ASIA-EUROPE
ENVIRONMENT FORUM

Sustainable Development Goals and Indicators for a Small Planet

Part I: Methodology and Goal Framework

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PREFACE & ACKNOWLEDGEMENTS

The Millennium Development Goals (MDGs)—one of the most resonant and unifying commitments in the international community's history—will come to an end in 2015.

The 2012 United Nations Conference on Sustainable Development (Rio+20) concluded with a decision to create a new global development framework through a set of Sustainable Development Goals (SDGs) that would take the place of the MDGs after 2015. Whereas MDGs mostly focussed on poverty reduction, the SDGs encompass all dimensions of sustainable development: economic, social and environmental.

At the 9th Asia-Europe Meeting Summit (ASEM Summit) that took place in Lao PDR in November 2012, Asian and European leaders supported the call for a set of universally applicable SDGs and emphasized the need for an inclusive process in their elaboration. In line with its mandate, the Asia-Europe Environment Forum (ENVforum) responded to the ASEM leaders' call and undertook this research project: *Sustainable Development Goals for a Small Planet.*

The ENVforum's report tries a unique approach to the formulation of SDGs: by enriching the ongoing global discourse with national perspectives. Combining analyses of top-down international processes and bottom-up country-level strategy documents, the research involved a five-step process that resulted in 11 high-level goals (10+1) and respective underlying sub-goals, which are presented in this report.

The mix of organizations in this initiative reflects the ongoing multistakeholder dialogues on the environment and sustainable development in the two regions: dialogues between regional organizations and regional blocs; individual Asian and European countries; governments and civil society; academic researchers and practitioners; and grassroots and international organizations.

The report was launched as an interim draft on November 5, 2013 at the Green Growth and Sustainable Development Goals conference of ENVforum in Seoul. It was also presented on November 26, 2013 in a side-event at the Fifth Session of the Open Working Group on Sustainable Development Goals. This version takes into account the comments received.

The co-organizers would like to thank the following individuals and institutions, without which this project would have not been possible: László Pintér from the International Institute for Sustainable Development-Europe (IISD-Europe) and the Central European University (CEU), Dora Almassy from CEU and the Regional Environmental Center for Central and Eastern Europe (REC); Ella Antonio from the Earth Council Asia-Pacific; Ingeborg Niestroy from Public Strategies for Sustainable Development (PS4SD); Simon Olsen and Peter King from the Institute for Global Environmental Strategies (IGES); Thierry Schwarz, Grazyna Pulawska and Sumiko Hatakeyama from the Asia-Europe Foundation (ASEF).

The ENVforum is a partnership initiated by ASEF with ASEM SMEs Eco-Innovation Center (ASEIC), the Swedish International Development Agency (Sida), the Hanns Seidel Foundation Indonesia (HSF) and IGES, in co-operation with the United Nations Environment Programme (UNEP).

ENVforum Secretariat

LIST OF ACRONYMS

AROPE   At Risk of Poverty or Social Exclusion
ASEF   Asia-Europe Foundation

ASEM   Asia-Europe Meeting

CBDR   Common But Differentiated Responsibilities

ENVforum   Asia-Europe Environment Forum

GEO   Global Environment Outlook
GDP   Gross Domestic Product
GHG   Greenhouse Gas

HDI   Human Development Index

HLP   High-Level Panel of Eminent Persons on the Post-2015
               Development Agenda
ILO   International Labour Organization
IISD   International Institute for Sustainable Development

MDGs   Millennium Development Goals
MSME   Micro, Small and Medium Enterprises
ODA   Overseas Development Assistance

OWG   Open Working Group on Sustainable Development Goals

SCP   Sustainable Consumption and Production

SDGs   Sustainable Development Goals

SDSN   Sustainable Development Solutions Network

UN   United Nations

UNCSD   United Nations Conference on Sustainable Development

UNDP   United Nations Development Programme

UNEP   United Nations Environment Programme
UNFCCC   United Nations Framework Convention on Climate Change

UNSTT   United Nations System Task Team
UNTST   United Nations Technical Support Team

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EXECUTIVE SUMMARY

At the Rio+20 conference in 2012, participating governments agreed to develop a universally applicable set of Sustainable Development Goals (SDGs) to promote focused and coherent action on sustainable development. Governments further agreed that the process of defining the SDGs must take place in the broader context of constructing a global development framework beyond the time frame of the Millennium Development Goals (MDGs) that comes to an end in 2015. Recognizing the need to support the implementation of these agreements, the 51 Asian and European heads of states or governments of the Asia-Europe Meeting (ASEM) decided to support the Sustainable Development Goals Creation in ASEM Countries research project through the Asia-Europe Environment Forum (ENVforum). In order to undertake the research, a small group of leading experts from Asia-Pacific and Europe was commissioned through the International Institute for Sustainable Development-Europe (IISD-Europe).

The project aims to contribute to the development of a universal set of SDGs in terms of its substantive content and process design. Its specific objectives include the following:

1. Develop and test a methodology in selected Asia-Pacific and European countries to identify a system of SDGs and to provide guidance for the methodology's broader application at the global and national levels.

2. Identify illustrative SDGs and underlying targets and indicators that are guided by global priorities and informed by national priorities as expressed in existing national sustainable development strategies and strategic development plans in selected ASEM countries.

3. Provide countries in Asia-Pacific and Europe a foundation for developing their own SDG and indicator sets by producing national thematic templates that reflect their respective priorities, goals, targets and indicators.

4. Support the implementation of SDGs by providing guidance regarding their integration into policies and programs.

The research was guided by the principles and priorities expressed in various forums and agreements for SDG development, such as the Rio Principles and 27 priorities; considered various processes related to the global post-2015 development agenda and SDGs; and was grounded in applicable findings of social and natural sciences and the results of high-level integrated assessments and thematic reports of the United Nations system. Complementing guidance available through global processes and documents, the project drew on national goals and priorities from sustainable development strategies, medium-term development plans and similar documents from eight Asian (Australia, Bangladesh, China, India, Indonesia, Japan, Korea, Singapore) and six European (France, Germany, Hungary, Poland, Sweden, Switzerland) ASEM-member countries.

In order to identify a short set of illustrative SDGs, the project developed and adopted a unique methodology that connects global and national perspectives through an iterative process. This dual-level approach ensured that the SDGs have universal relevance and meet global criteria for sustainability while being grounded in national sustainable development priorities, goals and targets. The study also adopted a conceptual framework, linking the means (natural capital and economic processes) and ends (human well-being) of development that ensured that all key dimensions of sustainability (socioeconomic development, environmental sustainability and governance) are covered by the goals and sub-goals and that their ordering is logical.

Following the iterative approach and guided by a means-ends framework, the project identified 11 priority themes with corresponding illustrative goal statements and 41 sub-goal statements, as shown below. The 11th goal, adaptive governance and means of implementation, was also recognized as strongly linked to all other 10 goals. In addition to the 11 goals, a small number of crosscutting issues (gender, peace and security) have been identified.

It is quite clear that any future goal framework must clearly account for the interlinkages between goal areas, so as to capitalize on synergies and avoid unintended negative trade-offs in the pursuit of single goal or target areas. The importance of interlinkages has been recognized by a variety of global assessments, and it is inherent in some more recently emerging concepts such as the nexus approach to water, energy and food security (e.g., UNEP 2007; Hoff 2011). However, given their broader scope and expected policy relevance, SDGs will require a more methodical and rigorous consideration of interlinkages in different thematic and geographic contexts and at different scales. Further analysis and modelling will be needed to chart a way forward.

Table 1: The system of 10+1 illustrative SDGs developed in the project for the 14 countries of the Small Planet

Priority Themes	Goal statements	Sub-Goal Statements
1. Poverty and inequality	Poverty and inequality are reduced.	1.1. Intra- and intergenerational social equity for all groups (e.g., women, youth, elderly, indigenous, minorities) is improved. 1.2 Everybody is above the national poverty line in 2015 by 2030. 1.3 Income inequality and risk of poverty has been significantly reduced with social security system in place.
2. Health and population	Population is stabilized and universal access to basic health services is provided.	2.1 Prevention and healthy lifestyles have significantly contributed to increased healthy life years. 2.2. The ratio of active/dependent population has been stabilized. 2.3 Affordable and accessible healthcare and insurance are provided, including prenatal and reproductive care and education. 2.4 There is universal access to sanitation and hygiene services. 2.5 Demographic changes do not pose a risk to the integrity of natural ecosystems and societies.
3. Education and learning	Education is a major contributor to sustainability transformation.	3.1 Quality primary education and increased access to secondary education for all segments of society and opportunities for lifelong learning are provided. 3.2 Skills and societal demands are properly matched throughout all types of qualification. 3.3. Awareness and know-how about sustainable development is integrated in curricula and has significantly increased.

4. Quality of growth and employment	Economic growth is environmentally sound and contributes to social well-being.	4.1 Economic growth ensures an acceptable employment rate and decent jobs, and is environmentally-sound.
		4.2 Appropriate financial, monetary and fiscal policies that support macroeconomic stability and resilience are in place.
		4.3 Social and environmental accounts are in use by all governments, major companies and international institutions.
		4.4 Externalities are internalized through economic instruments in all sectors.
5. Settlements, infrastructure and transport	Settlements and their infrastructure are liveable, green and well managed.	5.1 All people have a home and access to basic infrastructure and services.
		5.2 Urban planning provides liveable cities with clean air and efficient use of land and resources.
		5.3 Major infrastructure development does not impose risk to the integrity of natural ecosystems and society, and the modal share of environmentally friendly transport has been increased.
6. SCP and economic sectors	Resource-efficient and environmentally friendly production and consumption characterize all economic sectors.	6.1 Principles and practices of sustainable lifestyles are applied by the majority of the population.
		6.2 Culturally, environmentally friendly, responsible, low-impact tourism has become dominant.
		6.3 Investment and innovation for green and circular economy has been significantly increased.
		6.4 The increase of waste and pollutants in the environment has been significantly slowed and resource efficiency has been increased
7. Food security, sustainable agriculture and fisheries	Sustainable agriculture, food security and universal nutrition are achieved.	7.1. Access to affordable, nutritious and healthy foods at sufficiency levels (tackling hunger and obesity and avoiding food waste) is ensured.
		7.2. Productivity is increased via accelerated conversion to sustainable agriculture, fisheries and forestry.
		7.3. Effective land-use planning and management are in place and assure equitable access to land.
		7.4. The quantity and quality of agro-ecosystems are maintained without destroying natural ecosystems.
8. Energy and climate change	Climate change is effectively addressed while access to clean and sustainable energy is significantly improved.	8.1 Everyone has access to sufficient energy and consumption is efficient and sustainable.
		8.2 The generation of clean and sustainable renewables has increased.
		8.3 The rate of GHG concentration increases in the atmosphere has been reduced.
9. Water availability and access	Safe and affordable water is provided for all and the integrity of the water cycle is ensured.	9.1 Water consumption of households and all economic sectors is efficient and sustainable.
		9.2 Infrastructure is available and well maintained to ensure a sufficient and safe water supply.
		9.3 The integrity of the water cycle has been achieved through widespread adoption of integrated water resources management.

10. Biodiversity and ecosystems	Biodiversity and ecosystems are healthy and contribute to human well-being.	10.1 A sufficient proportion of all major biomes is under adequate protection.
		10.2 The rate of extinction of natural and cultivated species has been halted and is on course towards a trend reversal.
		10.3 All types of natural habitats exist in a quantity and quality sufficient for their healthy functioning.
11. Adaptive governance and means of implementation	Adequate structures and mechanisms are in place to support the implementation of the priorities underlying the SDGs at all levels.	11.1 Long-term integrated visions of sustainable development are developed to guide physical, thematic and sectoral plans.
		11.2 A sustainable development cooperation framework at the international level is well established.
		11.3 Policies and plans are co-ordinated to integrate SDGs into decision-making and implementation.
		11.4 Progress towards the SDGs is tracked, and the relevant information is accessible to all and reviewed on a regular basis.
		11.5 Illicit flows of money and goods, tax evasion, bribery and corruption are reduced.
		11.6 The impact of disasters on people and property has been sharply reduced.

The project resulted in several lessons that may inform and support the development of SDGs at both global and national levels. The lessons apply to the overall approach to SDG development, but also point out issues related to their implementation:

- While SDG development is a new challenge, it can and should **build on existing experience** in goal setting, monitoring and implementation. Since the goals have to be both universally applicable and nationally acceptable and relevant, goal setting should follow an **iterative multi-step process** that must be carefully planned. The iterative, 5-step process linking the global and national levels used by this study was found useful and could be found useful when followed by others. Besides its iterative structure, the following two aspects of the process were particularly important:

  o An explicit effort to develop common definitions of key concepts and terms early in the process and their consistent use during the definition of the SDGs.

  o Participatory and adaptive process design that is well structured but allows for adjustment when required by harmonizing interests, identifying priorities and weighing trade-offs.

- Adoption of a **conceptual framework that captures sustainability issues in a structured way and as an interconnected system is imperative** for making sure all key sustainability priorities are considered, logically linked and structured. Those engaged in the development of SDGs would find using the means-ends framework or a similar equivalent useful.

- **Governance is a key but insufficiently understood and represented an aspect of SD that country SDGs must clearly cover**. It is also recognized as a precondition for the successful implementation of all other goals. Thus, there is a need to reflect governance both as a specific goal and as a set of principles underpinning all goals.

- To ensure that goals actually provide overall direction for sustainable development governance, the **SDGs must fit into and be accompanied by other elements of a sustainable development governance and management framework**. Besides a clear statement of goals, these other elements include targets that express the goal in quantitative terms and indicators that are essential for measuring and evaluating progress. The broader governance framework includes **strategies, plans and implementation mechanisms** with which SDGs must be closely linked.

- Effective tracking and clear communication of progress towards SDGs will be important. For this, the study suggests the development of **sustainability dashboards** that can build on earlier dashboard designs and sustainable development indicator systems but make use of new technologies and capitalize on advances in data collection, analysis and presentation methods.

- Given their unique economic, ecological and social conditions and different systems of governance, **countries must translate global-level goals into national equivalents**. While differentiation is less likely to be accepted at the level of common goals, it would be in most cases *necessary* at the level of more specific targets, where countries could make commitments based on their different baselines and conditions. National application of global SDGs is accomplished better at the target level. Thus, a significant sub-process for target setting that involves affected actors and considers technical and scientific elements such as baselines and critical thresholds must be put in place.

Looking beyond the task of identifying long-term goals for the post-2015 development agenda, the project found it important to point to the challenges of implementation. Ultimately, success will depend on whether society can successfully navigate a transition to a world where human well-being goals are met while preserving the integrity of the planetary environment.

1. INTRODUCTION

One of the most definitive and widely subscribed results of the 2012 United Nations Conference on Sustainable Development (Rio+20) was the development of a set of Sustainable Development Goals (SDGs) (United Nations [UN], 2012a). The Rio+20 outcome document, *The Future We Want*, recognized the need for SDGs in order to promote coherent and focused actions on sustainable development (UN, 2012b). Meanwhile, the time frame of the Millennium Development Goals (MDGs) will end in 2015, requiring the formulation of a successor global development framework. Countries participating in Rio+20 agreed to launch a process to define an actionable and universally applicable set of SDGs that will be in place by the end of 2015. Work on SDGs takes place in the broader context of defining a development framework for the post-2015 period, a UN-driven process supported by a UN System Task Team (UNSTT) and inputs from other groups inside and outside of the UN.

In order to support work on the post-2015 development agenda, the UN Secretary General established a High-Level Panel of Eminent Persons (HLP) co-chaired by President Susilo Bambang Yudhoyono of Indonesia, President Ellen Johnson Sirleaf of Liberia and Prime Minister David Cameron of the United Kingdom, with representatives of civil society, private sector and government. The HLP was mandated to provide recommendations with regard to the direction of the post-2015 development agenda, suggest principles to help reshape the global partnerships for development and accountability, and recommend ways to build political consensus around an ambitious post-2015 development agenda that covers environmental sustainability, social equity and economic growth. The HLP submitted its report to the Secretary General in 2013 and in its Annex I (Illustrative Goals and Indicators) suggested 12 universal goals with corresponding national indicators (HLP, 2013).

Meanwhile, the UN General Assembly constituted and tasked an Open Working Group (OWG) to develop the SDGs. At any one time, the OWG comprises 30 members and is co-chaired by Hungary and Kenya. Two thirds of the membership seats are shared by more than one country, thus bringing the number of directly involved countries to 70. The OWG has been engaged in consultations with civil society, the scientific community and other stakeholders to ensure broad representation of perspectives and priorities. The OWG is expected to hold eight sessions covering key thematic areas and conclude its work with recommendations for a set of universally applicable goals by fall 2014.

Following the Rio+20 agreements, Asian and European heads of states and governments reaffirmed their commitments to achieving sustainable development at the 9th Asia-Europe Meeting Summit in Lao PDR in November 2012.

ASEM is an intergovernmental forum for dialogue and cooperation established in 1996 to deepen relations between Asia and Europe, which addresses political, economic and sociocultural issues of common concern. ASEM brings together 49 member states (29 European and 20 Asian countries), the European Union and the ASEAN Secretariat.[1] ASEM leaders have underlined the importance and urgency of developing SDGs through a transparent and inclusive inter-governmental process (ASEM, 2012). The research project referred to as *Sustainable Development Goals Creation in ASEM Countries* is the response of the Asia-Europe Environment Forum (ENVforum) to the call of ASEM leaders for a set of SDGs and the inclusive process that must accompany its development.

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1 Australia, Austria, Bangladesh, Belgium, Brunei Darussalam, Bulgaria, Cambodia, China, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, India, Indonesia, Ireland, Italy, Japan, Republic of Korea, Laos, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mongolia, Myanmar, the Netherlands, New Zealand, Norway, Pakistan, the Philippines, Poland, Portugal, Romania, Russia, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Thailand, the United Kingdom, Vietnam, the European Commission and the ASEAN Secretariat.

Research Objectives

The overall objective of this research project is to contribute to the development of a universal set of SDGs in terms of its substantive content and process design such that global considerations would be strongly informed by priorities and realities at the national level. Specifically, the project aims to:

1. Develop and test a methodology in selected Asia-Pacific and European countries to identify a system of SDGs and provide guidance for the methodology's broader application at the global and national levels.

2. Identify illustrative SDGs and underlying targets and indicators that are guided by global priorities and informed by national sustainable development strategies and strategic development plans in selected ASEM countries.

3. Provide countries in Asia-Pacific and Europe with a foundation for developing their own SDG and indicator sets by producing national thematic templates that reflect their respective priorities, goals, targets and indicators.

4. Support the implementation of SDGs by providing guidance regarding their integration into policies and programs.

Guiding Principles

The work carefully took into account and was guided by the principles repeatedly expressed at various forums and in agreements about SDG development. The Rio+20 outcome document emphasized that the SDGs should be based on Agenda 21 and the Johannesburg Plan of Implementation, respect all Rio Principles, and take into account different national circumstances, capacities and priorities (UN, 2012b). The contributing governments further emphasized that SDGs should be "action-oriented, concise and easy to communicate, limited in number, aspirational, global in nature and universally applicable to all countries while taking into account different national realities, capacities and levels of development, and respecting national policies and priorities" (UN, 2012b). In addition, the work drew some of its substantive content and underlying values from the Bellagio Sustainability Assessment and Measurement Principles (International Institute for Sustainable Development [IISD] and Organisation for Economic Co-operation and Development [OECD], 2013; Pintér, Hardi, Martinuzzi & Hall, 2012), the Earth Charter (The Earth Charter Initiative, 2000), and UNSTT and United Nations Environment Programme (UNEP) technical papers, among others.

From a more recent context, results of the ongoing global post-2015 and SDG processes were monitored and their findings taken into account in a broad sense to orient this approach and not at the level of specific SDGs. They included, among others, the reports of the UN General Assembly OWG on Sustainable Development Goals, the UN Secretary General's HLP and the Sustainable Development Solutions Network (SDSN) (IISD Reporting Services 2013; SDSN 2013; UN, 2012b; UNHLP, 2013).

Besides the importance of building on relevant policy processes and documents, SDGs must also be grounded in applicable findings of social and natural sciences and the results of high-level relevant integrated assessments of and thematic reports oon the UN system. The Small Planet project took into account the concept of planetary and social boundaries (Griggs et al. 2013; Rockström et al, 2009; Raworth, 2012), the results of UNEP's 5th Global Environment Outlook (GEO-5) and the UNDP's *Human Development Report* (UNEP, 2012; UNDP, 2013), to name a few.

