Measuring e-Health Impact: An e-Health Evaluation Framework that Leverages Process Control Theory and Big Data Analytics. *Big Data and Health Analytics*, 309.
[18] See the IHME website at www.healthdata.org
[19] Ibid, para 149, iv.

Box 3: Aligning Business Metrics with SDG Indicators

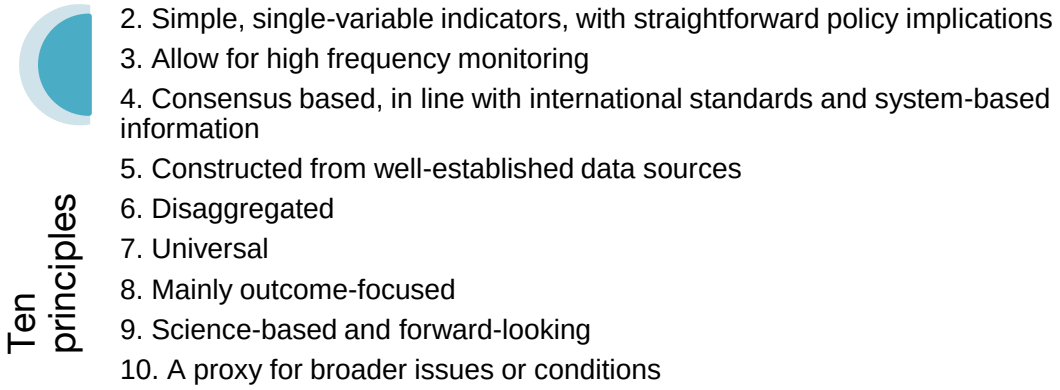
Businesses will need to play a critical role in achieving many SDGs. Their roles include direct investment (e.g. in infrastructure); developing new technologies for energy, health and other SDG priorities; and aligning business incentives and behavior with the social objectives of sustainable development. For this reason, it is critical that business metrics be closely aligned with the SDGs and the underlying indicator framework.

The Global Reporting Initiative (GRI), the UN Global Compact (UNGC), and the World Business Council for Sustainable Development (WBCSD) have recently launched a joint initiative to align business metrics with SDG indicators and monitoring frameworks. This initiative will use GRI standards, as well as other commonly-used corporate sustainability indicators, to help identify Key Performance Indicators (KPIs) that can help track businesses' contributions to the SDGs. We applaud this timely and important work by the business community as it holds great potential to ensure coherence between business reporting and the global SDG framework.

III. Principles for setting SDG indicators and an integrated monitoring framework

Building upon the standards proposed in the UN Development Group (UNDG) handbook and the CES Recommendations on Measuring Sustainable Development,[20] we propose 10 criteria for robust Global Monitoring Indicators. These principles have also been informed by lessons from the MDGs (Box 1); comments from NSOs collected through our public consultation and via the Friends of the Chair on Broader Measures of Progress; as well as the principles laid out in various reports including *The Future We Want*, *A New Global Partnership* and *A World That Counts*.[21]

Figure 3: Towards an integrated monitoring and indicator framework: Ten principles for Global Monitoring Indicators



Robust Global Monitoring Indicators for the SDGs should be:

1. Limited in number and globally harmonized: Since a very large number of indicators would be required to comprehensively track progress towards all aspects of the 169 targets proposed by the Open Working Group, we recommend that countries consider two sets of indicators. Up to 100 Global Monitoring Indicators would be reported on in a harmonized way by every country on an annual basis and collated by the international community. One hundred globally harmonized indicators appear to be the upper limit of feasibility (Box 2). In addition, countries will identify a nationally appropriate number of Complementary National Indicators.

2. Simple, single-variable indicators with straightforward policy implications: Indicators need to be simple to compile and easy to interpret and communicate. They must also have clear policy implications. For global reporting composite indices should be avoided where possible since they require more complex data collection methods, and often rely on imputation for missing variables and arbitrary

[20] United Nations (2003). *Indicators for Monitoring the Millennium Development Goals: Definitions, Rationale, Concepts, and Sources*. New York, NY: United Nations. Also featured in the Report of the Friends of the Chair Group on Broader Measures of Progress, released on 16th December 2014 [E/CN.3/2015/2].

[21] United Nations (2012). *The Future We Want, Our Common Vision*. Outcome document of the Rio+20 Conference; HLP (2013); and IEAG on the Data Revolution (2014).

weighting. Moreover, composite indices do not lend themselves easily to policy recommendations, and they expand the number of (underlying) variables that need to be collected through official statistical systems, which might undermine the feasibility of a monitoring framework. Instead, Global Monitoring Indicators should rely as much as possible on metrics that consist of one variable only.[22]

3. Allow for high frequency monitoring: Timeliness is crucial for data to be a useful management and policy tool. To align with national planning and budgetary processes, SDG monitoring should operate on an annual cycle. The MDGs were also reported annually, but data featured in annual reports was often two to three years out of date, if available at all. To overcome this, the SDG indicators should lend themselves to annual production, or bi- or tri-yearly production with interim annual figures produced using robust estimation methodologies (Annex 2, page 92). These figures would then be reported upon annually, within an internationally harmonized national monitoring cycle.

4. Consensus-based, in line with international standards and information already collected by national and environmental-economic information systems: Global Monitoring Indicators should be underpinned by a broad international consensus on their measurement and be based on international standards, recommendations, and best practices to facilitate international comparison. Where possible, indicators should be broadly consistent with systems of national accounts, systems of environmental-economic accounting, and other systems-based information.

5. Constructed from well-established data sources: Indicators should draw on well-established sources of public and private data, and be consistent to enable measurement over time. For a small number of new indicators, well-established data sources may be unavailable. In such cases, the establishment of a baseline will need to be an urgent priority over the next two or more years.

6. Disaggregated: Preference should be given to indicators that lend themselves to disaggregation in order to track inequalities in SDG achievement. As the HLP report recommends, targets can only be considered achieved if they are met for all relevant groups.[23] As reviewed in detail in Annex 3 (page 96), key dimensions for disaggregation include:

(i) characteristics of the individual or household (e.g. sex, age, income, disability, religion, ethnicity and indigenous status);
(ii) economic activity;
(iii) spatial dimensions (e.g. by metropolitan areas, urban and rural, or districts).

7. Universal: The set of SDG indicators as a whole needs to track a universal agenda. Most though not all Global Monitoring Indicators should therefore be applicable in developed as well as developing countries. Given the many layers of the SDG monitoring process, indicators should be applicable at the global, regional, national, and local levels (Figure 2). The ability of indicators to be localized is particularly important to encourage active implementation of the agenda within subnational levels of government, such as cities, which are home to over half of the global population.

[22] The Global Monitoring Indicators presented in this report include a small number of composite indices as exceptions from principle 2. The motivation for each exception is explained in the text. The arguments against the use of composite indices apply less to Complementary National Indicators where the number of underlying variables does not need to be restricted. Hence composite indices can play an important role in supporting national monitoring processes. They may also be useful for thematic monitoring.

[23] HLP (2013), 17.

8. Mainly outcome-focused: As with SDG targets, it is generally preferable for Global Monitoring Indicators to track outcomes (or the ends) rather than means. Yet the choice between input and outcome measures must be handled pragmatically. In some cases, input metrics can play a critical role in driving and tracking the changes needed for sustainable development. For example, access to health services is a vital component of Universal Health Coverage. Similarly, Official Development Assistance (ODA) is difficult to mobilize but critical for achieving the SDGs. Finally, some environmental change occurs slowly and with long lag times, so that intermediate metrics are necessary to track progress. Indicators for national and thematic monitoring will likely focus to a greater extent on tracking inputs and process metrics for implementation.

9. Science-based and forward-looking: The SDGs are expected to cover a 15-year period. Much will change in that time. For example, the world population is projected to increase by 1 billion people by 2030, and two-thirds of those will be living in cities. Indicators must be designed in such a way to account for these changing global dynamics and to anticipate future changes. The indicator framework must also be flexible and allow for new indicators to replace outdated ones.

