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Renewing the commitment for SD: Stock-taking of international and European SD objectives and goals pre-Rio+20

by

Andreas Endl, Gerald Berger **&** Michal Sedlacko

In the light of the upcoming UN Conference on Sustainable Development in June 2012 (Rio+20), this ESDN Quarterly Report (QR) provides a comprehensive overview on precedent international and European policy documents that include objectives on how to achieve sustainable development. As part of the preparation for Rio+20, the development of a global set of Sustainable Development Goals (SDGs) could assist in focusing the broad international sustainable development agenda at a practical level. Thus, in answering the recent development on SDGs, the QR investigates trends on identified SDGs among international and European SD policy documents and their link to two recent Rio+20 proposals for SDG sets. With regard to SDGs, among international SD declarations, such as the Stockholm 1972, Rio de Janeiro 1992 and Johannesburg 2002 declaration, an important evolution took place: the dominance of SDGs related to fundamental human rights, economic development and socio-economic development increased over time 'at the expense' of SDGs related to environmental issues. Furthermore, SDGs originating from Rio+20 proposals are well addressed by similar or identical counterparts in the most important international policy documents over the last 40 years. The acceptance and agreement on these SDGs as a common ground of discussion could act as a catalyst for further negotiations on time-bound and measurable targets. This step will be a critical challenge as well as opportunity to further spur effective implementation of a sustainable development agenda.

The introductory chapter of this QR gives an overview about the historical development, the concepts and models related to sustainable development. In the second chapter, the relevance of SDGs as well as their importance in the process of political agenda setting is discussed. The third section summarizes international SD declarations with regard to 1) the context of their development, 2) the actors and institutions involved in the process of delivering the document, 3) the political commitment attributed towards the identified SDGs, and 4) associated frameworks for implementation. In this regard, a comprehensive comparative analysis is conducted in order to reveal the evolution of already existing SDGs and SDGs developed through recent Rio+20 proposal. Some conclusions and highlights of the analysis are presented at the end of the report.

Contents

1 Introduction

The overall aim of this report is to review some of the most important international policy documents that include objectives to achieve sustainable development. Rather than attempting to exhaustively analyse all potential sustainable development (SD) related policy documents, we focused on the most prominent ones in an international as well as a European context. By investigating their implicit and explicit SD objectives and goals in our analysis, we try to highlight and review i) their change of focus and over time, ii) their differences and similarities, iii) their implicit or explicit character iv) and whether or not they can be linked to a specific time frames of objectives.

The first part of this section will provide a short discourse on the history of SD. The second part reflects on SD models, principles, and different concepts that have emerged and developed over the last decades. This section will provide guidance and better understanding for further discussions on and comparisons of SD objectives and goals.

Over the last decades the concept of SD has undergone a continuous process of change. A still on-going debate in science (Holdren et al., 1995; Pezzoli, 1997; Mebratu, 1998; Kates et al., 2005: see for historical overviews) as wells as in the political sphere, influences and shapes the development of SD up to this day. Although SD is open to manifold interpretations at multiple scales (global to local) for multiple actors (business or civil society), due to its all-encompassing, open, and dynamic character of SD offers a useful framework or area of debate for humanity's development goals.

Therefore, as societies' principles, values, and understanding of socio-environmental system evolved, so did the concept of SD, which was ultimately influenced and based on these principles and understandings (Bagheri and Hjorth 2007).

Taking up this thought, over time SD has developed to be one of the most important items on the political agenda of international organisations and national governments. The whole UN system and numerous other international organizations, including the EU, have placed SD in a prominent position in their strategic frameworks. All EU Member States (and many other countries) have adopted some form of a national SD strategy or are in the process of its preparation. In addition, numerous regions and municipalities follow strategic frameworks more or less explicitly linked to SD (e.g. Regional or Local Agenda 21 and Healthy, Sustainable or Brundtland Cities). The concept of SD has over years shaped numerous thematic or sectoral strategies at all political-administrative levels, in areas such as climate change and energy, biodiversity, transport, land use and agriculture, urban development, natural resources, green economic growth and green jobs, poverty reduction, or health. It is also linked to currently popular concepts such as resource efficiency, governance, societal well-being or quality of life.

Although the concept of SD has garnered widespread attention in the international political and scientific sphere, a concrete and explicit set of objectives and goals on how to achieve SD and how to focus international action and commitment needs still to be developed. In this regard, a number of

international organisations and governments produced major documents – in the form of strategies, action plans, or declarations – on how to achieve SD. However, most of these documents introduce a set of more or less implicit principles, values, goals, and objectives that are potentially capable of steering and focusing international efforts towards SD. Therefore, a closer investigation on similarities and differences seems crucial to shed light on the different trajectories towards achieving SD.

1.1 Sustainable development – sketching the historical development

After WWII, the world has witnessed unprecedented advances in productivity and human welfare brought about by modernisation and economic development. Since the 1960s Western societies started to transform into (what we now call) post-industrial, decentralised, and globalised societies. The 1960s, however, also saw rising concerns about the negative effects of the 'obsession with growth'. Recognition of the conflict between the objectives of development and objectives of environmental and social protection started to be voiced in academia, accompanied with the recognition that modernity is bringing into being particularly complex, i.e. 'wicked' problems (such as population growth, obesity or climate change), and that new problems emerge from solutions to prior problems (e.g. through nuclear power or microbiology). A number of publications coming from various disciplines have garnered significant public and political impact, in particular Rachel Carson's *The Silent Spring* (1962; showing the impact of DDT on bird populations), Paul Ehrlich's *The Population Bomb* (1968; predicting significant societal strain in case of continuing population explosion), Garrett Hardin's *The Tragedy of the Commons* (1968; analysing the dynamics of exploitation of common pool resources) and the seminal study of the Club of Rome *Limits to Growth* (1972; modelling several long-term scenarios of variables such as population, resources, production of goods and life expectancy, showing that the world does not behave in an incremental and linear cause-and-effect fashion, and that pursuing the goal of quantitative growth in conditions of absolute biophysical limits would lead to significant environmental, social, and economic impacts).

At the same time, social movements centred around the emerging post-material political themes such as environmental pollution, nuclear disarmament, gender equality, minority rights, and social justice were increasingly vocal, articulating newly-formed awareness and raising demands on political leaders. In the area of the environment (even before the oil crises of 1973 and 1974), in order to identify and address rising challenges, Western governments started establishing sectoral environmental ministries and specialized environmental protection agencies and adopting national environmental legislation (in particular addressing air and water pollution and toxic substances and waste). In 1968, Recognition that a number of environmental problems do not respect national boundaries led the UN General Assembly, on the initiative of Sweden, to examine "problems of the human environment... [a]nd also to identify those aspects of it that can only, or best be solved through international cooperation and agreement"[1] through an international conference.

It was this context in which the 1972 **UN Conference on Human Environment (UNCHE)** was held in Stockholm, being the first global forum (and the first global environmental conference) where the

[1] Problems of Human Environment (GA Res. 2398/1968)

conflicts between environment, development, and ideas later subsumed under the term 'sustainable development' were expressed for the first time.

The term 'sustainable development' was used for the first time in the 1980 IUCN's **World Conservation Strategy** (subtitled *Living Resource Conservation for Sustainable Development*) and in 1982 the 'Stockholm plus ten' conference in Nairobi proposed to establish the World Commission on Environment and Development (WCED).

The **World Commission on Environment and Development (WCED)** that was established in 1983 - especially known by its chair Ms. Gro Harlem Brundtland - and convened to develop long-term environmental strategies for achieving sustainable development, published the report Our common future. This popularised the term sustainable development and its well-known and widely used definition as "development, that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Following the reception of the report and the Hague Declaration on the Environment (1989), the UN General Assembly decided[2] to convene the **UN Conference on Environment and Development (UNCED)** in 1992. The title of the conference further accommodates the development concerns of developing countries (i.e. called the UN Conference on Environment and Development (UNCED) as opposed to the Second UN Conference on the Human Environment; similarly, the Rio Declaration on Environment and Development instead of the Earth Charter, which was a title originally favoured by the majority of the industrialised countries).

UNCED (or the 'Earth Summit' or 'Rio Summit') was held in Rio de Janeiro in 1992 and resulted in several crucial developments. The **Rio Declaration**, the most important political declaration on SD adopted up to date, was signed by more than 150 states. Also, in addition to a set of international conventions (the UN Framework Conventions on Climate Change and the Conventions on Biological Diversity; also the Statement of Principles for the Sustainable Management of Forests) a document titled **Agenda 21** - the Rio action plan - was signed, the most comprehensive document on sustainable development and measures to be taken until today.

The ten years following the Rio Summit were quite successful in terms of sparking hopes around the world, political commitment, and a number of strategies and implementation measures on all political-administrative levels as well as scholarly interest. However, implementation of SD as well as its outcomes remained quite uneven across countries, and even major national governments and international organizations were quite careful in putting the concept into practice (Rajamani, 2003; Baker, 2006; Chasek et al., 2010). In fact, the main problem since the Rio-Summit was to design the move from theory into practice (Matthew & Hammil, 2010). In addition, industrialised countries in general did not follow up on their Rio commitments towards global environmental cooperation or towards developing countries. It would seem that among the main reasons for the hesitancy in implementation were the conflicting and complex nature of the concept and the need for its reinterpretation for given social, cultural, economic and environmental contexts.

[2] Resolution A/RES/44/228 from 1989.

Furthermore, on a structural level, challenges exists to political-administrative systems (i.e. the long-term, inclusive, integrated or continuously evolving character of SD) as well as economies (removal of export subsidies, opening up access to markets, provision of development assistance) and, as a result, the excessive political cost of its implementation. Of particular importance is that towards the end of 1990s, by placing SD in a broader context of striving to achieve human wellbeing, the UN to a large extent effectively integrated SD into 'human development', which now serves as a conceptual and programme framework for a large portion of UN's activities (i.e. the concept has been expressed in the UN Millennium Declaration and the Millennium Development Goals).

In order to revive political commitment to SD and review the progress achieved since Rio 1992, the **World Summit on Sustainable Development (WSSD)** took place in Johannesburg from 26 August to 4 September 2002. The final deliverable, the Johannesburg Plan of Implementation, is viewed as much less ambitious with regard to its targets and comprehensiveness when compared to Agenda 21 (Hens & Nath, 2005). According Rogers et al. (2008) to one of the most important outcomes of the WSSD was the realization that sustainable development is only marginally successful on a global scale, but highly successful when implemented at the regional level.

The next milestone will be the upcoming **UN Conference on Sustainable Development (UNCSD, 'Rio+20')** to be held (again) in Rio de Janeiro in June 2012. Its objectives are, similarly to WSSD, renewal of political commitment for SD and review of progress to date as well as review of the remaining gaps in the implementation of outcomes of the previous summits and identifying ways to address new and emerging challenges.

1.2 Explaining a concept: Models and principles of SD

The following paragraphs explain some of the fundamental models and principles of SD that have emerged during its continuous process of development over the last decades. Rather than focussing on various interpretations that try to embrace this concept in a holistic and condensed way, we try to elicit the different models and principles standing behind it, which form an implicit part of many international policy declarations and plans. This overview serves as a basis for understanding the various principles, objectives, and goals in the corresponding international declarations for SD (see chapter 3).

Starting with one of the most well-known definitions, the Brundtland report defines sustainable development as **"development, that meets the needs of the present without compromising the ability of future generations to meet their own needs"** and clarifies "two key concepts: the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs" (WCED, 1987). From this we can draw that the ultimate objective of development is to ensure that the needs of the people are addressed (and primarily the needs of the poor), i.e. enabling people to lead "a healthy and productive life" (Rio Declaration, Principle 1), or, as we now tend to say, secure their well-being. At the same time, this development process has to be sustainable – lasting or continuing for a very long time or even indefinitely. Sustainability of

development therefore primarily means that development remains within the limits imposed by the natural environment and the patterns and technologies of its usage by our society, i.e. "in harmony with nature" (ibid.).

1.2.1 A set of most common principles of SD

Since a single and reasonably short definition cannot provide sufficient guidance for implementation, a set of normative principles of sustainable development is often used in addition to the definition of the Brundtland Commission (or other authors). Moreover, according to the mere existence of core principles of SD transforms or brands the concept of SD as a meta-policy (according to O'Toole, 2004 a policy designed to guide the development of numerous more specific policies) for coordinating, steering, and prioritizing the entire range of issue areas (Lafferty, 2004). An example of a conceptual approach towards SD based on a list of fundamental values, principles, and policies to legal tools is also provided by Kiss (2003).

Due to the ambiguity and openness to interpretation, there is no agreement on a single definite set of principles, but the Rio Declaration, itself consisting of 27 principles, has often been used directly as a source or as a basis for the formulation of a slightly more general and process-related (as opposed to goal-oriented) set. On the basis of international documents on SD, the following 4 principles are among the most important:

(a) Inter- and intra-generational equity

From the Principle 3 of the Rio Declaration, stating that "[t]he right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations", we can derive the principle of intergenerational and intra-generational equity. Inter-generational equity refers to the fairness of distribution of resources and risks between the current and future generations and intra-generational equity within the current generation. This principle also includes the conflicting character of SD (i.e. a conflict between sustainability and development interests). Although this principle can be read as a goal, keeping in mind the two dimensions of fairness (i.e. from "benefits for a narrow group of people now" to "benefits for all people now and in the future"), in particularly their synergies and trade-offs, can be useful during decision making.

(b) Integration of environmental and social concerns into decision making

Arguably the most important principle of SD is the principle of integrating environmental and social concerns into decision making, contained in the following statement of the Rio Declaration: "In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it." (Principle 4, Rio Declaration) Sometimes also called the 'holistic principle', it calls for a balanced consideration of economic, environmental, and social aspects in policy-making and is expressed in e.g. horizontal policy integration and policy coherence initiatives.

(c) Public participation

The principle of public participation is well-established in the European Union (e.g. the Aarhus Convention and the regulation related to its application, European Governance: A White Paper etc.) and widely recognised as a necessary requirement for a democratic society. The Rio Declaration's Principle 10 essentially summarises what has later become the Aarhus Convention: "Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided."

(d) The precautionary principle

As the last major principle we list the precautionary principle, captured in Principle 15 of Rio Declaration: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation." This principle is based on the idea that uncertainty (e.g. with regard to any environmental problems such as biodiversity loss which has biological, ecological as well as economic implications) should be treated with a measure of safeguard – in fact the precautionary principle reflects a "better safe than sorry" principle, "risk averse" or "no regrets" policy (Rao, 2000). This principle has been critical when debating climate change, genetically modified organisms, and other environmental risks. It can be formulated as either 'states should take action to protect the environment even in case of scientific uncertainty' (as per the Principle cited above) or as 'states should refrain from action potentially damaging the environment even in case of scientific uncertainty' (as in the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, Art. 10, para. 6). Although the principle might be difficult to apply in a policy context, since it only recommends the direction (e.g. a reduction of GHG emissions) of a policy action rather than its corresponding magnitude (e.g. the amount of reduction necessary), it renders an important dimension of SD, as it implies current commitment to safeguard against the likelihood of future occurrence of adverse impacts, being related to the principle of intergenerational equity (Rao, 2000).

These principles comprise some important aspects of SD, but, nonetheless, the list is not an exhaustive one and other principles such as the polluter pays principle and the principle of using best available technology, which are 'policy guiding principles' of the European Sustainable Development Strategy (EU SDS) are also related to the concept. However, they can be regarded rather as mere extensions of the concept rather than its fundamental backbone like the ones mentioned above.

1.2.2 An overview of models underlying the concept of SD

However, definition(s) and principles might not be enough for conceptualising SD. Several approaches (or models) to conceptualise, visualise, and measure SD exist among the most frequent are the three-

pillar model, the thermodynamic model, the ends–means triangle by Herman Daly, the capital model, and the human development model. There have also been several attempts to classify and differentiate universal human needs (for example the 'human-scale development' by Manfred Max-Neef) but none of them received as much attention as ones described below.

The three pillar model

The three-pillar model highlights three pillars of SD: economic, environmental and social. It represents an operationalisation of the idea that development should bring about not only economic, but also environmental and social benefits, or that every developmental decision should take into account not only economic, but also environmental and social impacts: "It is by pursuing our economic, social and environmental goals separately that has resulted in repeated trade-offs between goals. Sustainable development is about progressing them together." (Forum for the Future 2004) The visual metaphor (see Figure 1) for the three-pillar model is a roof ('sustainable development') supported by three equally dominant pillars ('economic prosperity', 'environmental protection', 'social justice') or of three interlocking or partially overlapping circles ('economic development', 'environmental development', 'social development') with 'sustainable development' being in the intersection of all three. Some conceptions of this model recognise more than three pillars/dimensions: Agenda 21 had 'institutional' as the fourth dimension, and in some other conceptions the 'cultural dimension' is added instead.

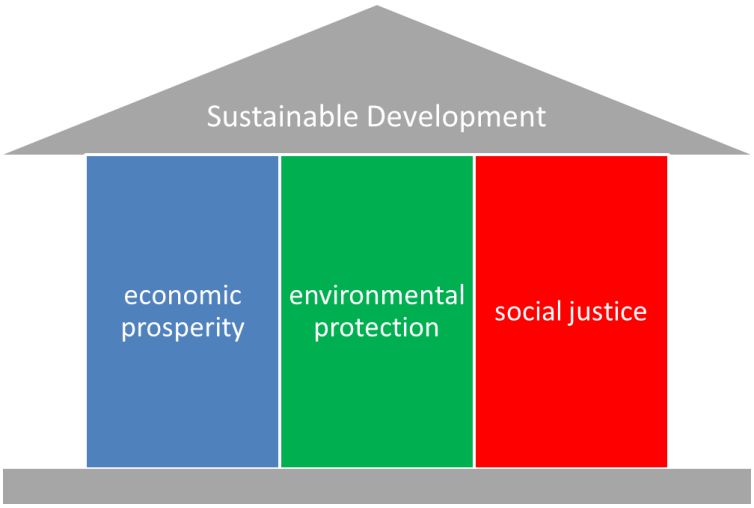

Figure 1: Visual representation of the three pillar model of SD (© ESDN Office)

The thermodynamic model

The thermodynamic model, or biogeophysical sustainability (i.e. the preservation of biological and geophysical resources for the benefit of human well-being of current and future generations; see Holdren et al., 1995) questioning the three-pillar model from the perspective that it does not give the environment justice as the ultimate condition for life on Earth, and is treating it as categorically equal to the economy or society.