The "planetary boundaries" concept (Rockström, 2009) underlines that natural processes in the biosphere, if left to exceed boundaries beyond a certain point, will cause irreversible changes (Figure 1.1). Humanity's increasingly dominant role in pushing natural processes beyond or close to critical boundaries speak clearly to the need to adjust development towards more sustainable trajectories. Thus future sustainable development goals (and their implementation) must clearly reflect an awareness of environmental boundaries and set the stage for stronger action to avoid overshoot.
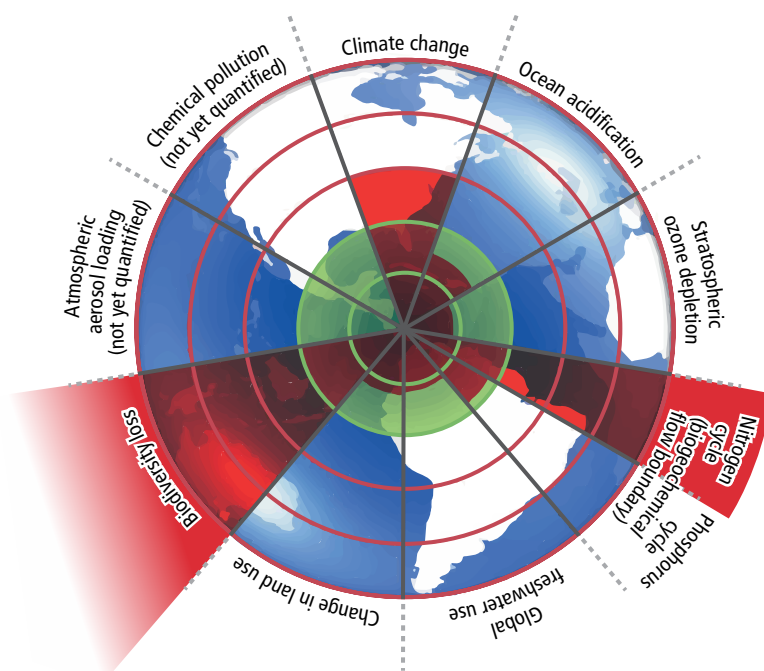
Figure 1.1: Schematic view of some of the key planetary boundaries (Rockström et al, 2009)

At the same time, however, the proposal for SDGs must not lose sight of the priority of meeting human development needs (Figure 1.2). In fact, the challenge is in staying within a safe and just space for humanity by meeting societal needs at an acceptable level without risking going beyond critical environmental boundaries (Raworth, 2012). The social and environmental considerations that are included in the Small Planet SDGs could be measured by indicators and higher-level indices, such as UNDP's inequality adjusted Human Development Index (HDI) or the ecological footprint.
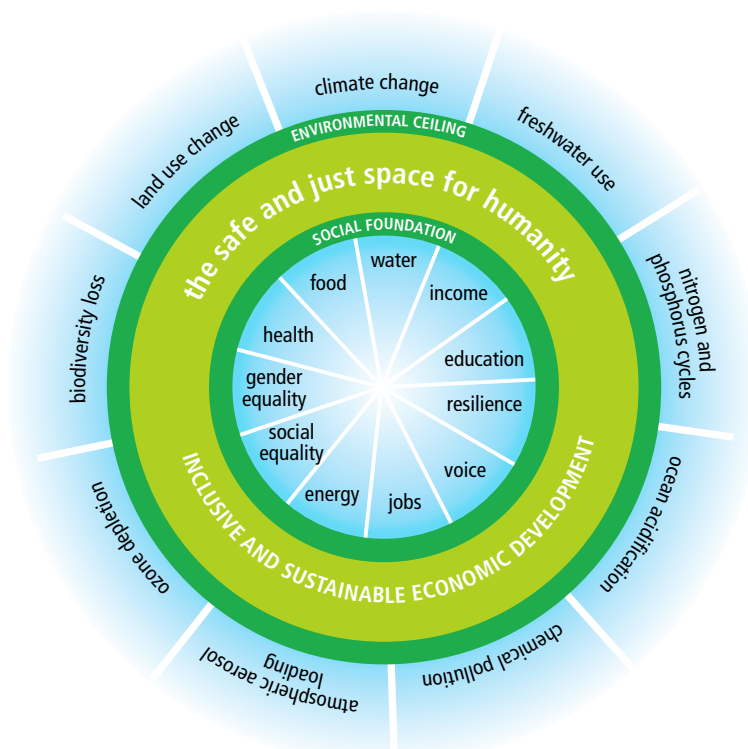
Figure 1.2: The Oxfam donut (Raworth, 2012)

The Small Planet report led to a set of illustrative goals that are closely connected and intertwined. These goals aim to integrate social, economic and environmental priorities plus governance to the highest extent possible. In view of their interconnectedness, the set of goals must be viewed and used as a *goal system* rather than as individual goals.

Due to the uncertainly about where humanity is currently situated in the framework of planetary and social boundaries, any proposed set of SDGs should be flexible and evolving, revisited and adjusted as needed to adapt to change.

Scope and Limitations of the Research

The establishment of integrated and universally applicable SDGs as a cornerstone of the broader post-2015 development agenda poses new challenges that require a nuanced understanding of a dynamically evolving state of play and where the overall process may be heading. It also requires a consultative and participatory process that would ensure the universality and local applicability of the goals. For the purposes of this project, therefore, the ENVforum, in consultation with the project team, decided to focus on eight Asia-Pacific (Australia, Bangladesh, China, India, Indonesia, Japan, Korea and Singapore) and six European (France, Germany, Hungary, Poland, Sweden and Switzerland) countries as shown in Figure 1.3. The country selection was based on level of development, political and economic influence in the region, population, availability of a sustainable development framework, geographic representation, the project team's close familiarity with specific countries and ASEF's priorities.

The coverage of ASEM (i.e., Asia-Pacific and Europe) naturally narrowed the geographic focus to the two regions. Notwithstanding this, the four developing countries (Bangladesh, China, India and Indonesia) alone already account for almost half (3.2 billion) of the world's population, which is around 7.1 billion. They are also geographically large countries and are hence faced with a wide variety of sustainable development issues familiar to countries elsewhere. The selected countries in Europe also have divergent issues that are largely present in the whole continent. Despite this wide diversity of issues, the 14 focus countries in this study are not meant to entirely represent the conditions of the two regions or the globe.

List of countries:

Australia
Bangladesh
China
France
Germany
Hungary
India
Indonesia
Japan
Poland
Republic
of Korea
Singapore
Sweden
Switzerland

Figure 1.3: Map of 14 focus countries

At the national level, the key resource materials for the research are sustainable development strategies, medium-term development plans and, in a few cases, sector plans and strategies. These documents spell out national visions, goals and priorities, and many involve participatory processes and are officially adopted. However, they vary in the level of detail, time frame, availability of clear and longer-term indicators and targets, and development directions. Some countries also have divergent views and priorities—e.g., some countries aim to exploit coal reserves while others aim to reduce reliance on fossil fuels.

While the project team intended to work closely with key officials and/or experts in the focus countries, limited resources and time kept the engagement to a minimum. Despite this, the researchers remained faithful to what the national documents provide, as these were considered the voices of their formulators.

Notwithstanding these limitations, the research met its objectives of developing and offering universally applicable, illustrative goals and charting a goal determination process that is systematic, strongly interactive and connects the global level to national scale realities. Considering the dynamics of the global SDG and post-2015 processes during and beyond the project, this research is considered an initial substantive foray into a policy area that will be important for ASEM members and others.

Why Small Planet?

In the title of this report, "small planet" expresses both limitations and significance. The report covers 14 Asia-Pacific and European countries that collectively represent 5.2 per cent of the world's current 193 sovereign states—hence "small." However, these 14 countries also cover almost 17 per cent of the Earth's land area and over 48 per cent of its total population based on 2012 data. These countries could make up their own small planet.

 "Small planet" also refers to Earth as our collective home. Earth represents the entirety of human experience, but it remains very small from the viewpoint of the solar system, let alone the universe. In the 1990s, astronaut Carl Sagan put Earth's significance in perspective with his Pale Blue Dot theory. Sagan proposed that the Voyager 1 spacecraft, which had been sent into space in 1977, reverse the direction of its cameras and take a picture of Earth from the record distance of about 6 billion kilometres (3.7 billion miles).

Figure 1.4: The Earth as a "Pale Blue Dot" in the solar system (Source: NASA JP)

Viewing the Earth in such a perspective revealed its sheer smallness and fragility. This perspective can be seen as an appeal to the world's leaders in business and politics to overcome the perceived insurmountable differences that hinder agreement on a path towards global sustainable development. This is because Carl Sagan's astronaut's perspective suggests that the respective differences between countries and people can seem less significant when realizing that this "small planet" is all we have and share (Figure 1.4). Moreover, the moniker "small planet" is thus a reminder to recognize the complexity, the scale and the significance of humanity's challenge in articulating development priorities for the planet as a whole.

With its rapidly growing population, increasing and unsustainable consumption, and resulting high ecological footprints, our planet's small stature is becoming increasingly clear. Earth's physical and space limitations that must be shared among more than 7.1 billion people and other living creatures of the biosphere. Thus, "small planet" serves as reminder that development choices should be guided by the necessity to distribute the planet's space for development and habitation justly and sustainably among Earth's human and non-human inhabitants.

Organization of the Report

The report has five substantive chapters. The introduction describes the project, and its context, scope and limitations. It also puts the magnitude of the sustainable development challenge into perspective. Section 2 expounds on the conceptual approach and the methodology employed in the study. It describes the process and steps undertaken and the bases for this process, particularly how the global and national priorities were linked and taken into account and how these consolidated priorities led to the identification of goals, sub-goals, targets and indicators. Section 3 lists and explains the 10+1 goals that resulted from the process along with their respective sub-goals, targets and indicators, which were taken from national documents. It describes the differences and commonalities among the countries' goals, targets and indicators with specific focus on Asia-Pacific and Europe, including both advanced and developing countries. It identifies gaps and possible areas that countries may need to work on to contribute to the global SDG process or undertake their respective SDG development processes. Chapter 4 synthesizes the thematic analysis in Chapter 3 and overall lessons from the project experience to provide guidance for the development of SDGs at the national level. Based on all of the above, Chapter 5 provides guidance regarding the integration of SDGs into national policy mechanisms and their effective implementation. A set of conclusions drawn from the whole research experience is presented in Chapter 6.

2. CONCEPTUAL APPROACH AND METHODOLOGY

The Rio+20 outcome document outlined some key criteria the SDGs should meet, such as universal applicability, common but differentiated responsibilities (CBDR), and how to address and incorporate environmental, social and economic priorities in a balanced way. However, the document left it to the future SDG development process to elaborate on ways to meet them Individually, the criteria are not necessarily new. However, their collective application to the development of common goals at the global level has not been attempted before and therefore represents a conceptual, methodological and, ultimately, political challenge.

Before getting into detailed research, the project team found it important to agree on common definitions and terms for indicators, goals, targets or priority themes. These terms are commonly available, yet small nuances in the multitude of possible definitions could easily lead to misunderstandings among researchers, users and the general public. Thus, the project team developed and agreed upon a glossary of terms early in the process in order to avoid any possible ambiguity and misunderstanding. This report will use the terms based on the definitions in the glossary, as shown in Annex 1.

The complexity of the issues vis-à-vis the declared need for universality of the SDGs and the "creatively ambiguous" nature of sustainable development made drawing up a useful conceptual and methodological approach challenging. These challenges require adapting the concept to specific contexts yet maintaining the relevance of sustainable development in each unique context (Pinter, 1997 Kates, Paris, & Leiserowitz, 2005). In political and legal spheres, this challenge is referred to as the principle of CBDR (Stone, 2004). In the context of SDGs, CBDR is particularly relevant for deciding which goals, targets and indicators are universally applicable and therefore come under the scrutiny of international review and accountability processes, and which ones are differentiated and country-specific. On a more contentious level, CBDR also refers to implementation—deciding which goals are to be funded and pursued directly by the countries, and which are to be supported by the international community.

In order to address the challenges described above and to contribute to the SDG development process at the global level, this study developed and adopted a dual-level approach that connects global and national perspectives through an iterative process (Figure 2.1). The hypothesis is that, besides approaching universal relevance and meeting global criteria for sustainability, SDGs should also be grounded in national sustainable development priorities, goals and targets. This is especially important for generating stronger ownership and facilitating synergy between countries as well as at global and national levels during implementation. Building on existing priorities should not prevent countries from agreeing on more ambitious goals and targets if and where required.
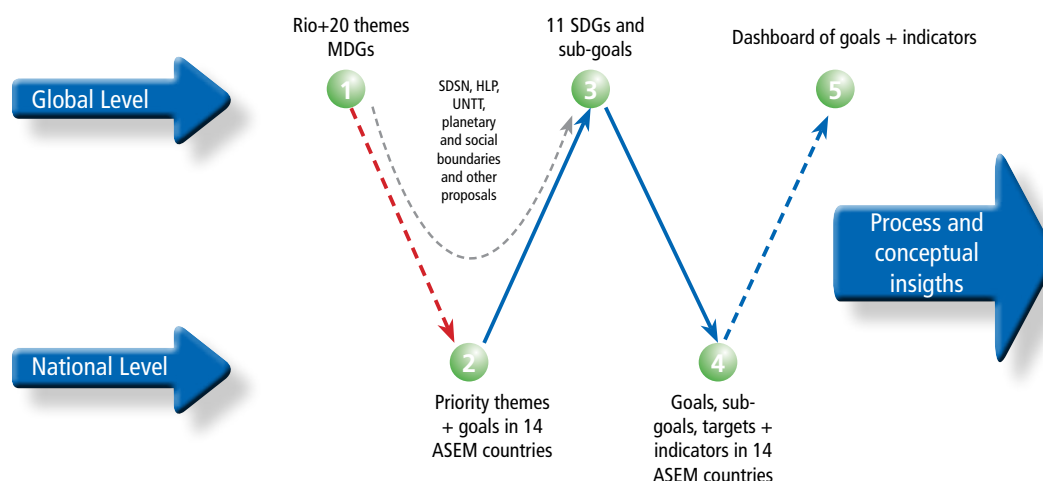

Figure 2.1: The project's iterative "global-national integration approach"

The methodology designed for the project follows five key steps. The top part of the figure shows the global-level steps of the process, starting with the MDGs and the priorities identified in the Rio+20 outcome document. The following steps alternate focus on the global and national levels, where the project team moves from a broad menu of possible SDG priorities at the beginning to a system of 11 clearly articulated goals, sub-goals (whose relevance at the national level was tested by identifying matching goals), targets and indicators. Moving from the global to the national level and back in five iterative steps not only grounds the development of global goals in national reality, but also facilitates continuous learning and the progressive refinement and verification of details. The purpose and specific activities related to the five steps are described below, with reference to the process shown in the figure.

Step 1: Review of Rio+20 guidance and the results of other relevant global processes

The starting point of the process (indicated by Step 1 in the Figure 2.1) are the 27 global thematic areas and cross-cutting issues of concern in the Rio+20 outcome document. In addition, priorities in other high-level and scientific documents are also considered. As indicated by the curved arrow, these include the results of the HLP, UNSTT, the SDSN and relevant scientific papers such as those on planetary and social boundaries. The curved arrow pointing to Step 3 indicates that these global-level priorities are also to be considered later during the formulation of the Small Planet goal set. The line is dotted to signal that priorities, goals and sub-goals in these other sources are only reviewed and noted, not simply copied over.

Step 2: Priority themes in 14 ASEM countries

This step starts with the identification of sustainable development priorities in the 14 ASEM countries based on existing high-level documents, such as sustainable development strategies or integrated development plans. Sustainable development strategies and integrated development plans, where available, are the most important source materials from the national level in this work, particularly those with explicit emphasis on long-term outcomes (Dalal-Clayton & Bass, 2002; Habito & Antonio, 2007; Niestroy, 2005; Volkery et al., 2006). National-level processes vary greatly in their approaches to sustainable development and attendant policy integration methods. While some countries have well-established sustainable development strategies with goals and indicators, these are a small minority. Most have fragmentary approaches and often one-off initiatives with incomplete or inconsistently developed goal-target-indicator systems that have to be used as the nearest proxies.

The project team mapped the identified national sustainable development priorities against the global priorities that were identified in Step 1. Some priorities automatically fell out (e.g., Africa as one of the Rio+20 priorities, which is outside of the ASEM area), but a few priorities that were not in the Rio+20 list—and which appeared in the country documents such as living conditions, innovation and economic growth—were added, resulting in a longer list. Applying a qualitative assessment in an iterative process, the team clustered this longer list of priorities into 11 themes by aggregating those that were closely related. For instance, decent work was combined with poverty eradication; sustainable tourism, chemicals, innovation and waste with sustainable consumption and production; climate change with energy; and regional co-operation, disaster risk reduction and global partnership grouped under governance. For the sake of consistency, priorities on the shortlist had to meet the following criteria:

1. Building on MDGs where further progress is required
2. Building on the Rio Principles
3. Commonly occurring in high-level, influential national strategies, integrated development plans and other similar documents
4. Taking into account key priorities emerging from the ongoing post-2015 and SDG processes
5. Building on the relevant findings and conclusions of science

The aim was to agree on a limited number of development priorities based on which common goals and sub-goals could later be identified. Altogether, 11 common high-level priorities were identified. A small number of issues were left out, either because they were considered crosscutting (e.g. gender) or because the issue was seen as an ultimate result or precondition of development (e.g. peace).

Step 3: Development of common goals and sub-goals

Step 3 was the identification of goals and sub-goals. While the title of the goals and sub-goals identifies the domain, the goal statements express a desired direction in qualitative terms. The goal and sub-goal statements, in turn, became the basis for the identification of targets and indicators.

Goals that are related to a priority consist of a goal statement and typically three to five sub-goal statements. The formulation of the goal and sub-goal statements builds on the range of related priorities expressed in country documents, but also takes into account global proposals and expertise within the team.

For the definition of sub-goals, this study aimed at ensuring the integration of both socioeconomic and environmental sustainability issues, and therefore used a conceptual framework based on a framework originally developed by Daly (1973) and later adapted by Meadows (1998), as shown in Figure 2.2. According to this framework, "ultimate means" refers to the underlying natural resource base and the life-support system of the planet; "ends" and "ultimate ends" indicate human well-being or happiness as measured by a composite index of well-being (not limited to gross domestic product [GDP]). "Intermediate means" involve the material economy and "intermediate ends" means the capacities of individuals and the condition and functioning of institutions.

Ultimate ends well-being:
happiness harmony,
identity, fulfilment,
self-respect,
community, transcendence,
enlightenment

Theology and ethics

Intermediate ends human capital & social capital:
health, wealth, leisure,
mobility, knowledge,
communication,
consumer goods

Political economy

Intermediate means built capital & human capital:
labour, tools,
factories,
processed raw
materials

Science and technology

Ultimate means natural capital:
solar energy, the
biosphere, earth
materials, the
biogeochemical cycles

Figure 2.2: End-means conceptual framework (Meadows, 1998, based on Daly, 1973)

Based on feedback from a presentation of preliminary research findings in Asia, this graphic representation was further developed by turning the original concept with a linear hierarchy into a circular diagram (Figure 2.3). This updated diagram expresses the direct connection between human aspirations and fulfilment (as ultimate ends) and resources of the biosphere (as ultimate means); one feeds into another and they form an organic and inseparable whole.

Ultimate ends

Intermediate ends

Intermediate means

Ultimate means
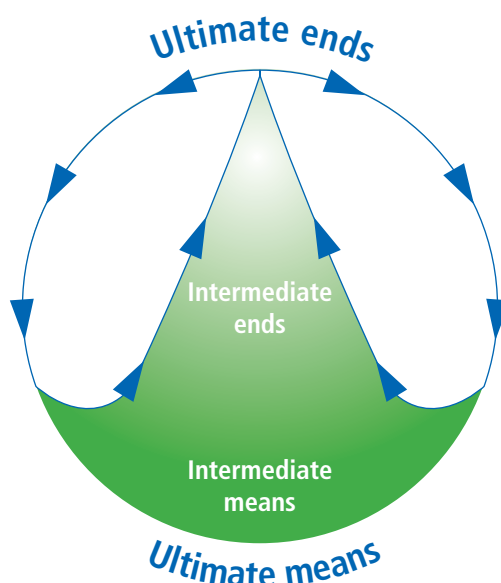
Figure 2.3: Circular representation of the means-ends framework (adapted from Meadows [1998] and Daly [1973])

The means-ends framework was instructive in helping to select and structure goals, sub-goals and sub-goal statements, even when some aspects of the framework could not be applied because of the nature of the goal. For instance, education can be considered *primarily* an intermediate end, with important but indirect linkages to ultimate means. The framework was also useful in emphasizing that the goals, sub-goals, targets and indicators must be closely related and, in essence, form a system, not only at the level of the entire goal set but also at the level of individual goals.

Step 4: Checking the availability of national-level goals, targets and indicators based on the Small Planet SDG set

In Step 4, the project team used the Small Planet goals and sub-goals to check the availability of goals, targets and indicators at the national level. In order to do this, the availability of goals, targets and indicators was checked in each of the 14 countries for all 11 Small Planet goals and their sub-goals. This resulted in 14 *national* tables that show how well every Small Planet goal is covered in any given country. The 14 national tables are included in Annex 2[2] and could serve as a starting point if countries are interested in developing national-level SDGs linked to the possible global ones.

In a subsequent step, the national tables were consolidated and categorized according to the 11 goal areas, resulting in 11 *thematic* tables that formed the basis for the analysis as presented in Chapter 3. In contrast with the national tables, these thematic tables provide information about the adequacy of the coverage of any one of the 11 goals and sub-goals in the 14 countries. The thematic tables summarize goals, targets and indicators that exist at the national level in different countries. As an additional methodological point, indicators were collected to exemplify what currently exists in the 14 countries, but none of the indicator sets per theme systematically reflect the means-ends logic. Articulating indicator systems that characterize all thematic priorities according to the Small Planet framework could be a possible next step.

In addition to the original scope of the study, a parallel exercise by ASEF carried out a more detailed review of indicators available in each of the 14 countries for the Small Planet goals and sub-goals. The resulting tables offer a menu of indicator options that could be used to track each and every Small Planet goal and sub-goal. They also help identify gaps where indicators are missing. The indicator exercise also serves as a basis for developing alternative measures of progress beyond the GDP, which could offer a more nuanced picture of progress.

Step 5: A dashboard of goals and indicators for the Small Planet

In Step 5, the research identified examples of goals, targets and indicators that appear in a larger number of the 14 countries, that is to say, where some convergence occurs, which therefore could serve as a possible SDG dashboard. The Small Planet project offers the dashboard concept to illustrate the possibility of bringing together all elements of an SDG system in a single platform: a menu of high-level goals and sub-goals, possible high-level formulations of sub-goals, and examples of targets and indicators based on existing national priorities as a starting point for discussion. Step 5 closed with the conceptual elaboration of what a dashboard could offer and a preliminary elaboration of how it could be designed and how it would work. The proposal of possible indicators is presented in the Annex 3 and on ASEF's website (www.asef.org).

2 Available at www.asef.org

3. SUSTAINABLE DEVELOPMENT GOALS AND SUB-GOALS BASED ON THEMATIC PRIORITIES

The goal system described in this section was developed through the iterative process described in Chapter 2 and has to be considered as a compromise between comprehensiveness and focus. On the one hand, it was challenging to determine what priorities to include as goals and what to leave out, considering the broad range of issues covered by the Rio+20 document, international SDG-related processes and the reviewed national strategies. On the other hand, some important issues—primarily gender equality, equity, peace and well-being—were left out of the goal list due to their overarching, cross-cutting nature, which should be represented implicitly as principles in all goals. Instead, these issues were accepted as part of the overarching ultimate purpose of development principles that would be achieved, if the proposed SDGs are pursued and met.

The application of the W-methodology described in Chapter 2 resulted in 11 priority themes (namely illustrative sustainable development goals) for the Small Planet project. They should be viewed as a *set* since, during their construction, both the individual goals and the relationship between the goals and their respective sub-goals were considered in light of the entirety of the underlying socioeconomic and environmental system. While the system behind the goals was not formalized as a detailed model, the goals and their sub-goals could be associated with the ultimate means-ends conceptual framework. The goals also cover the commonly used and associated social (i.e., human well-being); economic (i.e., production processes and its enabling financial mechanisms); and environmental (i.e., natural resources and ecosystems) categories of a sustainable development framework. Governance is considered an overarching goal, hence its distinctive designation as the +1. The 10+1 goals are presented in Table 3.1.

