CHAPTER 4

INCLUSIVE INSTITUTIONS FOR SUSTAINABLE DEVELOPMENT

The new Agenda recognizes the need to build peaceful, just and inclusive societies that provide equal access to justice and that are based on respect for human rights (including the right to development), on effective rule of law and good governance at all levels and on transparent, effective and accountable institutions.


4.1 Introduction

The 2030 Agenda calls for transparent, effective, inclusive and accountable institutions to advance poverty eradication and sustainable development. It aims to ensure responsive, inclusive, participatory and representative decision-making at all levels, emphasizing the importance of public access to information, protection of fundamental freedoms and the promotion of non-discriminatory laws and policies for sustainable development.¹

“Institution” is a broad and multi-faceted term, which encompasses a range of structures, entities, frameworks and norms that organize human life and society. While institutions are certainly not the only means to reduce inequalities, inclusive institutions are critical enablers of equity and are central to achieving the objective of leaving no one behind. The 2030 Agenda does not prescribe institutional models for the national level, but outlines principles that institutions should strive to achieve, such as “effectiveness, inclusiveness, and accountability“ (SDG 16), “responsive, inclusive, participatory and representative decision-making at all levels” (target 16.7) and “policy coherence” (target 17.14).
Different scientific disciplines view institutions through various perspectives. From outcomes of cognitive processes in the form of mental representations that are context-dependent (time and space) and domain-specific, to sets of rules and norms. Institutions are supported by beliefs that facilitate their dissemination and their rules are inserted in hierarchical, power relationships between individuals. Formal institutions include written constitutions, laws, policies, rights and regulations enforced by official authorities.

Achieving any particular target under the SDGs will require a combination of factors, including: legal, regulatory components; multiple institutions intervening at various levels; and potentially broader societal changes, e.g. in social norms, which themselves can be spurred by changes in institutions. For example, the advancement of gender equality requires a range of actions at all these levels, and the intervention of a range of institutions with different mandates and purposes. In other words, no target related to inclusiveness can generally be achieved through a single institution. Conversely, individual institutions, especially those with broad mandates, can contribute to inclusiveness in many different areas as well as society-wide. For such institutions, it is important to assess both how inclusive they are, and how they foster inclusiveness through their actions.

Among the many types of institutions that should be examined due to their importance in fostering inclusiveness, this chapter examines how two specific types of institutions, national councils for sustainable development (NCSDs) and national parliaments, have helped promote inclusiveness in relation to the achievement of sustainable development. While the choice of these two types of institutions, among many others, is illustrative, both NCSDs and parliaments are important institutions for sustainable development. Efforts to promote sustainable development at the national level have attempted to address challenges related to integrated decision-making by encouraging the establishment of multi-stakeholder and cross-sectoral national mechanisms. These mechanisms are broadly referred to as National Councils for Sustainable Development (NCSDs). In turn, parliaments have played an important role and will be crucial for the 2030 Agenda implementation. The 2030 Agenda acknowledges "the essential role of national parliaments through their enactment of legislation and adoption of budgets and their role in ensuring accountability for the effective implementation of our commitments", but also in inclusiveness in drawing "on contributions from indigenous peoples, civil society, the private sector and other stakeholders". Through law-making and budgets, parliaments can ensure inclusiveness and hold governments accountable for their policies on ensuring to leave no one behind.

The chapter draws on existing studies and reviews across countries and regions, synthesizing lessons that could guide countries’ efforts to adapt their institutional frameworks as they embark on the journey to implement the new Agenda.

### 4.2 Inclusive Institutions for Sustainable Development

Useful lessons for strengthening institutions to advance sustainable development can be learned from the efforts made to implement the outcomes of the first Conference of Environment and Development in Rio de Janeiro, Brazil, in 1992, the World Summit on Sustainable Development in Johannesburg, South Africa, in 2002 and the Conference on Sustainable Development (Rio+20) in Rio de Janeiro, Brazil in 2012.

For example, by definition, sustainable development requires an integrated approach to decision-making, incorporating social, environmental and economic dimensions. Since 1992, the integrated nature of sustainable development has posed challenges to institutions that were often not designed to work across boundaries. Scholars have tried to address these challenges with various concepts, such as horizontal integration, boundary-spanning, strategic public management, and meta-governance.

Examples of informal institutions are (the usually unwritten) social norms, customs or traditions that shape thought, attitudes and behaviour. Formal and informal institutions structure the distribution of opportunities, assets and resources in society. For example, political settlements establish the formal rules for managing political and economic relations (such as electoral processes, constitutions, and market regulations), as well as the informal division of power and resources. There are different types of institutions, depending on the domains they organise: those governing the reproduction of society – notably individuals’ life-cycle, memberships and statuses and those regulating interactions, exchanges (e.g., codes of conduct), in various domains (e.g., political, economic, social). Economic relations, political governance and social norms within families and communities are key institutional domains influencing development outcomes. Together, these institutions determine the degree to which social relations are inclusive.