10. A proxy for broader issues or conditions: A single indicator cannot measure every aspect of a complex issue, but well-chosen Global Monitoring Indicators can track broader concepts. For example, to measure rule of law and access to justice, several aspects must be measured, including the capacity to redress crime, citizens' trust in the police and court systems, and the rates of redress. The proposed indicator on the investigation and sentencing of sexual and gender-based violent crimes serves as a proxy for the treatment of vulnerable groups and access to justice overall. As described further in Annex 1 (page 67), the indicator and monitoring framework needs to track a number of cross-cutting issues that may not be captured in the title of individual goals.

As illustrated in Figure 2 and the preceding chapter, national, regional, and thematic monitoring serve specific purposes, which must be reflected in the choice of indicators. As a result, some of the principles for setting Global Monitoring Indicators may not apply. For example, national indicators reflect national priorities and traditions, so they do not need to be harmonized internationally. Countries may also place a much greater emphasis on tracking the implementation of their strategies for achieving the SDGs, including through nationally appropriate indicators on policies and laws, which would be difficult to harmonize at the global level. Similarly, countries may opt to use non-official data for their own purposes. Analogous considerations apply to regional monitoring.

The health sector demonstrates how thematic monitoring can make effective use of process indicators, such as the number of Directly Observed Therapy Short course (DOTS) administered to treat TB or the share of hospitals stocking the full set of essential medicines. Such process metrics provide a rich understanding of how sectors are performing and allow countries to share lessons. Thematic monitoring offers the scale and flexibility to test new approaches to data collection and make creative use of technological innovations as described in Section IV.3 below. It may also make greater use of composite indicators that lend themselves to support effective communication.

All of the principles above must be used when selecting SDG indicators. Taken together, the principles also reflect the integrated nature of the SDGs. The SDGs proposed by the OWG rightly emphasize the need for integration across the goals. For example, gender equality must be addressed in virtually every goal, and decarbonization or sustainable consumption and production cannot be pursued by undermining economic growth. This integration must be reflected in the design of the indicator and monitoring framework (see Box 4).

Together, indicators for national, regional, thematic, and global monitoring will help the SDGs provide a rich, integrated, and dynamic framework. Chosen carefully, the indicators will complement one another, thereby strengthening the comparative advantages of each monitoring level. Above all, in collecting and sharing information on progress towards the SDGs, they will provide a dynamic framework that will foster a crucial innovation: a data revolution for the SDGs.

Box 4: Designing an integrated indicator and monitoring framework

The SDSN has paid careful attention to the need for the indicators to track the breadth of the SDG agenda. As a result, many global and national indicators contribute to tracking several SDG targets, and many targets require several indicators (Table 2). Together, the 100 GMIs proposed in this report constitute an integrated indicator framework.

Some analysts have suggested that each indicator should be "integrated," but such a principle is hard to operationalize in practice without resorting to composite indices that we consider inadvisable for the reasons outlined in our principles. Indicators need to be simple and easy to communicate, so they should track clearly identified variables that may capture only part of an issue.

Take the example of sustainable agriculture, which is multi-faceted and covers the full spectrum of the economic, social, and environmental dimensions of sustainable development. Some indicators are required to track productivity (e.g. crop yield gap or productivity growth). Others will track the environmental impact of agriculture (e.g. water use, nitrogen flows, land-use change). Yet others need to track the social dimension of agriculture, particularly support to smallholder farmers (e.g. extension workers). Agriculture-related nutrition and food security metrics cut across the economic and social sphere (e.g. stunting, micronutrient deficiencies). Countries will develop a robust understanding of sustainable agriculture by considering in combination a reasonable range of indicators.

The indicators need to be considered as an integrated package and must work in harmony with one another. They should help us look at every issue through an economic, social, and environmental lens. Only by monitoring all GMIs can we understand whether the world is on track for achieving sustainable development. In turn, this reinforces the need for a limited number of GMIs or else the SDG indicators, and monitoring itself, may become difficult to manage and hard to communicate.

IV. Priority Challenges in Setting SDG Indicators

A first critical step in launching a data revolution for development must be to ensure that all countries and the international community are well equipped to monitor them with robust indicators, so they can serve their dual purpose as management tool and report card. To the extent possible, monitoring should start in 2016, when the SDGs will take effect. To this end, three priority challenges must be urgently addressed.

1. Filling gaps in available indicators

Many indicators, especially relating to poverty and economic development, are already collected (e.g. as part of the MDG process), but in some areas, new indicators will have to be developed together with information-gathering systems. Some new indicators are presented in this report. Preliminary suggestions and indicators still under development are presented in square brackets.

Developing new indicators will in some cases require major investments in the national and international capacity to collect and analyze data. In many cases, sound indicators exist, but data is not systematically collected on a routine, harmonized, and comparable basis–particularly in low-income countries. As highlighted in three SDSN Briefing Papers on household survey and indicator coverage, important gaps exist, particularly for key social and environmental metrics.[24] The coming months need to be used by NSOs and the international organizations to identify practical strategies for filling data gaps. In some cases, this will require increased investments in national statistical systems.

In preparing this report, the SDSN has consulted extensively to obtain feedback from interested international institutions and other organizations on the relevance, accuracy, appropriateness, and realism of the recommended indicators. In some cases, not every suggestion may be possible to implement in a timely and accurate manner. In other cases, additional indicators may need to be considered.

We encourage the competent specialized agencies of the UN System, NSOs, and other international statistical organizations, such as the OECD or Eurostat, to identify and review available indicator options for each major gap. Decisions on what can actually be measured should be guided by the relevant expert communities, with the advice and leadership of the global institutions charged with oversight, measurement, standards, and implementation of programs.

2. Moving towards annual monitoring

Timeliness of SDG data is crucial if the Goals are to be a management and policy tool. To align with national planning and budgetary processes, SDG monitoring needs to operate on an annual cycle. Ensuring annual and up-to-date data will be a major step towards achieving a data revolution for development. For a more detailed discussion of annual monitoring, please see Annex 2 (page 92).

[24] See i) Cassidy, M. (2014); ii) Alkire, S. and Samman, E. (2014), *Mobilizing the household data required to progress toward the SDGs*. SDSN Briefing Paper; and iii) Alkire, S (2014). *Towards frequent and accurate poverty data.* SDSN Briefing Paper.

Annual monitoring on progress does not necessarily mean that new data need to be produced every year. For a number of indicators this may be impossible or inadvisable.[25] In such cases producing data every two to three years and doing robust projections, extrapolations or modeled estimates may be sufficient. But even this level of frequency will require a step change in the way data is collected and disseminated.

Given how infrequently some indicators are collected today, it might seem impossible to shift towards such high frequency monitoring for SDG indicators. Yet a careful review of the issues suggests it is utterly feasible. In fact, many countries have shown what can be done with clear commitments, the creative use of modern technologies, institutional innovation, and modest resources. Some 60 countries already report annual figures on multiple social and economic indicators based on annual survey data.

International institutions also have made the effort to generate annual estimates. Such approaches could be applied to other SDG indicators to enable timely annual monitoring of progress.[26] In this context we applaud the World Bank's recent commitment to report annually on poverty and boosting shared prosperity.[27]

3. Adopting innovative approaches to data collection and establishing strategies to harmonize unofficial metrics

Monitoring the SDGs requires many different types of data. Taken together, they will enable launching a data revolution for development. Official statistics derived from surveys and other official administrative data will play a critical, preeminent role. They will be complemented by unofficial data, and other performance metrics including business metrics, polling data, and georeferenced information on government facilities, among others.

This report, the product of a broad consultative exercise, and the findings from earlier consultations, suggest that official data, including international household survey data, will play a critical role for the foreseeable time in tracking the SDGs and shaping governments programs. But the revolution in information and communication technologies and the growing role of civil society organizations and businesses offer unprecedented opportunities for using new types of complementary metrics and data.