Table 3.1: The 10+1 goals and goal statements for the countries in the Small Planet project

Priority themes	Goal statements
1. Poverty and inequality	Poverty and inequality are reduced.
2. Health and population	Population is stabilized and universal access to basic health services is provided.
3. Education and learning	Education is a major contributor to the sustainability transformation.
4. Quality of growth and employment	Economic growth is environmentally sound and contributes to social well-being.
5. Settlements, infrastructure and transport	Settlements and their infrastructure are liveable, green and well managed.
6. SCP and economic sectors	Resource-efficient and environmentally friendly production and consumption characterize all economic sectors.
7. Food security, sustainable agriculture and fisheries	Sustainable agriculture, food security and universal nutrition are achieved.
8. Energy and climate change	Climate change is effectively addressed while access to clean and sustainable energy is significantly improved.
9. Water availability and access	Safe and affordable water is provided for all and the integrity of the water cycle is ensured.
10. Biodiversity and ecosystems	Biodiversity and ecosystems are healthy and contribute to human well-being.
+1: Adaptive governance and means of implementation	Adequate structures and mechanisms are in place to support the implementation of the priorities underlying the SDGs at all levels.

The goals were developed based only on the priorities of the 14 Small Planet countries and therefore are not considered globally applicable. They are also the result of a prioritization effort whereby only themes of the highest and most common concern were represented. Issues that were priorities only for a subset of the countries in the Small Planet project, or issues that were considered by the experts on the project team as secondary, were excluded. This, of course, does not mean they are not important—they might even be crucially important in some context, but this was accepted as the price of keeping the goals system applicable to all countries on the Small Planet, simple and robust. As illustrative goals, they show what possible goals *could* look like rather than what they *should* be.

The 10+1 goals have been developed and ordered according to the logic of the underlying ultimate means-ends framework. Figure 3.1 shows the Small Planet goals' *primary* association with the various layers of the ultimate means-ends framework. Note that the goals usually straddle more than one element of the framework. For instance, while education and learning is associated primarily with the ultimate end level (education's direct influence on people's abilities, clarity and sense of purpose), it is also associated with intermediate ends (education valued by itself as a result of development) and intermediate and ultimate means (education's influence on production processes and the sustainability of natural capital and ecosystems). Within each goal, sub-goals will also reflect this ordering, even when not all framework elements are represented, depending on where a particular goal sits in the means-ends hierarchy. The implications of these factors will be discussed under each specific goal.
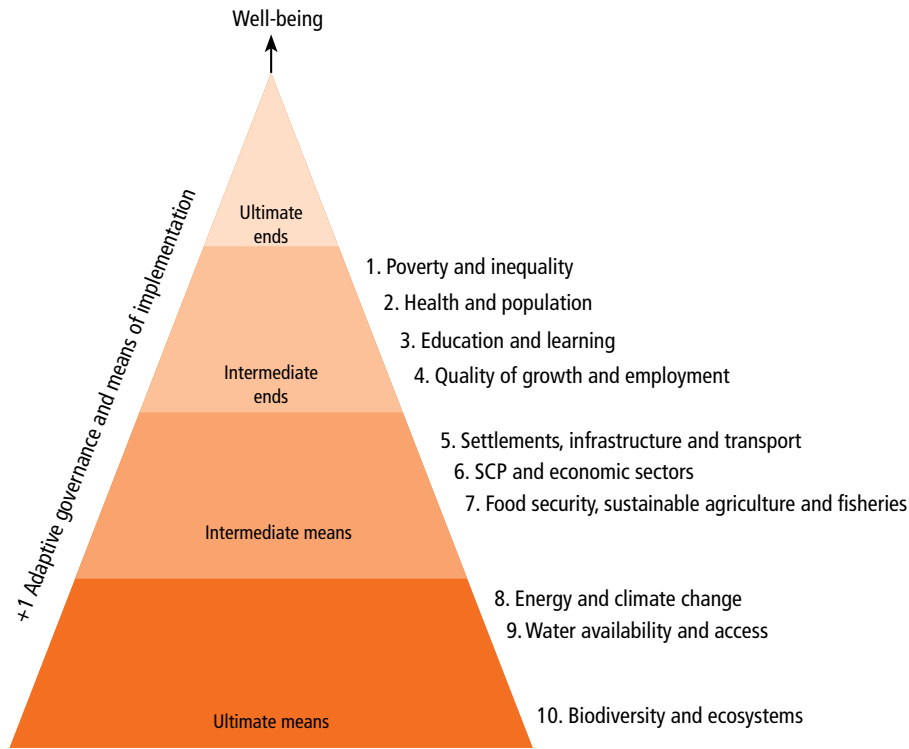
Figure 3.1: The alignment of the 10+1 Small Planet goals with the ultimate means-ends framework

As described in Chapter 2, it was important that individual goals have a priority theme title supported by a goal statement, similar in setup to the MDGs. While the title of the priority theme identifies the broader domain of concern, the goal statement is a straightforward expression of the desired *outcome* of that particular goal. Lower level outcome expectations related to the goals were then expressed through 3–5 sub-goals per goal.

3.1 Priority Theme 1: Poverty and Inequality

3.1.1 Rationale for the Goal and Sub-Goals

Poverty reduction and eradication of extreme poverty have been on the international development agenda for decades. They were at the core of the Millennium Declaration that established the MDGs. There is a rather general consensus that, as far as poverty reduction is concerned, there has been significant progress. As stated by the UN Secretary-General in the Foreword of *The Millennium Development Goals Report 2013*, "the MDGs have been the most successful global and anti-poverty push in history" (UNDP, 2013a, p. 3). This latest UN report on MDG implementation confirmed that the world had reached the MDG target on poverty five years ahead of schedule: "In developing regions, the proportion of people living on less than $1.25 a day fell from 47 per cent in 1990 to 22 per cent in 2010." Furthermore, "about 700 million fewer people lived in conditions of extreme poverty in 2010 than in 1990" (UNDP, 2013a, p. 7). Even if not all progress may be attributed to the impetus created by the MDGs, countries and the global community as a whole have indeed undertaken serious efforts to address the poverty problem.

In view of the global community's concern for the persistent seriousness of the poverty issue, poverty reduction, with extreme poverty eradication at its core, has remained the primary theme in the shaping of the post-2015 development agenda and the SDGs. For instance, the first illustrative goal in the HLP report is to end poverty, and the first target for this goal is to "bring the number of people living on less than 1.25 a day to zero and reduce the share of people living below their country's 2015 national poverty line (UNHLP, 2013 p. 30).

Notwithstanding the remarkable headway in this area, about 1.2 billion people still lived on US$1.25 per day worldwide in 2010 (World Bank PovcalNet, 2010). Specifically in the Asia- Pacific region, there were still about 1.7 billion people living on less than US$2.00 per day in 2012 (Asian Development Bank, 2012). Meanwhile, 120 million people in EU-27 (equivalent to 24.2 per cent of the total world population) were at risk of poverty and social exclusion (AROPE) as of 2011 (Eurostat, 2013). This is consistent with an increase in global unemployment levels, which rose from 178 million in 2007 to 197 million in 2012.

Poverty has traditionally been associated with income and has been defined primarily on grounds of its economic dimension. In view of this, the prescribed solutions and interventions were also economic in orientation as exemplified by the focus on growth in national income or GDP. In the last two decades of the Rio process, poverty's multi-dimensionality has been recognized such that, apart from income, it has also been associated with, among other causes, inequality in opportunity and access, exclusion of the highly vulnerable segments of society, hunger, food insecurity, and low access to social services, among others (United Nations Technical Support Team, 2013). This ushered in new concepts of gauging well-being beyond GDP, since GDP is able to measure income but not welfare. Along this line of thinking, Illustrative Goal 1 in the UN HLP Report (UNHLP, 2013) features rights to assets, social protection and disaster resilience in addition to income. On the other hand, the SDSN (2013) has connected "peace in fragile regions" in its goal on poverty reduction with the intention to check links between lack of development, desertification, water stress, other environmental constraints, as well as political instability and conflict.

All things considered, poverty should be one of the main goals in SDGs, as this aligns with the interests of political leaders in the Small Planet countries and the views of most UN organizations. However, it is also important to underline that, as emphasized by the SDSN, what will make the coming 15-year period different from the MDGs period is "the feasibility of ending extreme poverty in all its forms."

However, poverty eradication cannot be separated from the issues of inequality, as inequalities can undermine multidimensional poverty reduction. Unfortunately, there has been an unprecedented widening of inequalities during the last 20 years in OECD countries as well as in developing countries. In some cases, inequalities stem from governance systems that are not compatible with long-term poverty reduction. As such, any effort that is not accompanied by effective measures to bridge inequalities may have adverse effects on poverty reduction in the long term. This study therefore clusters poverty and inequality together as a single priority goal.

Under the broad goal of poverty and inequality, the sub-goals encompass three basic poverty determinants: income, inequality and social exclusion. The ultimate end is improved intra- and intergenerational equity, particularly for the most vulnerable segments of society. The means to this end are to close the income gap between the rich and poor, address access gaps, provide social security to the most vulnerable, and in the process, liberate the poor from income poverty.[3]

Preceding discussions demonstrate the strong inter-linkages among the three poverty-reduction parameters. These inter-linkages connote that each sub-goal could not be taken merely on its own, but rather, must be taken as part of a dynamic and integrated system that includes all the sub-goals.

Table 3.2: Goal and sub-goal statements for poverty and inequality

Priority theme	Goal statement	Sub-goal statements
1. Poverty and inequality	Poverty and inequality are reduced.	1.1. Intra- and inter-generational social equity for all groups (e.g., women, youth, elderly, indigenous, minorities) is improved. 1.2 Everybody is above the national poverty line by 2030. 1.3 Income inequality and risk of poverty has been significantly reduced with social security system in place.

3.1.2 Small Planet Findings

Sub-Goal 1.1: Intra- and inter-generational social equity for all groups (e.g., women, youth, elderly, indigenous, minorities) is improved.

Social equity for minority and vulnerable groups is a clear priority in 11 of the Small Planet countries. Their aspirations are wide-ranging: from gender parity at all educational levels and in employment, to higher level aspirations for a society that nurtures family and relationships, feels safe, embraces diversity and sustainably manages the environment for future generation. They also aim to uphold everyone's rights, including those of children, women, indigenous peoples, people living with disabilities and workers. Participation, social cohesion, social security and safety nets for vulnerable groups were also frequently mentioned. However, only six of 14 countries provided clear targets pertaining to sub-goal 1.1. These include increasing the share (Poland) or fixing the allocation (France) of employment of people with disabilities in companies, reducing gender pay gap and attaining work-life balance (Germany), and reducing the number of the long-term unemployed or those on long-term medical leave (Hungary). The list of identified indicators is rather lengthy, varied and includes participation in sports and cultural activities (Australia); employment and governing bodies (France); personal safety and protection from crimes (Australia); social security through insurance coverage and other social safety nets (China); and all-day care for children (Germany). Unequal access to employment and gender pay gaps were commonly cited (Hungary, Korea and others). Volunteerism (Australia and Switzerland) and a feeling of trust in others (Australia) provide information on the level of social inequity and justice.

Sub-Goal 1.2: Everybody is above the national poverty line by 2030.

By 2030, no one should be below the nationally defined poverty line, as compared to a clear 2015 baseline. National definitions of poverty and poverty lines or thresholds, as well as measurements of the number of poor differ widely from country to country. Bangladesh defines the extreme poor as those unable to take in at least 1,800 kcal/capita/day; Indonesia uses head-count to population ratio of consumption poverty; Poland considers risk of poverty, gross disposable income and non-farm income; and France considers people living in poor conditions as poor, and households with no employed working-age person as poor households. The human development index (HDI), which is a composite of two human needs metrics and one income metric, was mentioned only by Poland. Regardless of poverty measurements in use, the most important is that countries are able to bring as many people as possible above their respective poverty lines or thresholds by 2030 as compared with clear 2015 baselines. This sub-goal seems ambitious, but the MDGs experience has already proven that, with concerted effort, it is possible to substantially reduce poverty nationally and globally.

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3 Income poverty is defined as a level of income below which there is no guarantee

Only five countries (Bangladesh, China, Indonesia, Korea and Poland) had statements expressing sub-goal 1.2. These range from general statements such as "a prosperous Indonesia" and "secure national sustainable development" (Korea); to more specific ones such as eradication of extreme poverty (Bangladesh), reduction of poor living in poverty (China), and full use of regional potentials (Poland). Poverty reduction targets for 2030 were not available in the national documents reviewed. However, if targets expressed in these documents were projected to 2030, and assuming the countries will stay on their current courses or further intensify their poverty reduction efforts, poverty reduction would be readily achievable. As an illustration, France targeted a one-third reduction in poverty from 2007–2012. If it can attain that target in five years, it should be able to significantly reduce poverty by or before 2030. Similarly, Bangladesh is targeting to move 31 million or 55.4 per cent of its 56 million poor out of poverty from 2010 to 2021. If it could attain its target during that 11-year period, it could be successful as well in moving out of poverty the remaining 25 million poor in 2010 in the next nine years (2021–2030), particularly if it steps up its efforts based on its previous poverty reduction experience. The same is true for Indonesia, which hopes to reduce extreme poverty from 14.1 per cent of its population in 2009 to 8–10 per cent of its population in 2014. If it will succeed at that reduction rate, Indonesia's extreme poverty may be eradicated even before 2030.

As expected, poverty eradication does not figure prominently in the strategy documents of advanced countries. Australia, Germany, Japan, Singapore and Sweden did not have goals, targets and indicators relating to this sub-goal. Korea only has a goal statement, while Switzerland only has one indicator. While poverty does not appear to be a national priority, these countries contribute to global poverty eradication through their development assistance programs and thus play an important role in the attainment of Goal 1 internationally. However, even though poverty does not feature as a prominent national priority in advanced countries, the problem may still exist. Poverty may affect certain sub-populations or regions. It is further possible that the continuing impacts of the financial crisis would eventually take a toll on some advanced countries and result in poverty and inequality in the immediate future. For this reason, some advanced countries may eventually have a goal-target-indicator set in their respective development strategies should poverty become a strong issue for them in the future.

Sub-Goal 1.3: Income inequality and risk of poverty has been significantly reduced with social security system in place.

The foundation of the pyramid logic addresses income inequality by focusing on the elimination of concentrated wealth and opportunities in few persons or groups in society. Few countries have goal statements pertaining to income inequality. Those available come in very specific terms, such as social safety nets during crises (Bangladesh), reduction in regional income disparity and share of jobless households (Hungary), improvement in rural/farmers' incomes (Korea), social integration (Poland) and reduced housing costs (Switzerland). Targets are also few and include raising per-capita and disposable incomes (Bangladesh and China) and reducing the number of long-term unemployed (Germany). On the other hand, the indicators for this sub-goal are robust and include per-capita income and income distribution (Bangladesh), which further differentiates disposable incomes of urban and rural residents (China); the Gini coefficient (Australia and Japan); quintile measurements of income distribution (Switzerland); and at-risk-of-poverty rate. Advanced countries also focus more on household wealth and financial stresses through indicators such as difficulty in paying bills (Australia); savings or heavy indebtedness (Australia, France, Hungary, Poland); and very low work intensity (Sweden).

European countries that were reviewed strongly emphasized the AROPE rate,[4] possibly due to the continuing adverse effects of the global financial crisis on Europe's income situation in particular. According to Eurostat (2013), one of Europe's headline indicators is "to reduce poverty by lifting at least 20 million people out of the risk of poverty or social exclusion by 2020." The threshold applied to AROPE in the European Union is 60 per cent of median equivalent disposable income after discounting social transfers (defined as help given by central, state or local institutional units). In 2007 (i.e., before the financial crisis), over 84 million persons, or 17 per cent of the EU-27's population, were already AROPE and an equal proportion of the population suffered from material deprivation (Eurostat, 2010). Data from 2011 show that 120 million Europeans (24.2 per cent of the total population of EU-27) were AROPE (Eurostat, 2013). Hungary, Poland and Sweden use the AROPE rate as an indicator, with Poland setting a target to reduce AROPE population to 20–23 per cent by 2020.

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4 The AROPE rate is the share of people with equivalized disposable income—defined as household income after tax and deductions divided by the number of household members converted into equalized adults (Eurostat, 2013).

3.1.3 Assessment and Lessons for Global Goals and Indicators

The countries under review expressed priorities on many different issues covered by the sub-goals. They used both traditional (e.g., women's education and gender pay gaps) and less common sets of targets and indicators (e.g., volunteerism, feelings of safety and work-life balance), depending on what issues received topmost priority or which of the indicators could provide the data and information to help in their planning and policy-making. Given the wide divergence in poverty definitions, components and metrics, indicator sets were expected to vary from country to country and non-traditional indicators could emerge. Therefore, as countries go through the process of developing their national-level SDGs, they must track the various poverty-related concerns in their entirety and use indicator sets that are suitable to their respective contexts. Examples of these concerns are: a) classifying the poor according to degree or type of poverty (e.g., extreme, chronic and transitory) and determining their relative magnitudes since the interventions widely vary from type to type; b) costing these interventions and understanding the level of public funds the country must invest in order to attain its poverty reduction targets; c) allocation of public investments in insurance for the poor and old age pension and understanding their actuarial implications on public finances and development targets; and d) needed investments versus actual investments in children/youth to help secure a country's future. These and other concerns require specific sets of targets and indicators that would guide the country in planning, policy-making and budgeting for poverty reduction.

3.2 Priority Theme 2: Health and Population

3.2.1 Rationale for the Goal and Sub-Goals

Health as a priority theme refers to both human and planetary health. The size of the human population and characteristics such as age distribution are key factors of sustainability that underpin long-term production and consumption trends and impacts on natural ecosystems. Given the links between human and planetary health it would make sense to include a goal on health in a future goal framework. Human and planetary health can be combined with population issues for two reasons. For one, because demographic development within countries is relatively predictable and therefore age-specific health issues can be anticipated and policy responses that ensure their sustainable development can be planned. Secondly, the cumulative impact of the population on planetary health is a significant determinant of overall sustainability.

Health and well-being is one of the 10 priority challenges for sustainability as defined by the SDSN, and it is picked up by the HLP as "ensuring healthy lives" (SDSN, 2013; UNHLP, 2013, p. 16). Previous research has clustered health targets under a larger goal on thriving lives and livelihoods, or allocated health targets under water and energy goal areas (Griggs 2013). The United Nations System Task Team also examines progress made in health sectors, stating that while advances have been made, the multidimensional nature of health-related problems—including their connections with equity, environmental degradation, lifestyles and social protection—have not been captured by the MDGs (UNSTT, 2012). All existing proposals for the SDGs include health-related targets in other sectors such as water or food security. Given the direct causal relationship between health and several other priorities that directly contribute to health, besides a separate health-related goal, health should also be reflected where relevant by targets and indicators in these other goal areas. Besides water or food, relevant areas could also include poverty and equity (Goal 1); the conditions for settlements, housing and air quality (Goal 5); food security and quality (Goal 7); and likely others.

Generally such connectivity is yet to be established as development goals and most of the country examples reviewed reflected a sectoral and outcome-focused approach to health as opposed to prevention. In the means-ends hierarchy of the entire Small Planet goal set, health is positioned quite high, directly linked to the ultimate ends of development and a necessary precursor for good quality of life and well-being. The sub-goals under the health theme also reflect the means-ends logic: the ultimate end being sub-goal 2.1, with an increased number of healthy life years. Contributing to this ultimate end are sub-goals 2.2 through 2.5, each ensuring that both environmental and social targets contribute the means to the ultimate health-related end of development.

Table 3.3: Goal and sub-goal statements for health and population

Priority themes	Goal statements	Sub-goal statements
2. Health and population	Stabilized population with universal access to basic health services	2.1 Prevention and healthy lifestyles have significantly contributed to increased healthy life years. 2.2.The ratio of active/dependent population has been stabilized. 2.3 Affordable and accessible healthcare and insurance are provided, including prenatal and reproductive care and education. 2.4 Population has universal access to sanitation and hygiene services. 2.5 Demographic changes do not pose a risk to the integrity of natural ecosystems and societies.

3.2.2 Small Planet Findings

Sub-Goal 2.1: Prevention and healthy lifestyles have significantly contributed to increased healthy life years.

In terms of research findings, there is an observable pattern for sub-goal 2.1: Some countries (Australia, France, Germany and Hungary) have examples of goals, targets and indicators pertaining to healthy life years. The Asian Small Planet sample revealed detailed goals or targets for longer healthy life years, but there are targets for life expectancy in Bangladesh, China, and Indonesia although the Asian sampled countries have yet to consider targets or goals relating to prevention and healthy lifestyles. It is interesting to note that most targets and indicators focus on outcomes and not prevention. The exceptions are targets and indicators on obesity, smoking and alcohol consumption in countries such as Australia, Germany, Hungary, Sweden, which shows that some key lifestyle and health issues are gradually being addressed in a preventive fashion. These could also be allocated to a food-focused theme (see sub-goal 7.1 on page 54), as consumption patterns are relevant for both hunger and lifestyle related development challenges.

Sub-Goal 2.2: The ratio of active/dependent population has been stabilized.

Some countries, like Australia, have useful indicators for sub-goal 2.2. However, several countries (India, Indonesia, Japan, Korea, Poland, Singapore, Sweden and Switzerland) have very few goals, targets or indicators relating to active/passive ratio of population, at least in the overarching strategies that were examined in this project. Moreover, apart from China's single goal on stabilizing the ratio of the active-dependent population, all other input to this sub-goal area derives from developed countries, possibly reflecting a difference in demographic trends. Developed countries are those predominantly facing the challenge of an ageing population at the moment, and it will be a decade or two yet until this challenge affects developing and emerging economies as well.

Sub-Goal 2.3: Affordable and accessible healthcare and insurance are provided, including prenatal and reproductive care and education.

There are many examples of goals, targets and indicators for sub-goal 2.3, reflecting how much headway has been made in many countries during the implementation of the MDGs. Clearly healthcare is an important issue and a central development challenge, and one that should continue to receive attention, because without good health, the overarching vision of well-being is unattainable. Again, the research findings were inconsistent with country realities. Some countries, like Sweden, have detailed targets on health, while others, like Japan, had none. It has to be said that it is likely that targets under this sub-goal can likely be found in countries' sectoral plans, which were not examined in this study.

Sub-Goal 2.4: Population has universal access to sanitation and hygiene services.

Some countries (China, France and Germany) do not currently have universal access to sanitation and hygiene services represented in their overarching development strategies. This omission could either indicate that the information is buried in a different sectoral development strategy or that these countries have already dealt with the issues of access to sanitation. For Singapore, the issue of sanitation and hygiene is particularly important due to the lack of space.

Sub-Goal 2.5: Demographic changes do not pose a risk to the integrity of natural ecosystems and societies.