Another indictment is that the three-pillar model suggests that you can treat these three types of development in separation, and it does not depict the trade-offs between the pillars. The thermodynamic model places emphasis on the limits to growth, on sustainable development as development within Earth's carrying capacity. Therefore, in its visual metaphor (see Figure 2), it takes the three circles of the three-pillar model but arranges them differently, as a hierarchy of concentric circles with the economy represented by the innermost circle and environment by the most outward circle. This suggests that the economy depends on and can only exist within human society, and human society depends on and can only exist within environment. A healthy environment provides conditions for a stable and functioning human society, which in turn provides conditions for a stable and functioning economy. In this regard, Constanza et al. (1991) reflect that the effects of human activity remain within the boundaries, so as not to destroy the function of the ecological life support system. Another suggestion of this metaphor is that the economy can only grow at the expense of society, or that society can only grow at the expense of the environment, since the Earth is a limited bio-geo-physical system. An elaborate understanding that the economy (understood as the process of extraction, transformation and deposition of materials and energy back into the environment) cannot escape the physical laws of thermodynamics has given the model its name.

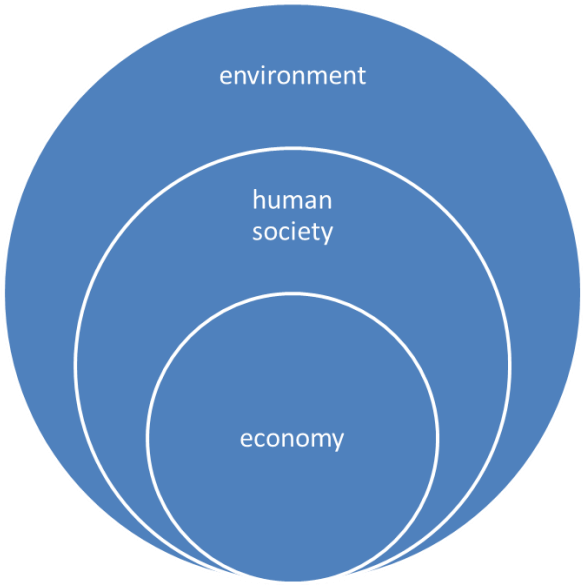

Figure 2: Visual representation of the thermodynamic model of SD (© ESDN Office)

Herman Daly's Triangle

The famous Herman Daly's Triangle (see Figure 3) similarly attempts to establish a hierarchy. It places the natural environment at the base of the triangle as the 'ultimate means' of development. This is supposed to emphasise that the natural environment constitutes a material basis, a precondition for human life. Economy, technology, politics, and ethics constitute the middle section of the triangle, the 'intermediate means' of development, suggesting that on one hand they are supported by the natural environment, which instead of eroding they should conserve and restore. On the other hand, they should not become ends (goals) in and of themselves: they are still means, i.e. tools or instruments,

serving and supporting societal goals which are at the tip of the triangle. There, as the 'ultimate ends' of development, Daly placed equity and human well-being.

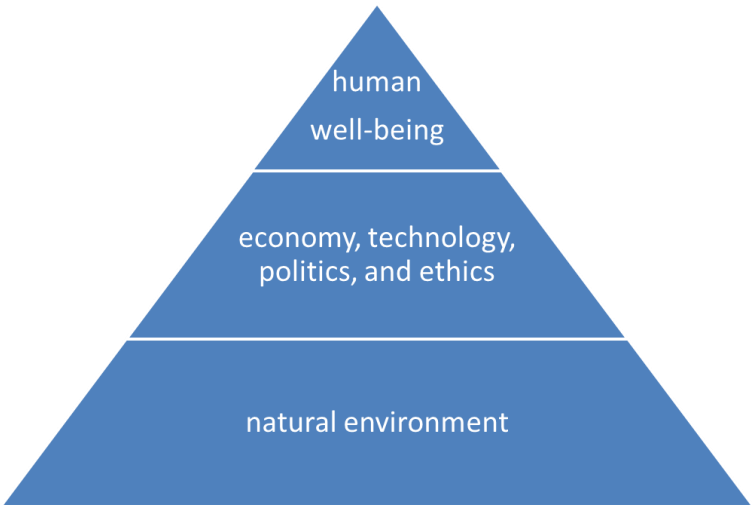

Figure 3: Visual representation of Herman Daly's Triangle (© ESDN Office)

The capital model

The capital model (Seralgeldin, 1996a) has been created to show the interrelations between the three pillars and their changes over time. Using concepts from economic theory, it treats each pillar as a form of capital. Human society makes choices about consuming or investing/conserving capital stocks. Consumption of capital is necessary to presently satisfy human needs, however, it decreases capital stock. Invested/conserved capital over time undergoes appreciation and capital stock increases. This increase can be considered as 'income' or 'interest'. A definition of 'sustainable income' by the economist John Hicks from the early 1940s suggests that only the amount of capital that, when consumed, does not eliminate our ability to maintain the same level of consumption in the future, can be considered 'true income'. Being sustainable therefore means to 'live off the interests' of capital, i.e. without depleting the capital stock.

As indicated above, the forms of capital recognised are: *natural capital* (i.e. provision of natural resources and raw materials, ecosystem services such as the ozone layer, and the absorption of waste originating from production as well as consumption processes), *social capital* (networks, trust, institutions or knowledge available to the society), sometimes also *human capital* (skills, health and other characteristics related to the population) and *economic capital* (sometimes broken down into economic capital and manufactured capital). An absolutely crucial question is how these capitals relate to each other in their abilities to satisfy human needs or generate human well-being. One position claims that all these kinds of capital are complementary and, therefore, the society has to protect the stock of each single capital.

Strong and weak sustainability

With regard to the capital model, natural capital serves as an enabling factor or as a basis for social, human, and economic capital and, consequently, the latter being not independent of the former (Rao, 2004). It is, therefore, imperative that the stocks of natural capital are protected in order to avoid declines in well-being over time. This position is called *strong sustainability,* and in effect suggests that it is not advisable or possible in the long term to trade-off natural capital for economic capital as increases of economic capital cannot compensate for losses of natural capital in their contribution to well-being. The reasons for substitutability being so seriously limited are mostly environmental characteristics of irreversibility and uncertainty and the existence of 'critical' components of natural capital.

On the other end of the spectrum is *weak sustainability*, based on the assumption that capitals are freely substitutable. That would mean that to generate well-being we do not need all types of capital but, since e.g. thanks to technological progress we are able to provide many of the services that previously were provided by nature – and perhaps even more efficiently – economic capital could replace natural capital. Staying true to Hicks's idea (Hicks, 1946) this would mean that human society has to preserve or increase the sum of all types of capital, regardless of its composition. Trade-offs between types of capital would be permitted insofar as they increase the overall sum of available capital stocks. Furthermore, An intermediary compromise between the two forms of weak and strong sustainability – sometimes called the *sensible sustainability* (see Seralgeldin, 1996b) - has been suggested: It refers to the idea that capitals are substitutable to a large extent; however, decreasing natural capital below its regenerative limits should be avoided.

The human development concept

The concept of *human development* is based on the interpretation of development as human freedom. Amartya Sen suggests that the purpose of any development is to improve peoples' lives by expanding their choices, freedom, and dignity: "development is about removing the obstacles to what a person can do in life, obstacles such as illiteracy, ill health, lack of access to resources, or lack of civil and political freedoms" (Fukuda-Parr, 2003). Over his or her life, a person has the potential to live long, healthy, and with a decent material standard and enjoy political and civil freedoms. Environmental sustainability, equity and enabling economic environment are conditions necessary for achieving and maintaining this potential. This model focuses "on the broadening of human freedoms on a sustainable basis, rather than on needs" (Canova et al. 2005), and "what needs to be conserved are the opportunities of future generations to lead worthwhile lives [as opposed to] resources [which] are basically fungible and can be substituted for one another" (Anand and Sen 1994).

The concepts of well-being and welfare

Lastly, we want to mention several concepts used as goals of and measurement criteria for the 'progress of societies' and which have recently been receiving increasing attention in the SD community: happiness, quality of life, welfare and, in particular, well-being. **Well-being** refers to *objective conditions* and *subjective experiences* in the context of quality of life (Ryan & Deci, 2001). The objective approach is based on recognition of several dimensions contributing to a 'good life' such as material standards of

living, healthy environment, satisfying job, security or time spent with family. The *subjective perspective* utilises concepts from psychology or sociology. One view equates well-being with pleasure and *happiness* (Ryan & Deci, 2001; Kahneman et al., 1999; Kuhlman & Farrington, 2010). Other conceptualisations treat well-being in terms of the cultivation of personal strengths and contribution to 'the greater good'; acting in accordance to one's inner nature and deeply held values (Waterman, 1993); the realization of one's true potential (Ryff and Keyes 1995); and the experience of purpose or meaning in life (Ryff, 1989). Subjective well-being is considered to depend on material consumption only to a certain extent. It is sensitive to factors such as lower level of standards of living, poor working conditions, job insecurity, difficulties in balancing work and life and lower quality of society but depends also on cultural, political and social factors (Mikulic, 2007). **Welfare** can be understood as a more limited concept from economics, based on the notion of *fair allocations*. It is most often associated with social policies denoting prosperity in terms of material goods such as food, water, health, and shelter (Kuhlmann & Farrington, 2010), but can also include monetary and non-monetary dimensions to people's well-being, and their preferences to these dimensions (Stiglitz et al., 2009). In this respect welfare can be almost interchangeable with well-being.

2 Definition and relevance of SD objectives and goals in general

The definition and set-up of SD objectives or goals has accompanied the development of the concept of SD from the start: The conflicting debate on the environmental and development concerns of developing and industrialised countries, influenced the development of the concept of SD, which was able to account for this duality of concerns. This still on-going debate on environmental and developmental issues, potentially taken up by the concept of SD, has been in the focus of national and international law and institutions for more than 40 years.

The first meeting, where a number of head of states, NGOs, CSOs and other actors convened and discussed the problems of the developing world and the state of the natural environment, was at the UN Conference in 1972 in Stockholm. This sparked an ever-evolving discourse and alleyway of international conferences in the context of the environment-development debate, on the one hand, and the concept of SD, on the other hand. It produced major documents for which a set of common principles, objectives and/or goals have been agreed on. The overall aim of these conferences was, and still is, to set up an agenda of how to steer societies towards a sustainable development path. More specifically, each of these conferences followed a number of international plans and declarations that sought to establish a set of commonly agreed principles, objectives, and/or goals.

The adoption of a comprehensive internationally agreed set of SD goals and objectives already got widespread attention during the Rio-process, starting in 1992, and by other institutions. The importance of establishing a set of common goals for achieving SD was affirmed the first time by an important study by the Board on Sustainable Development of the U.S. National Academy of Sciences (1999). In its report, 'Our common journey: a transition towards sustainability' the authors claim that explicit sustainability goals are required if society should be able to deal with the most important threats and opportunities that humanity is facing. The Rio-process took up this call in the Johannesburg Plan of Implementation of 2002 by stating that internationally agreed development goals are the basis for an effective institutional framework for sustainable development (Johannesburg Plan of Implementation, para. 137). However, apart from those already incorporated into the UN Millennium Declaration Goals and other prior agreements, the Johannesburg conference missed the opportunity of introducing ambitious and strong sustainable development targets with concrete time frames (except for the new targets in the areas of sanitation, fisheries, and biodiversity). Importantly, the Rio+20 conference follows this call by proposing to governments to agree on the development of a set of key universal sustainable development goals (SDGs) by 2015 that reflects an integrated and balanced treatment of the three dimensions of sustainable development as well as their interconnections (UN, 2012; UNSG, 2012).

Commonly speaking, these objectives or goals describe a pathway for international actors, such as nation states or companies, to accomplish or achieve sustainable development. As a further step in their development process, objectives and goals might act as guidance to formulate concrete targets (e.g. reducing Greenhouse gas emissions in 2020 by 20 % based on 1990 emission levels). The set-up of targets, potentially, leads to the development of a monitoring and measurement framework (e.g. an

indicator quantifying the amount of Greenhouse gas emissions during a given time period) in order to keep track of performance and progress towards or away from the corresponding target.

From a more practical point of view, SD goals and objectives, their underlying values, principles, as well as the indicators developed at the later stage, not only guide societies' development path towards a sustainable one, but also help to implicitly define the concept of sustainable development.

2.1 Clarification about use and terminology

The terms 'values', 'principles', 'goals' and 'objectives' are usually used synonymously or have an implicit objective- or goal-orientation, which leads to confusion and misunderstandings created by their often un-reflected use. Therefore, to clarify the meaning and the use of these terms is a necessary first step to understand and identify the common language of international documents and declarations. To this end, the next section will provide an overview and explanation about common terms and their corresponding role within our analysis of major international policy documents.

These terms often form a more or less explicit hierarchical and embedded structure in international policy documents: 'Values' are considered as a framework and are underlying corresponding 'principles'. Within the latter a set of 'objectives' or 'goals' can be found that are in some cased linked to more concrete and measurable 'targets' which act as a basis for indicators in monitoring frameworks.

In the case of *values*, they represent the belief in or expressions of the worth of objectives (e.g. the Millennium Development Declarations' value: respect for nature) and can be expressed in terms of desirability (e.g. respect for nature: Prudence must be shown in the management of natural resources…) or, conversely, in terms of badness or avoidance (e.g. respect for nature: ...The current unsustainable patterns of production and consumption must be changed…). Moreover, if they refer to certain directions of behaviour or attitudes, to some extent they are overlapping with goals or objectives (Kates et al., 2005).

In general, *principles* can comprise as a common code of conduct/set of values or, with regard to SD, act as a common ground of understanding the main aspects of the concept (e.g. for determining its ecological, social, economic and/or institutional dimension). Commonly speaking, in this regard principles often represent the foundations of goals and objectives. However, the effort to clearly distinguish between objectives and principles is somewhat thwarted by the fact that most of the principles stated in international declarations or similar documents have an implicit goal-orientation (i.e. giving the principle a direction towards a goal or objective). An example is provided by one of the economic principles of the Rio declaration from 1992:

- Principle 8: "To achieve SD and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies"

Another example for principles which have an implicit goal-orientation can be found within the Earth Charter from 2000:

- Principle of Ecological Integrity: "5. Protect and restore the integrity of the Earth's ecological systems, with special concern for biodiversity and the natural processes that sustain life."

At the next level, *goals and objectives* which are similar in their meaning (i.e. the former will be used when referring to objectives as well) form a more or less concrete set of directed behaviour or attitudes within a certain context.

For example in the case of the Renewed European Sustainable Development Strategy, the following goals (stated explicitly as objectives) can be distinguished in the areas of "climate change and clean energy" and "social inclusion, demography and migration" respectively.

- "Kyoto Protocol commitments of the EU-15 and most EU-25 to targets for reducing greenhouse gas emissions by 2008 – 2012, …"
- "Energy policy should be consistent with the objectives of security of supply, …"
- "By 2010 12% of energy consumption, on average, and 21% of electricity consumption, as a common but differentiated target, should be met by renewable sources, …"
- "Pursuing the EU objective that steps have to be taken to make a decisive impact on the reduction of the number of people at risk of poverty and social exclusion by 2010…"
- "Ensuring a high level of social and territorial cohesion at EU level and in the Members States as well as respect for cultural diversity."

On the other hand, the Johannesburg declaration from 2002 provides an example of a more implicit structure of goals:

- "… increase access to such basic requirements such as clean water, sanitation, adequate shelter, energy, health care, food security and the protection of biodiversity."
- "… to provide assistance to increase income – generating employment opportunities.

2.2 A pre-screening of major political documents: their structure and the identification of goals

In our analysis on SD goals (SDGs), we reviewed some of the most important international policy documents that have the objective of achieving sustainable development. To this end, we selected policy documents which, on the one hand, have a long lasting history and impact on the international agenda and, on the other hand, are related to the definition of the concept of sustainable development. Thereby, special emphasis was given to the documents which have been released during the Rio-process (Rio declaration and the Johannesburg declaration) and its predecessor documents, the Stockholm declaration and the Brundtland Report, respectively. Furthermore, we included The Millennium Declaration and the Earth Charter as they are prominent international documents with regard to sustainable development. In order to complement the international dimension with a European one, we

additionally selected the EU SDS and the Europe 2020 Strategy for our analysis on SDGs. Moreover, as referred to in the EU communication for Rio+20, the Europe 2020 is considered as important by the EU to deliver sustainable development and, therefore, is included in the analysis on SDGs.

The authors are aware of the fact that other important deliverables during the Rio-process such as Agenda 21 and the Johannesburg Plan of Implementation form an important part of the overall process. However, an extensive analysis on SDGs is hampered due to their comprehensive size. Furthermore, this aspect is also true for the Europe 2020 Strategy and its associated deliverables the flagship initiatives.

Another important restriction to the analysis of the abovementioned documents is the fact that goals implicitly stated in the text have to be coded and aggregated into key words to make comparisons across documents possible. The text is coded in a way so that the ultimate end towards which the activity/principle is directed is the main part of key word. Essentially, if a goal or an action A is determined by an intermediate goal or action B, then the overall text is coded as a summary of goal or action A and B. However, if the action associated with the goal is of fundamental importance for the understanding or is an important part of it, it has been coded accordingly.

As a matter of fact, when coding goals and objectives, aggregation of information is a necessary step. With the aggregation comes an inevitable loss of information and, furthermore, the fact that some goals and objectives, although different in their original form, have the same coding (e.g. 'promote environmental protection'). Therefore, the occurrence of several seemingly identic objectives in the tables of identified objectives in section 3 of this report, indicate a certain over-representation or focus of specific issues.

As a first step to get a better overview of the coded goals found in the documents, they have been identified and clustered according to the following aspects: i) ENVIRONMENTAL ISSUES (e.g. sustainable consumption and production, environmental protection, management of resources) ii) FUNDAMENTAL HUMAN RIGHTS (democracy, freedom, peace, equality, culture, participation as a right), iii) SOCIO-ECONOMIC ISSUES (poverty eradication, human development or access to resources), iv) ECONOMIC DEVELOPMENT ISSUES (trade, employment or the business sector), v) GOVERNANCE ISSUES (decision making, institutional aspects, international cooperation and law or participation and stakeholder management), v) EDUCATION, TECHNOLOGY AND R&D (such as education, R&D, technology transfer).

After the extraction of SDGs, the documents are analysed in terms of i) their change of focus and over time, ii) their differences and similarities, and iii) their concreteness (implicit or explicit character).