Of particular importance is georeferenced data that can now be collected easily using mobile phones to provide location-specific information on government facilities, water points, and environmental challenges. As one impressive example, the Nigerian Senior Special Advisor to the President on the MDGs, with support from the Earth Institute's Sustainable Engineering Laboratory, developed the Nigeria MDG Information System, an online interactive data platform. Using this system, all government

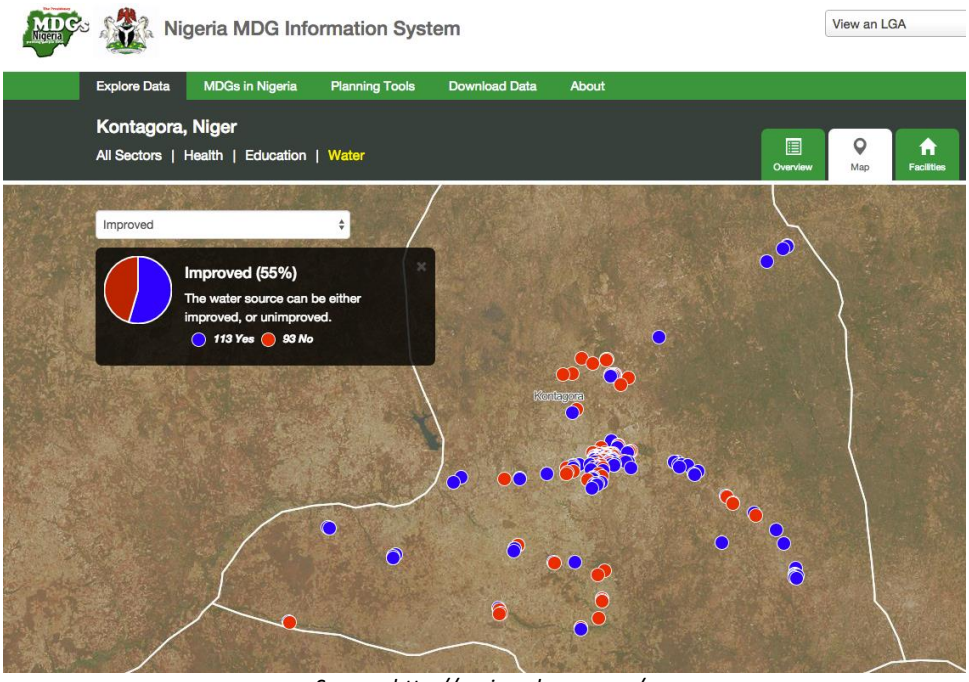
[25] Indicators unsuited to annual production are indicators that (i) exhibit year-on-year variation that is significantly smaller than the error margin, (ii) require a very large number of observations to be computed, (iii) may be affected or compromised by year on year monitoring, such as attitudinal and behavior change. A preliminary assessment suggests that this applies to at least four GMIs featured in this report: life expectancy, maternal mortality rate, fertility rate, and prevalence of non-communicable diseases.

[26] See the CME Info online database: www.childmortality.org

[27] See World Bank President Jim Yong Kim's Speech at Georgetown University (April 2013), online at: http://www.worldbank.org/en/news/speech/2013/04/02/world-bank-group-president-jim-yong-kims-speech-at-georgetown-university

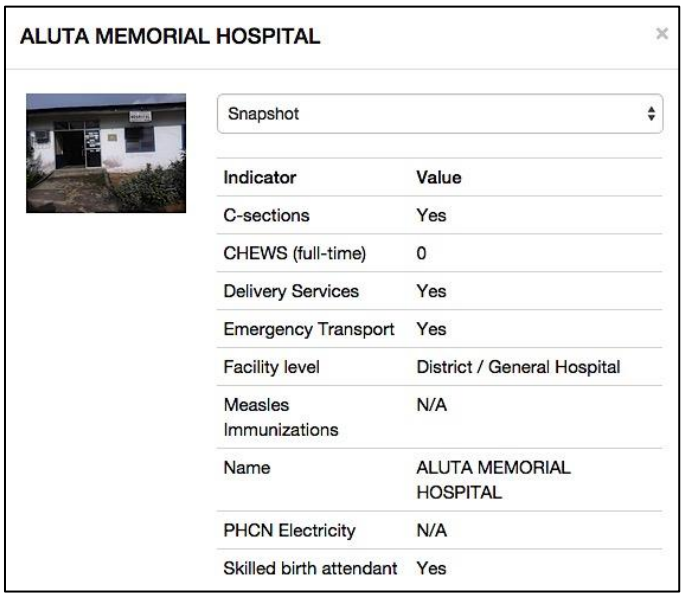
health and education facilities as well as water access points were mapped across Nigeria within a mere two months (Figure 4).

Figure 4: Screenshot of Nigeria MDG Information System showing the location and status of water sources in the Kontagora region of Niger State, Nigeria



Source: *http://nmis.mdgs.gov.ng/*

Figure 5: Screenshot of Nigeria MDG Information System - information on general hospital in the Isoko south region of Delta State, Nigeria



Source: http://nmis.mdgs.gov.ng/

The system now reports the latest status of more than 250,000 facilities using data generated with the help of smartphones. Any internet user can now ascertain the status of every facility across the entire country (Figure 5).

The software tools used for the Nigeria MDG Information System are open-source. National and sub-national governments, civil society organizations, and businesses can use them to develop dedicated georeferenced surveys for a variety of purposes. For example, such tools make it possible to generate the management information that local authorities need in order to improve service delivery. They can also be used by civil society organizations for example to track which infrastructure facilities are fully operational or where illegal logging is occurring.

Specialized UN agencies and other international organizations should organize thematic discussions with NSOs, businesses, and civil society organizations to determine the most promising uses of georeferenced data and to identify complementary metrics to official SDG indicators. Such groups can then propose standards and systems for collecting and processing such data.

V. Next Steps and Opportunities for Leadership

The experience of the MDGs underscores the importance of thinking through the indicators as early as possible, to ensure the goals and targets can be monitored and implemented. So far, the international community's attention has been focused primarily on defining goals and targets. The next step is to agree on the indicators and associated monitoring systems so that the world will be ready to implement the SDGs in 2016.

Success will require a data revolution for development, following some of the bold but feasible steps outlined in this report. Key milestones on the way to building an effective indicator and monitoring framework for the SDGs include:

(i) a multi-stakeholder process to identify global indicators and baselines via the IEAG-SDG;
(ii) ongoing thematic consultations to agree upon long-lists of specialist indicators for thematic monitoring; and
(iii) the establishment of a Global Partnership for Sustainable Development Data, to fulfill the Data Revolution.

1. Multi-stakeholder process to set Global Monitoring Indicators and establish baselines

The UN Statistical Commission (UNSC) at its 46th session (March 5-6, 2015) discussed the roadmap for developing and implementing an SDG indicator and monitoring framework. Given the breadth and complexity of the SDG agenda, it has recommended the creation of an Inter-Agency Expert Group on SDG Indicators, consisting of *"national statistical offices and, as observers, the regional and international organizations and agencies, that will be tasked with fully developing a proposal for the indicator framework for the monitoring of the goals and targets of the post-2015 development agenda at the global level, under the leadership of the national statistical offices."*[28] This is a welcome first step, though SDSN encourages this group to involve all branches of government, civil society, business, and other stakeholders, to contribute towards the development of Global Monitoring Indicators. We hope that this report will make a contribution towards this multi-stakeholder process and towards science-based SDG indicators.

As recommended by the Friends of the Chair Group on Broader Measures of Progress and in the Technical Report of the Bureau of the UN Statistical Commission, a set of indicative indicators should be developed by September 2015, so that a definitive set can be adopted by the 47th session of the UNSC in 2016. An urgent priority will be to establish baselines for monitoring the indicators. Where indicators are already well understood and a consensus is emerging around them, the establishment of adequate baselines can start right away.