The research findings for sub-goal 2.5 show that quite a few countries pair goals with detailed indicators on population issues (Australia, Bangladesh and China). Other countries do not seem to have explicit policies in this sector (Japan, Korea and Singapore). However, it may be that some of those countries (Japan and Singapore), given their respective challenges relating to dwindling populations or the ethnic makeup of the population, do have policies in place, but not as a part of an overarching sustainable development strategy. A recent white paper on population in Singapore, for instance, highlighted the steep increase in immigration and the concern it causes for native Singaporeans (National Population and Talent Division, 2013). It is also possible that political or cultural reasons make it difficult to address the connection between environmental conditions and demographic change.

3.2.3 Assessment and Lessons for Global Goals and Indicators

Goals, targets or indicators allocated to sub-goal 2.1 that deal with preventive approaches to health problems might seem attractive and forward-looking. However, these goals were recognized in only a few country strategies, notably those that are now facing the challenge of dwindling populations, obesity or other health issues traditionally associated with highly developed countries. Very few countries had clear and consistent coverage of prevention, focusing more on disease frequency, healthcare delivery and health outcomes.

With the increasing cost of healthcare, one would expect more emphasis on prevention in the future due to its potentially lower cost. If important health-related issues—such as ageing and obesity—were addressed in countries' development policies at an earlier stage, they could be dealt with more effectively than when they are already a problem.

For countries, it will be essential to focus on precursors to good health. Likely, sanitation targets and access to various kinds of health services will be high-priority areas under a health goal. The basis for all services, as embedded in the foundational sub-goal 2.5, should be a primary concern in any country's pursuit of the other sub-goals—that is to say, pursuit of any targets and objectives relating to health and well-being should not pose a risk to the integrity of natural ecosystems.

Generally, for a sector as strategically important as health, one could expect a more consistent pattern of goals, targets and indicators across a wider range of priority issues in comprehensive sustainable development strategies or integrated development plans. This is not yet the case, but the inclusion of health into the SDGs represents a good opportunity to revisit and formulate more consistent goals, targets and indicators relating to health in countries at all stages of development. Countries' health-related indicators will vary depending on their demographic trends. Examples from the research include overall indicators such as the number of healthy life years and life expectancy, and lifestyle-related indicators such as alcohol and tobacco consumption, and obesity. A useful population-related indicator would be the ratio of active versus dependent population. More directly related to health would be indicators such as the ratio of population covered by healthcare for advanced countries, as well as more basic ones, such as access to sanitation.

An important area where demographic change and environment interact is related to migration. Environmental change is an important driver of increasingly complex migration patterns. In turn, migration can also result in governance challenges and increased pressures on the environment, including the provision of the essentials of life water or food (Warner 2010). Tracing the interlinkages of migration and the environment will be increasingly important. Last but not least, an index that integrates the interplay between environment and society could be the per-capita ecological footprint compared to the country's available biocapacity.

3.3 Priority Theme 3: Education and Learning

3.3.1 Rationale for the Goal and Sub-Goals

Education and learning are commonly seen as underpinning human behaviour, decision making and the ability to respond to sustainability challenges. As an intermediate end, education is a universal aspiration that contributes to individual well-being as ultimate ends. Learning is identified as a separate element to indicate the importance of learning processes beyond the formal education system that is characteristic of traditional societies.

The second MDG recognizes education's importance and aims to ensure that "by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling." By 2010, the enrolment rate already reached 90 per cent in developing countries and the gender gap in illiteracy rate was also narrowing (UN, n.d.).

In its integrated framework for realizing the post-2015 UN development agenda, UUNSTT (2012) included "quality education for all" as one of the goals for the inclusive social development dimension and emphasized the importance of early childhood and adolescent development, childhood education, training and lifelong learning (p. 25). Moreover, both the HLP and the SDSN have suggested a separate goal for "providing quality education and lifelong learning" (UN HLP, 2013, p. 36) and for "ensuring effective learning for all children and youth for life and livelihood" (SDSN, 2013, p. 23). In both cases the suggested goal encompasses preschool, primary and secondary education as well as technical and vocational training among its targets. Both emphasize gender differences in education as well as the implications of gender in access to employment. In their sustainable development goals, Griggs et al. (2013) do not recommend a separate goal for education, but mention it under their first proposed goal for thriving lives and livelihoods. They suggest that education is one of the main factors for ending poverty and improving well-being (p. 307).

Beyond the traditional focus of the MDGs and recognizing the importance of education for social integrity and well-functioning job markets, the education and learning goal of this study encompasses three sub-goal areas. The first sub-goal focuses on access to education through various modalities and institutional forms. While availability and unhindered access to the education system does not by itself guarantee that the level of education is high, it is one of its strongest determinants. The sub-goal also recognizes that education and learning are lifelong processes that do not end when an individual graduates from the formal schooling process. In fact, the rapidly changing nature of employment requires learning to be integrated into education strategies that span entire lifetimes. The second sub-goal aims at ensuring that education and learning produces knowledge and skills that are actually in demand by the job market, keeping in mind of course that education must also provide knowledge and skills for life outside of formal employment. Considering the importance of broad social awareness of sustainable development for the success of the SDGs, the third sub-goal calls for better integration of sustainable development into curricula in order to increase awareness.

Table 3.4: Goal and sub-goal statements for education and learning

Priority themes	Goal statements	Sub-goal statements
3. Education and learning	Education is a major contributor to the sustainability transformation.	3.1 Quality primary education and increased access to secondary education for all segments of society and opportunities for lifelong learning are provided. 3.2 Skills and societal demands are properly matched throughout all types of qualification. 3.3. Awareness and know-how about sustainable development is integrated in curricula and has significantly increased.

3.3.2 Small Planet Findings

Sub-Goal 3.1: Quality primary education and increased access to secondary education for all segments of society and opportunities for lifelong learning are provided.

Of the three sub-goals in this theme, sub-goal 3.1 is the most covered in the Small Planet countries. Almost all countries have defined goals and/or set quantitative targets aiming to provide education for all in continuously improving quality, eliminating illiteracy, reducing the number of early school leavers and promoting life-long learning. In addition, Australia also aspires to a society that values and enables learning and introduces indicators to monitoring th progress towards this goal. In addition, France considers education and training as a valuable tool to promote social integration. In the Small Planet countries, a wide range of indicators is used to monitor progress towards the goals, such as the percentage of population participating in primary, secondary, tertiary and vocation education; the rate of literacy; and the percentage of early school leavers. Meanwhile, the importance of reducing gender differences in education is solely recognized by India.

Sub-Goal 3.2: Skills and societal demands are properly matched throughout all types of qualification.

No country was found to have the full sequence of goals, targets and indicators, which indicates a possible weakness in the strategic focus on this issue. Only three countries define goals (China, Korea and Hungary) and two set targets (Bangladesh and India). China's ambition is to educate "far-sighted leaders and decision-makers, a contingent of highly-skilled scientific and technological workers in various fields and a large labour force with specific skills and scientific and cultural knowledge" (Administrative Center for China Agenda 21, 1992). Hungary aims to decrease the time that elapses between finishing school and starting work and ensuring that the education system and institutions engaged in lifelong learning provide knowledge and skills that are actually useful in securing employment. Korea's emphasis is on knowledge related to green technology and industry, which illustrates an intention to integrate green economy ideas across sectors. Bangladesh targets compulsory information and communications technology (ICT) education at the primary level, while India aims to create two million additional seats in universities for each age cohort aligned with the skills required by the economy. Three additional countries (Australia, France and Poland) monitor indicators that track the responsiveness of curricula to societal changes. The indicators applied for this sub-goal include education attainment, literacy rate, youth unemployment and public expenditure on education.

Sub-Goal 3.3: Awareness and know-how about sustainable development is integrated in curricula and has significantly increased.

Only six studied countries (Australia, France, Korea, Poland, Singapore and Switzerland) set goals for integrating sustainability principles into the curricula, promoting environmental education and training for achieving sustainable development. Two countries (Poland and Singapore) set targets; however, these are only indirectly related to sustainable development or quite generic. Poland aims to increase the share of students at technical and natural sciences faculties to 30 per cent by 2020, while Singapore targets the development of education for sustainable development curricula. Three countries (France, Korea and Poland) introduced relevant indicators for monitoring purposes. France aims to introduce and follow a barometer measuring the knowledge of households about the notion of sustainable development. Korea and Singapore monitors sustainable development education programs, while Poland aims to increase and monitor the share of students at technical and natural sciences faculties. Overall, sub-goal 3.3 is also characterized by an incomplete sequence of goals, targets and indicators and only developed countries considered the issue.

3.3.3 Assessment and Lessons for Global Goals and Indicators

The majority of the Small Planet countries defined goals, targets and indicators relating to access to education at all levels, but only a few countries considered the importance of matching skills with the changing societal demands and introduced goals related to education for sustainable development. Knowing the importance of education in tackling unemployment and achieving sustainable development in practice, the lack of comprehensive approaches—which would be illustrated by the full sequence of these goals, targets and indicators in high-level strategies and plans—is quite striking, and even more so because of the recent Decade of Education on sustainable development. Even the country approaches to sub-goal 3.1 cannot be considered comprehensive; in spite of well-understood and studied gender differences in access and attainment of education, the Small Planet countries do not extensively address this issue. As a result, no clear distinction could be made between how developed and developing countries on the Small Planet deal with this goal and what the gaps are in their approaches.

While the Small Planet countries use a variety of indicators for sub-goal areas very few were identified for sub-goals 3.2 and 3.3. Examples for 3.2 include the proportion of young people between the ages of 16 and 25 who are unemployed and without training (France), the lifelong learning of adults (Poland) and educational attainment, by highest qualification (Australia). For 3.3, the sustainable development knowledge barometer (France) and the performance of education for sustainable development programming (Korea) could be mentioned.

3.4 Priority Theme 4: Quality of Growth and Employment

3.4.1 Rationale for the Goal and Sub-Goals

Growth and employment are intertwined: economic growth creates employment and employment fuels economic growth. Both are preconditions to reducing poverty, but it is their quality that will actually matter to vulnerable segments of society. Only an inclusive growth that generates decent and gainful employment can liberate the poor from income poverty and vulnerability at the same time. Inclusive growth is rapid and sustainable over the long term; is broad-based across all sectors; includes a large part of the labour force; and facilitates people's contributions to and the generation of benefits from it. It is based on the inclusive concept that encompasses equity, equality of opportunity, and protection in market and employment transitions (Ianchovichina & Lundstrom, 2009). UNSTT (2012) reinforced this view, stating, "Sustainable development involves stable, equitable and inclusive economic growth, based on sustainable patterns of production and consumption" (p. 29). Furthermore, inclusiveness "implies universality and focuses not only on those defined as poor, but also on vulnerable populations in precarious livelihoods" (p. 29).

Inclusive growth and gainful employment must form twin goals that are closely linked with the goal on poverty reduction. Goal 4 is consistent with Goal 8 of the HLP (create jobs, sustainable livelihoods and equitable growth), which calls for better jobs, particularly for youth, strengthening productive capacity and increasing the number of new and value-adding enterprises. In order to be sustainable, employment gains must also be primarily in economic sectors that meet *environmental* sustainability criteria: new jobs in economic sectors that undermine the environment can lock countries in development paths that will ultimately turn out to be unsustainable.

Global economic performance is reflected in the employment situation and trends. The International Labor Organization (ILO) reports that the global unemployment rate, which has started to increase again after two years of decline, was estimated at over 197 million people in 2012. Beyond the increasing trend of unemployment, the more critical issue is youth (aged 15 to 24) unemployment, which reached 73.8 million in 2012. *The Economist* (2013) estimates that about 290 million young men and women were neither working nor studying in 2012, and that it took them six months to a year to be re-employed. This situation is caused by low economic growth, which has not created enough jobs; constricted labour markets, and labour skills mismatch. The latter is the major reason for the difficulty of young men and women in acquiring jobs that match their skills and aspirations as well as the prevailing long period for them to get reemployed.

The growing number of job-seekers is estimated to reach 210 million globally over the next five years (ILO, 2013), Taking this into account, Goal 4 aims to promote economic and financial policy reforms and structural transformations that create the environment for sustained inclusive growth that can absorb these job-seekers while keeping the social and environmental systems robust and self-supporting. It seeks to discourage the traditional development model that results in "jobless growth" and unsustainable corporate practices such as "grow now, clean up later (or never)."

Sub-goal 4.1 builds on the environmentally sound and inclusive growth that sub-goal 4.2 expects to create in order to generate decent jobs and attain an acceptable employment rate. These gainful jobs are not confined to those generated by big business and industry, but include those created by livelihood and other income-generating activities of micro, small and medium enterprises (MSME). Goal 4.2 sets the foundation for a stable economy that grows on a sustained basis; one that is resilient to debilitating economic and financial shocks, and can produce gainful and decent jobs. It is about sound fiscal, financial and monetary policies that would keep public debt, public or private deficits and inflation in check.

Sub-goal 4.3 highlights the importance of developing and mainstreaming the use of integrated accounts where economic balance sheets are complemented with social and environmental data. The sub-goal recognizes that without a systematic effort to create a new accounting framework, social and environmental costs will continue to be misrepresented in decision making. Sub-goal 4.4 is about internalizing key externalities, including the environmental and social costs of economic development that are real but not captured by market prices (e.g., natural resource degradation and pollution or illnesses and deaths, respectively). The objective is to recognize and minimize negative externalities and promote positive externalities. Sub-goals 4.3 and 4.4 are closely linked and included in Goal 4 to ensure the conditions for a more realistic decision-making, management and progress-tracking framework for sustainable development is in place.

Table 3.5: Goal and sub-goal statements for growth and employment

Priority themes	Goal statements	Sub-goal statements
4. Quality of growth and employment	Economic growth is environmentally sound and contributes to social well-being	4.1 Economic growth ensures an acceptable employment rate, decent jobs and is environmentally sound. 4.2 Appropriate financial, monetary and fiscal policies that support macroeconomic stability and resilience are in place. 4.3 Social and environmental accounts are in use by all governments, major companies and international institutions. 4.4 Externalities are internalized through economic instruments in all sectors.

3.4.2 Small Planet Findings

Sub-Goal 4.1: Economic growth ensures an acceptable employment rate, decent jobs and is environmentally sound.

Except for sub-goal 4.3, Goal 4 is generally represented by a robust set of sub-goals at the national level, with targets and indicators confirming the importance accorded by countries to economic growth and employment. This is expected since economic growth and employment are key gauges for economic and political successes, and hence regularly tracked. The country goal statements generally echo sub-goal 4.1 with a few nuances, such as improved work-life balance, value added per employed person, green technology jobs, social enterprise and revenue-generation models, competitive economy and a "global magnet for talent" (Singapore). Almost all countries provided the usual employment targets for sub-goal 4.1, namely, creating a certain number of jobs, lowering unemployment and increasing wage levels. Indicators are basically the same as the targets with a few additions, such as proportion of vacancies filled, average hours worked both for full-time and part-time jobs, occupational safety and atypical employment.

Unique to developing countries are targets and indicators for overseas employment and remittances of their nationals (Bangladesh). These targets and indicators highlight the continuing potency of overseas employment to developing countries despite its negative social side effects. It also illustrates the international mobility of labour and the symbiotic relationship between countries with excess versus insufficient labour. Probably unique to advanced countries is the interest and concern about over-employment (Australia) and atypical employment—described as not standard or "not typical," which could be part-time, irregular, time-bound, with several employers, and having shorter time span (Hungary). These are employment situations that are not regularly and closely measured in many countries because of the difficulty in generating data. Advanced countries have also been disaggregating more of their employment data into specific levels (e.g., by sector, age group, sex, industry, disability status, etc.). Furthermore, they are also measuring employment in the environment sector, even tracking low-carbon green jobs (Singapore and Korea).

Sub-goal 4.1 has very rich target-indicator sets. However, targets and indicators for self-generated jobs or livelihood activities or the informal sector are not apparent. It is important to track jobs in these major segments of the economy because these usually account for a significant share of employment; it is in these jobs where most youth and women are employed; and these jobs are the ones most lacking in security and leaving employees vulnerable to abuse. Furthermore, indicators for labour productivity, occupational safety and skills mismatch are also few and usually mentioned only by advanced countries.

Sub-Goal 4.2: Appropriate financial, monetary and fiscal policies that support macroeconomic stability and resilience are in place.

National goals pertaining to sub-goal 4.2 vary widely. Some are too general, such as sustained broad-based economic growth and macroeconomic stability. Others are sector-specific, such as developing the industrial sector; promoting urbanization and agricultural modernization; and developing small and medium enterprises. Still others aim for balance and co-ordination among economic parameters such as integration of trade and environmental policies; co-ordination of fiscal, monetary, investment, industrial and

land policies; and creation of favourable investment conditions to secure long-term prosperity. Only eight countries have targets and these are generally about increasing national incomes in terms of GDP growth rates, reduction of debt and deficits, and curbing of inflation.

Indicators for sub-goal 4.2 are robust, and mostly mirror the targets cited in previous paragraph. Other indicators have to do with productivity, structure of the economy, exchange rate and flow of goods (trade). As mentioned, economic growth indicators (e.g., GDP growth rate, economic sector growth rates, etc.) are standard, popular and regularly tracked. The absence of targets and indicators for some countries (e.g., Indonesia and Singapore) are, therefore, more due to limitations in the reviewed strategy documents. It is also worth noting that debt indicators such as public borrowing appeared more commonly in Europe than in Asia. This shows the strong—and in many cases, new—concern in the region for financial stability, having freshly experienced a financial crisis.

Sub-Goal 4.3: Social and environmental accounts are in use by all governments, major companies and international institutions.

Sub-goal 4.3 does not have a single complete goal-target-indicator package. Only Australia (which aims to strengthen the verification system of environmental claims in marketing products and services) and Japan (which wants to build a valuation system in the markets) have goal statements related to social and environmental accounts. However, these statements do not clearly say that they have the accounting system and are actually using it. Only Korea cited a performance indicator and this pertains to the share of environment protection in GDP. The absence of a goal-target-indicator set could either be because countries have not recognized the strategic importance of integrated accounting frameworks or because they consider these as technical matters. Either way, the fact that data on the social and environmental costs of economic development— a key element of the "beyond the GDP" agenda—is not routinely available suggests that further progress will require more attention not only to the methods, but also to the institutions and infrastructure of integrated national accounts.

Sub-Goal 4.4: Externalities are internalized through economic instruments in all sectors.

Only Australia has goal statements for sub-goal 4.4, and those include: development of a national approach to chemical management, attention to social and environmental costs, and enhancing the effective use of pricing and economic instruments for better management of resources. Only five of 14 countries have indicators for sub-goal 4.4, and these come in the forms of environmental taxation such as implicit tax on energy, proportion of environment tax to total taxes and expenditure for environmental protection. No Small Planet country has any targets in this sub-goal. The virtual absence of goal-target-indicator sets in this sub-goal could indicate that internalizing externalities has not yet received enough emphasis in countries covered.

3.4.3 Assessment and Lessons for Global Goals and Indicators

The targets for sub-goals 4.1 and 4.2 are large and extensive, and the identified indicators are measurable, readily understandable and easily tracked. However, gaps were noted in matters considered crucial to generating decent and gainful jobs and ensuring the quality and inclusivity of economic growth. These gaps include: (i) self-generated jobs or self-employment, particularly in livelihood activities where most young men and women are engaged, which highlights the potency of MSME in economic growth and job creation; (ii) economic and labour productivity, which also largely reflect quality and equity; and (iii) skills mismatch, which is considered a major global challenge (ILO, 2013a, 2013b). Countries can consult the indicators used by specialized bodies such ILO for various aspects of labour markets and welfare and the Ecorys study (2012) for MSMEs.

In addition, internalization of externalities and environmental and social accounting need further institutionalization and utilization if the integration of sustainable development dimensions were to proceed more effectively.

According to UNSTT (2012), "the future we want for all" requires transformative change in existing production and consumption processes, management of natural resources and mechanisms of governance. It calls for a broad approach to development, based on social justice, structural transformation, economic diversification and growth. The financial crisis served as a painful lesson to many countries, which were forced to undertake the above-mentioned transformations.

3.5 Priority Theme 5: Settlements, Infrastructure and Transport

3.5.1 Rationale for the Goal and Sub-Goals

Urban aspects of development comprise a host of cross-cutting issues. Due to continuing urbanization, cities increasingly concentrate human activity and have become a place where the challenges of reducing environmental impacts while increasing well-being are packed as if in a pressure cooker. It is therefore not surprising that many pieces of work on SDGs and MDGs have debated whether cities should be a separate priority area and future goal or embedded in other development goals.

Reports typically highlight the increasing challenges of urban areas, but the proposals for clustering vary. The UNSTT identifies urban growth as a challenge that should therefore be explicitly addressed (2012, p. 19). The HLP states that "cities are where the battle for sustainable development will be won or lost," but decided against a separate goal for cities, in order to avoid an urban-versus-rural priority competition (UNHLP, 2013, p. 17). The SDSN emphasizes that by 2050 around two thirds of the world population will live in cities, and problems of environmental degradation related to settlements are bound to exacerbate further (SDSN, 2013 p. 18). The SDSN argues that cities are facing "highly complex yet crucial challenges" and therefore proposes an urban SDG in order to bring together the efforts of multiple actors and stakeholders across a range of issues (SDSN, 2013, p. 41). Combining the issues of urban and rural settlements, a European non-governmental organization taskforce proposes a separate goal for "liveable habitats that are socially, economically and environmentally sustainable" (Concord Europe, 2013, p. 22). Compared to these proposals, the suggested set of goals by Griggs et al. (2013) is more condensed, and urban areas are included under the broad Goal 1 for "thriving lives and livelihoods."

The line of thinking of the Small Planet research team was similar to the SDSN and was supported by empirical results. Most of the 14 countries studied have priority areas, goals or targets for land use (e.g., reduce built-up areas); settlement structures and housing (e.g., number of houses provided, urban green areas); related infrastructure and services; as well as mobility, public transport and air quality. Given their close and unique coupling in the condensed geographic space characteristic of most cities, it would be difficult to cover these issues adequately if they were scattered across separate goals.

Furthermore, as infrastructure is in most cases closely coupled with settlements, the two aspects were combined, and transport infrastructure was included, as goals for major infrastructure developments predominantly related to transportation infrastructure. Other transport goals, such as for changing the modal split, are also treated in this goal area, as they are closely linked to public transport goals, which are typically grouped with urban goals. The goal clearly meets the universality requirement, as urbanization is an issue in both the developed and the developing world.

Sub-goal 5.1 addresses the ultimate ends that all people have a home and access to basic infrastructure, the latter of which mainly includes waste management and telecommunications since infrastructure for drinking water and waste water treatment is covered under the water goal (see sub-goal 9.2), sanitation under the health and population goal (under sub-goal 2.4), and infrastructure for electricity supply under the energy and climate change goal (see sub-goal 8.3).