Due to the current misunderstanding, implicit character and un-reflected use of terms, as a necessity, we include principles in our analysis of SDGs if the corresponding principle stated in the document has a clear dimension or direction of progress (i.e. goal-orientation). The table below provides guidance for the identification SDGs for our analysis by pointing out the aspects of the documents that have an implicit goal-orientation.

Table 1: Overview on political documents: structure, objectives/goals and principles

Document	Hierarchy and structure	Objectives and/or goals included	Principles included	Principles have an implicit goal-orientation
Stockholm Declaration			X	X
Brundtland Report			X	X
Rio Declaration			X	X
Millennium Declaration	X	X		
Earth Charter	X		X	X
Johannesburg Declaration			X	X
Pre-Rio+20 proposal by CSO	X	X		
Pre-Rio+20 proposal by the government of Colombia and Guatemala	X	X		
Renewed European Union Sustainable Development Strategy	X	X	X	
Europe 2020 Strategy	X	X		

2.3 Agenda setting: a first step towards policy objectives

The process of agenda setting is a central step prior to the establishment of common goals and objectives in any political process. Therefore, we will give an overview in the following paragraphs on the meaning of this process and its relation to objectives and goals.

The importance or occurrence of policy goals and objectives within the policy cycle is threefold:

1. *agenda setting*: certain issues or problems (e.g. climate change) are moved higher on the formal political agenda in terms of their importance and, at a latter stage, will potentially be formulated as specific goals or objectives (e.g. reducing Greenhouse gas emissions)[3];
2. *implementation:* as an interaction between the setting of goals and actions geared to achieve them;
3. *evaluation*: when it comes to assess whether a policy has solved its associated problems or not.

[3] Goals and objectives either emerge out of the problem definition or in the very beginning are implicitly part of an agenda of a corresponding institution or actor representing/advocating a specific issue

Box-text: The policy cycle - A critical perspective by political sciences

The idea that a policy process represents a cycle evolving through a sequence of discrete stages or phases has its origins in the 1950s (Lasswell, 1956). According to Jann & Wegrich (2007), the model that consisted of seven stages (i.e. intelligence, promotion, prescription, invocation, application, termination, and appraisal) was an attempt to establish a multidisciplinary and prescriptive policy science. Furthermore, today, the differentiation between *agenda-setting*, *policy formulation*, *decision making*, *implementation*, and *evaluation* (eventually leading to termination) has become the conventional way to describe the chronology of a policy process.

Although used as a template to compare and systematize, the policy cycle framework has been criticised due to its theoretical construction as well as in terms of its empirical validity. Although originally proposed as linear sequence of the different stages by Lasswell, empirical studies of decision-making and planning in organizations found out that real world decision-making usually does not follow this sequence of discrete stages. This model of stages, due to its appeal and popularity and despite its normative nature, still counts as an ideal-type of rational planning and decision-making (Jann & Wegrich, 2007).

Notably, the stage of agenda setting is the most relevant for the formulation of policy objectives and goals, as they are responsible for framing the overall process. Therefore, the following paragraphs describe the pathway towards the formulation of goals and objectives within the policy cycle framework.

In most instances, the definition of a policy problem is at the start of every policy making process. Problems can be described and defined in various ways. According to Birkland (2007), this depends on the goals of the proponent of the particular depiction of a problem and the nature of the problem and the political debate. Consequently, the next step involves that the problem is actually recognized and put on the agenda for serious consideration of public action. In this regard, agenda represents "a collection of problems, understandings of causes, symbols, solutions, and other elements of public problems that come to the attention of members of the public and their governmental officials" and moreover "a series of beliefs about the existence and magnitude of problems and how they should be addressed by government" and other actors (Birkland, 2007). In addition, no society or political institutions have the capacity to address all possible alternatives to all possible problems that arise at any one time (Hilgartner & Bosk, 1988). Consequently, according to Sydney (2007), actors representing the government, or having an outside perspective, constantly seek to influence and collectively shape the agenda (e.g. by taking advantage of rising attention to a particular issue, dramatizing a problem, or advancing a particular problem definition).

According to Birkland (2007), several hierarchical levels of an agenda exist, whereby the ideas discussed in a society or a political system rise in importance on the agenda as they advance the various levels on the hierarchy. If a problem or idea is successfully elevated from one to the next level, it is more likely to be brought on the decision or formal political agenda. The boundaries of the different levels are, for example, set or influenced by the perception of member of the political community or the carrying capacity (e.g. available resources) of institutions. Furthermore, the probability that an issue will rise on

the political agenda, in terms of importance and potentially to be translated into objectives and goals, is dependent on many aspects: i) the function of the issue itself, ii) actors that get involved, iii) random social and political factors that can be explained but cannot be replicated or predicted.

In the specific context of SD policies and policy making, some additional factors are of crucial importance when it comes to the phase of agenda setting and policy objectives. As pointed out by OECD (2002; originally from Sabatier & Mazmanian, 1979), among a list of criteria, a common understanding of SD (i.e. the problems to be solved within its context) and a clear commitment and leadership are essential for the agenda setting phase and the overall success of sustainable development policy making. With regard to a common understanding of SD and the associated problems to be solved, special efforts have to be undertaken to provide clear, widely accepted, and operational objectives and principles for sustainable development. Furthermore, these objectives and principles should be backed by a clear commitment and support across levels of government. Being a very important asset to SD, Lafferty (2004) also confirmed that without a clear overarching political commitment, SD values, goals and priorities will be overridden by other economic and social preferences. Moreover, other perspectives on the challenge of SD as a (societal and policy related) objective in policy making exist. For example, Bressers (2004) argues that the challenges are threefold: i) *normatively*, since the legitimacy of the policies and societal changes is insecure; ii) *cognitively*, because the nature of environmental problems and attempts to remedy are notoriously "plagued with uncertainties" iii) challenge of mobilising the *capacity and power resources* necessary to the breadth and depth of the SD goal.

3 Highlighting the spectrum: Comparative stock-taking of SD objectives and goals

This section provides an overview on various international and European documents which explicitly developed SD objectives and goals. Special emphasis is put on the development process, the actors and institutions involved in the process of delivering the document, the political commitment attributed towards the goals, and associated frameworks for implementation. Within each individual sub-chapter, an overview and analysis on SDGs, extracted from the respective policy document, is provided at the end of the section 'frameworks for objectives and goals'.

3.1 International SD goals and objectives

This section recapitulates the development and emergence of the concept of SD in the international policy arena throughout the history of the last 40 years, beginning with the Stockholm Conference in 1972 until the preparation for the UNSCD Conference in 2012 (Rio+20). The documents are listed in chronological order.

A recent project undertaken by UNEP (see

Box-text: An Interlude – The compilation of global environmental goals (GEGs)) elaborates a compilation of international environmental goals which is worth noting, but is beyond the scope of this report as the compilation only refers to environmental aspects among international goals and objectives.

3.1.1 Stockholm Declaration

Context and development process

The United Nations Conference on the Human Environment (UNCHE), held in Stockholm from June 5th to 16th 1972, is generally considered to be a turning point in international environmental policy making and governance. It took place in the context of developing countries' urgent need for human development, whereas the industrialized countries pledged for an agenda for environmental protection deeply influenced by the Club of Rome's Report "Limits to Growth" (Meadows et al., 1972) that included projections on resource depletion and associated environmental problems and societal collapse. The resulting ideological impasse between the developing countries plea for a development agenda and the industrialized countries' claim for the environment has been resolved in a tenuous compromise: the idea that environmental protection was not necessarily incompatible with economic development, which is reflected in the resulting Stockholm Declaration (Rajamani, 2003).

Furthermore, the Stockholm Declaration has recognised that the environment "affects the well-being of peoples and economic development throughout the world" (Stockholm Declaration, para. 2), but it has also shown that industrialised and developing countries have differing interests. Most of the environmental problems of developing countries were associated with lack of sanitation and access to clean water, food, clothing, or shelter (i.e. caused by underdevelopment), while "[i]n the industrialized

countries, environmental problems are generally related to industrialization and technological development" (ibid., para. 4). The countries of the North pursued protection of environmental resources and intergenerational equity (the so-called 'green agenda') while the countries of the South expressed their need for more development and improvement of living conditions of then-poor, i.e. intra-generational equity (the so-called 'brown agenda'). Although relatively little attention has been given to problems of the South, the almost overriding importance of development and intra-generational equity has been highlighted in the statement that "[u]ntil the gap between the poor and the rich countries was substantially narrowed, little if any progress could be made in improving the human environment"[4].

Two interesting issues should be mentioned in this context: On the one hand, many of today's themes in the environmental discourse were recognised at UNCHE, e.g. population growth, the need for curbing of quantitative economic growth and 'dematerialisation' of the economy, or the recognition that well-being being is not dependent on material consumption only. On the other hand, there seems to have been a consensus "that there need be no clash between the concern for development and the concern for the environment, that support for environmental action must not be an excuse for reducing development" and "that a philosophy of 'no growth' was absolutely unacceptable"[5].

Actors and political commitment

The participants of the conference included more than 100 representatives of national states as well as a large number of international institutions and NGOs. Although the conference did not formulate legally binding provisions, it was regarded by many governments as having provided the basis for international environmental law and its general political attitude (Giorgetti, 2010).

[4] Brief Summary of the General Debate, para. 44.
[5] ibid.

Framework for objectives and goals

The Stockholm Declaration comprises 26 principles of international environmental law. Within these principles we identified the following SDGs apportioned to six different issues as listed in the table below.

ENVIRONMENTAL ISSUES	
1) protect environment for present and future generations 2) safeguard natural resources - now and future generations 3) maintain/ improve renewable resources 4) ensure nature conservation 5) prevent exhaustion of non-renewable resources 6) protect integrity of the environment from harmful substances 7) achieve sustainable urban and human settlements	8) improve environmental management in developing countries 9) integrate environment into development decisions[6] 10) integrate environment into development decisions[7] 11) integrate environment into development decisions[8] 12) integrate environment into development decisions[9] 13) development international environmental law for compensation
FUNDAMENTAL HUMAN RIGHTS	
1) ensure human rights, freedom and equality	2) eliminate weapons of mass destruction
SOCIO-ECONOMIC ISSUES	
1) provide assistance to developing countries	2) introduce demographic policies for dealing with population growth
ECONOMIC DEVELOPMENT ISSUES	
1) provide economic and social development for quality of life	
GOVERNANCE ISSUES	
1) enable appropriate national institutions for env planning 2) acknowledge differentiated responsibilities 3) acknowledge differentiated capabilities	4) achieve international cooperation in env. protection 5) increase the role of international organisations for env. protection
EDUCATION, TECHNOLOGY AND R&D	
1) science and technology for solving environmental problems 2) communication and education of/on environmental issues	3) promote R&D and knowledge/technology transfer for environmental issues

[6] "environmental policies… should enhance… future development potential of developing countries"
[7] "…incorporating environmental safeguards into their development planning"
[8] "…adopt an integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve environment…"
[9] "Rational planning constitutes an essential tool for reconciling any conflict between the needs of development and the need to protect and improve the environment."

Summary

The table shows that a clear focus on environmental issues exists among the SDGs. In fact, 13 out of the 26 identified SDGs have a clear focus on environmental issues effectively answering the developed nations' plea for environmental protection and other related issues. However, developing nations interest for human development have been taken into account through a series of issues that call for an harmonization of environmental issues with human development by integrating environmental and development issues. This attitude is represented by four SDGs coded as 'integrate environment into development decisions' and the acknowledgement of differentiated capabilities/responsibilities (SDGs 'acknowledge differentiated responsibilities' and 'acknowledge differentiated capabilities').

Follow-up process and schemes for implementation

One of the chief results of UNCHE (besides the Stockholm Declaration and the Stockholm Action Plan) was the establishment of the United Nations Environment Programme (UNEP), based in Nairobi. Although UNCE managed to reach some international agreement and co-ordinated action on measures of environmental protection, its success was quickly overshadowed by following economic recession caused by the oil crises of 1973 and 1974.

The two primary outcomes of the conference were the Stockholm Declaration, with 26 principles on the preservation and enhancement of the human environment, and an Action Plan that complemented the declaration with 109 recommendations.

The Stockholm Action Plan contains 109 recommendations to be implemented by UNEP. The recommendations, which, before and during the Conference, had been dealt with sectorally by subject area, are redistributed below according to function, into the three components of the Action Plan: the global environmental assessment programme (Earthwatch), the environmental management activities, and the supporting measures.[10]

3.1.2 Brundtland Report

Context and development process

The World Commission on Environment and Development (WCED), established 1983, became also known for its chair, Gro Harlem Brundtland, the Norwegian Minister of Environmental Affairs from 1974 to 1979. WCED followed the debate of the 1972 Stockholm Conference and the 1980 World Conservation strategy, which dealt with conflicts of the environment-development debate and the conservation of nature and sustainable development of species, ecosystems and resources, respectively.

The mission of the WCED consisted of drafting long-term environmental strategies for achieving sustainable development, in particular with a greater involvement of developing countries. In 1987, after three years of public meetings held across the world, WCED published the report *Our Common Future*, which popularised the term sustainable development, especially the widely used definition of SD

[10] More information on the structure can be found here

as “development, that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

Furthermore, the report placed particular attention on the problems of global poverty and the resource limits and natural laws for human societies. The Commission came to understand that environmental and social issues cannot be addressed separately from addressing development, “to the point that ecological sustainability cannot be achieved if the problem of poverty is not successfully addressed around the world” (Robinson, 2004). SD is formulated as a new and global approach towards economic development, one that “must be based on policies that sustain and expand the environmental resource base“. To address poverty, a significant increase in economic output is needed – yet, at the same time, the costs of such growth must be kept low so as not to “compromis[e] the ability of future generations to meet their own needs”. The report expressed optimism about the possibility to pursue an economic growth respectful of the environment and promoted international trade as a means to address global poverty.

In more detail, the Report comprises eight interrelated objectives for sustainable development: (1) reviving growth; (2) changing the quality of growth; (3) meeting essential needs for jobs, food, energy, water, and sanitation; (4) ensuring a sustainable level of population; (5) conserving and enhancing the resource base; (6) reorienting technology and managing risk; (7) merging environment and economics in decision making; and (8) reorienting international economic relations.

Actors and political commitment

In fact, the Brundtland Report catalyzed the political attention and commitment towards the concept of SD. In this regard it laid the foundations for the convening of the Rio Earth Summit five years later in 1992. The document found in the annex of the report (“Summary of Proposed Legal Principles for Environmental Protection and Sustainable Development Adopted by the WCED Experts Group on Environmental Law”) has not been endorsed by political leaders, but rather it is a statement on legal principles elaborated by experts.

Framework for objectives and goals

The Brundtland Report achieved to define and frame the concept of SD in a political context (i.e. before it was related to the debate of ecological limits in terms of sustainable yields in the area of agriculture and fisheries). However, no common principles have been elaborated, but instead common grounds of actions (part III "common endeavours") were formed. However, the annex of the report includes a "Summary of Proposed Legal Principles for Environmental Protection and Sustainable Development Adopted by the WCED Experts Group on Environmental Law" which could be regarded as a common set of principles without a political commitment.

Within these legal principles, we identified the following SDGs apportioned to six different issues as listed in the table below.

ENVIRONMENTAL ISSUES	
1) use resources for the benefit of present and future generations 2) preserve the integrity of the environment 3) promote reasonable and equitable use of natural resources 4) prevent and abate environmental damage 5) establish env. standards and monitoring 6) prior environmental assessments 7) integrate environment into planning and support dev. c.	8) ensure compensation for environmental damage 9) apply standards for env. conduct and impact ensure international cooperation for the env. 10) provide information on the environment 11) provide prior information and notification on env. Damage 12) grant access and due process to persons affected by env. damage
FUNDAMENTAL HUMAN RIGHTS	
1) ensure human rights	
SOCIO-ECONOMIC ISSUES	
No SDGs identified	
ECONOMIC DEVELOPMENT ISSUES	
No SDGs identified	
GOVERNANCE ISSUES	
1) ensure prior notification, access and due process 2) general obligation to cooperate 3) negotiate prior agreement when prevention cost greatly exceeds harm 4) arrange prior consultation in case of env. damage	5) arrange cooperation for env. assessment and protection 6) ensure cooperation regarding emergency plans 7) cease activities breaching obligations regarding the env. 8) settle env. disputes by peaceful means
EDUCATION, TECHNOLOGY AND R&D	
No SDGs identified	

Summary

Supported by the fact that more than half of the SDGs (12 out of 21) are related to environmental issues, the Brundtland Reports' annex on "Legal Principles for Environmental Protection and Sustainable Development" puts an emphasis on the environmental dimension of SD. Furthermore, as the document under investigation focuses on legal principles for international environmental law, the high number of governance issues is not surprising: in fact, more than one third of SDGs (8 out of 21) are attributable to governance issues. Most of these SDGs have an emphasis on international cooperation and consultation and an explicit link to environmental issues. Besides the predominance of environmental and governance issues, other aspects such as socio-economic or economic development issues, or education, technology, and R&D are of lesser importance due to the fact that no SDGs have been found therein.

Follow-up process and schemes for implementation

The process and debate around the topic of SD got popularized in the international policy arena through the Report, "Our Common Future", and its most famous definition. Although no direct follow-up process can be delineated to the WCED and its Report, it increased the geopolitical significance of SD tremendously.

3.1.3 Rio declaration 1992

Context and development process

The United Nations Conference on Environment and Development (UNCED) in 1992 in Rio de Janeiro marks a major milestone for SD, i.e. a paradigm shift from international environmental law to the international law of SD (Sand, 1993). To overcome the conflicting disparities in developing countries' claim for economic and human development, and industrialised countries' plea for environmental protection, the UNCED conference enabled a consensus by introducing the concept of SD into the policy agenda: A concept which could encompass the developing countries demand for intra-generational equity and the industrialised countries desire to control promotion and promote an environmental ethic (Rajamani, 2003). This balance achieved during the course of the conference and which is reflected, in the resulting Rio Declaration, is incorporated through two principles: on the one hand, the precautionary and the polluter pays principle[11] and, on the other hand, the right to development, poverty alleviation and the recognition of common but differentiated responsibilities[12].

Actors and political commitment

The conference participants comprised 172 governments (108 at the level of head of state or government), some 2,400 representatives of NGOs, and about 17,000 people attended the parallel NGO Forum.

[11] See Rio Declaration, principles 15 and 16.
[12] See Rio Declaration, principles 3, 5 and 7.