2. Thematic consultations

During 2015, UN agencies and other organizations have an opportunity to convene multi-stakeholder consultations involving governments, civil society, business, and science in order to develop thematic monitoring frameworks as described above. These groups should fill gaps in available indicators and develop detailed recommendations on how to move towards annual monitoring of priority thematic

[28] Bureau of the United Nations Statistical Commission, (March 2015), *Technical report on the process of the development of an indicator framework for the goals and targets of the post-2015 development agenda - Working draft*.

indicators. For example, more regular monitoring on child nutrition may require increased investments in household surveys or health-sector administrative data collection. Alternatively, it may require investments in national statistical literacy to enable NSOs to compute robust year-on-year estimations.

Another key technical challenge for consideration in thematic consultations is how each Global Monitoring Indicator can be collected in ways that enable sufficient disaggregation. For some indicators, this may require twinning official metrics with geospatial data or using larger sample sizes. Each indicator will need to be accompanied by a comprehensive strategy explaining how detailed disaggregated data can be compiled.

The consultations need to consider official as well as non-official statistics and the potential offered by big data and innovative technologies. Fostering innovation will be particularly important to ensure that each indicator is sufficiently disaggregated so that countries can make sure that "no one is left behind." It may also enable countries to leapfrog the use of labor-intensive statistical tools, in favor of cost-saving metadata analysis.

Currently, UN organizations work on these issues to varying degrees. Some have already started reaching out to businesses and NGOs, but others focus solely on official indicator sets. The UN Chief Executive Board for Coordination (CEB) could table this important issue to encourage leadership by agencies in their respective areas, identify best practices, promote coordination, and explore ways in which the UN System can support innovation in driving a data revolution for development. Together, these thematic consultations will help translate the data revolution into practical action, with clear roles and responsibilities for UN agencies, member states, the scientific community, civil society, and business.

3. Global Partnership for Sustainable Development Data: global standards, greater innovation, and adequate resources

In its report *A World That Counts,* the Independent Expert Advisory Group on the Data Revolution recommends a UN-led "Global Partnership for Sustainable Development Data." The role of the partnership would be to mobilize and coordinate as many initiatives and institutions as possible to achieve a data revolution for development. In practice, this partnership may consist of a high-level multi-stakeholder committee, with representatives from the UN, national governments, businesses, academia, science and civil society. The committee would perform three essential functions:

(i) convening diverse data communities (such as Members of the Open Government Partnership and the G8 Open Data Charter) to foster consensus and harmonize global standards;
(ii) incentivizing innovation and encouraging public-private partnerships for data; and
(iii) mobilizing additional resources.

A set of global standards for data harmonization and use will be essential for national governments and NSOs to effectively compile, interpret, and utilize the broad range of development data sets. Standardization will be particularly important for non-official sources of data, such as business monitoring, which over time may be used to complement official metrics. In the short- to medium term, standardizing efforts may require more methodological research to better understand how unofficial or big data can be used to complement official sources. A high-level, powerful group will be essential to convene the various data and transparency initiatives under one umbrella, in support of sustainable development, and to secure the cooperation of both Member States and businesses.

Second, any new Global Partnership for Sustainable Development Data should strive to **foster innovation** in SDG monitoring. The IEAG on the Data Revolution has recommended a web of data innovation networks to advance innovation and analysis. To focus energies and incentivize year on year progress, we also recommend an annual prize, awarded at an annual conference or "World Forum on Sustainable Development Data."[29] This award would be given to NSOs, specialist groups, civil society organizations, or businesses that have developed innovative approaches to improve SDG indicators (e.g. by increasing the frequency or disaggregation) or replace existing indicators with new metrics that are better and/or less expensive to collect.

A third core function of the Global Partnership will be to **mobilize additional resources** to support sound monitoring system. SDSN has been working in coalition with more than 15 organizations, including Open Data Watch, PARIS21, the World Bank, and others, to consolidate available data on the levels of investment required for SDG monitoring and statistical capacity development. Our new report, *Data for Development: A Needs Assessment for SDG Monitoring and Statistical Capacity*, estimates that the 77 ODA-eligible countries will need to spend approximately $1 billion a year to upgrade their statistical systems and carry out regular data collection for the SDGs. Although it is hard to estimate an exact funding gap, it is clear that there is a large margin between current expenditures and future requirements. An analysis of National Strategies for the Development of Statistics (NSDSs) shows that countries are planning on aid at a level of 49% of current NSDS budgets. Donors will therefore need to maintain current contributions to statistics, of approximately US$300 million per annum, and go further, leveraging US$100-200 million more in Official Development Assistance (ODA) to support country efforts.[30]

Current financing mechanisms and modalities for data are not only underfunded, they are also fragmented and beset with high transaction costs. In addition to quantifying incremental financing needs, the international community will therefore need to determine how additional resources can be used most effectively for maximum results. Experience in other areas suggests that pooled financing mechanisms can be very effective by:

(i) reducing transaction costs and minimizing duplication;
(ii) strengthening national ownership in the design and implementation of programs;
(iii) facilitating knowledge transfer and the consolidation of lessons learnt across countries;
(iv) facilitating partnerships with the private sector through dedicated windows for public-private partnerships; and
(v) supporting transparent criteria for countries' resource mobilization.[31]

Based on a clear indicator framework and a robust needs assessment, the first steps towards a data revolution can start now, including vital resource mobilization. Given the public attention that will be paid to the SDGs during 2015, it would seem possible to complete the fundraising by the latter half of the year–in time for implementation. As part of these efforts, recommendations on pooled funding mechanisms for SDG data should be considered as soon as possible, with the intention that a coordinated mechanism will launch in early 2016.

[29] UN Secretary General (2014), para. 143.
[30] Espey, J. et al.(2015*) A Needs Assessment for SDG Monitoring and Statistical Capacity Development*, SDSN Report, Paris France and New York, USA: SDSN.
[31] Sachs, J. and G Schmidt-Traub (2013). F*inancing for development and climate change post-2015*. SDSN Briefing Paper, Paris, France and New York, USA: SDSN.

Figure 6: Opportunities for action: a timeline of key processes for monitoring and review

In our consultations with technical communities, including NSOs, UN and other international organizations, scientists, civil society groups, and business organizations, we have witnessed outstanding expertise and tremendous enthusiasm for making the SDGs and their monitoring a success. We are convinced that these practical steps can be taken in a timely fashion. Over time, an SDG data revolution, in which vastly greater volumes of data are collected in a harmonized manner, can put powerful statistics in the service of humanity and the planet. The SDSN will continue to support UNSD and to work with other interested partners to help develop a sound SDG indicator and monitoring framework, and to realize the great potential of the data revolution for sustainable development.

Bibliography

Alder, J. et al. (2010). Aggregate performance in managing marine ecosystems of 53 maritime countries. *Marine Policy*, 34: 468-476.

Alkire, S. (2014). *A New Household Survey to Catalyse the Data Revolution*, Post2015.org. Available at http://post2015.org/2013/11/21/a-new-household-survey-to-catalyse-the-data-revolution/

Alkire, S. and Foster, J. (2011). Understanding and misunderstandings of multidimensional poverty measurement. *The Journal of Economic Inequality*. June 2911, Volume 9, Issue 2, p 289-314.

Alkire, S. and Sumner, A. (2013). *Multidimensional Poverty and the Post-2015 MDGs*. OPHI Briefing Note. Available at http://www.ophi.org.uk/wp-content/uploads/MPI-post-2015-MDGs-FINAL.pdf

Baillie, J.E.M. (2008). Toward monitoring global biodiversity, *Conservation Letters* 1, 18–26.

Baker, J.L. (2008). *Urban Poverty: A Global View*. Urban Paper 5 (January 2008). Washington, DC: The World Bank Group. Available at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2008/03/24/000333037_20080324021722/Rendered/PDF/430280NWP0Glob10Box327344B01PUBLIC1.pdf

Banerjee, A. (2013). *Evolving the MDGs*. High-level Panel Working Papers Series.