Sub-goal 5.2 postulates liveable cities and addresses the efficient use of land and resources as well as air quality. It includes typical means to achieving integrated solutions, namely, through effective urban planning and increased provision and use of public transport.

Sub-goal 5.3 refers to ultimate means, which is to say the impact of urbanization and infrastructure development on the integrity of natural ecosystems.

Table 3.6: Goal and sub-goal statements for settlements, infrastructure and transport

Priority themes	Goal statements	Sub-goal statements
5. Settlements and infrastructure	Settlements with their infrastructure are liveable, green and well managed.	5.1 All people have a home and access to basic infrastructure and services. 5.2 Urban planning provides liveable cities with clean air and efficient use of land and resources. 5.3 Major infrastructure development does not impose risk to the integrity of natural ecosystems and society, and the modal share of environmentally friendly transport has been increased.

3.5.2 Small Planet Findings

For Goal 5, the focus areas differ to some extent between developed and developing countries, in particular for sub-goal 5.3. For infrastructure development, country targets are difficult to cluster, as the ways of grouping them vary significantly. For example, in the case of transport, countries might not differentiate between major inter-urban construction projects and those within urban areas, such as for rail and public transport, respectively (e.g., France); or they might not differentiate between a modal shift overall and in urban areas (e.g., India); or between construction and efficiency increase (e.g., Poland). For sub-goals 5.1 and 5.2, almost all countries have goals, targets or indicators, which also show some convergence.

Sub-Goal 5.1: All people have a home and access to basic infrastructure and services.

Sub-goal 5.1 addresses the availability of housing and basic infrastructure. In the Small Planet countries, the goals and targets for housing supply are either general (Bangladesh and Indonesia) or include references to vulnerable parts of society, affordability and quality criteria (Australia, China, France and Korea). Somewhat surprisingly only Indonesia and Poland include goals related to the development of utilities, with the latter addressing waste treatment facilities in particular. Australia and Japan have targets and indicators for communication infrastructure, such as telephone and Internet connectivity.

While territorial cohesion is a general goal within the European Union, France, Hungary and Poland have a particular focus on strengthening it. The issues addressed include access to services throughout the territory, improved accessibility of settlements and "strengthening the diffusion mechanisms and spatial integration in order to make full use of the regional potentials" (Annex 2: Country Research Template Poland). Outside the European Union, regional disparities are often framed as rural-urban migration, but as the problems are similar, comparisons and learning from experience with long-standing cohesion policies might be useful.

Sub-Goal 5.2: Urban planning provides liveable cities with clean air and efficient use of land and resources.

Within sub-goal 5.2, there are goals in France, Germany and Sweden for efficient land use and in Bangladesh for "compact cities." In Switzerland, land-use issues are tackled more broadly through spatial planning (see sub-goal 7.2). Germany is the only country with a target of reducing the increase of built-up areas from 130 ha/day to 30 ha/day. China, on the other, hand has a target to increase the urbanization rate by around 10 per cent, but aims at the same time for co-ordinated regional and urban planning. Singapore and Korea emphasize increasing urban green spaces with many targets and measures for achieving them. All the examples show increasing awareness of the importance of this area in both developed and developing countries. However, the diffusion of this issue still needs to be more widespread.

Public transport goals, both expressed as developing infrastructure and in relation to compact cities, are found only in Australia, France, Hungary, Indonesia and Singapore, others don't mention it, which appears somewhat surprising, given the need for improvement in this area. The picture gets somewhat better when we include the general goals on shifting the modal share, which also include cities. Air quality targets are established in all countries but in Bangladesh, China, India and Indonesia where these issues are not covered in their integrated strategies.

Sub-Goal 5.3: Major infrastructure development does not impose risk to the integrity of natural ecosystems and society, and the modal share of environmentally friendly transport has been increased.

India has a general target of increasing investment in infrastructure as percentage of GDP. European countries and Japan have no goals or targets for the construction of major infrastructure, but it can be assumed that such targets exist in sector plans—for instance, in the transport sector. The other countries have construction targets for transport infrastructure, and the most striking feature is the scale of difference between road and rail, which in Bangladesh amounts to 50 times more road kilometres compared to rail. In Indonesia, planned rail constructions seem to be confined to the Jakarta metropolitan area, and the target for road construction is about half of that of Bangladesh. In China, in contrast, only twice as many road kilometres compared to rail kilometres are planned. Poland lies in between with a factor of roughly 10 times the road kilometres compared to rail. Goals for shifting the modal share to low-carbon modes of transport are found in all countries but Bangladesh, Indonesia, Japan, Korea, Hungary and Poland—with the latter two focusing on efficiency increase. France, Germany, Switzerland and China has the most explicit goals, many with targets. Singapore focuses on efficiency increase, but also formulates a modal-shift-related goal, namely, to reduce the growth of private transport.

Environmental impacts of infrastructure constructions are addressed in European Union countries by legislation for Environmental Impact Assessment. Among the other countries researched, impact assessment is applied in China, which takes a wider view by defining "impact indicators of major infrastructure on environment and society." (see Annex 2: Country Research Template China)

3.5.3 Assessment and Lessons for Global Goals and Indicators

Overall, the analysis of countries' ambitions and goals for cities and settlements reinforce the proposal for treating this area as a separate goal. Increased efficiency in land use and its enablers (i.e., city planning) appear to be the most promising candidates for a universal goal. The call for increased provision and use of public transport is also quite widespread throughout the Small Planet sample, in particular when combined with general transport goals on modal share, as well as goals and indicators for air quality. While measuring the modal split in various ways is common, indicators for public transport vary. For land-use changes, several countries use the increase of built-up area as indicator.

However, there seems to be a need for wider diffusion of the priorities covered and in particular for strengthening integrated urban planning and more ambitious goals and targets that relate to liveable cities. A prominent example is Singapore's aspiration to become "an outstanding knowledge hub in the latest technology and services that will help cities grow in a more environmentally friendly way," (see Annex 2: Country Research Template Singapore) which might lead to a leadership role in the global context, together with other ambitious cities elsewhere.

3.6 Priority Theme 6: Sustainable Production and Consumption and Economic Sectors

3.6.1 Rationale for the Goal and Sub-Goals

While most SDG areas proposed in this report might be characterised as "cross-cutting," the theme and concept of sustainable production and consumption (SCP) are often considered the most fundamental dimensions of sustainable development, as they relate to the basic aspects of economic systems.

Virtually all reports and proposals for SDGs and the post-2015 agenda that were analyzed in this study include SCP as one of the "crucial topics" and point out that "a (radical) shift towards more sustainable patterns of consumption and production and resource use" is needed (OWG, 2013: paragraph 105; UNSTT, 2012). The HLP assessed that the MDGs "fell short… by not addressing the need to promote sustainable patterns of consumption and production" (HLP, 2013). However, how to deal with SCP varies by the goal set. Some reports keep it among cross-cutting issues to be embedded in other goal areas (see, for instance, HLP, 2013; Concord Europe, 2013). Griggs et al. (2013) include it in their Goal 1, "Thriving lives and livelihoods," a goal that addresses several issues and ends "while moving towards sustainable consumption and production" (2013). The SDSN (2013) qualifies its proposed Goal 2, "Achieve development within planetary boundaries,": with "all countries have a right to development that respects planetary boundaries, ensures sustainable production and consumption patterns." SDSN considers their goal formulation as "in essence" equivalent for "the better known concept of SCP" (SDSN, 2013, p. 28, 39).

In several aspects, the empirical situation of the Small Planet sample points in the same direction. Many countries have general goals and targets for resource efficiency, besides more specific ones on efficiency of food production, water and energy use. The latter are reflected in this study within their respective themes. Resource efficiency, for example, is also expressed in more specific goals and targets for consumption and waste. The research team therefore decided to outline a separate goal for SCP, taking into account the radical change needed and the acknowledged fundamental character of SCP that otherwise tends to get lost. The Small Planet team also decided to consider economic sectors as part of this goal area in order to provide a space for sectors not covered elsewhere, such as mining and tourism.

How universality would be applied to the SCP goal is somewhat contentious. As the HLP points out, changes in consumption and production patterns must be led by the developed world where per-capita consumption is highest, and it has a particular responsibility in sharing SCP-related technologies (HLP, 2013). However, universality is warranted due in part to a growing middle class and per-capita consumption in a number of developing countries, and due to growing evidence that human well-being do not increase above a certain level of material consumption. All countries need to either reduce their footprint or increase it only to the extent that they remain within global and regional biocapacities, according to the "shrink and share" concept, similar to the concept of "contraction and convergence" (Kitzes et al., 2008; Global Commons Institute, 1991).

Within the goal for SCP, the first sub-goal addresses the ultimate ends of everybody living a sustainable lifestyle; the second one represents the tourism sector as one of the intermediate ends; the third specifies investment in innovation for green and circular economy as intermediate means; and the fourth finally defines the ultimate means.

Table 3.7: Goal and sub-goal statements for SCP and economic sectors

Priority themes	Goal statements	Sub-goal statements
6. SCP and economic sectors	Resource-efficient and environmentally friendly production and consumption characterize all economic sectors.	6.1 Principles and practices of sustainable lifestyles are applied by the majority of the population. 6.2 Culturally and environmentally friendly, responsible and low-impact tourism has become dominant. 6.3 Investment and innovation for green and circular economy has been significantly increased. 6.4 The increase of waste and pollutants in the environment has been significantly slowed and resource efficiency has been increased.

3.6.2 Small Planet Findings

Sub-Goal 6.1: Principles and practices of sustainable lifestyles are applied by the majority of the population.

On the one hand, goals and targets for sustainable lifestyles (sub-goal 6.1) in the analyzed country sample refer to material output, that is to say, the level of material consumption, which is often expressed as a resource efficiency or waste reduction goal (see sub-goal 6.4). On the other hand, goals also refer to people's attitudes, aiming at 'community awareness', 'behaviour change', 'sustainable consumption habits', 'environmentally friendly attitudes' and 'aligning consumption with sustainable development' (Australia, France, Hungary and Switzerland, respectively), as well as the prerequisite for such a behaviour—namely, the availability of sustainable products and services (France, Switzerland, Poland and Singapore). Sustainable lifestyles are only addressed in these six, mostly developed, countries.

Sub-Goal 6.2: Culturally and environmentally friendly, responsible and low-impact tourism has become dominant.

The tourism sub-goal (6.2) is addressed in Australia, India and Singapore. Australia has an extensive set of goals for ecologically sustainable tourism, including behavioural aspects as well as regulation and monitoring. India aims at ecotourism in nature protection areas, while Singapore plans to increase the areas and accessibility of waterways and parks for recreational purposes, but without addressing sustainability aspects.

Sub-Goal 6.3 Investment and innovation for green and circular economy has been significantly increased.

All studied countries but Japan and Indonesia address research and development (R&D) in various ways. Seven countries have targets for increasing the government, public or private spending for R&D (Bangladesh, China, France, Germany, Hungary, Korea and Sweden), but without connection to sustainable development. Several countries make the link between R&D and sustainable development (Australia, China, France, India, Korea, Singapore and Switzerland), though in most cases at the goal-level only. Korea is in a leading position with a number of indicators for R&D investment for green growth, followed by Singapore. The clearest goals for linking R&D and sustainable development are found in Australia, France and India.

Another focus in this area is supporting business for sustainability and/or green economy, for which Australia, France, Hungary and Korea have goals. Quite surprisingly, no country seems to have goals, targets or indicators for green or sustainable public procurement, which is one of the strongest signals a government could give for greening the economy. Reference to a circular economy is made in China and Australia, which encourages the manufacturing sector to adopt whole-life-cycle analysis.

Sub-Goal 6.4: The increase of waste and pollutants in the environment has been significantly slowed and resource efficiency has been increased.

In contrast to the goal distribution across countries for sub-goal 6.1 (lifestyles), for sub-goal 6.4 (resource efficiency) there are goals in all countries except Bangladesh and India. Goals for resource efficiency (sub-goal 6.4) exist in all countries but Bangladesh and India. China aims at developing a circular economy and resource-saving and environmentally friendly production; it also seems to have indicators (Pintér, 2006; Xie, Pintér, & Wang, 2008), but those are not included in the reviewed documents. In the other countries, the most common indicator is resource productivity (or material intensity), with Germany being the only country that has a target—doubling resource productivity by 2020 (using 1994 as the base year). Except China and Germany, all studied countries also have goals or indicators for waste, mostly in reduction of the waste volume and increased recycling. France, Hungary and Singapore are seemingly the most ambitious countries, often having detailed targets for both aspects, with Singapore even aiming "towards low-percentage landfill." Sweden focuses on a non-toxic environment, giving attention to emerging harmful substances such as endocrine disrupters and nanomaterials, and India has a target for cleaning up contaminated sites. Besides Singapore, among Asian countries, Indonesia seems be paying most attention to waste, wanting to improve waste management through 3R integrated waste management. Japan and Korea pay little attention to waste, and it is not mentioned at all in China and Bangladesh. Overall, Switzerland has the most comprehensive goal, aiming at "shifting to more sustainable patterns of production and consumption," by "using natural resources sustainably," while Germany's goal is to "us[e] resources economically and efficiently."(see Annex 2: Country Research Templates Switzerland and Germany)

3.6.3 Assessment and Lessons for Global Goals and Indicators

The coverage of the SCP and economic sectors theme in the Small Planet countries remains somewhat patchy. However, the abundance of goals, targets and indicators specifically dedicated to this area confirm the validity of the proposal for a separate goal. The consumption and lifestyle aspects are so far only addressed by developed countries, but not by all, and not picked up by developing countries with a growing middle class. In light of the importance of food consumption, Poland's indicator for increasing vegetable consumption is noteworthy. While tourism receives less attention than expected, it remains an economic sector with global relevance, as well as a source of income in developing countries, and it requires a sustainability framework.

Resource efficiency is rather widely covered across all countries, and hence is clearly a candidate for a global goal, with resource productivity as a common indicator. Waste management needs more attention in developing countries, and in light of the resource agenda also in developed countries, where related employment effects were also recently highlighted by the European Commission (Vandenberghe, 2013). Indonesia's stepping up of its 3R integrated waste management programme is welcome, as well as Singapore's ambitious goal "towards zero landfill" with related measures. The explicit reference to a circular economy in China as well as the lifecycle analysis (LCA) approach in Australia are also candidates for wider diffusion. As investment and R&D are important levers, those countries that already specify the link to sustainable development and green economy in their goals are frontrunners. An obvious indicator is the share of R&D spending and manpower for green growth and sustainable development.

3.7 Priority Theme 7: Food Security, Sustainable Agriculture and Fisheries

3.7.1 Rationale for the Goal and Sub-Goals

In various forms, themes related to food security, agriculture and fisheries appear as priorities in all existing country strategies, integrated development plans and similar high-leverage documents. This is not surprising—food is an essential element of human well-being, irrespective of context. But agriculture is also recognized as being more than about food, as the sector produces a large number of raw materials for industry and various forms of renewable energy. Agro-ecosystems and fisheries harbour a significant portion of terrestrial and aquatic biodiversity, and play a role as a carbon sink, irrespective of location. Therefore, agriculture and fisheries clearly meet the universality requirement for SDGs on more than one account.

The food security goal in the MDGs was halving the proportion of people who suffer from hunger between 1990 and 2015. While in relative terms progress has been made under business-as-usual scenarios, even by 2050 malnutrition would not be fully eradicated, due to the combined effects of demographic growth, environmental degradation, insufficient investment and competition for land. These factors would result in further stress mainly for the urban poor (UNEP, 2012; OECD & FAO 2013). The HLP's focus is on ensuring food security and good nutrition, under which the illustrative sub-goals cover ending hunger and reducing hunger-related child health problems. Other sub-goals call for sustainable agriculture and fisheries practices and the reduction of food waste (UNHLP, 2013). The UNSTT puts its emphasis on sustainable food and nutrition security. From the inclusive social development point of view, the UNSTT emphasizes universal access to sufficient and good quality food as a human right. Food production is considered from the perspective of inclusive economic development, with emphasis on national strategies to support food productivity and access to land and water as the means of production, particularly in smallholder agriculture, where poverty is often the most entrenched (UNSTT, 2012). In the SDNS report, addressing hunger is part of the poverty goal, while food production has its own goal, combined with the need for rural prosperity (SDSN, 2013).

Following the logic of the ultimate ends-ultimate means framework, a food-related SDG must address both the number of hungry as an outcome, with the means of food production and agro-ecosystems as foundations. Sub-goal 7.1, or the ultimate end, is defined as access to food at *sufficiency* level in order to consider not only hunger, but also overconsumption and related health problems. Sub-goal 7.2 refers to productivity via conversion to sustainable agricultural production systems. It is grounded in the view that the increase in production must come mostly through intensification, as opportunities for expanding farmland without further eroding biodiversity are becoming limited. However, longer-run intensification would be an answer only if it did not undermine the productive capacity of agro-ecosystems. The third sub-goal recognizes the increasing importance of access to land. Sub-goal 7.4, which is the foundation of the other sub-goals, refers to maintaining the viability of agro-ecosystems so that they can continue to deliver goods and services necessary for human society. This is consistent with recent global assessments that found that the required productivity increases and intensification would work only if they did not lead to increasing agriculture's overall pressure on the resource base (IAASTD , 2009).

Table 3.8: Goal and sub-goal statements for food security, sustainable agriculture and fisheries

Priority themes	Goal statements	Sub-goal statements
7. Food security, sustainable agriculture and fisheries	Sustainable agriculture, food security and universal nutrition are achieved.	7.1 Access to affordable, nutritious and healthy food at sufficiency level (tackling hunger and obesity and avoiding food waste) is ensured. 7.2 Productivity is increased via accelerated conversion to sustainable agriculture, fisheries and forestry. 7.3 Effective land-use planning and management are in place and assure equitable access to land. 7.4 The quantity and quality of agro-ecosystems are maintained without destroying natural ecosystems.

3.7.2 Small Planet Findings

For the themes of food security, sustainable agriculture and fisheries in general, there are examples for all sub-goals and related targets and indicators from the countries reviewed. However, coverage is uneven and very few countries have systematically linked goals, targets and indicators. Sub-goals 7.2 and 7.4 are relatively less covered in country strategies, with several countries not having related goals, targets and indicators in the documents reviewed. In general, one could say that land-based agricultural production is significantly better covered than fisheries. Unless fisheries-related goals, targets and indicators are addressed in sector-level strategies in the countries under review, this possible gap is interesting in light of the near universal unsustainability problems with fisheries and the weight of fish in some countries' food supply. Forestry is also underrepresented in the indicator sets.

Sub-Goal 7.1: Access to affordable, nutritious and healthy food at sufficiency level (tackling hunger and obesity and avoiding food waste) is ensured.

Sub-Goal 7.1 is relatively weakly covered at the country level. Among the developing countries within the Small Planet group, only Bangladesh identified goals, targets and indicators related to achieving food sufficiency and reducing food-based poverty. As expected, food sufficiency is not covered in developed countries. Instead, the focus is on reducing food waste (Australia, Korea and France), self-sufficiency (Korea) and consumption of organic food (Switzerland).

Food overconsumption and obesity (not only in developed but increasingly even in some developing countries) were identified as priorities in some reviewed country documents (Australia, Germany, Sweden). Targets and indicators for obesity are allocated to the *Health and Population* theme (sub-goal 2.1 page 35), due to the relevance of obesity both for hunger and also for lifestyle issues. Additionally, there was a lack of targets and indicators for food sufficiency in countries that continue to have problems in this area (e.g., Indonesia, India and China). Among the developing countries reviewed, only Bangladesh has a consistent set of goals, targets and indicators for food sufficiency.

Sub-Goal 7.2: Productivity is increased via accelerated conversion to sustainable agriculture, fisheries and forestry.

The number of countries showing goals, targets or indicators for sub-goal 7.2 is higher than for sub-goal 7.1, but there are less consistent patterns. While the goal itself aims to combine productivity increases with the more widespread use of sustainable agriculture, country goals tend to address one or the other, and only in a few cases, both. The economic value of production, farm income and competitiveness of the sector are of concern to several countries (Australia, Bangladesh, Hungary, India and Switzerland). The value of aquaculture was specifically identified in two cases (Korea and Indonesia). With regard to the sustainability aspects, several of the more advanced countries treat organic production and certification (France, Germany, Hungary and Poland) and integrated management in agriculture (Australia) as priorities. There are no clear developed versus developing country patterns with regard to this goal, except for the emphasis put on organic production, similar to sub-goal 7.1.

Sub-Goal 7.3: Effective land-use planning and management are in place and assure equitable access to land.

Sub-goal 7.3 aims for effective land-use planning and management to assure equitable access to land. It is related to resource governance mechanisms for agriculture and, most importantly, land. Only a few countries cover the sub-goal, and the targets are identified only in one (Indonesia). There is no obvious pattern of difference between more and less advanced countries or regions. With some variation in terminology, several countries refer to the need for clear land management systems and their various elements, such as statistical and geospatial databases, rules governing land use and spatial planning (Australia, India, Indonesia and Switzerland). One country that limited the conversion of farmland to other uses as a goal was identified (Bangladesh). Indicators usually refer only to the outcome of land management, such as changes in land use, but do not refer directly to the presence and functioning of governance mechanisms.

The relatively weak representation of this sub-goal may indicate a lack of attention to land-use planning and management mechanisms, but also to the challenge of setting governance related goals, targets and indicators.

Sub-Goal 7.4: The quantity and quality of agro-ecosystems are maintained without destroying natural ecosystems.

The focus of sub-goal 7.4 on the quality and quantity of agro-ecosystems is reasonably well represented in countries through goals, targets and indicators. Quantity is addressed through goals related to the maintenance of farmland reserves or the avoidance of farmland loss (China, France and Switzerland), but also through limiting the area of degraded or fallow land (Bangladesh and Australia). As a specific issue, Indonesia highlights the condition and quantity of peatlands. With regard to land quality, several countries aim to keep pressure on land via the use of controlled pesticides and fertilizers (France, Hungary, India, Germany and Sweden). Preventing the degradation of land or soil is also mentioned (Poland and Korea), along with maintaining soil carbon specifically (Korea). A few countries (Sweden and Australia) identified goals that reflect a more holistic and systems-oriented view of agricultural land, taking concepts such as ecosystem integrity and services, agricultural biodiversity and critical thresholds into account.

Targets for 7.4 are generally weak, and in most cases do not specify in concrete terms the area and quality of farmland a country aims to preserve for agricultural production. There are no targets for fisheries in the reviewed documents. Indicators for this sub-goal are not systematically covered either, even though relevant data even from global databases are often available.