Apart from the adoption of the Rio declaration, UNCED failed to acquire financial commitments to support all of Agenda 21. Essentially, the resolution adopted at the conference frees countries of any real new financing commitments. The mechanisms for financing remained as they were before the conference (i.e. covering existing aid agencies and potential ad-hoc unilateral pledges). Besides financial support, a strong and persistent political leadership, as discussed by Lafferty (2004), is necessary for the realization of the UNCED programme.

The Rio declaration is, similar to the Stockholm declaration, not an instrument of binding international environmental law. However, several of the principles included in the declaration are considered as part of customary law, including the duty of cooperation (Giorgetti, 2010).

Framework for objectives and goals

The Declaration contains 27 legally non-binding principles, committing governments to ensure protection and safeguarding of the environment, as well as economic growth that is respectful to the environment, human rights, and development needs of poor. Even though many of its provisions were considered to be a watered-down version of the Stockholm Declaration, notable achievements include the precautionary principle and the polluter pays principle.

In the declaration we identified the following SDGs apportioned to six different issues as listed in the table below.

ENVIRONMENTAL ISSUES	
1) protect and restore the integrity of the env. 2) reduce and eliminate unsustainable patterns of consumption and production 3) prevent transfer of harmful substances 4) enact effective env. Legislation 5) promote internalization of env. Costs 6) conduct prior env. impact assessment 7) support trade policy measures protecting the environment	8) notify others in case of natural disasters and env. harm 9) provide information on env. damaging activities 10) provide compensation for env. damage 11) apply the precautionary principle for env. Issues 12) integrate env. protection into development process
FUNDAMENTAL HUMAN RIGHTS	
1) human beings are central for SD 2) support the culture, interests and participation of indigenous people	3) promote participation of youth 4) promote participation of women
SOCIO-ECONOMIC ISSUES	
1) ensure development and env. needs of present and future generations 2) eradicate poverty	3) protect the environment of people under opression or domination 4) provide support to least developed and vulnerable countries 5) promote appropriate demographic policies
ECONOMIC DEVELOPMENT ISSUES	
1) promote a supportive and open international economy	
GOVERNANCE ISSUES	
1) acknowledge differentiated responsibilities with regard to natural resources and env. damage 2) enable participation and access to information in env. issues	3) respect int. law protecting the environment from armed conflicts 4) cooperate to develop int. law for SD 5) resolve env. conflicts in a peaceful manner 6) support international env. governance
EDUCATION, TECHNOLOGY AND R&D	
1) strengthen capacity building of SD through technology and knowledge transfer	

Summary

At a first glance, the Rio declaration has a clear focus on environmental issues (i.e. 12 out of 29 SDGs), especially in the area of legislation and providing information with regard to the environment. The majority of the SDGs within the issue governance (5 out of 6) are related to the environment. With regard to human rights, socioeconomic and governance issues, the Rio declaration provides a rather balanced picture, with 4, 5 and 5 SDGs, respectively. Moreover, when examining the area of human rights, the Rio declaration argues, especially, for the empowerment of indigenous people, women and youth.

Follow-up process and schemes for implementation

One of the most important deliverables of the Rio conference in 1992 is Agenda 21: This 800-pages document "attempts to embrace the entire environment and development agenda" (Parson et al. 1992) and presents the four-pillar model of sustainable development (with economic, social, environmental and institutional pillars) as well as proposals for action in 40 chapters grouped into four sections: social and economic dimensions, such as combating poverty and changing consumption patterns; conservation and management of resources including specific vulnerable ecosystems; strengthening the role of various societal 'major groups' and means of implementation including proposals for changes to the institutions and processes at various levels of government. It also contains a suggested set of sustainable development indicators. Overall, Agenda 21 follows up on the conclusions from Stockholm by trying to reconcile the conflict of interests between industrialised and developing countries through technological innovation, increases in resource efficiency, trade liberalization, and technological cooperation. Moreover, the conference issued international agreements on climate change (UN Framework Convention on Climate Change) and biodiversity (Convention on Biological Diversity) as well as a non-legally binding statement of principles for the management, conservation, and sustainable development of forests (Forest Principles).

The Rio Declaration on Environment and Development, Agenda 21, and the Forest Principles are considered to be nonbinding instruments. The other two deliverables, the UN Framework Convention on Climate Change and the Convention on Biological Diversity, are legally binding instruments which were signed in Rio and subsequently entered into force.

Following the Summit, the UN General Assembly established the United Nations Commission on Sustainable Development (UNCSD) as a follow-up to the Brundtland Commission, mandated to monitor and review progress on the implementation of Agenda 21 as well as the establishment of the Global Environment Facility (GEF) to channel international funds allocated to environmental programs and projects. Other institutions that have been established in the follow up of the conference were the Inter-agency Committee on Sustainable Development and the High-level Advisory Board on Sustainable Development.

At the international policy sphere, the Earth Summit – apart from its fundamental influence on subsequent UN conferences that dealt with the relationship between human rights, population, social

development, women and human settlements, and the need for environmentally sustainable development – has influenced the outcome and content of other conferences. For example, the World Conference on Human Rights held in Vienna in 1993 underscored the right of people to a healthy environment and the right to development, controversial demands that had been met with resistance from some Member States until Rio.

3.1.4 Millennium Declaration

Context and development process

In September 2000, building upon a decade of major United Nations conferences and summits, world leaders at the United Nations Headquarters in New York adopted the United Nations Millennium Declaration, committing their nations to a new global partnership to reduce extreme poverty, and setting out a series of time-bound targets - with a deadline of 2015 - that have become known as the Millennium Development Goals (MDGs). The OECD's international development targets (OECD, 1996) had considerable influence in the determination of the relevant text of the Millennium Declaration. With the addition of a few more targets, particularly for environmental sustainability, these became the MDGs and, in turn, these targets were linked post hoc with indicators for the purposes of measurement, and with goals for the purpose of conceptual simplicity (Lancet & LIDC, 2010).

The Millennium Declaration presents six values that were considered to be fundamental to international relations in the 21st century: freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility. Seven key objectives were identified to translate these shared values into actions: peace, security, and disarmament; development and poverty eradication; protection of our common environment; human rights, democracy, and good governance; protection of vulnerable people; meeting of the special needs of Africa; and strengthening of the UN. The second objective, development and poverty eradication, was translated into eleven resolutions, presented as development targets. Many of these targets had legacies that predated the Millennium Declaration and had arisen from sector-specific UN-sponsored and other world conferences and summits during the previous decades (Lancet & LIDC, 2010). In more detail, the Declaration calls for halving, the number of people who live on less than one dollar per day by the year 2015. This effort also involves finding solutions to hunger, malnutrition and disease, promoting gender equality and the empowerment of women, guaranteeing a basic education for everyone, and supporting the Agenda 21 principles of sustainable development. Direct support from the richer countries, in the form of aid, trade, debt relief, and investment is to be provided to help the developing countries

Actors and political commitment

UN Partners collaborating on achieving MDGs are inter alia: UNDP, UNEP, World Bank, WHO, IMF, FAO, WTO, Regional Commissions (Economic Commission for Africa, Economic Commission for Europe, Economic Commission for Latin America & the Carribean etc.).

Political commitment and steering towards achieving the MDGs was renewed and strengthened through yearly progress reporting and a series of initiatives and programmes such as the Millennium Project, the Millennium Villages and the Millennium Campaign.

Framework for objectives and goals

The MDGs form a set of eight goals, to be achieved by 2015 that respond to the world's main development challenges. The MDGs are founded on a set of values comprising freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility within the Millennium Declaration. These values do not exclusively cover the full range of the sustainable development concept. Furthermore, a set of corresponding actions and targets can be delineated from the MDGs.

The MDGs represent the latest effort in a long process of development goal setting, which had antecedents in the Universal Declaration of Human Rights, the Development Decade of the 1960s, and the many UN summits of the second half of the 20th century that set specific goals to reduce hunger, improve health, eradicate diseases, and improve education (Hulme, D., 2007).

Overall, the MDGs:

- synthesise in a single package many of the most important commitments made separately at international conferences and summits of the 1990s;
- recognise explicitly the interdependence between growth, poverty reduction, and sustainable development;
- acknowledge that development rests on the foundations of democratic governance, the rule of law, respect for human rights, and peace and security;
- are based on time-bound and measurable targets accompanied by indicators for monitoring progress; and
- bring together, in the eighth Goal, the responsibilities of developing countries with those of developed countries, founded on a global partnership endorsed at the International Conference on Financing for Development in Monterrey, Mexico in March 2002, and again at the Johannesburg World Summit on Sustainable Development in August 2002.

(Eurostat, 2010)

The goals and targets are interrelated and should be seen as a whole. They represent a partnership between the developed countries and the developing countries "to create an environment - at the national and global levels alike - which is conducive to development and the elimination of poverty"[13].

[13] United Nations Millennium Declaration, General Assembly resolution 55/2 of 8 September 2000, para. 12

The table below provides a list of SDGs we have identified in the declaration apportioned to six different issues.

ENVIRONMENTAL ISSUES	
1) change current unsustainable patterns of production and consumption 2) promote GHG emission reductions 3) provide sustainable management and conservation of forests	4) stop unsustainable use of water 5) reduce effects of natural and man-made disasters 6) implement Convention on Biological Diversity
FUNDAMENTAL HUMAN RIGHTS	
1) assure human rights through democracy and participation 2) assure gender equality 3) promote peace and tolerance 4) eliminate dangers from weapons of mass destruction 5) take action against terrorism 6) fight transnational crime 7) end illicit traffic of lights arms and weapons 8) promote peace and human understanding 9) promote gender equality 10) promote democracy and law for freedom and human rights	11) promote human rights 12) combat violence against women 13) ensure freedom of and access to information 14) ensure protection of civilians 15) provide assistance to refugees and hosting countries 16) ensure rights of children 17) promote conflict prevention and peace keeping 18) eliminate weapons of mass destruction 19) ensure free access to human genome sequence
SOCIO-ECONOMIC ISSUES	
1) counter the world drug problem 2) eradicate poverty 3) halve the proportion of people with less 1$ income 4) reduce maternal mortality 5) halt and reverse malaria, HIV/aids and other major diseases	6) provide assistance to orphaned children 7) improve dwelling conditions 8) combat poverty, hunger and disease 9) provide essential drugs 10) eradicate poverty 11) tackle spread of HIV and other diseases 12) promote debt relief 13) increase development assistance
ECONOMIC DEVELOPMENT ISSUES	
1) provide work for young people	2) adopt quota-free import of products from least developing countries
GOVERNANCE ISSUES	
1) strengthen cooperation between UN and int. organisations 2) ensure implementation of treaties regarding arms control and disarmament 3) minimize adverse effects of UN sanctions 4) improve governance on int. level	5) develop civil and private sector partnerships 6) support political and institutional structures 7) strengthen the UN and its associated institutions 8) strengthen cooperation between UN and other organisations 9) ensure political participation
EDUCATION, TECHNOLOGY AND R&D	
1) ensure full primary education	

Summary

Due to the very nature of the Millennium Declaration the focus of the SDGs lies on fundamental human rights, socio-economic and governance issues. The majority of the SDGs relate to the area of fundamental human rights (19 out of 41 SDGs), followed by socio-economic and governance issues, with 13 and 9 SDGs, respectively. SDGs within fundamental human rights and socio-economic issues are, also compared to the ones in the environmental domain, much more concrete (e.g. 'provide assistance to orphaned children' or 'combat violence against women' as compared to 'change current unsustainable patterns of production and consumption'). Among SDGs related to socio-economic issues, the ones which have a focus on human health dominate (6 out of 13).

Follow-up process and schemes for implementation

With regard to the monitoring framework, the goals, targets, and indicators[14] as developed in 2002 (i.e. eight goals, 18 targets and 48 indicators), were used until 2007 to measure progress towards the MDGs. In 2007, the MDG monitoring framework was revised to include four new targets agreed upon by member states at the 2005 World Summit (Resolution adopted by the General Assembly - A/RES/60/1). The current official MDG framework (see Table in the Annex) supersedes the previous version, which had been effective since 2002.

In terms of progress reporting, each year the Statistics Division of the United Nations Department of Economic and Social Affairs publishes a report to the United Nations General Assembly on progress achieved towards implementing the Declaration, based on data of the selected indicators, aggregated at global and regional levels. This annual report presents the most comprehensive global assessment of progress to date, based on data provided by a large number of international organizations within and outside the United Nations system. The aggregate figures in the report provide an overview of regional progress under the eight goals and are a convenient way to track advances over time. The report is coordinated and published by the Statistics Division of the United Nations Department of Economic and Social Affairs.

A series of programmes and initiatives have been started for accelerating progress towards the MDGs. One of the important milestones to achieve the Millennium Development Goals is the Millennium Project commissioned by the United Nations Secretary-General in 2002. It encompasses a concrete action plan for the world, and in 2005 a synthesis volume with final recommendations was developed (UN Millennium Project, 2005). One of the initiatives taken up through the Millennium Project are so-called Millennium Villages, which are specifically designed to demonstrate how the eight MDGs can be met in rural Africa within five years through community-led development projects. Moreover, the Millennium Project estimated the additional financial resources required to meet the MDGs are $ 135

[14] For further information on the authoritative information on the concepts, definitions, implementation and sources of data for 48 out of the currently 60 official MDG indicators, please refer to the official handbook (UN, 2003)

billion in 2006, rising to $ 195 billion in 2015. Furthermore, the a platform – the United Nations Millennium Campaign - that started in 2002 supports and inspires people from around the world to take action in support of the Millennium Development Goals.

In order to reaffirm the world leaders' commitment to the MDGs, despite setbacks due to the economic and financial crises, the 2010 MDG Summit convened and concluded with the adoption of a concrete action agenda (Keeping the Promise: United to Achieve the Millennium Development Goals) and the announcement of a number of initiatives against poverty, hunger and disease.
In order to make progress on the targets of women's and children's health, a number of Heads of State and Government from developed and developing countries, along with the private sector, foundations, international organizations, civil society and research organizations, pledged over $40 billion in resources over the next five years.
A recent study conducted by the London International Development Centre (Lancet & LIDC, 2010) analyzed challenges with the implementation of the MDGs so as to inform future goal setting.

3.1.5 Earth charter

Context and development process

At first mentioned at the WCED, the idea on a Charter for SD with ethical principles was restated in the Brundtland Report, as a call for a "new charter" to set new norms to guide the transition to sustainable development. Following this discussion, the Earth Charter was introduced later in the UNCED conference in Rio 1992. However, during the conference negotiations, the Earth Charter got rejected, and instead the Rio Declaration was adopted. According to Kovar (1993), the Earth Charter was more favoured by the industrialized countries due to its emphasis on the environment and, therefore, was rejected by G-77 and China as being unbalanced.

In 1994, Maurice Strong (Former secretary-general of the UNCED) and Mikhail Gorbachev launched an initiative (with the support from the Dutch Government) to develop an Earth Charter as a civil society initiative. This initiative led to the establishment of the Earth Charter's final version in 2000. The initial drafting and consultation process, overseen by an independent Earth Charter Commission, started in 1997. The initiative drew on hundreds of international documents, and the task of the commission was to analyze the outcomes of a world-wide consultation process and to come to agreement on a global consensus document. A first benchmark draft, presented at the Rio+5 Forum in 1997, sparked a major international debate and consultation on the document. In fact, hundreds of organizations and thousands of individuals participated in the creation of the Earth Charter, branding it as the most inclusive participatory process ever associated with the drafting of an international declaration. In this regard, 45 Earth Charter national committees were formed. Earth Charter dialogues were conducted throughout the world and on-line on the Internet, and major regional conferences were held in Asia, Africa, Central and South America, North America, and Europe. Essentially, the Earth Charter values build on and extend international environmental and sustainable development law and, furthermore, are derived inter alia from contemporary science, the teachings of indigenous peoples, the wisdom of the worlds' great religions and philosophical traditions, the declarations and reports of the seven UN summit conferences during the 1990s etc. (ECI, 2010).

Up to this day, the Earth Charter has been increasingly recognized as a global consensus statement on the meaning of sustainability, the challenge and vision of sustainable development, and the principles by which sustainable development is to be achieved.

Actors and political commitment

Since 2000, the Earth Charter has been widely recognized as a global consensus statement on the meaning and achievement of SD. Over 5000 signatories have endorsed the Earth Charter so far, including NGOs, national ministries and governments, companies, universities, the United Nations Educational, Scientific, and Cultural Organization (UNESCO), World Conservation Union (IUCN) and the International Council of Local Environmental Initiatives (ICLEI) etc. (ECI, 2010)

Framework for objectives and goals

The final text of the Earth Charter, which was approved at a meeting of the Earth Charter Commission at the UNESCO headquarters in Paris in March 2000, contains a preamble, 16 main principles, sixty-one supporting principles, and a conclusion entitled "The Way Forward.". The titles of the four sections into which the principles are divided indicate the breadth of the vision: I Respect and Care for the Community of life; II Ecological Integrity; III Social and Economic Justice; and IV Democracy, Non-Violence, and Peace. (ECI, 2010)

Within the Earth Charter, we identified the following SDGs apportioned to six different issues as listed in the table below.

ENVIRONMENTAL ISSUES	
1) attribute an intrinsic value to life	11) avoid environmental damage[17]
2) prevent environmental damage[15]	12) prevent environmental damage[18]
3) preserve the environment for present and future generations	13) allow no build-up of toxic substances
4) protect and restore the integrity of the environment	14) prevent environmental damage[19]
5) promote and halt the loss of biodiversity	15) adopt sustainable production and consumption
6) control and eradicate harmful GMO	16) apply reduction, reuse and recycling of materials
7) prevent production of harmful organisms	17) ensure assimilation of waste by the environment
8) manage use of renewable resources	18) promote energy efficiency
9) manage use of non-renewable natural resources	19) promote renewable energy
10) prevent environmental damage[16]	20) enable sustainable consumption
	21) adopt sustainable lifestyles
	22) ensure liability for env. damage
	23) internalize env. costs
FUNDAMENTAL HUMAN RIGHTS	
1) protect human rights	12) promote non-violence and peace
2) promote justice, freedom and human rights	13) support solidarity and cooperation
3) affirm gender equality and equity	14) prevent violence
4) uphold rights to natural and social assets	15) dematerialize national security to non-provocative

[15] "prevent environmental harm"
[16] "Prevent harm as the best method of environmental protection…"
[17] "avoid the possibility of serious or irreversible environmental harm"
[18] "Prevent pollution of any part of the environment"
[19] "Avoid military activities damaging to the environment."