Banerjee, S.G. et al. (2013). *Global tracking framework*, Vol. 3. Sustainable energy for all. Washington D.C.; The World Bank. Available at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/05/28/000112742_20130528084417/Rendered/PDF/778890GTF0full0report.pdf

Benn, J., Rogerson, A. and Steensen, S. (2010). *Getting Closer To The Core - Measuring Country Programmable Aid. Development Brief.* OECD Development Co-operation Directorate. Available online at : http://www.oecd.org/dac/aid-architecture/45564447.pdf

Berlinski, S., Galiani, S., and Gertler, P. (2009). The effect of pre-primary education on primary school performance. *Journal of Public Economics*, 93, 219-234.

Berlinski, S., Galiani, S., and Manacorda, M. (2008). Giving children a better start: Preschool attendance and school age profiles. *Journal of Public Economics*, 92, 1416-1440.

Biodiversity Indicators Partnership. (2010). *Coverage of protected areas: Guidance for national and regional use*. Cambridge, U.K. 2010 BIP Secretariat

Boitier, B. (2012). *CO_2 emissions production-based accounting vs. consumption: Insights from the WIOD databases.* Available at http://www.wiod.org/conferences/groningen/paper_Boitier.pdf

Broadband Commission. (2013a). *The State of Broadband 2013: Universalizing Broadband*. Geneva, Switzerland: Broadband Commission for Digital Development. Available at http://www.broadbandcommission.org/documents/bb-annualreport2013.pdf

---. (2013b). *Transformative Solutions for 2015 and Beyond.* Geneva, Switzerland: Broadband Commission for Digital Development. Available at http://www.broadbandcommission.org/documents/working-groups/bb-wg-taskforce-report.pdf

Bureau of the United Nations Statistical Commission. (March 2015). *Technical report on the process of the development of an indicator framework for the goals and targets of the post-2015 development agenda - Working draft*. A final report will be made available online at http://unstats.un.org/unsd/statcom/commission_46th_session.htm

Butchart, S.H.M. et al. (2012). Protecting Important Sites for Biodiversity Contributes to Meeting Global Conservation Targets. *PLoS ONE* 7(3). Available at http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0032529

---. (2007). Improvements to the Red List Index. *PLoS One* 2(1): 1-8. Available at http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0000140

---. (2005). Using Red List Indices to measure progress towards the 2010 target and beyond. *Philosophical*

Transactions of the Royal Society of London. 360 (1454): 359–372

Chiesura, A. (2004). The role of urban parks for the sustainable city. *Landscape and Urban Planning* 68:1, pp. 129-138.

Corcoran, E. C., Nellemann, E., Baker, R., Bos, D., Osborn, H., and Savelli (eds). (2010) *Sick Water? The central role of waste- water management in sustainable development. A Rapid Response Assessment.* United Nations Environment Programme, UN-HABITAT, GRID-Arendal. Available at www.grida.no

de Vries, M. et al. (2013). Assessing planetary and regional nitrogen boundaries related to security and adverse environmental impacts*. Current Opinion in Environmental Sustainability* 5:392–402.

Dora, C. et al. (2014). Indicators linking health and sustainability in the post-2015 development agenda. *The Lancet*. Available at http://dx.doi.org/10.1016/S0140-6736(14)60605-X

Eggleston, H.S., Buendia, L., Miwa, K., Ngara, T., and Tanabe, K. (eds). *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (5 volume collection). Available at http://www.ipcc-nggip.iges.or.jp/public/2006gl/index.html

Eurostat. (2012). *Guide to Statistics in European Commission Development Co-operation*. Version 2.0. Luxembourg: Publications Office of the European Union. Available at http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-11-028/EN/KS-RA-11-028-EN.PDF

Financial Action Taskforce, (2014), *FATF guidance Transparency and Beneficial Ownership*. OECD Publications. Available at http://www.fatf-gafi.org/media/fatf/documents/reports/Guidance-transparency-beneficial-ownership.pdf

Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), and World Food Programme (WFP). (2014). *Food security, nutrition and sustainable agriculture in the post-2015 agenda: priority targets and indicators identified by FAO, IFAD and WFP*. Working group paper. Rome.

Food and Agriculture Organization (FAO). (2014). *Food Waste Footprint*. Available at http://www.fao.org/nr/sustainability/food-loss-and-waste/en

---. (2011). *Guidelines for measuring household and individual dietary diversity.* Available at http://www.fao.org/fileadmin/user_upload/wa_workshop/docs/FAO-guidelines-dietary-diversity2011.pdf

---. (2010). *Global Forest Resources Assessment 2010*. Rome, Italy: FAO. Available at http://www.fao.org/docrep/013/i1757e/i1757e.pdf

Fuller, R. A. and Gaston, K.J. (2009). The scaling of green space coverage in European cities. *Biology Letters*. doi:10.1098/rsbl.2009.0010. Available at http://rsbl.royalsocietypublishing.org/content/early/2009/02/22/rsbl.2009.0010.full.pdf+html

Gandure, S. and Kumwenda, H. (2013). *Draft Report on Sustainable Development Goals for the Southern Africa Subregion*. Discussion paper for the Africa Regional Consultative Meeting on the Sustainable Development Goals, Addis Ababa, Ethiopia. Available at http://www.uneca.org/sites/default/files/uploaded-documents/SDG/2013/sdg2013_draft-sdgs-report-southern-africa_en.pdf

Global Network of Women Peacebuilders. (2012). *Women Count - Security Council Resolution 1325: Civil Society Monitoring Report.* Available at http://www.gnwp.org/wp-content/uploads/2010/02/Global_Monitoring_Report.pdf

Government of Bangladesh Planning Commission. (2013). *The Millennium Development Goals: Bangladesh Progress Report 2012.* Available at http://www.academia.edu/9454757/MDG

Government of Mongolia. (2009). *The Millennium Development Goals Implementation: Third National Report*. Available at http://www.mn.undp.org/content/mongolia/en/home/library/National-MDG-reports.html

Habitat for Humanity. (2012). *The Post-2015 Development Agenda: Elevating Housing in the Next Millennium Development Goals*. Washington, DC: Habitat for Humanity. Available at http://www.habitatireland.ie/wp-content/uploads/2011/12/MDGs-HFHI-position-paper-Final.pdf

Halpern, B. et al. (2012). An index to assess the health and benefits of the global ocean. *Nature,* 488, 615–620. Available at http://www.nature.com/nature/journal/v488/n7413/full/nature11397.html

High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. (2013). *A New Global Partnership:*

Eradicate Poverty And Transform Economies Through Sustainable Development. United Nations Publishing. Available at http://www.post2015hlp.org/the-report/

ILO. (2013a). *Jobs and livelihoods in the post-2015 development agenda: Meaningful ways to set targets and monitor progress.* ILO Concept Note No. 2 for the post-2015 development agenda. Available at http://www.ilo.org/global/topics/post-2015/documents/WCMS_213209/lang--en/index.htm

---. (2013b). *Guide to the Millennium Development Goals Employment Indicators, second edition.* Geneva, Switzerland: ILO. Available at http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_elm/documents/publication/wcms_208796.pdf

--- (2012). *Jobs and livelihoods at the heart of the post-2015 development agenda*. ILO Concept Note No. 1 on the post-2015 development agenda. Available at http://www.ilo.org/global/topics/post-2015/documents/WCMS_193483/lang--en/index.htm

---. (2012b). *Decent Work Indicators. Concepts and definitions*. Geneva: ILO. Available at http://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/documents/publication/wcms_229374.pdf

ILO, UN DESA, ESCAP, IFAD, IOM, UNDP, UNFPA, UNIDO, and UNWOMEN. (2013). *TST Issue Brief on Employment And Decent Work*. Available at http://sustainabledevelopment.un.org/content/documents/18330406tstissuesemploywork.pdf

Independent Expert Advisory Group on a Data Revolution for Sustainable Development (IEAG). (2014). *A World That Counts: Mobilising The Data Revolution for Sustainable Development*. Available at http://www.undatarevolution.org/report/