3.7.3 Assessment and Lessons for Global goals and Indicators

Overall, one could conclude that even though the world is facing a potential tightening of the global food supply system, more could be done at the country level to establish an integrated system of goals, targets and indicators, as key elements of a sectoral management system.

In terms of ultimate ends, both the number of hungry and the number of overfed and obese should have a goal and target. While production figures are routinely available through market players and international organisations, there are few goals and targets relating to the governance and management mechanisms in agriculture that would ensure the delivery of food to a growing global population. As for the quantity and conditions of the resource base, both developed and developing countries in the Small Planet sample could set more systematic goals to protect the land base—in terms of quality as well as quantity—from further erosion under the required intensification to meet growing global food demands. Finally, countries, especially where fishery produces a significant portion of food, would be well advised to identify goals and targets and track progress of fish stocks and fishery ecosystem trends, as these are essentially missing in reviewed high-level strategy documents.

3.8 Priority Theme 8: Energy and Climate Change

3.8.1 Rationale for the Goal and Sub-Goals

Energy and climate change represent an integrated goal, recognizing the close coupling of meeting the needs of human society for energy (as an ultimate end) with the effects of the fossil fuel energy sector on the climate system. This is reflected in many country strategies that often address the two issues in tandem. In essence, the combination of these two priorities recognizes energy production and consumption as key levers in tackling climate change as a mainly human-induced problem (GEA, 2012; Pachauri & Reisinger, 2007).

Climate change, energy, and the close linkages between the two, are represented not only in country strategies, but also in all SDG-related global reports. The HLP suggests an energy-specific goal, addressing the energy mix, access and energy efficiency, while it considers climate change a cross-cutting issue (UNHLP 2013). The UNSTT on the Post-2015 UN Development Agenda identifies the threat of climate change as one of the key areas of concern that have emerged forcefully since the establishment of the MDGs. It also points out the risk of climate policy failure and the need for global governance mechanisms (UNSTT, 2012). The SDSN suggests a goal of curbing climate change while ensuring the provision of sustainable energy that is the most similar to the goal identified for the Small Planet. Specifically, this SDSN (2013) points out that climate change is an existential threat to humanity, and unless a way is found to decarbonize the world's energy system, none of the other key SDGs, such as poverty reduction, would be met.

Energy is a cross-cutting goal: it directly underpins economic production processes and contributes to all aspects of human well-being, from heating homes to producing food to operating basic infrastructure and institutions. Climate change is also cross-cutting with implications for all other goals, sub-goals and sectors. There is also a strong link to biodiversity and ecosystems through the greenhouse gas (GHG) emission source and carbon sink functions of ecosystems. Not all of these linkages could be captured under the energy and climate change goal and sub-goals, therefore it will be essential for energy and climate change links to also be recognized under other relevant goals, including links to food and agricultural sectors. In specific contexts large-scale conversion of land use to bioenergy crops or water diversion for hydropower production can represent significant risk for food production. While the generation of energy and overall emissions are covered under this goal, energy *use* is largely determined by other goals related to the most important energy-consuming sectors, such as settlements, infrastructure and transport; SCP and economic sectors; food security and agriculture (Goal 7); and water availability and access (Goal 8).

The three sub-goals under this goal, as shown in Table 3.9, deal with access, the energy mix and GHG emissions as the main culprit in climate change. Access as a proxy for an ultimate end is a major issue, mostly for developing and transitional countries. Access to sustainable forms of energy and energy efficiency are relevant for all countries. Increasing the share of clean renewables is of general concern and serves as a direct lever for climate change. Halting the increase of GHG concentrations has been identified as a key cumulative global outcome for all climate change mitigation relating to measures and serves as a proxy for ultimate means.

Table 3.9: Goal and sub-goal statements for energy and climate change

Priority themes	Goal statements	Sub-goal statements
8. Energy and climate change	Climate change is effectively addressed while access to clean and sustainable energy has been significantly improved.	8.1 Everyone has access to sufficient energy and consumption is efficient and sustainable. 8.2 The generation of clean and sustainable renewables has increased. 8.3 The rate of GHG concentration increase in the atmosphere has been reduced.

3.8.2 Small Planet Findings

Energy and climate change are well represented in country documents. The developed-developing country divide is clear: while developing countries refrain from making emission reduction goals and put more emphasis on expanding energy supply services, better-off countries are more likely to set emission reduction targets and focus on increasing the share of renewables and improving energy efficiency.

Sub-Goal 8.1: Everyone has access to sufficient energy and consumption is efficient and sustainable.

Access to energy is mainly a developing country issue, and attaining full electrification appears as a goal (Bangladesh and India). However, access to renewables is relevant for all, and many countries identify related goals and targets (Bangladesh, France, Germany, Hungary, India, Indonesia, Korea, Sweden and Switzerland). Energy efficiency also appears to be a near-universal issue, and there are examples of detailed energy efficiency targets from both Europe and Asia-Pacific (Australia, China, France, Hungary, Indonesia, Korea, Poland, Singapore and Sweden).

In some cases, the intention to cap overall energy consumption is also identified as a goal (China). Broader, closely interrelated systemic concerns such as energy security (India), diversity of supply (Singapore), self-reliance and reduced dependency (Indonesia, Switzerland), and stability (Korea) also appear as goals. Issues related to energy system governance are also represented—for instance, developing energy performance contracts (France); facilitating energy-related benchmarking for industry (Singapore); or setting up an energy management and audit system (Indonesia).

Sub-Goal 8.2: The generation of clean and sustainable renewables has increased.

Consumption is clearly linked to the sub-goal on generation: it can hardly be efficient and sustainable if generation relies on dirty non-renewable fuels and if supply does not meet demand. In relation to the generation of clean and sustainable renewables as part of the overall energy mix, sub-goal 8.2 is covered by most countries, though only a few have a complete sequence of goals, targets and indicators (India, Korea and France). A typical target is increasing the share of renewables—often in significant detail by type of energy source or by specifying targets related to one or more renewables, such as wind or geothermal (Bangladesh, Indonesia and France). Even in cases where the use of carbon-based energy is projected, it can be accompanied by targets related to renewables (India).

Sub-Goal 8.3: The rate of GHG concentration increase in the atmosphere has been reduced.

Sub-goal 8.3 on GHG concentrations—a fundamental pre-requisite for moderating anthropogenically induced climate change—is typically addressed using emissions as its key lever. Adaptation is not covered under this goal, though it is clearly relevant in terms of impact reduction. Emissions are covered by the United Nations Framework Convention on Climate Change (UNFCCC) in most countries; therefore, national goals, targets and indicators are relatively common. With regard to climate change, the existence and nature of goals, targets and indicators is strongly influenced by the development status and subsequent commitments of the country under the UNFCCC agreement, with Annex I countries often making emission reduction targets. The few cases (e.g., Germany) where no goals, targets or indicators have been identified, could be explained in part by the choice of source documents reviewed.

The GHG concentration sub-goal is represented in several countries by emission-related goals, targets and indicators. Goals and targets vary from very specific, sectoral commitments (France, Indonesia, Korea and Singapore) to simple and general (Poland and Sweden). Some countries that have not identified an explicit goal may still have targets and indicators (China and Hungary). While several countries make absolute emission reduction commitments either in terms of volume or compared with a historic baseline, others focus on GHG intensity, reducing GHG emission by a unit of GDP (India and Singapore). While reducing emissions associated with producing a unit of economic output is an important target, if the economy grows very fast, the savings due to nominal reductions in emissions may be outweighed by the growth of production. This can result in an increase of emissions in absolute terms, which is the parameter that matters from the point of the view of the climate system. Therefore, from the climate point of view, *both* GHG intensity and absolute emission goals and targets are required.

3.8.3 Assessment and Lessons for Global Goals and Indicators

Energy, climate change and their interrelationship are fundamental concerns for sustainable development; their importance is universally recognized. This research found that there are many examples of goals, targets and indicators currently in use by countries. However, even though these have been discussed at great lengths by countries—either through their domestic policy processes or through the negotiation of international agreements, based on the review of the high-level integrated policy documents selected for this research—there appear to be gaps in their sequence.

Most of the gaps in goals, targets and indicators are clearly not knowledge gaps, as energy and climate change-related goals, targets and indicators are relatively well known, both in the scientific literature and through relevant international agreements (e.g., UNFCCC). The gaps probably arise more from the nature of the policy and political process, where commitments in a high-stakes area such as climate change are often used as bargaining chips. Ultimately, the much-needed progress would require more coherence between goals and targets, a more systematic adoption of reporting and, ultimately, accountability mechanisms that form an important part of indicators.

3.9 Priority Theme 9: Water Availability and Access

3.9.1 Rationale for the Goal and Sub-Goals

In its recently published report, the Overseas Development Institute (2013) analyzed different post-2015 goals and target proposals, which were collected in the so-called Future Goals Tracker database (see also Future Goals Tracker, n.d.). The highest number of proposals, totalling 44, discussed the issue of water, underlining the importance of ensuring access to safe and affordable water for all and dedicating a stand-alone goal for this theme. While MDG 7 (target C) focused on developing and maintaining a well-functioning water infrastructure, the current goal and target proposals aim at widening the focus to include sustainable water management and freshwater resources.

As part of the environmental sustainability dimension, the UNSTT framework lists universal access to clean water and sanitation (UNSTT, 2012, p. 25). The HLP suggests a separate goal, which aims "to achieve universal access to water and sanitation" (UNHLP, 2013, p. 31). Apart from access to drinking water and sanitation, the goal also includes freshwater withdrawal and recycling of wastewater among its targets. Griggs et al. (2013) considers sustainable water security among one of the six suggested sustainable development goals for the people and the planet (. The goal aims to "achieve universal access to clean water and basic sanitation, and ensure efficient allocation through integrated water-resource management" (Griggs et al. 2013 p. 307). Interestingly, the SDSN in its SDG draft report for public consultation does not suggest a separate water goal in its set, but considers it as a cross-cutting issue. It mentions sustainable use of water, universal access to water and sanitation in its sixth goal, to "improve agriculture systems and raise rural prosperity" and in seventh goal, to "empower inclusive, productive and resilient cities" (SDSN, 2013, p. 24).

In line with the proposals of HLP (UNHLP, 2013) and Griggs et al. (2013), the water availability and access goal in this study includes three sub-goals. Following the logic of the ultimate ends-ultimate means triangle, sub-goal 9.1 refers to the ultimate ends of human well-being and aims to ensure that households and all economic sectors consume water in an efficient and sustainable manner. As an intermediate means, the second sub-goal aims for the creation and the maintenance of a water supply infrastructure, which is crucial for affordable and safe water supply. The third sub-goal refers to the integrity of the water cycle, which is essentially an ultimate mean to ensure safe and affordable water supply. The integrity of the water cycle is to be achieved through widespread adoption of integrated water resources management. Water resources are often transboundary and shared by several regions and countries. Maintaining the integrity of the water cycle therefore requires governance approaches that involve a collaboration of all affected actors on a watershed basis.

Table 3.10: Goal and sub-goal statements for water availability and access

Priority themes	Goal statements	Sub-goal statements
9. Water availability and access	Safe and affordable water is provided for all and the integrity of the water cycle is ensured.	9.1 Water consumption of households and all economic sectors is efficient and sustainable. 9.2 Infrastructure is available and well maintained to ensure a sufficient and safe water supply. 9.3 The integrity of the water cycle has been achieved through widespread adoption of integrated water resources management.

3.9.2 Small Planet Findings

The Small Planet countries each have goals, targets and indicators relating to at least one of the sub-goals, but the coverage seems uneven. While the integrity of the water cycle is covered by all countries, the issue of water supply infrastructure is less so, and the efficiency of consumption is either only partially addressed or omitted by many of the analyzed countries (Germany, Switzerland, Sweden, Poland, India and Indonesia). Only two countries, Bangladesh and Korea, cover all three sub-goal areas; at the same time, their goals are supported by quantified, time-bound targets and related indicators.

Sub-Goal 9.1: Water consumption of households and all economic sectors is efficient and sustainable.

Nine of the countries studied address the issue, but in most cases the goals and targets are rather patchy. China, Korea and Singapore defined goals with underlying targets and indicators. China aims at "building a water-saving society" (National Development and Reform Commission of China, 2011), Korea plans to increase the efficiency and equity of water management through an improved water pricing system and Singapore aims for self-sufficiency and greater efficiency. In addition, France aims to grant local authorities with more capacity and power to regulate and control efficient water use in communities, and Hungary defines quantified targets for water intensity and reduced amount of wastewater. Australia, Bangladesh, Japan and Poland have related indicators for monitoring in place. Surprisingly, two developing countries (Indonesia and India) and three more advanced countries (Germany, Switzerland and Sweden) do not address the issue of sustainable water consumption. Although Switzerland does not specify goals for water efficiency, it aims to decouple resource usage from economic productivity. Where introduced, indicators in this section focus on water consumption per capita, per municipality or per sector as well as on the efficiency of the consumption.

Sub-Goal 9.2: Infrastructure is available and well maintained to ensure a sufficient and safe water supply.

Ten countries considered goals, targets or indicators for drinking and wastewater infrastructure, with the aim to ensure provision of safe, good-quality and accessible water. Four countries (Bangladesh, Indonesia, Korea and Hungary) introduced a complete sequence of goals, targets and indicators. China, France and India defined either a relevant goal or a target, while Australia and Japan only considered indicators for monitoring. Where they exist, targets and indicators mostly focus on the availability of (piped) drinking water and wastewater treatment facilities. However, some countries also monitor the number of facilities for drinking water treatment, the penetration of access to drinking water facilities in the rural areas (Korea) and the diversification of water supply by desalination and water reclamation (Singapore). Four European countries (Germany, Poland, Sweden and Switzerland) did not address the issue, which may be due to the fact the water infrastructure is already at quite an advanced stage and therefore the issue is considered to have been already addressed.

Sub-Goal 9.3: The integrity of the water cycle has been achieved through widespread adoption of integrated water resources management.

For sub-goal 9.3 is considered in all Small Planet countries; almost all countries (except Poland and Singapore) defined goals for ecologically healthy water bodies through the establishment and the implementation of sufficient water management policies and mechanisms. In six of these countries (Bangladesh, France, Germany, India, Indonesia and Switzerland), the goals are underlined with quantified targets and in most cases also with indicators. The targets and related indicators mostly focus on the quality of surface water, but also, in few cases, on the availability and the amount of water assets. For example, France aims for the protection of the most vulnerable catchment areas, India aims to restore 100,000 ha of wetlands/ inland lakes/water bodies by 2017 and Singapore aims to increase catchment areas from 50 to 67 per cent of its land surface. Additionally, Bangladesh focuses on tackling transboundary water issues and targets establishment of subregional co-operation for water resource management and flood control with Bhutan and Nepal. It aims to monitor this by a number of co-operation instruments, such as a memorandum of understanding or a treaty. While lacking targets, four other countries (Australia, Japan, Korea and Sweden) monitor indicators related to their goal set. Where they exist, indicators are introduced for measuring mostly surface water quality, but in a few cases also for groundwater quality (Japan), freshwater resources (Sweden), the annual rainfall per capita (Korea) and a number of plans for the creation of basins to enhance environmentally sound water cycles (Japan).

3.9.3 Assessment and Lessons for Global Goals and Indicators

To ensure access to safe and affordable water, most of the Small Planet countries recognize the importance of maintaining the integrity of the water cycle (as an ultimate mean). While the importance of this sub-goal is spelled out at the goal level in many of the countries, slightly more emphasis is placed on targets and indicators focusing on the quality of water resources rather than on the availability of freshwater. This may be due to the well-known and widely promoted health consequences of unsafe and unclean water use,

or the fact that the risk of water scarcity has only recently been added to the spotlight of environmental problems. In studying water resources and infrastructure, there are good examples to follow: India aims for multidisciplinary, participatory water resource management, programs and infrastructure, while Korea promotes an advanced water management system through a stable water management base. Relevant indicators for measuring freshwater resources could be the indicators that Australia uses to measure the water availability to meet demand related to allocation, use and the closing net water assets, by urban and rural regions.

Interestingly, the efficient supply and the sustainable use of water resources does not come out as equally important in the countries Especially in the case of efficient supply, the European and more developed countries that were studied tend to be less covered while the sustainable use of water resources is equally underrepresented both in European and Asian, developed and developing countries. Many of the countries consider these issues—for instance, China aims to ensure water safety and create a "water-saving society" (National Development and Reform Commission of China, 2011). However, many countries (even more developed ones) did not comprehensively address them. One could therefore conclude that the studied countries tend to put less emphasis on the necessary infrastructures as well as on water consumption and do not fully consider the implications of unsustainable water supply and use on the quantity and the quality of water resources.

As for sustainable water use, self-sufficiency and greater efficiency in water use could be measured in consumption per capita (litres/day) and water efficiency indicators, which are the indicators used in Singapore.

Finally, considering that about 70% of global freshwater use goes to agriculture, and 44% of all food is produced on 16% of the arable farmland, it is particularly important that agricultural water use and within that irrigation is given particular emphasis under subgoal 9.1, including possible setting regionally appropriate agricultural water use targets. Due to growing demand for food that is driven by demographic and socio-economic factors both the efficiency of agricultural water use and the area under irrigation will have to increase (Alexandratos and Bruinsma 2012; Sauer et al. 2010). This will require the type of coordinated and prioritized attention global goals can provide.

3.10 Priority Theme 10: Biodiversity and Ecosystems

3.10.1 Rationale for the Goal and Sub-Goals

Human well-being and all life on Earth fundamentally depend natural ecosystems and biodiversity. This relationship is clearly expressed by the "safe operating space" concept that points to the need for human society to ensure adequate human development for all without crossing the critical thresholds beyond which the stability of the Earth's life support systems is compromised (Rockström et al., 2009). This priority therefore sits at the bottom of the ultimate means-ends pyramid as crucial for securing sustainable development.

Many international agreements, as well as MDG 7, envision a significant reduction in the rate of biodiversity loss by 2015. This is most clearly expressed by the Convention on Biological Diversity (2013) and the Aichi Biodiversity Targets, as well as other relevant ecosystem-specific conventions (e.g., Ramsar Agreement, CITES, etc.). Despite these conventions, global biodiversity trends continue to decline in terms of populations, species and habitat lost (Armenteras et al., 2012).

Safeguarding ecosystems, species and genetic diversity is recognized as a universal priority by the HLP and as an enabler of human well-being and sustainability by the UNSTT (UNHLP, 2013; UNSTT, 2013). The SDSN report considers biodiversity as part of a broader goal related to "secure ecosystem services and biodiversity, ensur[ing] good management of water and other natural resources" (SDSN, 2013, p. 21).

In Goal 10, Small Planet adopts a focus that is closest to the option identified in the HLP report. Sub-goal 10.1 is related to adequate protection, which is an important aspect of biodiversity governance. This reflects a specific type of interaction between society and biodiversity, and falls nearer to the categories of intermediate means. The two other sub-goals related to species and habitat (10.2 and 10.3) represent ultimate means, and their metrics should measure whether biodiversity protection and ecosystem conservation actions are ultimately successful. The incorporation of ecosystem functioning in this sub-goal points out that biodiversity plays its role not only via individual species and ecosystem components as structural elements, but also via their existence as an interlinked and dynamic whole. The project team also considered recommending a fourth sub-goal related to the introduction and presence of genetically modified organisms and related risks. However, due to the lack of representation of the issue in national strategies, the sub-goal was not included.

The interlinkages between biodiversity, ecosystems and human well-being are broad and deep. Besides the role of ecosystems in securing the conditions for maintaining the integrity of biogeochemical processes, from climate to the nitrogen cycle, they also support human well-being directly through ecosystem goods and services. Ecosystems are integral for maintaining human health by purifying water, moderating climate extremes and contributing to food security via maintaining soil fertility and pollination. Furthermore, the natural resources sector is also providing jobs and livelihoods. However, ecosystems also act as determinants of much broader elements of how humans function and feel, including at the subjective well-being level (Summers, Smith, Case, & Linthurst, 2012).

Table 3.11: Goal and sub-goal statements for biodiversity and ecosystems

Priority themes	Goal statements	Sub-goal statements
10. Biodiversity and ecosystems	Biodiversity and ecosystems are healthy and contribute to human well-being.	10.1 A sufficient proportion of all major biomes is under adequate protection. 10.2 The rate of extinction of natural and cultivated species has been halted and is on course towards a trend reversal. 10.3 All types of natural habitats exist in a quantity and quality sufficient for their healthy functioning.

3.10.2 Small Planet Findings

The coverage of the sub-goals under biodiversity and ecosystems in the Small Planet countries is a mixed bag. While sub-goals 10.1 and 10.3 are relatively well covered, as in the case of several other Small Planet goals, complete sequences of goals, targets and indicators are the exception rather than the rule. Even in cases where sequences exist, they do not necessarily connect conceptually.

Sub-Goal 10.1: A sufficient proportion of all major biomes is under adequate protection.

With regard to sub-goal 10.1, there was a distinct paucity of goals and targets, even though Target 11 of the Aichi Biodiversity Target sets out a clear direction of protection for both terrestrial and marine habitat (Convention on Biological Diversity, 2013). While some countries, such as Australia, have recognized the importance of the issue at the level of a goal, they do not identify a specific target; in Germany, conversely, the target is not accompanied by the articulation of clear goals, while in the case of France both goals and targets are available, even if no indicators have been identified. Protection can take different forms such as designating the expansion of community or village forests, as in Indonesia. This practice may be particularly important in countries where traditional forms of resource management continue to play a role.

Sub-Goal 10.2: The rate of extinction of natural and cultivated species has been halted and is on course towards a trend reversal.

Halting the rate of extinction has been the core concern of the Convention on Biological Diversity and the conservation movement in general for a long time, and it is better represented in the countries researched than the first sub-goal. Their goals and targets address different aspects of threatened species, from identifying desirable levels of specific families of species such as farm birds (Hungary, Korea, Poland and Switzerland) to the overall status of endangered species, as measured through an index (Germany) or simply the number of threatened species (Bangladesh). Several countries point to the importance of biodiversity monitoring and information (Singapore and Sweden). Besides threatened species, invasive species are also identified as a biodiversity threat (in Germany, Korea and Sweden).

Sub-Goal 10.3: All types of natural habitats exist in a quantity and quality sufficient for their healthy functioning.