5) eliminate discrimination	levels
6) affirm rights to indigenous people	16) convert military resources to peaceful purposes
7) protect and restore cultural heritage	17) eliminate weapons of mass destruction
8) support civil society	18) ensure that space operations support the env. and peace
9) protect the rights to freedom of opinion	19) recognize the importance of peace
10) ensure independent jurisdiction	20) promote participation of women
11) eliminate corruption	
SOCIO-ECONOMIC ISSUES	
1) ensure access to health care	7) promote equitable distribution of wealth
2) eradicate poverty	8) enhance resources (financial, technical, etc) of developing nations
3) ensure access to basic requirements (such as water, shelter etc.)	9) provide debt relief
4) provide social security and safety	10) ensure education, health care and economic opportunity
5) support vulnerable groups	11) strengthen families
6) ensure that economic activities lead to sustainable human development	12) support young people
ECONOMIC DEVELOPMENT ISSUES	
1) ensure that trade supports SD	
GOVERNANCE ISSUES	
2) adopt SD plans	6) strengthen democratic institutions and participation
3) integrate SD into decision making	7) ensure monitoring and accountability
4) ensure access to env. information	8) strengthen local communities
5) ensure transparency of institutions	9) enhance awareness raising for SD

EDUCATION, TECHNOLOGY AND R&D	
1) promote development and transfer of technology	6) provide education to children
2) improve knowledge base and sharing for SD issues	7) ensure contribution of arts and humanities to education
3) preserve traditional knowledge	8) recognize moral and spiritual education for SD
4) provide education	9) support int. technical and scientific cooperation
5) integrate SD into education and learning	

Summary

As indicated by the table above, the Earth Charter contains a rather comprehensive collection of SDGs which also comprises some rather specific SDGs (such as 'control and eradicate harmful GMO' or 'ensure contribution of arts and humanities to education') among very broad and common ones (such as 'enable sustainable consumption' or 'adopt sustainable life styles'). When looking at the number of SDGs among the various issues, their distribution is rather balanced. However, most of the SDGs can be attributed to the environmental (24 out of 75 SDGs) as well as the human rights domain (20 out of 73 SDGs). These two issues are followed by socio-economic and governance ones, accounting for 12 and 9 SDGs, respectively. Within the area of education, technology, and R&D, SDGs related to education and learning and for SD are predominant (5 out of 9 SDGs).

Follow-up process and schemes for implementation

After the formal launch of the Earth Charter at the Peace Palace in The Hague in June 2000, the Earth Charter Commission turned over responsibility for oversight of the Earth Charter Initiative (ECI) and fund raising to a newly created Steering Committee, which included, among others, several members of the Earth Charter Commission.

A major effort was made to secure formal recognition of the Earth Charter at the World Summit on Sustainable Development held in Johannesburg in 2002. Although a number of heads of state and many NGOs attending the Summit issued public statements of support, the final version of the Johannesburg Declaration does not contain an explicit reference to the Earth Charter[20]. Efforts to seek formal recognition of the Earth Charter by the United Nations General Assembly are on-going (ECI, 2010).

Since 2008, the ECI adopted a long range strategic plan that involves the creation of six task forces that will initiate new activities in support of the Earth Charter in the areas of business, education, The Media, religion, the United Nations, and youth. Task Forces will involve council members, individuals and organization partners, affiliates or advisors.

3.1.6 Johannesburg Declaration

Context and development process

The 2002 World Summit on Sustainable Development (WSSD, 'Rio+10') took place in Johannesburg and was aimed at reviving political commitment to SD and reviewing the progress achieved since Rio 1992[21]. However, expectations for outcomes from the Summit were generally low. The five topic areas of the Summit were expressed under the acronym WEHAB (water and sanitation; energy; health; agricultural productivity; and biodiversity and ecosystem management). The summit delivered three outcomes: a political declaration, the Johannesburg Plan of Implementation (JPOI) and the establishment of numerous partnership initiatives.

The discussions that took place during the conference shifted the attention of SD away from the environmental and more towards the social and economic development perspective. This shift was mainly driven by the developing countries' needs and particularly influenced by the Millennium Declaration and its associated goals partly reiterated into the conference's final outcome documents (i.e. the JPOI, article 8 on achieving basic sanitation, article 67 on combating hunger, article 120 on raising the level of education)

The content of the WSSD was particularly shaped by two important inputs: the four preparatory meetings and a number of reports by the UN Secretary General. Out of the four preparatory meetings, the most influential one was the fourth, since it produced a draft plan focusing on the implementation of Agenda 21. The second most important source of input was a series of 22 reports provided by the UN General Secretary which assessed the implementation status of Agenda 21. The reports identified the

[20] http://www.earthcharterinaction.org/download/about_the_Initiative_history_2t.pdf
[21] UN General Assembly Resolution 55/119

following issues as serious deficiencies for the implementation: fragmented approach to SD; lack of progress in addressing unsustainable patterns of consumption and production; inadequate attention of core issues (WEHAB); coherence policies on finance, trade, investment, technology and SD; insufficient financial resources; and absence of a robust mechanism for technology transfer.

Actors and political commitment

Overall, the conference drew an enormous amount of attention from civil society and government representatives alike: in total, 9,101 delegates from 191 governments and 8,227 representatives of major groups as well as 4,012 media representatives were present.

On average, participating negotiators reached an agreement on 75 % of all the paragraphs in the negotiated declaration, however, the part on implementation with regard to finance and trade was heavily controversial with an agreement of about 11 and 15 %, respectively (Hens & Nath, 2005). Furthermore, as compared to declarations elaborated by the UNCHE 1972 (Stockholm declaration) or UNCED 1992 (Rio declaration), the Johannesburg declaration had no specific mandate to contribute to the development of international environmental law, nor even to further elaborate general principles of non-binding nature to guide the conduct of states with respect to SD. (Hens & Nath, 2005)

Framework for objectives and goals

The final text of the Johannesburg Declaration on Sustainable Development contains 37 articles. Among the principles of the declaration we identified the following SDGs apportioned to six different issues as listed in the table below.

ENVIRONMENTAL ISSUES	
1) change consumption and production patterns 2) protect and manage natural resources	3) protect biodiversity
FUNDAMENTAL HUMAN RIGHTS	
1) fight against crime and corruption 2) fight against armed conflict and illicit arms trafficking 3) fight against illicit drug problems 4) fight against intolerance and terrorism	5) fight against hatred and xenophobia 6) ensure gender equality and woman empowerment 7) promote human development and peace
SOCIO-ECONOMIC ISSUES	
1) eradicate poverty 2) increase access to basic requirements (such as food, water etc.)	3) fight against hunger and malnutrition 4) fight against diseases (HIV/aids, malaria, tuberculosis)
ECONOMIC DEVELOPMENT ISSUES	
1) increase income generating employment opportunities 2) enforce corporate accountability	3) ensure benefits from opening of markets 4) gain access to financial resources 5) assure private sector's contribution to SD
GOVERNANCE ISSUES	
1) improve international cooperation for SD 2) ensure participation for SD policy making 3) strengthen and improve governance for SD	5) support the UN in promoting SD 6) monitor progress towards SD 7) promote participation of major groups and

4) increase the effectiveness of international institutions	governments
EDUCATION, TECHNOLOGY AND R&D	
1) ensure usage and sharing of technology	2) promote human education and human resource development

Summary

At a first glance, the Johannesburg declaration represents a rather balanced approach with regard to human rights, socio-economic, economic development, as well as governance issues: the number of SDGs within these areas varies between 4 and 7. The area of socio-economic issues has a clear focus on developing countries, as the SDGs have a particular emphasis on developing countries problems such as 'fight against hunger and malnutrition', 'fight against diseases (HIV/aids, malaria, tuberculosis)' or 'increase access to basic requirements'. Among SDGs related to governance issues, the international dimension in terms of institutions and cooperation is of high importance as 4 out of 7 SDGs cover these aspects.

Follow-up process and schemes for implementation

The Johannesburg Declaration is one out of three major outcomes (the other two are the Johannesburg Plan of Implementation and Type II partnerships). It confirmed the commitments from Stockholm and Rio as well as of some of the Millennium Development Goals and the development assistance target of 0.7% of GDP from Monterrey (and earlier summits and conferences).

The main components, the declaration highlights, are: the path taken from UNCED to WSSD, present challenges, commitment to SD, underscoring the importance of multi-literalism, and emphasizing the need for implementation. Although the document refers to strategic approaches on how to deliver the Johannesburg Plan of Implementation, it is rather likely that it will not have an enduring impact, as it lacks the intellectual sophistication or authority that Rio declaration still commands (Hens & Nath, 2005). Unlike the JPOI, the political declaration did not undergo intensive negotiations. In fact, the first version of the declaration appeared quite late in the process. And although consultations were conducted, there was very little time for substantive negotiations on the declaration (La Vina et al., 2002). The box-text below lists the main sections and key words of the declaration.

Box-text: The Johannesburg Declaration on Sustainable Development: structure and key words (Hens & Nath, 2005)

(1) From our origins to the future
- Pillars: environment, social and economic development
- Levels: local, national, regional, global
- Pledge to implement a plan for poverty eradication and human development

(2) From Stockholm to Rio de Janeiro to Johannesburg
- Agenda 21, the Rio principles
- Major UN conferences
- Vision of SD

(3) The challenges we face
- Overarching objectives: poverty eradication, unsustainable patterns of production and consumption, natural resource base, and social and economic development
- North-South divide
- Continuing environmental degradation
- Globalization as a challenge
- Credibility of democratic representatives

(4) Our commitment to Sustainable Development
- Characteristics: multilevel policy action, long-term perspective, broad participation, respect for human diversity
- Actors: multi-stakeholders, indigenous people, labour organizations, private sector, local governments, women, regional groupings, and alliances
- Threats to SD: hunger, malnutrition, foreign occupation, armed conflicts, illicit drug problems, organized crime, corruption, natural disasters, illicit arms trafficking, trafficking in persons, terrorism, intolerance (racial, ethnic and religious), and diseases
- Issues: water and sanitation, energy, health care, food security, biodiversity, and shelter
- Regions: small island countries, and least developed countries
- Instruments: capacity building, technology transfer, new partnerships, dialogue, development of human resources, education and training, financial means, and good governance

(5) Multilateralism is the future
- - Democratic and accountable international and multinational institutions
- Strengthening of multilateralism
- Monitoring of SD

(6) Making it happen
- Involving major groups
- Commitment to SD

The JPOI - a 54 page agreement divided into 11 sections on a specific focus - sets out specific timetable to address some issues, including reducing the rate of loss of biodiversity by 2010, and halving the number of people without access to drinking water by 2015. Key commitments covered sustainable consumption and production, water and sanitation, and energy. Furthermore, the document

strengthened the role of the Commission on Sustainable Development in continuing international oversight monitoring progress on sustainability agreements.

In more detail, the commitments in the JPOI can be distinguished between two main strands: one part pertaining a social and economic development perspective, and another part covering environmental issues. Among those from the latter dimension are commitments that complemented the Millennium Development Goals, reinforced Doha and Monterrey agreements, and set challenging global goals and targets on eradicating poverty, accessing water, sanitation and improving health literacy, supporting food security strategies and access to energy[22]. On the other hand, the part on environmental issues covered themes such as encouraging and promoting the establishment of a framework programme to accelerate the shift towards sustainable patterns of consumption and production, increasing energy efficiency and use of renewable energy, chemicals management, sustainable fisheries and forests, and reducing biodiversity loss on land and in our oceans[23]. In addition, the principle of common but differentiated responsibilities and the precautionary principle are specifically mentioned in the JPOI. Taken together, introducing the principle of common but differentiated responsibilities and the focus on issues such as poverty, education, sanitation etc. shows that the spotlight shifted within the sustainable development agenda; i.e. from an environmental protection strand to an social and economic development strand (Rajamani, 2003).

In addition, the UNCED produced so-called Type II Partnerships (i.e. voluntary transnational multi-stakeholder agreements). The partnerships are projects that allow civil society to contribute to the implementation of sustainable development, whereas Type I commitments refer to political or legal agreements among all governments, negotiated through the intergovernmental process, and consolidated in the Plan of Implementation. Type II commitments are generally perceived as powerful tools and more democratic instruments for the implementation of Agenda 21, although confusion persists over their precise nature and “modus operandi” (Hens & Nath, 2005).

3.2 Pre-Rio+20 proposal on SDGs

Context and development process

The next milestone will be the upcoming UN Conference on Sustainable Development (UNCSD, 'Rio+20') to be held again in Rio de Janeiro in June 2012. Its overarching themes are (1) green economy in the context of sustainable development and poverty eradication and (2) the institutional framework for sustainable development. From the zero draft outcome document, it seems that progress beyond Rio might be achieved concerning the second topic, as changes in mandate and competences of the UN Commission for Sustainable Development, UNEP, and the Global Environment Facility can be expected. Furthermore, there is also support for an elaboration of global Sustainable Development Goals (SDGs) by 2015, to ‘complement and strengthen the MDGs in the development agenda for the post-2015

[22] Report of the World Summit on Sustainable Development (Johannesburg, South Africa, 26 August-4 September 2002) (UN Doc. A/CONF. 199/20), Resolution 2, Annex, para. 7(b), 8, 54 and 62-71.
[23] Ibid. para. 15, 20, 23, 31,44.

period', and mechanisms for their monitoring and reporting, as well as development of indicators complementing GDP in measuring well-being and integrating economic, social, and environmental dimensions.

The conference will have three objectives:

- to secure renewed political commitment for sustainable development,
- to assess the progress to date and the remaining gaps in the implementation of the outcomes of the major summits on sustainable development, and
- to address new and emerging challenges

Coming back to SDGs, the development of SDGs in the course of RIO+20 could assist in focusing the broad international sustainable development agenda at a practical level, and in the case of the MDG framework, could act as extension of the original framework in its post 2015 period. However, as the current MDG framework does not fully cover emerging or urgent issues such as climate change, energy security, resilience or disaster preparedness, an upcoming set of SDGs could address shortcomings and challenges of the MDGs and broaden their goals to reflect other SD objectives.

The challenge for developing these SDGs is to ensure wide political and policy appeal and to focus attention, particularly in the post Rio+20 phase, on monitoring the implementation of Rio+20 outcomes. At the same time, these goals need to be sufficiently rigorous to provide a valuable basis for decision making, especially at the national level, and should be of use to the national policy community. To overcome some of these challenges, developing regionally and locally relevant good practice models for each goal would help countries develop their support for SDGs (Institute for Global Environmental Strategies, 2012).

The result of the conference would be twofold: 1) a definition of the thematic objectives and, 2) an agreement on a mandate to define subsequently (post-Rio) how these goals, or objectives, would be further developed, and to define a process that could converge with the revision of the MDGs. More specifically, the Rio+20 conference could serve as a platform for the international community to identify broad sustainable development objectives and to begin a process of defining concrete goals. A next step after the Rio+20 conference would be to identify gaps and needs, and aid the structured implementation of the principles and goals that were agreed upon in Rio in 1992.

Framework for objectives and goals

Besides the conference's general aim to develop a set of SDGs, several proposals on how to develop such a set have already been put on the agenda. The United Nations Secretary-General's High Level Panel on Global Sustainability Report "Resilient people, resilient planet" recommends to governments to agree on the development of a set of key universal sustainable development goals, covering all three dimensions of sustainable development as well as their interconnections. So far, several options for Rio+20 deliverables have been articulated during ongoing informal consultations on SDGs, organised by the Government of Columbia.

According to the Institute for Global Environmental Strategies (2012) the following options for Rio+20 deliverables on SDGs are possible:

(1) *Most ambitious*: The adoption of the so-called 'Rio+20 Mandate', which includes agreements on political commitments for global goals, guiding characteristics for the goals, cross-cutting themes for the goals, identification of potential goals and a Post-Rio Process.
(2) *Least ambitious*: The agreement on launching a Post-Rio Process on SDGs.
(3) *Modest*: The agreement on launching a Post-Rio Process on SDGs with the identification of some priority areas (such as food security and energy) and implementing test-drives immediately after Rio.

A summary of the consultations in terms of its objectives, characteristics, and the scope of SDGs is shown below in table 2.

Table 2: Objectives, characteristics and scope of SDGs (Institute for Global Environmental Strategies, 2012)

Objectives	Address broader challenges threatening sustainable development
	Reaffirm the past political commitments of all actors and ensure tangible actions towards sustainable development
Characteristics	Action-oriented
	Complementary to MDGs
	Strongly linked to Agenda 21 and JPoI
	Universal in application, but allowing for national and regional circumstances and respective capabilities
	Voluntary application, in keeping with national realities, priorities, and capabilities
Scope	Poverty eradication as an overarching goal
	Address economic, social, and environmental dimensions of sustainable development
	Enable articulation of the nexus between the different issue areas covered by the SDGs
	Time bound and measurable, with targets and indicators
	Few in number and easy to communicate and understand

More specifically, the world's civil society organisations (CSOs)[24] and the countries of Colombia and Guatemala in preparation to Rio+20 (Ministerio de Relaciones Exteriores. Republica de Colombia, 2011) elaborated proposals for the definition and agreement of a set of Sustainable Development Goals (UNCSD Secretariat, 2012).

[24] Declaration of the 64th Annual UN DPI/NGO Conference (2011), Chair'sText. Sustainable Societies; Responsive Citizens. http://www.uncsd2012.org/rio20/index.php?page=view&nr=273&type=230&menu=38

3.2.1 Proposal of world civil society organisations

The common proposal of world CSOs includes a draft set of 17 SDGs. The set was prepared by a team of experts from 25 organisations (i.e. 10 organisations from North, and 15 organisations from South), and is supported by 1,400 CSOs. Some of the SDGs suggested are based on commitments already made by governments and other stakeholders; others are newly proposed by the CSOs. Each goal includes sub-goals, reasoning, and clarifications. The proposal was elaborated during the 64th Annual UN Department of Public Information and Non-Governmental Organizations Conference held in Bonn, Germany, from 3rd to 5th September 2011.