International Dialogue on Peacebuilding and Statebuilding. (2013). *Peacebuilding and statebuilding indicators – progress, interim list and next steps.* Discussion paper for Third International Dialogue global meeting. Washington, D.C. Available at http://www.pbsbdialogue.org/documentupload/03%20PSG%20Indicators%20EN.pdf

International Human Rights Internship Program and Forum-Asia. *Module on The Right to Adequate Housing*. University of Minnesota. http://www1.umn.edu/humanrts/edumat/IHRIP/circle/modules/module13.htm

International Monetary Fund. (2014). *Update on the Fiscal Transparency Initiative*. IMF Policy Paper. Washington, DC. Available online at http://www.imf.org/external/pp/longres.aspx?id=4888

IUCN. (2009). A Users' Guide to the IUCN Red List Website. Available at http://www.iucnredlist.org/news/iucn-red-list-site-made-easy-guide

---. (2005). *Sampled Red List Index: measuring progress towards the 2010 biodiversity targets*. Available at http://www.iucn.org/themes/ssc/images/miscellaneous/SRLIsmall.jpg

Janus, M. and Offord, D.R. (2007). Development and psychometric properties of the Early Development Instrument. *Canadian Journal of Behavioural Science*, 39, 1-22.

Joint UNECE/Eurostat/OECD Task Force on Measuring Sustainable Development. (2013). *Framework and suggested indicators to measure sustainable development.* Available at http://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/2013/SD_framework_and_indicators_final.pdf

Mitchell, T. Jones, L., Lovell, E., and Comba, E. (eds). (2013). *Disaster Management in Post-2015 Development Goals: Potential Targets and Indicators.* London, UK: ODI. Available at http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8354.pdf

Moreno-Serra, R., Millett, C., and Smith, P.C. (2011). Towards Improved Measurement of Financial Protection in Health. *PLoS Med* 8(9): e1001087. Available at http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001087.

Myers, R. (1992). *The twelve who survive: Strengthening Programmes of Early Childhood Development in the Third World*. London, UK: Routledge.

Nykvist, B. et al. (2013). *National Environmental Performance on Planetary Boundaries*. A study for the Swedish Environmental Protection Agency. Stockholm, Sweden: The Swedish Environmental Protection Agency. Available at http://www.naturvardsverket.se/Documents/publikationer6400/978-91-620-6576-8.pdf

OECD. (2014). *Development Finance: Total Official Support For Development - An Emerging Concept In Support Of The Post-2015 Sustainable Development Goals*. Paris, France: OECD Publishing. Available at

http://www.oecd.org/dac/DCD-DAC(2014)48-En.pdf

---. (2013a). *Development Cooperation Report 2013: Ending Poverty*. Paris, France: OECD Publishing.

---. (2013b). *Effective Carbon Prices.* Paris, France: OECD Publishing. http://dx.doi.org/10.1787/9789264196964-en

---. (2008). *Greenhouse Gas Reduction Strategies in the Transport Sector: Preliminary Report*. Available at http://www.internationaltransportforum.org/pub/pdf/08ghg.pdf

Partnership on Measuring ICT for Development. (2014). Report for the forthcoming UN Statistical Commission meeting (Annex1). Available at http://unstats.un.org/unsd/statcom/doc14/2014-8-ICT-E.pdf

Peters, G. and Hertwich, E. (2008). Post-Kyoto greenhouse gas inventories: production versus consumption. *Climatic Change*. Volume 86, Issue 1-2, p 51-66. Available at http://link.springer.com/article/10.1007%2Fs10584-007-9280-1

Pintér, L., Almássy, D., and Hatakeyama, S. (2014). *Sustainable Development Goals and Indicators for a Small Planet, Part II: Measuring Sustainability*. Singapore: Asia-Europe Foundation. Available at http://www.asef.org/images/stories/publications/documents/ENVforum-Part_II-Measuring_Sustainability.pdf

Productivity Commission. (2011). *Carbon Emission Policies in Key Economies*. Research Report, Canberra. Available at http://www.pc.gov.au/__data/assets/pdf_file/0003/109830/carbon-prices.pdf

Revenue Watch Institute. (2013). *The 2013 Resource Governance Index: A Measure of Transparency and Accountability in the Oil, Gas and Mining Sector.* New York, NY: Revenue Watch. Available at http://www.revenuewatch.org/rgi/report

Rockström, J. et al. (2009). Planetary Boundaries: Exploring the Safe Operating Space for Humanity. *Ecology and Society* 14:2, 32.

Ricketts, T.H. et al. (2005). Pinpointing and preventing imminent extinctions. *Proceedings of the National Academy of Sciences*. 51, pp. 18497-18501.

Rodricks, S. (2010). *Singapore City Biodiversity Index*. Geneva: Switzerland: The Economics of Ecosystems and Biodiversity (TEEB). http://www.teebweb.org/wp-content/uploads/2013/01/Singapore-city-biodiversity-index.pdf

Satterthwaite, D. (2013). Setting the bar too low: is there really progress on UN development goals? *IIED Blog post*. http://www.iied.org/setting-bar-too-low-there-really-progress-un-development-goals

Sayeg, P., Starkey, P., and Huizenga, C. (2014). Updated *Draft Results Framework on Sustainable Transport*. SLoCAT (Partnership on Sustainable Low Carbon Transport). Available at http://www.slocat.net/results-framework-sustainable-transport

Save the Children. (2013). *Ending Poverty in Our Generation: Save the Children's vision for a post-2015 framework*. London, UK: Save the Children. Available at http://www.savethechildren.org.uk/sites/default/files/images/Ending_Poverty_in_Our_Generation_Africa.pdf

Serajuddin, U. et al. (2015). *Data Deprivation: Another Deprivation to End*. Policy Research Working Paper, World Bank. Available online at http://go.worldbank.org/8K6E1FIC60

Twerefou, D.K. (2013). *Report on Sustainable Development Goals for the West Africa Subregion*. Discussion paper for the Africa Regional Consultative Meeting on the Sustainable Development Goals, Addis Ababa, Ethiopia. Available at http://www.uneca.org/sites/default/files/uploaded-documents/SDG/2013/sdg2013_draft-sdgs-report-west-africa_en.pdf

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

---. (2003). *Indicators for Monitoring the Millennium Development Goals: Definitions, Rationale, Concepts, and Sources*. New York, NY: United Nations. Available at http://mdgs.un.org/unsd/mdg/Resources/Attach/Indicators/HandbookEnglish.pdf

UN DESA. (2007a). *Indicators of Sustainable Development: Guidelines and Methodologies. Third Edition.* New York: United Nations. Available at http://www.un.org/esa/sustdev/natlinfo/indicators/guidelines.pdf

---. (2007b). *Indicators of Sustainable Development: Guidelines and Methodologies –Methodology sheets.* New York: United Nations. Available at http://www.un.org/esa/sustdev/natlinfo/indicators/methodology_sheets.pdf

UN Department of Peacekeeping Operations (DPKO) and the Office of the UN High Commissioner for Human Rights (OHCHR). (2011). *Rule of Law Indicators: Implementation Guide and Project Tools.* New York, NY: United Nations. Available at http://www.un.org/en/peacekeeping/publications/un_rule_of_law_indicators.pdf

UNDP. (2013). *Human Development Report 2013: The Rise of the South: Human Progress in a Diverse World*. New York, NY: UNDP. Available at http://hdr.undp.org/en/content/human-development-report-2013

---. (2012). *Measuring Democracy and Democratic Governance in a post-2015 Development Framework*. New York, NY: UNDP. Available at http://www.undp.org/content/dam/undp/library/Democratic Governance/OGC/Post2015 governance metrics _14 Aug.pdf

UNESCO. (2014). *Free, Independent and Pluralistic Media In The Post-2015 Development Agenda: A Discussion Brief.* Available at http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/news/post_2015_agenda_brief.pdf