The availability of habitat is connected to the health of individual species, but it is also a higher-level concern that reflects the understanding that individual species can only flourish to the extent the conditions for their healthy functioning are available. Habitat quantity, quality and the spatial structure all determine habitat suitability, and these elements are reflected in many country goals. While goals are expressed in more generic terms, targets often focus on preserving the quantity of specific high-value and/or sensitive ecosystems, such as forests or wetlands (Bangladesh, China, Hungary, India and Korea). Some countries identify not only the quantity but also the quality of habitat (Germany, Japan, Korea and Switzerland). There are goals related not only to the preservation, but also rehabilitation of habitat (Australia, Indonesia, Korea and Singapore). Measures *affecting* the preservation of habitat are also identified as goals, such as the designation of protected areas (Australia, France, Japan, Poland, Singapore and Sweden) or the implementation of national afforestation programs (Bangladesh, Hungary and India). These measures indicate a close link with sub-goal 10.1 and governance in general.

3.10.3 Assessment and Lessons for Global Goals and Indicators

The sub-goals, targets and indicators for this goal are fairly well represented in high-level strategies of many countries in the Small Planet sample. This, along with several related multilateral environmental agreements in force, support having biodiversity and ecosystems as a stand-alone goal.

However, there are also significant gaps if one considers that in order to effectively address the sustainability of biodiversity and ecosystems, actions are needed through multiple elements *in parallel*, as indicated in the sub-goals proposed in this study. While many countries address one or the other element of these priorities, none address them all. Even the more easily quantifiable elements, such as the proportion of protected areas or number of species under threat, are insufficiently represented. Goals and targets related to populations of species are available in a few cases, but limited most typically to birds due to data limitations. While habitat quality is more difficult to assess, the majority of countries also do not measure even habitat quantity, which is easier to track.

The goals, targets and indicators identified in national documents underline the importance of a biodiversity- and ecosystems-related common goal. There is much scope for complementing and systematizing these based on available internationally agreed goals and targets through existing mechanisms, mainly the Aichi Targets. These targets have already been negotiated and used, in principle, for making decisions related to conservation. Recommendations for common goals, targets and indicators should come from mechanisms that are more complete than this limited review of national priorities, which found many gaps.

3.11 Priority Theme 10+1: Adaptive Governance and Means of Implementation

3.11.1 Rationale for the Goal and Sub-Goals

Much like other proposals, the Small Planet report the enabling effect of good governance as an important inclusion in the post-2015 framework for development. Therefore, some overlap can be expected between this section and the subsequent section on the means of implementation.

Governance is recognized across the board as an important ingredient in a future development framework. The role of processes and institutions as enablers for implementation has been known for a long time. This also figured in the MDGs—under MDG 8, on the "global partnership for development." However, governance was rather vaguely represented as qualitative commitments to good governance. Recognizing that not enough has been done to increase the contribution of governance to development, it is receiving substantial attention in virtually all proposals. For example, the HLP identifies governance as a goal, with a focus on effective institutions (UNHLP, 2013). However, governance is also a strong focus of the proposed transformative shifts towards (i) building peace and effective, open and accountable institutions for all and (ii) forging a new global partnership. The SDSN has two main approaches to how governance could feature in the future development framework: (i) as a goal with targets to transform governance for sustainable development and (ii) governance (including peace and security) as a fourth dimension of sustainable development integrated into every SDG. Griggs et al. (2013) propose governance for sustainable societies as one of six SDGs, recognizing the importance of governance for the implementation of other development goals.

Table 3.12: Goal and sub-goal statements for governance and means of implementation

Priority themes	Goal statements	Sub-goal statements
11. Adaptive governance and means of implementation	Adequate structures and mechanisms are in place to support the implementation of the priorities underlying the SDGs at all levels.	11.1 Long-term integrated visions of sustainable development are developed to guide physical, thematic and sectoral plans. 11.2 A sustainable development cooperation framework at the international level is well established. 11.3 Policies and plans are co-ordinated to integrate SDGs into decision making and implementation. 11.4 Progress towards the SDGs is tracked and the relevant information is accessible to all and reviewed on a regular basis. 11.5 Illicit flows of money and goods, tax evasion, bribery and corruption are reduced. 11.6 The impact of disasters on people and property has been sharply reduced.

3.11.2 Small Planet Findings

The Small Planet country review found good examples in all six of the sub-goal areas of this goal cluster. However, not all countries place emphasis in the same way, and therefore reserachers observed a great variation in the consistency of governance goals, targets and indicators.

Sub-Goal 11.1: Long-term integrated visions of sustainable development are developed to guide physical, thematic and sectoral plans.

As for the ultimate end of sub-goal 11.1, targets from some countries show that simply indicating the existence of an overarching and cross-cutting plan is considered a good initial step. Moreover, since this sub-goal is not entirely new, there are examples of countries (France) anchoring their goal, target and indicator in Agenda 21 and in the development objectives of the European Union. It is not clear from the existing indictors whether the plans that are the focus of this sub-goal area really guide planning and decision making or whether they are just drafted pro-forma. New and matching indicators should be designed to enable a tracking of this sub-goal area. Practices from some of the reviewed countries (Switzerland) could yield information as to how this can be approached.

Sub-Goal 11.2: A sustainable development cooperation framework at the international level is well established.

Sub-goal 11.2 focuses on international co-operation to pursue sustainable development and some countries reflect this goal as the aspiration to strengthen global governance for sustainable development. More concretely, this sub-goal takes interest in Overseas Development Assistance (ODA), as that mechanism is likely to be part of the foundation of future co-operation on sustainable development. In anticipation of this trend, some reviewed countries have begun formulating criteria for their ODA, such as Korea's "green ODA" or Australia's aspiration to integrate ecologically sustainable development in all aspects of its ODA programs. Others (France) indicate that part of their ODA will be channelled to significant sectors for environment and society, such as agriculture and food production. Another significant component allocated to sub-goal 11.2 is the issue of trade and its impact on all dimensions of development. Countries are recognizing that improving trade (indicated by imports and exports) is one way to advance development objectives.

One could imagine that international co-operation in a future development framework will take full advantage of trade as a vehicle for achieving sound development objectives and technology transfer. This may require some criteria that differentiate trade based on its ability to advance the cause of sustainable development in general or SDGs in particular. Even though this is not happening yet, the significance of trade in promoting sustainable development is recognized by several countries (China and India). Conflicts need to be resolved between World Trade Organization rules on non-discrimination and possible favouritism for trade in sustainable goods, which may be necessary as a driver to incentivize environmentally sound and socially just trade.

Sub-Goal 11.3: Policies and plans are co-ordinated to integrate SDGs into decision making and implementation.

Sub-goal 11.3 represents institutional aspects of sustainable development governance. This area is concerned with clustering national and international efforts at policy co-ordination, and integration both among stakeholders and between levels of decision making. Countries rank quite differently, and there are some that do not have any entries at all in this thematic sub-goal area (Japan). On the other hand, good examples exist—from ensuring that cabinet processes facilitate the integration of sustainable development aspects into decision making (Australia) to bringing a national sustainable development monitoring council under purview of the Finance Minister (Bangladesh). Other traditional notions of governance (i.e., transparency, accountability, participation) are seen here in countries' national goals. Some countries propose detailed indicators to measure governance performance (Bangladesh and Poland). Other countries that focus heavily on goals related to consultations imply a priority towards participation, but matching indicators seem lacking (France).

Sub-Goal 11.4: Progress towards the SDGs is tracked and the relevant information is accessible to all and reviewed on a regular basis.

Sub-goal 11.4 focuses on tracking progress and encompasses notions of monitoring, evaluation, reporting and performance reviews as an important part of the policy management cycle. Some of the reviewed countries (Australia) approach reporting from a sectoral perspective, while others include the private sector's responsibility to report on their performance (France). Overall, though this sub-goal area contains relatively fewer detailed goals, targets and indicators from the reviewed countries, and mechanisms for reporting progress seem to be strong candidates for more emphasis in a future development framework. For this sub-goal, hardly any of the sampled countries had detailed targets on policy coherence and coordination, which could indicate that most governments approach cross-cutting sustainable development areas in a segregated fashion. Adopting better mechanisms for integration is recommended, as this is really one of the central tenets of the SDGs themselves.

Sub-Goal 11.5: Illicit flows of money and goods, tax evasion, bribery and corruption are reduced.

Sub-goal 11.5 focuses on another large traditional aspect of governance: illicit flows of money and goods, tax evasion, bribery and corruption. For this sub-goal, few countries had consistently identified goals, targets and indicators. Some, however, have goals in this area (China and Indonesia), and other useful examples include references to a Democracy Index, Corruption Perception Index and cases of illegal logging (Indonesia). To realize the implementation of SDGs, however, the components of this sub-goal cluster must be addressed at national and international levels—tackling these issues will free up a lot of resources for sustainable development.

Sub-Goal 11.6: The impact of disasters on people and property has been sharply reduced

Disasters are increasing worldwide and many countries and stakeholders are keen to see its inclusion in a future development agenda. It was proposed that it be included under the governance goal, because resilience to disasters was considered to be a matter of cooperation among institutions, nationally and internationally. Due to a recent surge in disasters worldwide and their potential impact on security in countries, it is logical that there was a good selection of goals among the reviewed countries. However, only a few countries(Japan, Korea) actually have existing targets and indicators relating to impacts and damages due to disasters.

3.11.3 Assessment and Lessons for Global Goals and Indicators

Although good governance remains difficult to measure, it was possible to recognize useful indicators. For example, the existence of integrated planning instruments, along with the number of integrated assessments conducted, could indicate if a country is seriously considering sustainable development in their policies and plans. Tracking international activities such as delivered (green) ODA, or instances of capacity building and training for sustainable development, could indicate countries' levels of activity to that end. The public level of confidence in institutions, the type of institution, and the availability of e-government or other governance sharing mechanisms all indicate other proxies for good governance. For disaster resilience, the number of lives lost from disasters and/or the percentage of government budget dedicated to disaster prevention could be useful indicators.

4. LESSONS LEARNED AND GUIDANCE FOR COUNTRY-LEVEL SDG DEVELOPMENT

Developing global SDGs may result in a growing interest in the development of contextualized SDGs, targets and indicators at the sub-global level, on regional, national or even local scales. While not explicit in the Rio+20 mandate, the need for this is clear, as the goals must be adapted to more specific situations to be relevant for policy and planning. As a result of the ongoing OWG process, the global community will identify a short set of universally applicable goals and related sub-goals, as happened in the case of the MDGs. There will also be targets and indicators that further specify expected global-level outcomes and that help track progress.

However, more specificity is needed at the national level under the broad umbrella of global goals, targets and indicators. Given their unique economic, ecological and social conditions and different systems of governance, countries will find it logical to translate global-level goals into ones that match their circumstances. This has already been stipulated in the CBDR principle, where countries have some flexibility in interpreting SDGs and subsequent implementation measures. While differentiation is less likely to be needed—and less likely to be accepted—at the level of the yet-to-be-agreed global SDGs, it would be *necessary* at the level of targets, where countries could make commitments based on their different baselines and conditions. The need for this is clearly demonstrated by environmental conventions such as the UNFCCC, with the caveat that the SDG framework is much broader and diverse, and covers issues where desirable policy directions—let alone specific targets—are less clear and more likely to be contested. The experience of conventions also illustrates that the contextualization of global goals and targets to national conditions will be wrought with conceptual, technical and political challenges.

Beyond the need for country-level specification of SDGs, countries may also identify *additional* goals and targets that may not surface as universally important at the global level, but would be essential from the regional or national perspective. This raises additional questions. How would countries go about selecting these additional goals, targets and associated indicators? How would they identify priorities and define details that are necessary for a goal-target-indicator system to be useful for implementation planning and governance?

While the work on the Small Planet project did not entail customizing goals, targets and indicators to the national contexts, the methodology that involved connecting the global to the national level may serve as a basis for guidance on how that could be done. As several less developed countries have already started to realize, substantive engagement in the global SDG effort would require capacity that they do not currently have. Given the significant effort and expertise that was required by the Small Planet project, the need for capacity building appears to be warranted. The following highlights the points related to national SDG development in general, as well as some of the focus areas for regional- and national-level capacity building.

Common Terminology

At the level of the Small Planet, even a small group of experts with the same working language found unambiguous communication challenging. Ambiguities, rooted in philosophical, disciplinary, cultural or linguistic differences hindered communication, making it frustratingly ineffective until an explicit effort was made to precisely define key terms. Terminology is therefore an important issue for SDG development.

An additional challenge associated with terminology was related to the fact that many issues in the national strategy documents that were reviewed were unclear. Vague definitions in resource documents made their interpretation and classification very difficult.

There is reason to believe that national processes would face similar challenges. In order to ensure effective communication, those participating in SDG efforts should make an effort to define or adopt definitions of key concepts, terms and categories in an early phase of their process and use these consistently. This is an essential "low-hanging fruit," as adopting a common terminology would facilitate communication and help facilitate agreement on SDGs from both the political and technical points of view.

Considering Lower-Level Priorities

The Small Planet work confirmed the value of a process starting from a lower level to define priority areas, goals and sub-goals, including reconfirmation goals in Step 4 of the W diagram (see Figure 2.1 in Chapter 2). In the Small Planet project, this level is represented by the 14 countries and involves the consideration of existing national priorities as defined in selected country-specific strategic documents. This allows the formulation and refinement of goals and sub-goals for Small Planet countries and contributes to defining the Small Planet-level SDGs that are more salient from the perspective of the 14 countries.

A significant limitation of the approach was the frequent lack, inconsistency or unclear validity of information in the overarching strategic documents. Addressing this issue would require going deeper into sector strategies that exist in many of the 14 countries, which was not possible due to the time and resource constraints of the project. There were also a few sub-goals in the Small Planet set that were included due to their global importance, even though very few national examples were found. For instance, very few Small Planet countries identified the need for developing a common vision for sustainable development as a priority.

The analogue of the Small Planet process at the national level would require the consideration of similar documents at the state, provincial or sector scale. While this was not possible in the project, it could be combined with systematic, genuine and early engagement with sub-national actors on the definition of goals and sub-goals, targets and indicators.

A particular challenge associated with this step is the inherent nature of participatory processes to result in endless shopping lists of sustainability priorities. This problem is well known from the practice of sustainability indicator development. As politically expedient as it may be to yield to everyone's desire to have every issue considered significant by even just one stakeholder, for strategic and practical reasons such long lists need to be whittled down to truly common priorities in the field of indicators often referred to as "headline indicators." The answer to this challenge is in process design: concrete steps must be made to combine and reduce the shopping list to its essential elements. Voting can be used to narrow down the choice of agreed priority areas.

Another related challenge is where and how to draw the line between common and specific priorities, where differentiation in terms of goals and targets—and subsequently implementation—is recognized and accepted. The dilemma is particularly significant if the underlying issue is important for all, and implementation could come at a significant cost, as in the case of emission reduction targets. Examples for such differences can also be found between countries in Asia-Pacific and Europe, indicating that regional and geographic factors or different levels of development may also play a role. In cases when goals are universal, differentiation may happen at the level of sub-goals and targets, calibrated to any given country's role in the problem and capacity to contribute to a solution.

Process Design and Participation

Developing an SDG system that is to be more than a paper exercise requires a careful consideration of process and a realistic assessment and addressing of capacity, time and resource requirements. One of the main reasons for this is that SDG system development is not a linear process. The Small Planet project initiative found that the progressive development of the SDG system often required the re-opening and redefinition of details that were earlier agreed upon and already considered final. Thus, the SDG development process has to be carefully and explicitly considered to equip it with sufficient flexibility that is necessary to deal with unforeseen circumstances and adjustments.

Besides the conceptual and methodological challenges that the Small Planet project had to tackle, under real-life conditions the process would also need to systematically and transparently address stakeholder interests. At the international level, these interests are articulated by countries through the OWG process; at the country level, the equivalents of countries are the various stakeholder representatives, whether lower levels of government, economic sectors or various social groups. Unless an effort is made to recognize and reflect the interests and the often-unavoidable trade-offs in the goals—such as the need for natural habitat versus the need for expanding farmland and infrastructure—subsequent implementation is likely to suffer. The underlying message is that, as SDG implementation often requires the collaboration of a wide range of stakeholders, it is important to strengthening their ownership of specific SDGs through meaningful participation in SDG development, because it increases buy-in and willingness to follow up.

Organizing Framework

At the beginning of the Small Planet initiative, the project team did not have a preconceived notion of a detailed conceptual framework with all the potentially significant sustainability priority themes neatly aligned in clear categories. The priority themes emerged through the consideration of global and national documents; and in Step 4 of the W diagram (in Figure 2.1 of Chapter 2), it was verified that they map back well on the priorities in those documents.

As the work progressed, the Small Planet team found it important to ground the goals and sub-goals in a substantive conceptual framework that identifies the key categories of sustainable development and their relationship. This represents another similarity between setting SDG and indicator initiatives, where framework development is also a common methodological step, as supported by the BellagioSTAMP (IISD and OECD 2013; Pintér at al. 2012). Daly's (1973) means-ends framework was useful for this purpose, both at the level of the goals and the sub-goals (see Figures 2.2 and 2.3 in Chapter 2).

While the use of the means-ends framework was unique to this SDG initiative, the structure of goals and sub-goals in this report were found to map well on the SDG system developed in other international initiatives, such as the HLP, the UNSTT and SDSN. However, none of the currently existing SDG systems are carbon copies of each other; while they apply to the same global reality, they also reflect differences in perspective, actors and process. This quality is also arising in the complexity and "creative ambiguity" of the concept of sustainable development. Rather than seeing it as a problem, the Small Planet initiative embraced this as a useful and important element of a global SDG learning process at this stage.

For national initiatives, the globally accepted SDGs and the way they are structured will provide a legitimate and logical starting point. However, even in such cases it is likely that differences in structure and definitions of priority themes between the global and the national levels, and among the many national initiatives, will remain, reflecting specific national-level priorities. This is probably acceptable as long as the definition of the priorities is clear and if the relationship between global and national themes is kept consistent.

Issue Classification, Integration and Cross-Cutting Issues

Once a structure has been adopted for priority themes, this structure would be used for developing underlying goals, sub-goals, targets and indicators. The Small Planet team found many issues that, based on the way the themes were clustered and organized, could fall into more than one category (e.g., forestry could fall under economic sectors but also has an impact on biodiversity). The choices with regard to the accepted categorization reflected only differences in emphasis, and an alternative categorization may work equally well—for example, sanitation covered under water could be just as well be covered under human health. A clear definition of the issue—and subsequently a recognition of its inter-linkages—was more important—for example, if sanitation is covered together with water, its implications should be also be related to health, food and other relevant priorities.

There was a special category of significant issues such as gender, human rights, peace and security that in the Small Planet project were considered cross-cutting. While they were initially discussed as candidates for distinct priority themes, the project team found that these were linked to practically all other priorities, and could not rightfully sit in a single category on their own. These themes could be achieved by simultaneously reaching related goals and targets set under the other priority themes.

A possible country-level implication is the need to be prepared for debates on ambiguities relating to issues, and to set clear guidelines for how these ambiguities would be resolved. Depending on the country context, it may also be necessary to treat some priorities as cross-cutting, without falling into the trap where every priority is cross-cutting—which is true probably only in a philosophical sense, but not useful from the practical perspective of governance and management.

Addressing Targets

In Step 4 of the W diagram (in Figure 2.1 of Chapter 2) the project team found that specific time-bound targets relating to the goals and sub-goals were often lacking in national strategy and planning documents, even when goals and indicators were available. This points to a rather common weakness in governance that may indicate a weakness in commitments and/or an uncertainty with regard to what specific targets would be feasible or desirable for a specific sustainable development priority.

As illustrated by the international climate change-related regime and national GHG emission reduction commitments, target-setting can be a complex and sensitive exercise. This is the case especially if: the targets consistent with the aspirations of the goal tend to be far from the actual baseline, the efforts required to achieve the targets are significant, there are significant scientific uncertainties, the interests of powerful actors were to be negatively affected and costs are seen as potentially prohibitive.

As the Small Planet project involved only a mapping of existing targets but no identification of *new* targets per se, there is limited basis for guidance on addressing this problem. In cases where targets are not available, target-setting likely requires a significant sub-process with the involvement of affected actors and the consideration of technical and scientific elements, such as baselines and the existence of and distance to any known critical thresholds. Once targets and associated indicators have been identified, they could represent a starting point for mapping out transition pathways from the baseline for implementation in the form of a backcast (Vergragt & Quist 2011; Voß et al. 2009).

The Integrated SDG Package

In order for SDGs to have a real impact, they have to become a cornerstone of SD governance at both the global and national levels. In order to fulfil this promise, SDGs have to come in a "package" where several elements are simultaneously present and coherently linked. As outlined in the original proposal by the governments of Colombia, Peru and United Arab Emirates that lead to the launch of the SDG process at the Rio+20 conference and in Chapter 2 in this report, these elements of the package include goals, sub-goals, targets and indicators (Governments of Colombia, Peru and United Arab Emirates, 2012). These of course still represent only a segment of an overall governance framework that must have other strategic planning, implementation, accountability and learning elements connected to the goals, but arguably, these elements are still *essential*.

The Small Planet work found several excellent national-level examples where the entire SDG package is present. The presence of the entire package does not guarantee good performance on the given sustainability issue, but it means that one of the important governance preconditions for seriously addressing sustainable development issues is present. In most cases, however, the SDG package was missing one or more elements. Missing elements represent different challenges: for instance, a missing goal statement calls into question the overall desirable direction on the issue; a missing target creates uncertainty about how much progress should be expected and over what time frame; and a missing indicator calls into question how progress towards the goal would be tracked and reported.

The implications for national-level SDG processes are straightforward and complex at the same time: when undertaking an SDG initiative, count on developing the entire package. In reality, many elements of the package may be available, so the actual task is first screening what is available that is relevant for a new SDG perspective, then finding gaps and discovering how to fill those gaps.

The Small Planet Goals and Sub-Goals

A key deliverable of the Small Planet project was the set of sustainable development goals and sub-goals, with an accompanying menu of possible indicators. The goals and sub-goals are considered only illustrative and not promoted as definitive. However, the iterative process that involves linking the goals and sub-goals to both the national and the "global"—at least the level of the Small Planet countries—level, both ensures and proves that they are in fact meaningful and have practical relevance.

Based on these, the 14 selected countries and perhaps all ASEM member countries could consider not only the approach, but also the goals, sub-goals and indicators that resulted from this research as a starting point for their work on SDGs.

As the results of this research and the above guidance illustrate, developing SDGs at the national level would require a long-term perspective and a coherent approach to governance. Beyond the challenge of developing the individual SDG elements, bringing them together in a consistent framework as an SDG package could represent a significant challenge. One way to address this challenge would be by bringing goals, targets and indicators together on a common platform—what was referred to in the proposal by the governments of Colombia, Peru and United Arab Emirates as a "global dashboard" (Governments of Colombia, Peru and United Arab Emirates, n.d.). Box 1 briefly presents the rationale and possible design, functions and uses of such a dashboard.