The CSO proposal is structured along the following areas providing a ground for discussion on more specific SDGs:

- SDG1 Sustainable consumption and production
- SDG2 Sustainable livelihoods, youth & education
- SDG3 climate sustainability
- SDG4 clean energy
- SDG5 biodiversity
- SDG6 water
- SDG7 healthy seas and oceans
- SDG8 healthy forests
- SDG9 sustainable agriculture
- SDG10 green cities
- SDG11 subsidies and investment
- SDG12 new indicators of progress
- SDG13 access to information
- SDG14 public participation
- SDG15 access to redress and remedy
- SDG16 Environmental justice for the poor and marginalized
- SDG17 basic health

By clustering the proposed SDGs into six different issues, the following table is set up.

ENVIRONMENTAL ISSUES	
1) SDG1 Sustainable consumption and production 2) SDG3 climate sustainability 3) SDG4 clean energy 4) SDG5 biodiversity	5) SDG6 water 6) SDG7 healthy seas and oceans 7) SDG8 healthy forests 8) SDG9 sustainable agriculture 9) SDG10 green cities
FUNDAMENTAL HUMAN RIGHTS	
1) SDG16 Environmental justice for the poor and marginalized	
SOCIO-ECONOMIC ISSUES	
1) SDG2 Sustainable livelihoods, youth & education	2) SDG17 basic health
ECONOMIC DEVELOPMENT ISSUES	
1) SDG11 subsidies and investment	
GOVERNANCE ISSUES	
1) SDG12 new indicators of progress 2) SDG13 access to information	3) SDG15 access to redress and remedy 4) SDG14 public participation
EDUCATION, TECHNOLOGY AND R&D	
1) SDG2 Sustainable livelihoods, youth & education	

Summary

As most of the SDGs developed by the CSOs are rather broad and comprehensive in nature, it is difficult to attribute them to a specific issue. With regard to 'SDG2 Sustainable livelihoods, youth & education' we allocated to SDG to two issues (i.e. 'socio-economic issue' and 'education, technology and R&D') due to its multiple issues included. Out of the 17 SDGs proposed, 9 can be clearly attributed to the environmental domain. However, aspects on equitable sharing of the resources with respect to energy, water, forests and oceans are yet to be clarified and could bring in a social perspective on these environmentally related SDGs. Besides more sectoral SDGs in the environmental domains such as SDG1, SDG9 and SDG10, the other SDGs emphasise on ecosystem resources or services (i.e. climate, energy, biodiversity, water, oceans and forests).

Furthermore, as this proposal was elaborated in order to further complement the MDG in their post-2015 period, social, and development issues will be introduced into the proposed set. Another interesting aspect is the prevalence of human rights and governance issues with regard to environmental justice and, especially, access to redress and remedy.

3.2.2 Proposal by the countries Colombia and Guatemala

In their proposal[25], the Governments of Colombia and Guatemala suggest that Rio+20 should bring an agreement on a set of aspirational sustainable development goals, or objectives, at a broad level. Priority should be given to themes and issues that are considered critical factors in moving forward the sustainable development agenda. This could be based on the assessment of gaps in implementation and of the emerging issues identified in the Rio+20 preparatory process.

The SDG proposal, presented by the Governments of Colombia and Guatemala, is based on Agenda 21, a document which remains fully relevant today and provides an incomparable map of the requisite elements for achieving sustainable development. The proposal by the two governments of Colombia and Guatemala is structured along the following thematic areas:

- Combating poverty
- Changing consumption and production
- Promoting sustainable human settlement and development
- Biodiversity and forests
- Oceans
- Water resources
- Advancing food security
- Energy including from renewables

When apportioning the before mentioned thematic areas to the six different issues, the following table is created.

ENVIRONMENTAL ISSUES	
1) Changing consumption and production 2) Biodiversity and forests 3) Oceans	4) Water resources 5) Energy including from renewables
FUNDAMENTAL HUMAN RIGHTS	
No SDGs identified	
SOCIO-ECONOMIC ISSUES	
1) Combating poverty 2) Promoting sustainable human settlement and development	3) Advancing food security
ECONOMIC DEVELOPMENT ISSUES	
No SDGs identified	
GOVERNANCE ISSUES	
No SDGs identified	
EDUCATION, TECHNOLOGY AND R&D	
No SDGs identified	

25 http://www.uncsd2012.org/rio20/content/documents/colombiasdgs.pdfhttp://www.uncsd2012.org/rio20/content/documents/colombiasdgs.pdf

Summary

As the proposal by the governments of Colombia and Guatemala only comprises rather broad thematic areas, instead of a set of SDGs by the CSO group, their classification as SDGs is to some extent hindered. Therefore, they might reflect a first step towards guiding a process of developing actual SDGs within the corresponding areas.

As most of these thematic areas potentially cover a wide range of SDGs, the allocation to certain issues is rather vague and unclear. For example, the thematic area 'water resources' could be addressed in various ways: basic access to water can be attributed to socio-economic issues whereas preventing water pollution can be apportioned to environmental issues. The allocation to multiple issues could potentially be applied to 'Oceans', 'Energy including from renewables' or 'Promoting sustainable human settlement and development'.

However, as the table shows specific education, technology and R&D, economic development, human rights or governance issues are lacking as thematic areas.

Box-text: An Interlude – The compilation of global environmental goals (GEGs)

Global Environmental Goals (GEGs) are a compilation of internationally agreed environmental goals and objectives drawn from existing international treaties and non-legally binding instruments. The compilation of GEGs was undertaken by UNEP and intends to inform Governments and relevant stakeholders and promote their cooperation in achieving their objectives in a more coherent and harmonized manner. The compilation of GEGs is still ongoing and the content continues to be refined and consolidated in a multi-stakeholder process. A first draft of the compilation was prepared with the assistance of a small group of independent experts. Its content was circulated at the Meeting of Senior Government Officials Expert in Environmental Law to Prepare Montevideo Programme IV in Nairobi in 2008. Subsequently comments from the seven secretariats of global multilateral environmental agreements (MEA) were integrated into the compilation. Discussions of emerging issues during the 25th session of the UNEP Governing Council/Global Ministerial Environment Forum further helped shape the compilation in 2009.

The GEGs are structured according to their sources (i.e. legally binding and non-legally binding instruments such as international treaties, conventions, or protocols) as well as by geographical scope. Furthermore, the compilation comprises goals and objectives under the following themes: (a) Air pollution and air quality; (b) Biodiversity; (c) Chemicals and waste; (d) Climate change; (e) Energy; (f) Forests; (g) Freshwater; (h) Oceans and seas; (i) Soil, land use, land degradation and desertification; and (j) Environmental governance. Each thematic area covers subsets of thematic issues as well as common topics such as financial support, capacity building, and means of implementation.

3.3 European SD goals and objectives

In the European context, we focus our comparative analysis on the two most important policy strategies following the EU's commitment towards SD: the renewed European Sustainable Development Strategy (EU SDS) and the Europe 2020 Strategy (Europe 2020). In order to identify the objectives and goals of the EU SDS and Europe 2020 with regard to SD, the council conclusions and the commission communication (European Council, 2006; European Commission, 2010) have been analyzed, respectively.

3.3.1 European Union Sustainable Development Strategy (EU SDS)

Context and development process

The importance of SD was acknowledged by the EU by signing the Rio Declaration and committing itself to draw up a cross-sectoral SD strategy in time for the next UN World Summit on SD (held 2002 in Johannesburg). Accompanied by a number of important policy documents (Cardiff European Council, 1998; Gothenburg European Council, 2001; European Commission's White Paper on governance, 2001; communication on the EU's contribution to global sustainable development, 2002; Barcelona European Council, 2002), this commitment has been confirmed when the EU included sustainable development objectives in the 1997 Amsterdam Treaty: "The Union shall set itself the following objectives: to promote economic and social progress and a high level of employment and to achieve balanced and sustainable development (…)".

It was at the Gothenburg European Council meeting in June 2001 that the Council members agreed on the first EU SDS. The Council conclusions pointed out that the EU SDS completes the Union's commitment for an economic and social renewal, adds an environmental dimension to the Lisbon Strategy, and establishes a new approach to policy-making. Generally, the EU SDS is based "on the principle that the economic, social and environmental effects of all policies should be examined in a coordinated way and taken into account in decision-making" (European Commission, 2005). It was a delayed response to the request of the Helsinki European Council in December 1999. Since some Member States objected to parts of the proposal, the Council members 'welcomed' the draft but did not approve it as official EU strategy. Instead, they included 14 modestly ambitious paragraphs on SD in Europe in the Presidency Conclusions. Among public administrators, these paragraphs are widely regarded as temporary EU SDS (Kopp, 2006).

The review of the EU SDS was a lengthy process that began in early 2004 and that led to the adoption of the renewed EU SDS at the Brussels European Council in June 2006. The key purpose of the 2004 public consultation on the EU SDS was to prepare the review of the strategy. It was open for three months for stakeholders from all over the world. Based on the results of the public consultation and on the work of the European Economic and Social Committee, the European Commission presented the communication "The 2005 Review of the EU Sustainable Development Strategy: Initial stock-taking and future orientations" In February 2005. In May 2005, the Commission published a "Draft Declaration on Guiding Principles for Sustainable Development". The 'Guiding Principles for Sustainable Development' were

adopted by the Brussels European Council in June 2005 and served as a conceptual basis for the renewed EU SDS.

In June 2006, the European Council adopted the renewed EU SDS for an enlarged EU. The renewed EU SDS was conceived as a single and coherent strategy on how the EU came to more effectively live up to its long-standing commitment to meet the challenges of sustainable development. It recognises the need to gradually change our current unsustainable consumption and production patterns, and to move towards a better-integrated approach to policy-making. And it reaffirms the need for global solidarity and recognises the importance of strengthening our work with partners outside the EU, including rapidly developing countries, which will have a significant impact on global sustainable development. The overall aim of the EU SDS is to identify and develop actions to enable the EU to achieve a continuous long-term improvement of quality of life through the creation of sustainable communities that are able to manage and use resources more efficiently, are able to tap the ecological and social innovation potential of the economy, and are able to ensure prosperity, environmental protection, and social cohesion.

Actors and political commitment

The development process of the EU SDS, starting in 2004, involved a public consultation phase (with feedback received from more than 150 organisations, incl. ministries, national, local and regional agencies, NGOs, think tanks, associations, companies, etc), the European Commission as well as several Council formations. The renewed EU SDS was adopted by the European Council in 2006 and, therefore, gained political weight as a major policy strategy of the EU.

On the level of the European Commission, the Secretariat-General is responsible for the implementation of the EU SDS. In order to better coordinate the implementation process with the individual EU Member States, an SDS Coordinators Group was established in 2006 (with representatives from each EU Members State, most of them from Ministries of the Environment), but convened only twice, in 2006 and 2007 respectively. The decreased efforts in the coordination between the EU level and the Member States for implementing the EU SDS can also be witnessed in the fact that no Member States' reporting was undertaking for the second EU SDS Progress Report in 2009.

It's fair to say that the political commitment and importance of the EU SDS has decreased over the years. On the one hand, the Europe 2020 Strategy (see below) is viewed by many as the overall policy strategy in Europe, including SD issues. On the other hand, no updates on the objectives and follow-up actions of the EU SDS have been undertaken – the objectives included in the EU SDS stem from 2006, or earlier, and are thus outdated and/or have been revised in sectoral policy documents.

Framework for objectives and goals

In order to achieve the overall goal of sustainable development, the EU SDS states four key objectives, ten policy guiding principles, and seven key challenges. Moreover, it addresses cross cutting issues such as education and research, communication of SD, financial policies, and follow-up and monitoring mechanisms.

The four key objectives of the EU SDS are:

- ENVIRONMENTAL PROTECTION
- SOCIAL EQUITY AND COHESION
- ECONOMIC PROSPERITY
- MEETING OUR INTERNATIONAL RESPONSIBILITIES

The policy guiding principles stated in the renewed EU SDS are the following:

- PROMOTION AND PROTECTION OF FUNDAMENTAL RIGHTS
- SOLIDARITY WITHIN AND BETWEEN GENERATIONS
- OPEN AND DEMOCRATIC SOCIETY
- INVOLVEMENT OF CITIZENS
- INVOLVEMENT OF BUSINESSES AND SOCIAL PARTNERS
- POLICY COHERENCE AND GOVERNANCE
- POLICY INTEGRATION
- USE BEST AVAILABLE KNOWLEDGE
- PRECAUTIONARY PRINCIPLE
- MAKE POLLUTERS PAY

The EU SDS sets out overall objectives and concrete actions for seven key priority challenges, mostly for the period until 2010:

- Climate change and clean energy: to limit climate change and its costs and negative effects to society and the environment;
- Sustainable transport: to ensure that our transport systems meet society's economic, social, and environmental needs whilst minimising their undesirable impacts on the economy, society, and the environment;
- Sustainable consumption & production: to promote sustainable consumption and production patterns;
- Conservation and management of natural resources: to improve management and avoid overexploitation of natural resources, recognising the value of ecosystem services;
- Public Health: to promote good public health on equal conditions and improve protection against health threats;
- Social inclusion, demography and migration: to create a socially inclusive society by taking into account solidarity between and within generations and to secure and increase the quality of life of citizens as a precondition for lasting individual well-being;
- Global poverty and sustainable development challenges: to actively promote sustainable development worldwide and ensure that the European Union's internal and external policies are consistent with global sustainable development and its international commitments.

Additionally, the renewed EU SDS includes two cross-cutting policies that aim to contribute to the knowledge society:

- Education and training;
- Research and development.

In the council conclusion document of the renewed EU SDS (i.e. the sections on objectives) we identified the following SDGs apportioned to six different issues, as listed in the table below.

ENVIRONMENTAL ISSUES	
1) reduce GHG emissions	16) achieve env. friendly transport modes
2) ensure energy security	17) ensure better efficiency and performance of the transport system
3) integrate adaptation and mitigation to cc into policies	18) reduce average emissions of new cars
4) reduce energy consumption	19) decouple economic growth from env. degradation
5) raise the share of renewables	20) improve the env. performance of products
6) raise the share of biofuels	21) encourage uptake of env. friendly products
7) increase energy saving	22) promote green public procurement
8) decouple economic growth from transport demand	23) reduce the use of non-renewable resources
9) achieve sustainable levels of transport energy use	24) use renewable resources within their regenerative capacity
10) reduce transport GHG emissions	25) reduce env. impacts of raw material use
11) reduce transport pollutant emissions	26) improve resource efficiency
12) improve feed and food legislation	27) improve the management of natural resources
13) improve animal health and welfare standards	28) halt the loss of biodiversity
14) improve information on env. pollution	29) improve management of forests
15) minimise effects of transport pollutants on humans and environment	30) avoid waste generation
FUNDAMENTAL HUMAN RIGHTS	
1) respect cultural diversity	
SOCIO-ECONOMIC ISSUES	
1) reduce transport noise	9) reduce poverty and social exclusion
2) reduce road transport deaths	10) ensure social and territorial cohesion
3) improve the social performance of products	11) modernise social protection
4) develop capacities against health threats	12) strengthen integration of immigrants
5) curb the increase of life-style related and chronic diseases	13) reduce negative effects of globalisation on workers
6) reduce health inequalities	14) support the MDGs
7) ensure that chemicals are used in safe ways	15) raise the volume of aid
8) improve mental health	16) increase effectiveness of aid policies
ECONOMIC DEVELOPMENT ISSUES	
1) increase labour market participation of older workers, women and immigrants	3) increase labour market participation of disabled persons
2) promote employment of young people	4) promote SD in the context of the WTO
GOVERNANCE ISSUES	
1) improve international env. governance	3) include SD into external policies
2) Strengthen multilateral env. agreements	

EDUCATION, TECHNOLOGY AND R&D	
1) increase the market for env. technologies	2) reduce early school leaving 3) promote upper secondary education

Summary

The SDGs originating from the renewed EU SDS are to a large extent concrete in their nature. For example, SDGs such as 'raise the share of renewables' or 'increase labour market participation of older workers, women and immigrants' have a clear direction and are rather tangible. The table above clearly shows that SDGs with an environmental focus dominate the whole set. In fact, more than half of the SDGs (i.e. 30 out of 57 SDGs) have been identified with a specific environmental dimension. Environmental issues are followed by socio-economic (16 SDGs), economic development issues (4 SDGs), governance issues (3 SDGs) and education, technology, and R&D, respectively. SDGs originating from the area of human rights (1 SDG) are represented in a minor way.

When looking at the level of the individual SDGs, some of them have a specific focus (e.g. 'reduce transport noise') – providing a sectoral view among the areas of health and transport – whereas others are rather unspecific in their nature (e.g. 'decouple economic growth from env. degradation'). This can be explained by the fact that the strategy's key challenges are partly represented by sectoral ones (such as 'sustainable transport' or 'public health'). Among SDGs within the issue of economic development, labour market participation and employment are among the main concerns (3 out of 4 SDGs).

Follow-up process and schemes for implementation

Since monitoring and follow-up are crucial for effective implementation, the renewed EU SDS contains a governance cycle: every two years, the European Commission is to produce a progress report on the implementation of the strategy at the EU and Member States level. This report forms the basis for discussion at the European Council, which will give guidance to the next steps in implementation. The first progress report was issued on 22 October 2007 (European Commission, 2007) and was based on an SD indicator set and the Monitoring Reports of Eurostat[26] (the last indicator report was issued in 2011) as well as on the national reports on implementing the EU SDS.

In July 2009, the Commission adopted the 2009 Review of EU SDS. It underlines that in recent years, the EU has mainstreamed sustainable development into a broad range of its policies. In particular, the EU has taken the lead in the fight against climate change and the promotion of a low-carbon economy. At the same time, unsustainable trends persist in many areas and in those areas, efforts need to be intensified, for example with resource productivity or conservation of fish stocks (Eurostat, 2011).

[26] The Eurostat monitoring report, based on the EU set of sustainable development indicators, provides an objective, statistical picture of progress towards the goals and objectives of the EU sustainable development strategy. It is published every two years and underpins the European Commission's progress report on the implementation of the strategy.

3.3.2 Europe 2020 Strategy

Context and development process

The strategy Europe 2020 was published by the European Commission in March 2010 and adopted by the European Council in June 2010 with the sub-heading 'A strategy for smart, sustainable and inclusive growth' which represent the three "mutually reinforcing priorities" (EC, 2010, p.3) of the strategy:

- *Smart growth*: developing an economy based on knowledge and innovation;
- *Sustainable growth*: promoting a more resource efficient, greener, and more competitive economy;
- *Inclusive growth*: fostering a high-employment economy delivering social and territorial cohesion.