---. (2011). *Global Challenge of Wastewater: Examples from Different Countries*. Presentation at World Water Week in Stockholm, August 21-27, 2011. Available at http://www.worldwaterweek.org/documents/WWW_PDF/2011/Sunday/K21/The-Malin-Flakenmark-Seminar/Global-challenge-of-wastewater-Example-from-different-continents.pdf

---. (2010). *Media Development Indicators: A framework for assessing media development*. Available at http://unesdoc.unesco.org/images/0016/001631/163102e.pdf

UNESCO Institute for Statistics and the Center for Universal Education at the Brookings Institution (2013). *Toward Universal learning: Recommendations from the Learning Metrics Task Force*. Available at http://www.brookings.edu/research/reports/2013/09/learning-metrics-task-force-universal-learning#

UN-Habitat. (2009). *Urban Indicator Guidelines: Better Information, Better Cities, Monitoring the Habitat Agenda and the Millennium Development Goals – Slum Target*. Nairobi, Kenya: UN-Habitat. Available at http://www.unhabitat.org/downloads/docs/Urban_Indicators.pdf

---. (2006). *State of the World's Cities 2006/7*. Available at http://www.unhabitat.org/documents/media_centre/sowcr2006/sowcr 5.pdf

UNICEF, WHO, World Bank and UNPD. (2007). *Levels and Trends of Child Mortality in 2006: Estimates developed by the Inter-agency Group for Child Mortality Estimation.* New York, NY: UNICEF, 9. Available at http://www.childinfo.org/files/infant_child_mortality_2006.pdf

UNIDO, UNDP, UN-HABITAT and UNEP. (2013). *Sustained and Inclusive Economic Growth, Infrastructure Development, and Industrialization*. Available at http://sustainabledevelopment.un.org/content/documents/2078Draft%20Issue%20Brief_Sustained%20and%20Inclusive%20Economic%20Growth_Final_16Oct.pdf

UN International Strategy for Disaster Reduction (ISDR). (2007). *Hyogo Framework for Action 2005-2015*. Extract from the Final Report of the World Conference on Disaster Reduction. Geneva, Switzerland: ISDR.

UN Office on Drugs and Crime (UNODC). (2013). *Accounting for Security and Justice in the Post-2015 Development Agenda*. Geneva: UNODC. Available at http://www.unodc.org/documents/about-unodc/Post-2015-Development-Agenda/UNODC_-_Accounting_for_Security_and_Justice_in_the_Post-2015_Development_Agenda.pdf

UN Population Division. (2011a). *Seven Billion and Growing: The Role of Population Policy in Achieving Sustainability*. Technical Paper No. 2011/3. New York.

---. (2011b). *World Contraceptive Use 2011.* New York: UN. Available at http://www.un.org/esa/population/publications/contraceptive2011/contraceptive2011.htm

UN Secretary-General. (2014). *The Road to Dignity by 2030: Ending Poverty, Transforming All Lives and Protecting the Planet*, Synthesis Report of the Secretary-General On the Post-2015 Agenda. Available at http://www.un.org/disabilities/documents/reports/SG_Synthesis_Report_Road_to_Dignity_by_2030.pdf

---. (2013). *A life of dignity for all: accelerating progress towards the Millennium Development Goals and advancing the United Nations development agenda beyond 2015.* Available at http://www.un.org/millenniumgoals/pdf/A Life of Dignity for All.pdf

---. (2010). *Women and peace and security*. Security Council Report S/2010/173. New York, NY: United Nations. Available at http://www.peacewomen.org/assets/file/Indicators/sg_report_on_1889-op17.pdf

UN Statistical Commission. (2015). *Draft Report from the 46th session.* Available online at http://papersmart.unmeetings.org/media2/4656653/item-7-draft-report.pdf

UN Statistics Division. (2013). *Principles and Recommendations for a Vital Statistics System (Revision 3).* Available at http://unstats.un.org/unsd/demographic/standmeth/principles/default.htm

---. in collaboration with the Friends of the Chair group on broader measures of progress. (2014). *Compendium of statistical notes for the Open Working Group on Sustainable Development Goals*. Available at http://sustainabledevelopment.un.org/content/documents/3647Compendium%20of%20statistical%20notes.pdf

UN System Task Team on the Post-2015 UN Development Agenda. (2013). *Statistics and indicators for the post-2015 development agenda.* New York, NY: United Nations. Available at http://www.un.org/en/development/desa/policy/untaskteam_undf/UNTT_MonitoringReport_WEB.pdf

UN Women. (2013). *A Transformative Stand-Alone Goal On Achieving Gender Equality, Women's Rights And Women's Empowerment: Imperatives And Key Components.* New York, NY: United Nations. Available at http://www.unwomen.org/~/link.aspx?_id=981A49DCB34B44F1A84238A1E02B6440and_z=z

US Environmental Protection Agency. (2009). *Drinking Water Glossary: A Dictionary of Technical and Legal Terms Related to Drinking Water*. Washington DC: Office of Water/Office of Ground Water and Drinking Water. http://water.epa.gov/drink

World Health Organization. (2014a). *NCD Global Monitoring Framework*. Available at http://www.who.int/nmh/global_monitoring_framework/en

---. (2014b). Global Database on Child Health and Malnutrition; Child growth indicators and their interpretation. Available at http://www.who.int/nutgrowthdb/about/introduction/en/index2.html

---. (2014c). *Micronutrients*. Available at http://www.who.int/nutrition/topics/micronutrients/en/index.html

---. (2013a). *WHO recommendations for routine immunization - summary tables*. Available at http://www.who.int/immunization/policy/immunization_tables/en/index.html

---. (2013b). *Global Vaccine Action Plan, 2011 – 2020.* Available at http://www.who.int/immunization/documents/general/ISBN_978_92_4_150498_0/en/index.html

---. (2013c). *Global Action Plan for the Prevention and Control of Non-Communicable Diseases*. Available at http://apps.who.int/iris/bitstream/10665/94384/1/9789241506236_eng.pdf

---. (2013d). *Mental Health Action Plan 2013 – 2020*. Available at http://apps.who.int/iris/bitstream/10665/89966/1/9789241506021_eng.pdf

---. (2013e), *Global status report on road safety*. Available at http://www.who.int/violence_injury_prevention/road_safety_status/2013/report/en/

---. (2012). *Proposed targets for maternal, infant, and young children nutrition*. WHO Discussion paper. Available at http://www.who.int/nutrition/topics/nutrition_globaltargets2025/en/index.html

---. (2010). *Global Recommendations on Physical Activity for Health*. Available at http://whqlibdoc.who.int/publications/2010/9789241599979_eng.pdf?ua=1

---. (2009*). Monitoring emergency obstetric care: a handbook*. Geneva, Switzerland: WHO Press, 10. Available at http://whqlibdoc.who.int/publications/2009/9789241547734_eng.pdf

---. (2008). *Toolkit on monitoring health systems strengthening service delivery*. Geneva, Switzerland: WHO. Available at http://www.who.int/healthinfo/statistics/toolkit_hss/EN_PDF_Toolkit_HSS_ServiceDelivery.pdf

---. (2005). *The World health report 2005: make every mother and child count.* Geneva: WHO. Available at http://www.who.int/whr/2005/whr2005_en.pdf?ua=1

World Health Organization, World Bank. (2014). *Monitoring progress towards universal health coverage at country and global levels: Framework, measures and targets.* Geneva, Switzerland: WHO Press. Available at http://apps.who.int/iris/bitstream/10665/112824/1/WHO_HIS_HIA_14.1_eng.pdf

---. (2013). *Monitoring progress towards universal health coverage at country and global levels: A Framework*. Joint WHO / World Bank Group Discussion Paper. Geneva, Switzerland: WHO Press. Available at http://www.who.int/healthinfo/country_monitoring_evaluation/UHC_WBG_DiscussionPaper_Dec2013.pdf

World Food Programme (WFP). (2008). *Technical Guidance Sheet - Food Consumption Analysis: Calculation and Use of the Food Consumption Score in Food Security Analysis.* Available at http://www.wfp.org/content/technical-guidance-sheet-food-consumption-analysis-calculation-and-use-food-consumption-score-food-s.