Box 1. Proposal for a dashboard of SDGs, targets and indicators

The dashboard metaphor is not new to the representation and analysis of sustainability issues. During the 1990s, inspired by the Balaton Group, IISD and the Joint Research Centre of the European Union developed the Dashboard of Sustainability, a customizable software tool that organizes and analytically presents sustainability indicator trends (Jesinghaus, 2003). One version of the dashboard was set up to display MDG data, providing easy and visually straightforward access to MDG performance information using software capabilities available at the time. Similar dashboards have been developed by many other players in the public and private sectors using other platforms, for a wide variety of applications.

The capacity needs associated with SDG formulation, analysis and use, and the results of SDG-related processes to date, including the Small Planet project, indicate that there is an opportunity to re-conceptualize earlier dashboard attempts. While the emphasis here is at the national scale, a dashboard could also be applicable at the global and regional scales to address SDG development, monitoring and reporting needs. The following table provides a short summary of the various needs and how a dashboard could address them.

Table 4.1: Dashboard functions for various SGD needs

SDG Task	Dashboard Function
1. Identification of priority themes	Access to a library of priority themes covered by major SDG initiatives and other countries (as information becomes available)
2. Formulation of goals and sub-goals	Access to a library of goal and sub-goal statements by thematic and geographic categories
3. Target-setting	Access to specific targets and their sources (e.g., multilateral agreements, strategies and integrated plans, scientific studies, etc.)
4. Indicator selection	Access to indicators connected with specific goals, including relevant metadata for the indicators
5. Data gathering	Platform to store and provide access to up-to-date data for the indicators
6. Data visualization	Visualization of individual data sets (e.g., time series) on charts and thematic maps
7. Performance tracking by goals and sub-goals	Calculation and visualization of goal and sub-goal performance based on related targets and indicators (e.g., with colours, dials or other similar visual elements)
8. Performance tracking at the aggregate level	Calculation and visualization of overall performance based on aggregation algorithm

As an illustration of the type of indicators that could be relevant for countries in the Asia-Pacific region, based on the goals and sub-goals identified for the Small Planet project, a library of existing metrics has been compiled and available for download on ASEF's website*. The indicators in this illustrative set have been selected from authoritative sources and include actual data.

Besides those priorities captured by the goals and sub-goals, the Small Planet SDG package also refers to a number of cross-cutting issues such as gender, peace and security. These priorities may also have associated indicators and would also need to have a place in both the SDG database and dashboard.

http://www.asef.org/images/docs/Annex%20-%20Illustrative%20Indicators.pdf

5. GUIDANCE FOR SDG IMPLEMENTATION

Recalling that the SDGs have the potential to guide and focus development priorities, it is equally true that they will need dedicated implementation measures to make a difference. As the diagram of the policy planning and management cycle on Figure 5.1 illustrates, the goals themselves can be developed at the very beginning of the cycle. It means that, as a result of envisioning the main directions and priorities of development, the goals and associated nationally relevant targets and indicators can be helpful for planning and budgeting in countries. In order to achieve real progress towards sustainable development, the means of implementation must be closely aligned and coherently pursued with the direction suggested by the goals.
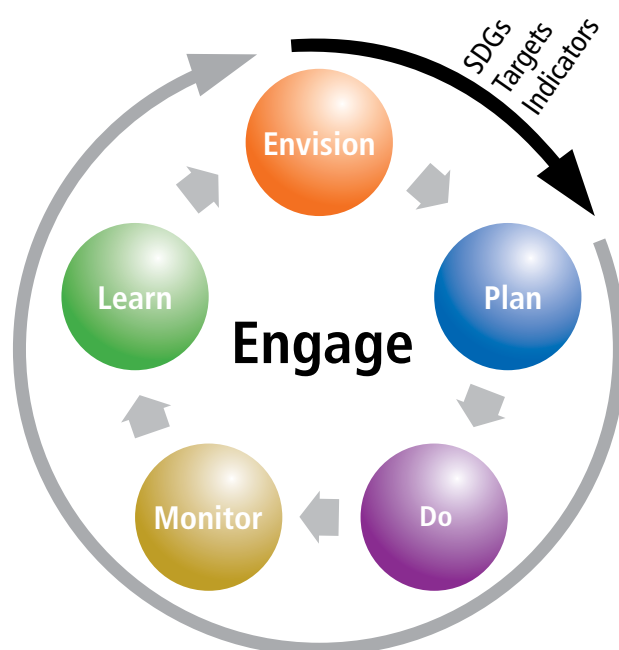

Figure 5.1: The position of the Small Planet process in the context of policy planning and management

While the policy planning and management cycle illustrates the relationship of goals to the rest of the actions needed for effective implementation, progress in one goal area could generate positive spill-over effects in others. For instance, progress relating to employment goals can also influence poverty eradication and social equity; meeting water-related targets may translate into positive effects on food security and human health; and progress towards goals on education could generate benefits for employment down the line. In order to maximize synergies, such interlinkages between separate goals should be explicitly recognized and translated into coherent short-, medium-, and long-term policies.

Differentiated Paths to a Common Goal Area

Over the years, the level of effort required by individual countries and the global community to make progress towards sustainable development has received significant attention. Clearly, national development priorities and corresponding targets would vary based on their level of development. This sentiment is captured in Rio Principle 7 on CBDR. In order to differentiate between the responsibilities of countries, aggregate indices for the social and environmental dimensions of development could be useful, because the overall goal of (economic) development should be the provision of human well-being within the limits of the planet's carrying capacity.

None of the aggregate indices are perfect, but as a starting point they may be useful as a kind of compass to help countries identify sustainable development priorities and their levels of responsibility. As an illustration, UNDP's HDI has been proposed to capture key elements of the social dimension, and the Global Footprint Network's Ecological Footprint represents the environmental dimension (Wackernagel, 2009; WWF, 2010). Figure 5.2 shows possible priorities for implementation as they might differ depending on countries' specific positions. Such an approach could be useful not only in monitoring policy implementation and comparing it to envisioned goals, but also in the planning phase when countries have to determine the direction for implementation. The overall goal area (Global Sustainability Quadrant, indicated by the squares on the right margin of Figure 5.2) would be common and universal to all countries as a destination where social needs of people are met, whilst staying within the limits of ecological manoeuvring space.
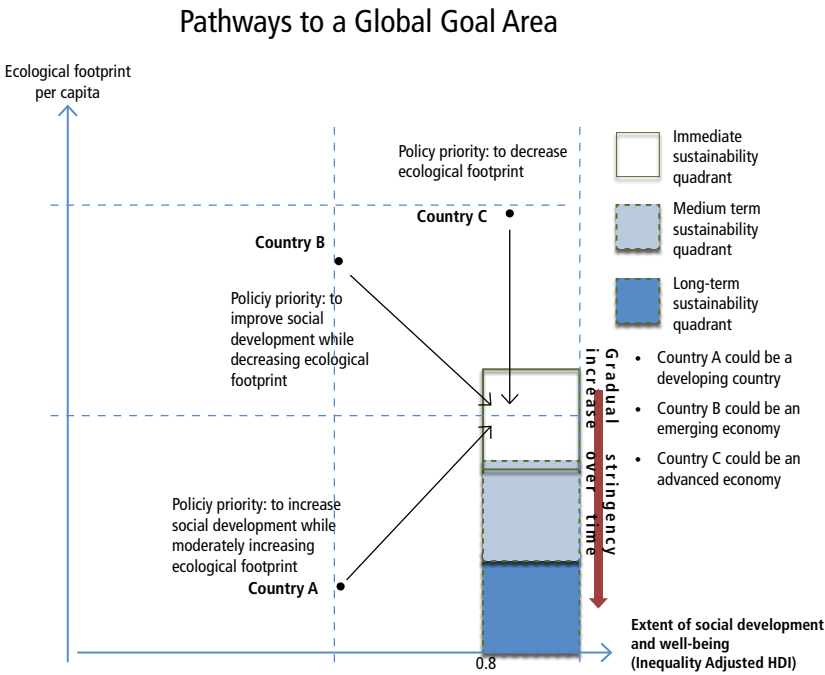
Pathways to a Global Goal Area

Figure 5.2: Concept of pathways to a global goal area

Similar approaches can be recognized in the "shrink and share" concept (Kitzes et al., 2008), which is also highlighted in Chapter 3's section on SCP and economic sectors. In fact, the UNDP's *Human Development Report 2013* proposes a similar combination of the HDI with the Ecological Footprint in order to show where countries are positioned in a grid indicating the ecological sustainability of their development (UNDP, 2013, p. 35).
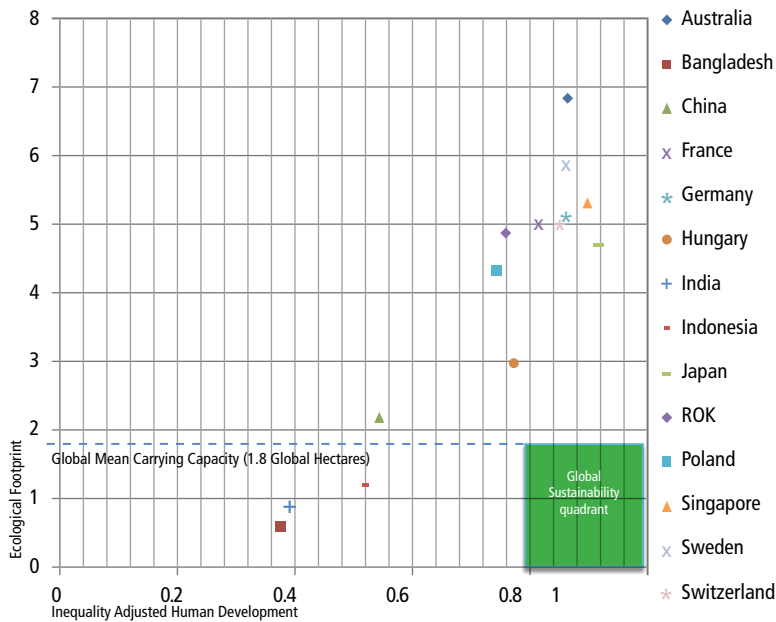

Figure 5.3: HDI and Ecological Footprint comparing countries' positions (Source: UNDP, 2013)

Figure 5.3 shows how the 14 Small Planet countries are situated in the HDI-Ecological Footprint co-ordinate system. Some have achieved great progress on social development, but at the same time they have surpassed their available ecological "space." According to the differentiated pathways to a global sustainability quadrant that are shown on Figure 5.2, an adjustment is needed in a future SDG scenario. As most of the Small Planet countries with a high Inequality Adjusted HDI exceed the available 1.8 global hectares of biocapacity, SDG targets and implementation should focus on reducing the ecological footprint (or an equivalent measure of global environmental performance) while maintaining the level of human development. Others have to progress more in terms of human development, and these countries are still below the ecological limits as indicated by the ecological footprint. Again, other countries (notably Singapore and Japan) do not have data for an Inequality Adjusted HDI (UNDP, 2012), therefore their basic HDI was used—something to be adjusted for real comparability in a future planning scenario. In sum, it is a picture signifying the continued relevance of the CBDR principle—and pointing out that while countries should be able to agree on universal SDGs, their pathways, priority areas and targets to arrive at those goals will be quite different.

Moreover, the average global biocapacity hides potentially significant differences in available national biocapacity. If repeated at the country level, comparing specific national Ecological Footprints to the available biocapacity could provide information for more targeted policies. However, even if countries' available biocapacities were to differ, the "universality" should overrule it and a globally fair share shown on Figure 5.2 should determine the universally applicable sustainability quadrant for all countries. The goal area of the universal SDGs would then be Figure 5.3's lowest quadrant, where human development needs are met, whilst keeping within a limited ecological space.

Implementation Tools

Implementation of SDGs can be roughly divided into (a) primarily national- and local-level interventions and (b) international-level interventions. Although the interplay between the levels has to be recognized, different policy tools may be preferred at different levels. The following section highlights a few well-known examples, with the caveat that these are not necessarily tools that were identified in the Small Planet research project. Implementation tools suitable for the specific context and SDGs of countries would have to be developed through targeted research at the national level during the normal course of policy planning.

Regardless of national differences between development priorities, it is clear that additional financing that meets the conditions of environmental and social sustainability will be required for SDG implementation. Such "double-edged" policy tools exist that, beyond being useful for generating funds necessary for implementing development policies, can steer demands towards more sustainable patterns of consumption and production (Chiroleu-Assouliney, 2012; OECD, 2011). Examples include progressive natural resource taxes such as water pricing (Singapore), progressive energy taxes depending on consuming sector or other policies aimed at behavioural change. Institutionally, SDG implementation policies will often fall far beyond the purview of environmental ministries, and therefore require greater policy co-ordination and co-operation among policy planners and executing agencies to achieve better coherence. Moreover, implementation plans should take into account the role of business and civil society both in policy planning and implementation.

In order to meet the needs of finance at the international level, the taxation of international financial transactions continues to receive serious attention. The idea has been debated ever since initially introduced as a Tobin-tax in 1972 (Tobin, 1978). While a few countries (e.g., Sweden) have experimented with a version of this tax, most attempts were abandoned due to negative effects on their domestic financial markets (FT, 2013). To be effective and to share burdens evenly, the implementation of such a tax would have to be undertaken simultaneously by a large group of countries to avoid creating tax havens and negative effects on competitiveness. If implemented, some sources estimate a financial transaction tax could generate as much as between US$100 billion and US$300 billion per year that could be made available for SDG implementation, while also reducing the risk of fiscal instability caused by rapid trading and transaction of funds (Center for Environmental Economic Development, 2013). Other sources are more conservative and, depending on the rate levied, they argue that it could generate around US$25 billion per year (McCulloch & Pacillo, 2011). Even such conservative estimates would make a major difference for sustainable development and SDG financing. While generating significant financing for SDG implementation overall, an international financial transaction tax would also help bring transparency to the mass of international financial transactions and thereby contribute to the reduction of illicit flows of money and goods, tax evasion, bribery and corruption, as expressed by sub-goal 11.5 in the Small Planet set.

Given that the implementation phase would take place over an extended period of time, with regular reviews of countries, businesses and actors' work towards the SDGs, the overall process would have to take place in an inclusive and transparent manner. Anticipating this demand, the former UN Commission for Sustainable Development (UNCSD) has been replaced by a High-Level Political Forum (HLPF) at the inter-governmental level. Among other functions, the HLPF should at the global level facilitate such reviews, debates and exchanges of information pertaining to implementation of the SDGs. Systematic tracking of progress towards the SDGs would be important, as identified in the Small Planet sub-goal 11.4. Beyond global institutions, the regional, national and even local processes would need to work together more coherently throughout all stages of the policy planning and management cycle. Vertical co-ordination (i.e., global, regional, national and local) needs to be improved. This includes current efforts directed towards implementation of the MDGs, the post-MDG process as well as other processes. More in-depth research would be needed in the future to determine and more efficiently distribute responsibilities among actors at all levels working in the development field.

6. CONCLUSIONS

As the Small Planet project demonstrates, developing SDGs that address universal aspirations while grounded in national contexts is both necessary and feasible with the right approach. Using a process that connected the global and national levels, the project resulted in 10+1 universally applicable goals and related sub-goals for the 14 countries included in the study, with the possibility for differentiation between the countries through specific targets and indicators. Linking the global and national levels was a unique element of the approach, grounded in the recognition that SDG implementation will be lead mainly by countries. While the goals and sub-goals are labelled as illustrative, their validity was confirmed by comparing them with goals, indicators and targets at the national level.

The project found that while SDG development is a new challenge, it can and should **build on existing experience** with goal-setting, monitoring and implementation. Most of the 14 countries covered by the study were found to have at least some relevant cross-cutting strategies and related documents with priorities, goals, targets and indicators that represent national concerns. Shared goals were identified and could serve as a basis for developing global-level SDGs, even if their associated targets and indicators varied. The Small Planet results suggest that looking at existing strategies could be a useful starting point for identifying existing sustainable development concerns. Besides contributing to the identification and negotiation of SDGs, a review of national initiatives also helped identify gaps where goals, targets or indicators were missing that would help pinpoint potential weaknesses in a country's governance in sustainable development.

Besides building on existing strategies and similar documents, the Small Planet work found it necessary to refer to a **conceptual framework that captures sustainability issues in a structured way and as an interconnected system**. The framework that was useful for the Small Planet was based on differentiating between the *means* and *ends* of development. Similarly, countries should consider adopting a conceptual framework for SDGs that captures all key dimensions of sustainability and their relationships. Besides using the framework to help structure the entire SDG set, it could also be used to define integrated goals and sub-goals that cover socioeconomic and environmental dimensions of sustainability. In the case of the MDGs the environment was left as an afterthought, but a proper sustainable development framework would help ensure that this is no longer the case and recognize the environment is a key contributor to societal well-being.

The project highlighted the importance of approaching **SDG development as a multi-step process.** Given its complexity, countries should count on planning the process carefully in advance, identifying both specific activities and results at each stage. The five-step process of the Small Planet project was useful and could serve as an example. However, even with a detailed process plan, countries should be prepared to evaluate and adapt the process mid-course if required by the results.

In order to connect to the national level, country negotiators involved in SDG development at the international level should identify their national sustainable development strategies and related reports in the earliest possible stage of the process. They should work with their respective ministries and any non-governmental body to identify national sustainable development priorities. This would not only help countries be clear about their own priorities and increase national buy-in, but also help the global SDGs to be more directly relevant.

The research team recognised **governance as a key but insufficiently understood and represented aspect of sustainable development that country SDGs must clearly cover**. In fact, governance was also recognized as a precondition for the successful implementation of all other goals, so the Small Planet considers governance as the +1 goal, somewhat standing apart from the others. Finding a way to represent governance either as a specific goal or as a set of principles underpinning all goals was also supported by a review of country priorities, that recognizes its importance in many different contexts, such as vertical and horizontal policy co-ordination, the existence of a well-functioning monitoring systems or the question of implementing agency capacities.

Goals provide overall direction for sustainable development governance. However, in order to ensure that they play their role, **SDGs must fit into and be accompanied by other elements of a sustainable development governance and management framework**. These other elements include targets that express the goal in quantitative terms and indicators that are essential for measuring and evaluating progress. The broader governance framework includes the **strategies, plans and implementation mechanisms** with which SDGs must be linked. Chapter 5 of this report called attention to the need for viewing SDG development as an initial stage of the policy planning and management cycle. Small Planet results suggest that goals should be accompanied by more detailed sub-goals, specific quantitative targets and matching indicators. Countries should also start considering implementation issues during goal development, as this would help embed SDGs subsequently into specific strategies and implementation mechanisms.

The Small Planet report calls attention to the importance of the tracking progress, and as a concrete proposal suggests the development of **sustainability dashboards**. Sustainability dashboards can build on earlier dashboard designs but make use of new technologies and capitalize on advances in data collection, analysis and presentation methods. It can also build on sustainable development indicator systems beyond the GDP that are becoming more widely available and mainstream. Dashboards can provide access to information on goals, targets and indicators—even in the SDG development stage—and allow audiences to interact with data in ways that best suit their needs.

Beyond the abstraction of SDGs, targets, indicators, and the metaphor of the "Small Planet" lies the reality of major countries and ultimately the "Big Planet" as a whole, with its fragility and resilience, magnificent ecosystems, dynamic economies and a humanity growing in size, aspirations and impact. The debate over the limits of the planet to withstand the pressure of a growing human enterprise and humanity's own ability to overcome its challenges responsibly will persist for the next foreseeable years. The Small Planet report and this SDG exercise provide useful and feasible steps in framing the discussion and helping to chart the course of the Post-2015 future.

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Annex 1: Definition of Key Terms

1. **Framework**
    A framework for SDGs is the highest-level conceptual structure explicitly identified in a country's overall strategic development framework or plan. The framework comprehensively captures a country's aspirations and collective worldview with regard to concepts such as sustainable development, well-being, prosperity or wealth. At a minimum, the framework would have a descriptive definition but may also have an accompanying diagram.

2. **Domain**
    Domains are broad, first-level organizing categories in a country's overall strategic development framework, such as *environment*, *economy* and *social well-being*. Some frameworks may not explicitly identify broader domains and their first-level organizing categories are closer to what we define here as priority themes (see below).

3. **Priority themes**
    Priority themes are typically second-level organizing categories in a country's overall strategic development framework, and fall into specific domains. Examples may include categories such as energy, food or biodiversity. We also refer to the 26 priorities identified in the Rio+20 outcome document as themes.

4. **Priority issues**
    We refer to priority issues as generally third-level, more specific priorities that fall under a specific theme or cut across themes, but are narrower in scope. Examples may include energy efficiency, nutrition status or protected areas.

5. **Vision**
    Vision is a broad articulation of stakeholder aspirations for the future, typically expressed as a narrative. It describes how the desired overall future looks. At the highest level, for this work, it could probably be articulated as a "sustainable planet."

6. **Goals**
    Goals express specific aspirations a country wants to reach in relation to a vision broadly related to sustainable development and expressed in qualitative terms. The Millennium Development Goals are an example.

7. **Sub-goals**
    Sub-goals provide more precise and tangible details on goals. They provide an answer to the question, "What specifically do we want to achieve?" In the context of this project, normally 3–4 sub-goals fall under a goal and they are directly associated with targets and indicators.

8. **Targets**
    Targets are specific, quantitative expressions of projected outcomes associated with a goal in any given country. Ideally, a target is time-bound and may be defined in relative (i.e., related to a benchmark or reference point in the same country elsewhere) or absolute terms (i.e., a numerical figure). Targets usually take the form of statistical and measurable physical indicators that serve as bases for assessing the state of implementation of strategies and activities and determining areas for fine-tuning or redirecting if deemed warranted. Their measurements indicate levels of progress and success.

9. **Strategy/Activity**
    A strategy is the total of all clearly defined activities needed to achieve the goals and sub-goals. Each strategy usually consists of a main activity, divided into a number of sub-activities. The strategies may have two levels: the *micro-level,* or those addressing specific sectors, geographical areas or disciplines, and the *macro-level,* or those transcending various sectors and/or disciplines or of national significance.

10. **Indicator**
    For the purposes of this work, indicators are defined as quantitative tools that measure changes in an attribute of a system that typically provide useful information on the behaviour of the system as a whole. An indicator normally has a unit of measure, clearly defined and repeatable measurement methods and data.

11. **Index**
    An index is an aggregate of more than one component indicator based on a clearly defined algorithm.

12. **Data**
    Data are quantitative outputs produced by direct measurements of a system's attribute.

13. **Sustainable Development Goal (SDG) set**
    The SDG set includes all goals related to a particular thematic, geographic or jurisdictional context.

14. **SDG package**
    The SDG package includes directly linked goals, targets and indicators.

Annex 2: Country Research Templates
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