Actors and political commitment

The Europe 2020 Strategy was adopted by the European Council in 2010 and is regarded as the main policy strategy in the EU, mainly because (a) it aims to develop a way out of the financial and economic crisis situation, and (b) it sets out a trajectory for future economic growth and employment. The importance of and political commitment for the strategy has been increased by the fact that the reporting of Europe 2020 and the Stability and Growth Pact evaluation has to be done simultaneously: The Europe 2020 Strategy has been integrated in the "European Semester", the new European governance architecture, which defines how the EU and the Eurozone countries coordinate ex-ante their budgetary and economic policies in line with both the Stability and Growth Pact and the Europe 2020 Strategy.

On the national level, the Europe 2020 Strategy is implemented through a strategic process, guided by the National Reform Programs (NRPs) that are, usually, under the responsibility of the Ministries of Economic Affairs, with a strong cooperation with the Ministries of Finance and/or Ministries of Social Affairs. Compared to the EU SDS or National SD Strategies – where responsibility lies with the usually "weaker" and less resourced Ministries of Environment – the implementation of the Europe 2020 Strategies at the national level is taken care of by very strong ministries.

Framework for objectives and goals

Five EU headline targets are to be achieved by 2020 which "are representative of the three priorities of [the strategy] (…) but they are not exhaustive" (ibid.):

- 75% of the population aged 20-64 should be employed;
- 3% of the EU's GDP should be invested in R&D;
- the "20/20/20" climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right);

- the share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree;
- 20 million less people should be at risk of poverty.

The EU headline targets are then translated into national Europe 2020 targets that reflect the different national situations and circumstances.

The table below provides a list of SDGs we have identified in the European Commission communication document of the Europe 2020 Strategy apportioned to six different issues. The five general headline targets have been furthermore supplemented by the goals and objectives of the seven flagship initiatives, which are mobilised to tackle bottlenecks and deliver the Europe 2020 goals.

ENVIRONMENTAL ISSUES	
1) increase energy efficiency 2) increase the share of renewables	3) reduce GHG emissions 4) decouple economic growth from the use of resources
FUNDAMENTAL HUMAN RIGHTS	
No SDGs identified	
SOCIO-ECONOMIC ISSUES	
1) reduce poverty	2) ensure social and territorial cohesion
ECONOMIC DEVELOPMENT ISSUES	
1) increase employment 2) modernise the transport sector 3) improve the business environment	4) support the development industrial base able to compete globally 5) modernise labour markets 6) support labour mobility
GOVERNANCE ISSUES	
No SDGs identified	
EDUCATION, TECHNOLOGY AND R&D	
1) promote R&D 2) reduce early school leaving	3) increase tertiary education 4) support human skills development

Summary

Among the headline targets of the Europe 2020 strategy are the so-called '20/20/20' targets which have been disaggregated into 3 SDGs with an environmental focus. The other headline targets have been classified accordingly, whereas no human rights or governance issues have been identified. The three issues – economic development, environment and education, technology and R&D – are addressed the most among others: 6 SDGs on economic development are followed by 4 SDGs related to environmental issues and education, technology and R&D, respectively.

Follow-up process and schemes for implementation

To reach the targets mentioned above, seven Flagship Initiatives have already been put in place. The first three are presented as describing 'smart growth' and these are:

- A Digital Agenda for Europe "to speed up the roll-out of high-speed internet and reap the benefits of a digital single market for households and firms";
- Innovation Union: "to improve framework conditions and access to finance for research and innovation so as to ensure that innovative ideas can be turned into products and services that create growth and jobs";
- Youth on the Move: "to enhance the performance of education systems and to facilitate the entry of young people to the labour market".

Two flagship initiatives represent the idea of 'sustainable growth':

- Resource-efficient Europe: "to help decouple economic growth from the use of resources, support the shift towards a low carbon economy, increase the use of renewable energy sources, modernise our transport sector, and promote energy efficiency";
- An industrial policy for the globalisation era: "to improve the business environment, notably for SMEs, and to support the development of a strong and sustainable industrial base able to compete globally";

The remaining three flagship initiatives are to contribute to the achievement of 'inclusive growth':

- Agenda for new skills and jobs: "to modernise labour markets and empower people by developing their of skills throughout the lifecycle with a view to increase labour participation and better match labour supply and demand, including through labour mobility";
- European platform against poverty and social exclusion: "to ensure social and territorial cohesion such that the benefits of growth and jobs are widely shared and people experiencing poverty and social exclusion are enabled to live in dignity and take an active part in society".

Within these Flagship Initiatives, a series of policy documents have already been drafted (inter alia: Low-carbon economy 2050 roadmap, Energy Roadmap 2050, Action Plan towards a sustainable bio-based economy by 2020).

The "Europe 2020 Integrated Guidelines" set out the framework for the Europe 2020 Strategy and for the reforms at the Member States level with the aim of ensuring that national and EU-level policies contribute fully to achieving the objectives of the Europe 2020 strategy[27]. The 10 Integrated guidelines

[27] This new set replaced the 24 guidelines that were adopted for the Lisbon strategy.

give precise guidance to the Member States on defining their National Reform Programmes (NRPs) and implementing reforms, reflecting interdependence, and are in line with the Stability and Growth Pact. Therefore, Member States should design NRPs consistent with the objectives set out in the 'Europe 2020 integrated guidelines'. The guidelines will also form the basis for any country-specific recommendations.

The "Europe 2020 Integrated Guidelines" are generally linked to the headline targets and are the following:

1. Ensuring the quality and the sustainability of public finances;
2. Addressing macroeconomic imbalances;
3. Reducing imbalances in the Euro area;
4. Optimising support for R&D and innovation, strengthening the knowledge triangle and unleashing the potential of the digital economy;
5. Improving resource efficiency and reducing greenhouse gases emissions;
6. Improving the business and consumer environment and modernising the industrial base;
7. Increasing labour market participation and reducing structural unemployment;
8. Developing a skilled workforce responding to labour market needs, promoting job quality and lifelong learning;
9. Improving the performance of education and training systems at all levels and increasing participation in tertiary education;
10. Promoting social inclusion and combating poverty.

3.4 Comparative analysis on SDGs: Gaps, similarities and differences among international and European declarations and strategies

The following paragraphs of the comparative analysis[28] shed light on the below mentioned aspects:

1. Shift in focus of SDGs within certain topics (environment, human rights, socio-economic issues, economic development, governance and education, technology and R&D) among international conferences and their main deliverables
2. General evolution of SDGs within the Stockholm declaration, the Rio declaration, until the Johannesburg declaration (henceforth referred to as the SD debate within the UN process),
3. Thematic similarity and occurrence of SDGs among the Rio+20 proposals (CSO proposal and proposal by the governments of Colombia and Guatemala) compared to other international and European SDG sets

One important aspect to consider in the analysis, however, is the fact that the documents under investigation are rather different in their nature, (ranging from international declarations to already

[28] The authors are aware of the fact that other important deliverables during the Rio-process such as Agenda 21 and the Johannesburg Plan of Implementation form an important part of the overall process. However, an extensive analysis on SDGs is hampered due to their comprehensive size. Furthermore, this aspect is also true for the Europe 2020 Strategy and its associated deliverables, the flagship initiatives.

elaborated policy strategies) which ultimately has an impact on the number, distribution, and concreteness of identified SDGs.

3.4.1 An evolution of SDGs - A comparison of the relative importance of SD issues among international policy documents

Figure 4 and Figure 5 below show the absolute and relative numbers of SDGs across different SD issues, respectively. In this respect, the pre-defined issues or analysis categories for SDGs cover specific aspects of SD and act as comparative tools for further analysis on international documents:

- Environmental issues: e.g. sustainable consumption and production, environmental protection or management of resources
- Fundamental human rights: e.g. democracy, freedom, peace, equality, culture, participation as a right
- Socio-economic issues: e.g. poverty eradication, human development, or access to resources
- Economic development issues: e.g. trade, employment, or the business sector
- Governance issues: e.g. decision making, institutional aspects, international cooperation and law, or participation and stakeholder management
- Education, technology and R&D: e.g. basic education, human skills development, or technology development and research

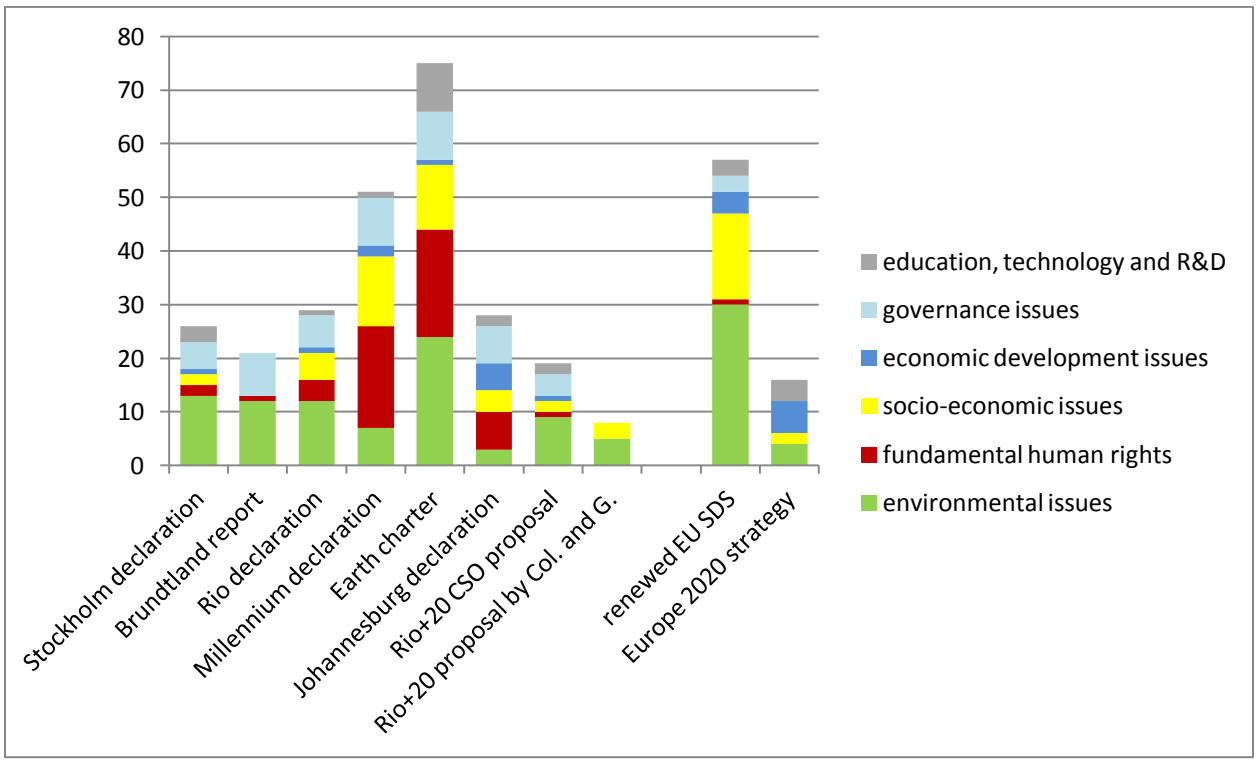

Figure 4: Absolute number of SDGs within international and European policy documents apportioned to different issues

In order to get a general idea on the concreteness of SDGs, a closer look on the quantifiable and measurable characteristics, as well as on proposed time frame, is necessary. Among international documents, the only SDGs with a clear time-frame and measurable aspects are the MDG (for more information please refer to the Millennium declarations' website).

Overall, on the level of individual SDGs, one important aspect is that the absolute number of SDGs among the international and European policy documents varies substantially (see Figure 4): 75 SDGs have been identified in the Earth charter, whereas the Europe 2020 Strategy refers to 8 SDGs (for more details on the exact numbers please consult the tables in chapter 3.1 and 3.3). At a first glance, the Millennium declaration, the Earth charter, and the renewed EU SDS are characterised by a rather large set of SDGs. On the other hand, documents around the SD debate within the UN-process – the Stockholm declaration, the Rio declaration, and the Johannesburg declaration – share rather similar sets of SDGs in terms of size (i.e. varying between 26 and 27), making comparisons rather uncompromised.

Given the fact that a relative comparison might be compromised by large differences in absolute numbers of SDGs, in order to allow a more in depth comparison of documents, relative figures on SDGs (see Figure 5) are included in the analysis.

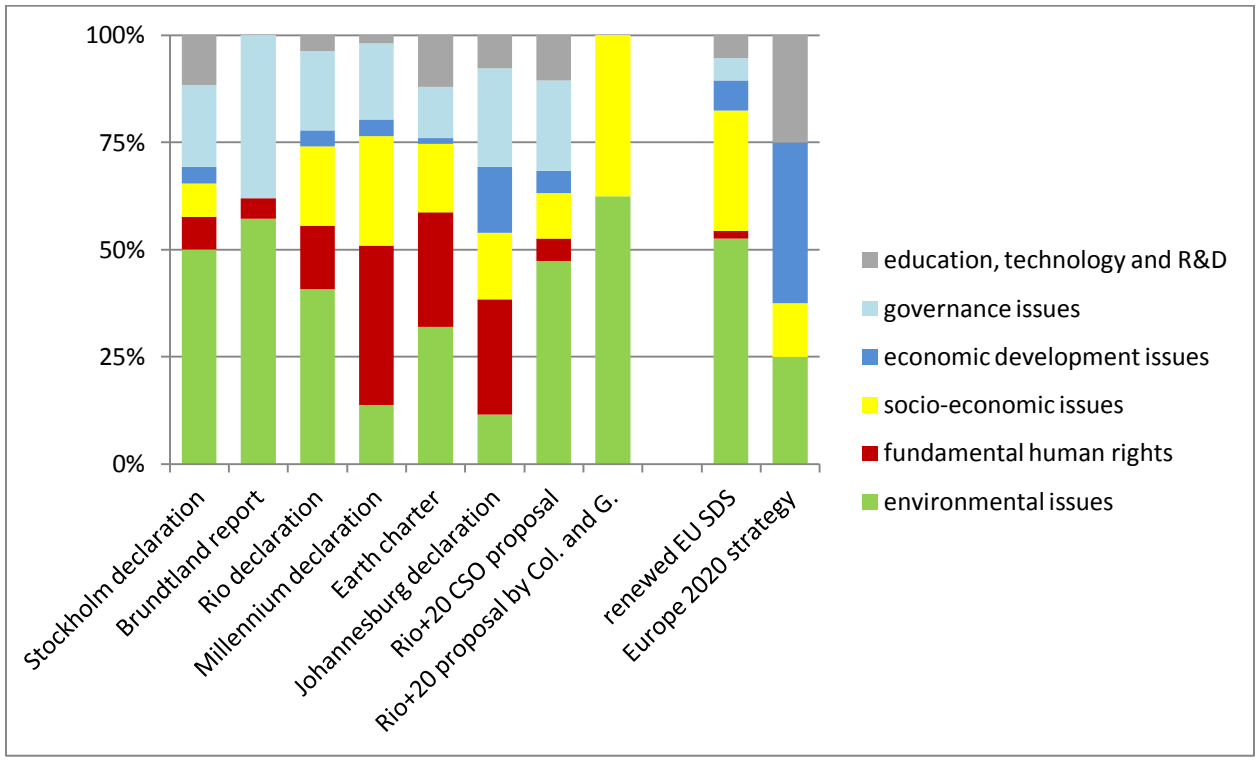

Figure 5: Proportion of different SDGs within each policy documents[29]

Time-series data on relative figures (see Figure 5 above) shows that the prevalence of environmental SDGs diminished among international documents reflecting the SD debate within the UN process (i.e.

[29] NB: The abbreviation 'Rio+20 proposal by Col. And G.' stands for the draft of SDGs elaborated by the governments of Colombia and Guatemala

starting with the Stockholm declaration to the Rio declaration until the Johannesburg declaration). The share of environmental SDGs continuously decreased among the following UN documents: the Stockholm declaration, the Rio declaration, and the Johannesburg declaration, with half of the SDGs, about 40 %, and 10 %, respectively. The change in absolute numbers is represented by a decrease from 13 to 3 SDGs.

Moreover, among these three UN documents, economic development issues among SDGs became more and more prominent over time – in relative as well as in absolute terms: the number of SDGs with a economic development focus rose from 1 within the Stockholm declaration and the Rio declaration (accounting for about 4 and 3 % of all SDGs), respectively, to 5 in the Johannesburg declaration (accounting for almost 20 % of all SDGs).

With regard to fundamental human rights issues, their importance increased substantially over time among the three UN declarations: starting with the Stockholm declaration their share increased from 8 to 14 % in the Rio declaration, and then to one quarter of all the SDGs in the Johannesburg declaration.

The picture on policy and governance issues among the three UN declarations is rather indistinct. Governance issues became slightly more important in the Johannesburg declaration as compared to the Rio and the Stockholm declaration (i.e. increasing from about 20 to 25 %). Essentially, their prominence among SDGs rose gradually over time (i.e. from 5 to 6 and then to 7 in the Johannesburg declaration).

In conclusion, with regard to the evolution of SDGs among international SD declarations within the UN process, the dominance of fundamental human rights, economic development, and socio-economic development increased over time 'at the expense' of SDGs related to environmental issues.

When investigating the more recent proposals for the Rio+20 conference compared to the former UN documents, a backshift to environmental issues occurred. For the Rio+20 CSO proposal and the proposal by the governments of Colombia and Guatemala, the share of SDGs with a focus on environmental issues accounts for almost 50 % and more than 60 %, respectively, which is by far the highest share when compared to any document within the UN process. However, due to the undifferentiated nature of SDGs within the proposal by the governments of Colombia and Guatemala, an analysis is rather difficult.

As already pointed out earlier, the renewed EU SDS comprises a relatively large share of SDGs related to environmental issues (see Figure 5). Basically they cover almost half of the SDGs, which is well in line with the Rio+20 proposals. Compared to the international UN process on SD, the EU SDS has a stronger focus on environmental and socio-economic issues (accounting for one quarter of SDGs). Not surprisingly, issues of international cooperation and governance that have a rather prominent role in the UN process (i.e. varying between 5 and 7 SDGs, accounting for about 20 to 25 %), are of lesser importance for the EU SDS (i.e. account for 3 SDGs and 5 % of SDGs, respectively). The Europe 2020 strategy, on the other hand, has a strong focus on SDGs related to economic development or education and technology issues, with respectively more than one third and one quarter covering these, when compared to the other international documents.