Water Supply & Sanitation Collaborative Council (WSSCC). (2014). *WASH POST-2015: proposed targets and indicators for drinking-water, sanitation and hygiene.* Available at http://www.wssinfo.org/fileadmin/user_upload/resources/post-2015-WASH-targets-factsheet-12pp.pdf

WHO-UNICEF Joint Monitoring Programme. (2013). "Post-2015 WASH Targets and Indicators." Available at http://www.wssinfo.org/post-2015-monitoring

WWF. (2012). *Living Planet Report*. Gland, Switzerland: WWF International. Available at http://awsassets.panda.org/downloads/1_lpr_2012_online_full_size_single_pages_final_120516.pdf

Yale Center for Environmental Law and Policy, and Columbia Center for International Earth Science Information Network. (2012). *2012 EPI - Environmental Performance Index and Pilot Trend Environmental Performance Index*. Available at http://epi.yale.edu/sites/default/files/downloads/2012-epi-full-report_0.pdf

VanIttersum, M.K. et al. (2013). Yield gap analysis with local to global relevance-A review. *Field Crops Res*. 143, 4-17

Yoshikawa, H. et al. (2013). *Investing in the future: The evidence base for early childhood education*. Washington, DC: Society for Research in Child Development.

Yossa, T. (2013). *Report on Sustainable Development Goals for the Central Africa Subregion*. Discussion paper for the Africa Regional Consultative Meeting on the Sustainable Development Goals, Addis Ababa, Ethiopia. Available at http://www.uneca.org/sites/default/files/uploaded-documents/SDG/2013/sdg2013_draft_sdgs_report_central_africa_en.pdf

Documents and Reports Prepared by the SDSN (All are available at http://unsdsn.org/resources)

Agyepong, I. Liu, G, and Reddy, S. et al. (2014). *Health In the Framework of Sustainable Development.* Paris, France and New York, USA: SDSN.

Alkire, S. (2014), *Towards frequent and accurate poverty data.* SDSN Briefing Paper. Paris, France and New York, USA: SDSN.

Alkire, S. and Samman, E. (2014). *Mobilizing the household data required to progress toward the SDGs*. SDSN Briefing Paper. Paris, France and New York, USA: SDSN.

Bakker, P. and Leisinger, K. et al. (2013). *The key challenges to 2030/2050: Mapping out long-term pathways to sustainability and highlighting solutions that should be scaled up.* Background Paper for the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. Paris, France and New York, USA: SDSN.

Begashaw, B. et al. (2015 forthcoming). *Reducing Poverty and Building Peace in Fragile Regions*. Draft report of the Thematic Group.

Bradshaw, S., Castellino, J., and Diop, B. et al. (2013). *Achieving Gender Equality, Social Inclusion, and Human Rights for All: Challenges and Priorities for the Sustainable Development*. Paris, France and New York, USA: SDSN.

Cassidy, M. (2014). *Assessing Gaps in Indicator Coverage and Availability*. SDSN Briefing Paper, Paris, France and New York, USA: SDSN

Chavan, M. and Yoshikawa, H. et al. (2014). *The Future of Our Children: Lifelong, Multi-generational Learning for Sustainable Development*. Draft Technical Report from the Thematic Group on Early Childhood Development, Education, and Transition to Work. Paris, France and New York, USA: SDSN.

Collier, P and Antonio, P. et al. (2013). *Harnessing Natural Resources for Sustainable Development: Challenges and Solutions*. Paris, France and New York, USA: SDSN.

Dobermann, A. and Nelson, R. et al. (2013). *Solutions for Sustainable Agriculture and Food Systems.* Technical report of the Thematic Group on Sustainable Agriculture and Food Systems. Paris, France and New York, USA: SDSN.

Espey, J., et al. (2015). *A Needs Assessment for SDG Monitoring and Statistical Capacity Development*. Paris, France and New York, USA: SDSN.

Helliwell, J., Layard, R., and Sachs, J. (2013). *World Happiness Report 2013*. New York, USA: SDSN.

Naeem, S., Viana, V., and Visbeck, M. (2014). *Forests, Oceans, Biodiversity and Ecosystem Services*. Draft report of the Thematic Group FOBES, SDSN. To be published by Sustainable Development Solutions Network.

Revi, A. and Rosenzweig, C. et al. (2013a*). The Urban Opportunity to enable Transformative and Sustainable Development*. Background Paper for the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. Paris, France and New York, USA: SDSN.

---. (2013b). *Why the World Needs an Urban Sustainable Development Goal.* Paris, France and New York, USA: SDSN.

Rockström, J., Sachs, J., Öhman, M., and Schmidt-Traub, G. (2013). *Sustainable Development and Planetary Boundaries*. Background Paper for the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. Paris, France and New York, USA: SDSN.

Sachs, J. and Schmidt-Traub, G. (2013). *Financing for development and climate change post-2015*, SDSN Briefing Paper, Paris, France and New York, USA: SDSN

Sustainable Development Solutions Network. (2013). *An Action Agenda for Sustainable Development.* Report for the UN Secretary-General. Paris, France and New York, USA: SDSN.

Thematic Consultations Organized by the United Nations

Conflict, Violence, and Disaster. (2012, November 7). Concept Note on the Impact of Conflict, Violence and Disaster on Long-Term Development. UNDP, PBSO, UNISDR and UNICEF, with support from the Government of Finland. Available at http://www.worldwewant2015.org/conflict

Education. (2013, May 17). Executive Summary (Draft): Envisioning education in the post-2015 development agenda. Co-led by UNDP and OHCHR with support from the Government of Canada. Available at http://www.worldwewant2015.org/education2015

Energy. (2013, April 16). Global Thematic Consultation on Energy and the Post-2015 Development Agenda: Key Messages. UN-Energy. Available at http://www.worldwewant2015.org/Energy2015

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

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

Food Security and Nutrition. (2013, April 4). 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. (2013, March 4). 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. Available at http://www.worldwewant2015.org/governance

---. (2013, March 16). Meeting Report: Governance and human rights: Criteria and measurement proposals for a post-2015 development agenda. Co-led by UNDP and OHCHR with support from the Government of Germany. Available at http://www.worldwewant2015.org/governance

---. (2013, May 14). Review of Outcomes - Final meeting of the Global Thematic Consultation on Governance and the Post-2015 Framework. Co-led by UNDP and OHCHR with support from the Government of Germany. Available at http://www.worldwewant2015.org/governance

Growth and Employment. (2012, May 16). Growth, Structural Change 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. Available at http://www.worldwewant2015.org/employment

Health. (2013, April). 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. Available at http://www.worldwewant2015.org/health

Inequality. (2013, March 13). Addressing Inequalities: Synthesis Report of Global Public Consultation. Co-led by UNICEF and UN Women with support from the Governments of Denmark and Ghana. Available at http://www.worldwewant2015.org/inequalities

Population. (2013, March 14). A Call to Integrate Population Dynamics into the Post-2015 Development Agenda: draft outcome document. Co-led by UN-DESA, UNFPA, UN-HABITAT and IOM with the support of the Governments of Bangladesh and Switzerland. Available at http://www.worldwewant2015.org/population

Water. (2013, April 23). Water Thematic Consultation Report, Draft Version for Comments. Co-led by UN-Water, UN DESA, UN-Habitat and UNICEF with support from the Governments of the Netherlands and Switzerland. Available at http://www.worldwewant2015.org/water

United Nations Development Group (2013a). *The Global Conversation Begins: Emerging Views for a New Development Agenda*. Available at http://www.worldwewant2015.org/the-global-conversation-begins

---. (2013b). Growth and Employment in the Post-2015 Agenda Messages from a global consultation. Available at www.worldwewant2015.org/employment