Due to the character of the UN Millennium declaration and the associated Millennium Development Goals, the document comprises a comprehensive set of SDGs related to developing countries' needs, such as human development and rights, and poverty eradication. Not surprisingly the SDGs identified in the Millennium declaration cover the highest share of SDGs originating from the fundamental human rights perspective. In fact, more than one third of all SDGs cover human rights issues such as 'ensure the rights of children' or 'promote democracy and law for freedom and human rights'. Moreover, the declaration accounts for the highest share SDGs related to socio-economic issues (i.e. 22 %) among the UN and other institutions' documents. Interestingly, the Earth Charter similarly covers a wide-ranging set of SDGs related to socio-economic issues and human rights. As already pointed out earlier, the Earth Charter, however, also has a substantial focus on environmental issues compared to other documents, which was one of the reasons why it did not find considerable support by developing countries at the UNCED conference in 1992.

By reason of the very nature of the analysed document of the Brundtland Report (i.e. being a proposal for international environmental law), the share SDGs related to governance issues such as international environmental cooperation and policy instruments is the highest (accounting for more than three quarters) among all the documents. These issues comprise, inter alia, common SDGs such as 'integrate environment into planning and support dev. c.' or 'establish env. standards and monitoring' that can also be found in other international documents.

3.4.2 Reinventing the wheel? – Similarities and gaps between existing and to be developed sets of SDGs

This section provides an analysis on already existing SDGs in international declarations and policy documents, and their similar semantic recurrence in the Rio+20 proposals - the proposal by world civil society organizations and the proposal by the countries Colombia and Guatemala (henceforth the corresponding SDGs are abbreviated as SDG and PCG, respectively – for more details refer to sections 3.2.1 and 3.2.2). Due to the rather vague nature of the SDGs identified in the Rio+20 proposals and other documents, the analysis might be biased towards higher frequencies of recurring SDGs among other SDGs sets. Therefore, only SDGs which are not too broad in their meaning (e.g. 'preserve the integrity of the environment') will be identified as similar. Furthermore, the analysis is structured according to the different SD issues already used in the former analysis in order to enable a better overview on SDG similarities and gaps.

Overall, almost all SDGs identified in the Rio+20 proposals have a similar or identical counterpart in at least one of the most important international policy documents around the SD debate over the last 40 years. In fact, out of 20 thematically similar or individual SDGs, 3 (i.e. SDGs on oceans and seas, sustainable agriculture, as well as environmental justice for vulnerable groups) are not covered by any SDGs identified in international or European documents. In addressing Rio+20 SDGs, the UN process plays a substantial role as 16 SDGs within the Rio+20 proposals (i.e. representing three quarters of Rio+20 SDGs) can be attributed to previous international SD declarations. Among the international documents that cover most of the Rio+20 SDGs are the Earth charter, the Millennium declaration, and the Johannesburg declaration, with 13, 11, and 10 SDGs respectively.

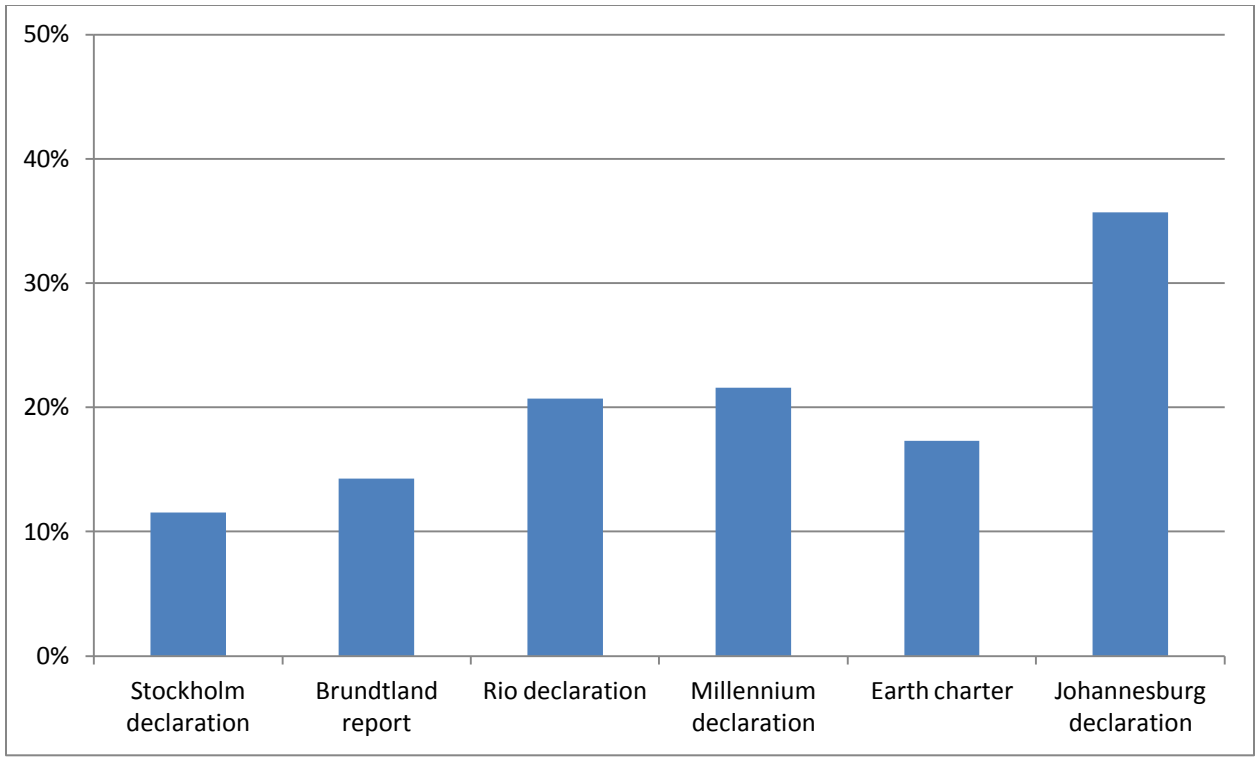

Figure 6: Share of SDGs within international SD documents addressing proposed Rio+20 SDGs

In order to get a more balanced picture on the coverage of Rio+20 proposals, Figure 6provides relative shares of SDGs in international SD documents addressing Rio+20 SDGs. As clearly indicated in the graph, the Johannesburg declaration is to a large extent covering Rio+20 SDGs (i.e. more than one third of SDGs), followed by the Millennium declaration and the Rio declaration with each about 20 %. In absolute terms, however, most of the Rio+20 SDGs can be found in the Earth charter, followed by the Millennium declaration and the Johannesburg declaration, each accounting for a total of 13, 11, and 10 SDGs, respectively.

ENVIRONMENTAL ISSUES	
Thematically similar Rio+20 proposal SDGs	**Corresponding SDGs of other international and European documents**
• SDG1 Sustainable consumption and production • PCG1 Changing consumption and production	Rio declaration 1992 Millennium declaration 2000 Earth charter 2000 Johannesburg declaration 2002 EU SDS 2006
• SDG3 climate sustainability	Millennium declaration 2000 EU SDS 2006 Europe 2020 Strategy 2010
• SDG4 clean energy • PCG4 Energy including from renewables	Earth charter 2000 EU SDS 2006 Europe 2020 Strategy 2010
• SDG5 biodiversity • SDG8 healthy forests • PCG2 Biodiversity and forests	Millennium declaration 2000 Earth charter 2000 Johannesburg declaration 2002 EU SDS 2006
• SDG6 water	Millennium declaration 2000
• SDG7 healthy seas and oceans • PCG3 Oceans	*No similar SDGs found*
• SDG9 sustainable agriculture	*No similar SDGs found*
• SDG10 green cities	Stockholm declaration 1972

As displayed in the table above, both Rio+20 proposals focus on ecosystem resources and services (i.e. 9 out of 13 SDGs) such as water, climate, forests, or biodiversity. Among declarations within the UN process, the SDGs on sustainable consumption and production, biodiversity, and forests as well as green cities, have already been addressed. Besides rather general and well-known SDGs such as 'sustainable consumption and production', 'climate sustainability', or 'biodiversity' which have been widely addressed by international as wells as European documents, more specific or not so prevalent issues are 'water', 'oceans and seas', or 'green cities'. However, almost all of the investigated documents refer to ecosystem resources and services in a more general way, by introducing SDGs on issues such as 'protect the integrity of the environment' or 'improve the management of natural resources'.

Surprisingly, the Millennium declaration with its focus on socio-economic as well as human rights issues, is rather prominent in covering environmental Rio+20 SDGs, as 7 out of the 13 thematically similar SDGs are addressed by the declaration. Likewise, among the more prominent documents covering Rio+20 SDGs, is the EU SDS (accounting for 8 SDGs).

FUNDAMENTAL HUMAN RIGHTS	
Thematically similar Rio+20 proposal SDGs	**Corresponding SDGs of other international and European documents**
• SDG16 Environmental justice for the poor and marginalized	*No similar SDGs found*

Among the human rights issues, only one SDG originating from the Rio+20 CSO proposals exists. Although several SDGs dealing with environmental justice or jurisdiction (e.g. 'ensuring due process or liability to damage' within the Brundtland report or Earth charter; 'provide compensation for env. damage' within the Rio declaration) exist within international declarations and documents, they are not especially directed towards vulnerable groups.

SOCIO-ECONOMIC ISSUES	
Thematically similar Rio+20 proposal SDGs	**Corresponding SDGs of other international and European documents**
• SDG2 Sustainable livelihoods, youth & education	Millennium declaration 2000 Earth charter 2000
• SDG17 basic health	Millennium declaration 2000 Earth charter 2000 Johannesburg declaration 2002
• PCG5 Combating poverty	Rio declaration 1992 Millennium declaration 2000 Earth charter 2000 Johannesburg declaration 2002 EU SDS 2006 Europe 2020 Strategy 2010
• PCG6 Promoting sustainable human settlement and development	Millennium declaration 2000 Earth charter 2000 Johannesburg declaration 2002
• PCG7 Advancing food security	Millennium declaration 2000 Earth charter 2000 Johannesburg declaration 2002

With regard to socio-economic issues, the Rio+20 proposals have a common denominator when it comes to basic requirements. SDGs on food, shelter in the form of human settlements, subsistence in the form of poverty eradication, or sustainable livelihoods and health shape this issue. In this context, the Millennium declaration, the Earth charter, as well as the Johannesburg declaration (except for SDG2), respectively, each cover these SDGs. Moreover, socio-economic issues found within the Johannesburg declaration exactly render most of these issues.

ECONOMIC DEVELOPMENT ISSUES	
Thematically similar Rio+20 proposal SDGs	**Corresponding SDGs of other international and European documents**
• SDG11 subsidies and investment	Rio declaration 1992 Johannesburg declaration 2002

As displayed in the table above, only one economic development SDG related to subsidies and investment has been identified among Rio+20 proposals. Two SDGs, originating from the Rio declaration ('promote a supportive and open international economy') and the Johannesburg declaration ('ensure benefits from opening of markets'), have been identified which both implicitly cover one part of the Rio+20 SDG. Both SDGs reflect on the benefits of and support for an open economy and, therefore, they are potentially related to subsidies, which cause distortions in the trade system.

GOVERNANCE ISSUES	
Thematically similar Rio+20 proposal SDGs	**Corresponding SDGs of other international and European documents**
• SDG12 new indicators of progress	Brundtland report 1987 Earth charter 2000 Johannesburg declaration 2002
• SDG13 access to information	Brundtland report 1987 Rio declaration 1992 Earth charter 2000
• SDG14 public participation	Rio declaration 1992 Millennium declaration 2000 Earth charter 2000 Johannesburg declaration 2002 EU SDS 2006
• SDG15 access to redress and remedy	Stockholm declaration 1972 Brundtland report 1987 Rio declaration 1992 Earth charter 2000

The SDGs on governance identified in the Rio+20 proposals all originate from the CSO proposal. They are very different in nature, varying from participation to monitoring issues, and are to a large extent covered by the UN process and other international policy documents. Most notably, the Rio and Johannesburg declarations are addressing all the governance issues within Rio+20 proposals. Another interesting fact is that SDGs stemming from the Brundtland report and the Earth charter are rather prominent in covering Rio+20 SDGs. Essentially, the Brundtland report and the Earth charter are addressing 3 and 4 SDGs, respectively.

Taking a view on the Rio+20 proposals, none of the SDGs related to governance are specifically tackling issues of international governance or cooperation, such as, for example, 'increase the effectiveness of international institutions'.

EDUCATION, TECHNOLOGY AND R&D	
Thematically similar Rio+20 proposal SDGs	**Corresponding SDGs of other international and European documents**
• SDG2 Sustainable livelihoods, youth & education	Stockholm declaration 1972 Millennium declaration 2000 Earth Charter 2000 Johannesburg declaration 2002

The only Rio+20 SDG dealing, inter alia, with education, can be attributed to several international policy documents. Education, more precisely defined in these documents such as 'communication and education of/on environmental issues' or 'promote human education and human resource development' are covered by the UN process on SD in the Stockholm as well as Johannesburg declaration

4 Conclusions and Outlook

This QR had the main aim to review some of the most important international and European policy documents that include objectives on how to achieve sustainable development. To this end, we summarized the context of their development, the actors and institutions involved in the process of delivering the document, the political commitment attributed towards the goals, and associated frameworks for implementation. Central to our investigation is an overview and analysis on SDGs, extracted from the respective policy documents. In this part, we conclude with highlights on trends of identified SDGs among international and European SD policy documents and their link to two recent Rio+20 proposals for SDG sets:

- With regard to the **evolution of SDGs among international SD declarations** within the UN process, the dominance of fundamental human rights, economic development, and socio-economic development increased over time 'at the expense' of SDGs related to environmental issues. This development refers to the international declarations of Stockholm 1972, Rio de Janeiro 1992 and Johannesburg 2002.
- Due to the fact that the Millennium Development Goals and other SDGs identified in the Millennium declaration are already quite well covered by the Rio+20 proposals, they meet the claim of acting as an **extension to already existing MDGs** (i.e. 'complement and strengthen the MDGs in the development agenda for the post-2015 period').
- Overall, almost all SDGs identified in the **Rio+20 proposals have a similar or identical counterpart** in at least one of the most important international policy documents around the SD debate over the last 40 years. Among the international documents that cover most of the Rio+20 SDGs are the Earth charter, the Millennium declaration, and the Johannesburg declaration.
- In addressing SDGs within the Rio+20 proposals, the **UN process – the Stockholm 1972, the Rio 1992 and the Johannesburg declaration 2002, respectively – plays a substantial role** as three quarters of SDGs within the Rio+20 proposals can be attributed to previous international SD declarations.
- The fact that most of the SDGs are already addressed in precedent UN declarations, might lead to acceptance and agreement on these SDGs as a common ground of discussion, which could act as a **catalyst for further negotiations on time-bound and measurable targets**. This step will be a critical challenge as well as an opportunity to further spur effective implementation of SD.

Annex

Table 3: Official list of MDGs and corresponding indicators for monitoring progress (UN, 2008)

Millennium Development Goals (MDGs)	
Goals and Targets (from the Millennium Declaration)	**Indicators for monitoring progress**
Goal 1: Eradicate extreme poverty and hunger	
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1 Proportion of population below $1 (PPP) per day 1.2 Poverty gap ratio 1.3 Share of poorest quintile in national consumption
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.4 Growth rate of GDP per person employed 1.5 Employment-to-population ratio 1.6 Proportion of employed people living below $1 (PPP) per day 1.7 Proportion of own-account and contributing family workers in total employment
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.8 Prevalence of underweight children under-five years of age 1.9 Proportion of population below minimum level of dietary energy consumption
Goal 2: Achieve universal primary education	
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	2.1 Net enrolment ratio in primary education 2.2 Proportion of pupils starting grade 1 who reach last grade of primary 2.3 Literacy rate of 15-24 year-olds, women and men
Goal 3: Promote gender equality and empower women	
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1 Ratios of girls to boys in primary, secondary and tertiary education 3.2 Share of women in wage employment in the non-agricultural sector 3.3 Proportion of seats held by women in national parliament
Goal 4: Reduce child mortality	
Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	4.1 Under-five mortality rate 4.2 Infant mortality rate 4.3 Proportion of 1 year-old children immunised against measles
Goal 5: Improve maternal health	
Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio	5.1 Maternal mortality ratio 5.2 Proportion of births attended by skilled health personnel

Target 5.B: Achieve, by 2015, universal access to reproductive health	5.3 Contraceptive prevalence rate 5.4 Adolescent birth rate 5.5 Antenatal care coverage (at least one visit and at least four visits) 5.6 Unmet need for family planning
Goal 6: Combat HIV/AIDS, malaria and other diseases	
Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1 HIV prevalence among population aged 15-24 years 6.2 Condom use at last high-risk sex 6.3 Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS 6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs
Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6 Incidence and death rates associated with malaria 6.7 Proportion of children under 5 sleeping under insecticide-treated bednets 6.8 Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs 6.9 Incidence, prevalence and death rates associated with tuberculosis 6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short course
Goal 7: Ensure environmental sustainability introduce demographic policies for dealing with population growth	
Target 7.A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.1 Proportion of land area covered by forest 7.2 CO2 emissions, total, per capita and per $1 GDP (PPP) 7.3 Consumption of ozone-depleting substances 7.4 Proportion of fish stocks within safe biological limits 7.5 Proportion of total water resources used 7.6 Proportion of terrestrial and marine areas protected 7.7 Proportion of species threatened with extinction
Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8 Proportion of population using an improved drinking water source 7.9 Proportion of population using an improved sanitation facility
Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	7.10 Proportion of urban population living in slums

Goal 8: Develop a global partnership for development	
Target 8.A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system Includes a commitment to good governance, development and poverty reduction – both nationally and internationally Target 8.B: Address the special needs of the least developed countries Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction Target 8.C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly) Target 8.D: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	*Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked developing countries and small island developing States.* <u>Official development assistance (ODA)</u> 8.1 Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income 8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation) 8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied 8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes 8.5 ODA received in small island developing States as a proportion of their gross national incomes <u>Market access</u> 8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty 8.7 Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries 8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product 8.9 Proportion of ODA provided to help build trade capacity <u>Debt sustainability</u> 8.10 Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative) 8.11 Debt relief committed under HIPC and MDRI Initiatives 8.12 Debt service as a percentage of exports of goods and services
Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	8.13 Proportion of population with access to affordable essential drugs on a sustainable basis

Target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	8.14 Fixed telephone lines per 100 inhabitants 8.15 Mobile cellular subscriptions per 100 inhabitants 8.16 Internet users per 100 inhabitants

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