Each country has a different “starting point” and preference for governance styles, due to constitutional settings, traditions, culture, political practice, geography and resulting environmental, social and economic circumstances. However, the demands of participation in various international regimes makes policy coordination across government a key factor in determining effective
and inclusive governance at the national level.\textsuperscript{17}

With such sweeping scope and reach, institutions are fundamental to determining whether a person or community is excluded or included from development and progress. Institutions can trigger behaviors and trends that can have positive or negative impacts for developmental outcomes, and in particular for inclusiveness. On the other hand, power holders can shape institutions for the benefit of some rather than all groups of society. Institutions that are not inclusive potentially infringe upon rights and entitlements, can undermine equal opportunities, voice and access to resources and services and perpetuate economic disadvantage. They can also have a negative impact on non-economic dimensions of poverty, including lack of access to services, lack of voice in decision-making, and vulnerability to violence and corruption. Moreover, institutions that are not inclusive in one sphere can multiply disadvantage in others.\textsuperscript{18}

Inclusive institutions give equal rights and entitlements, and enable equal opportunities, voice and access to all resources and services. They are typically based on principles of universality (e.g. universal access to justice or services; universal age-related state pension), non-discrimination (e.g. meritocratic recruitment in the civil service; inheritance laws that protect widows’ land rights), or targeted action, which is needed where some people and groups are particularly disadvantaged, and therefore require differential treatment to achieve the equivalent outcomes (e.g. quotas to increase the proportion of women political representatives; budget rules that prioritise investment in disadvantaged areas).

Economic institutions shape the rights,\textsuperscript{19} regulatory framework,\textsuperscript{20} and degree of rent-seeking and corruption, in land, housing, labour and credit markets.\textsuperscript{21} Examples of formal economic institutions include property rights and labour laws. Many cross-country statistical studies find that more inclusive economic institutions improve economic outcomes.\textsuperscript{22} The quality of institutions – such as security of property rights and strength of the rule of law – is a strong determinant of income levels.\textsuperscript{23} Some cross-country studies suggest the reverse order of causality,\textsuperscript{24} specifically, that income levels, educational attainment and economic growth all lead to stronger institutions, not the other way around.\textsuperscript{25}

Regarding political institutions, their quality, gender balance and their level of genuine inclusiveness seem to be important determining factors for sustainable development. Some cross-country econometric studies find that better – more inclusive – governance reduces poverty and improves human development outcomes relating to, for example, infant mortality,\textsuperscript{26} literacy,\textsuperscript{27} and health.\textsuperscript{28} While evidence has shown that holding elections alone has no significant impact on development, deeper measures of political inclusion – including political competition, issues-based political parties, and competitive recruitment to these parties – have significant effects.\textsuperscript{29}

There is less research on the impact of inclusive social norms. One study suggests social trust has a strong positive effect on economic growth.\textsuperscript{30} Norms of non-discrimination against women, ethnic, religious and caste minorities may be particularly important in this regard.\textsuperscript{31} Discriminatory social norms can trap people in exploitative relationships and push them into chronic poverty. For example, the Chronic Poverty Research Centre, based on longitudinal panel data from multiple countries, identifies five chronic poverty traps: insecurity-reduced capacity of poor households to cope with conflict, shocks and natural hazards; limited citizenship - lack of a meaningful political voice and effective and legitimate political representation and power; spatial disadvantage - remoteness, political disadvantage and weak integration; social discrimination and social relationships – of power, patronage, empowerment, competition, collaboration, support; and poor work opportunities - work opportunities can be limited, inaccessible, or exploitative for poor people, in particular women and girls.\textsuperscript{32} Given the linkages between poverty, social discrimination, development and human rights, national human rights institutions can play a role in advising State institutions and monitoring progress in the implementation of the Agenda at the local, national, regional and international levels. They can help ensure accountability to the people by disclosing inequality and discrimination, including through innovative and inclusive approaches to data-collection and partnerships with rights-holders, vulnerable and marginalised groups.

Strengthening inclusive institutions involves transforming power relations and incentives,\textsuperscript{33} incorporating marginalized people and groups,\textsuperscript{34} addressing social, political and economic drivers of exclusive institutions,\textsuperscript{35} decreasing tension between new and existing institutions,\textsuperscript{36} targeting and unifying intervention and integrationist policies,\textsuperscript{37} addressing gender inequality, understanding social norms and behavioural changes; and promoting coherence between support to institutions operating in different spheres (economic, political and social).\textsuperscript{38}

Institutions are constituted and perpetuated by people, and changing them is always a complex process. Reforming institutions is not just about passing new regulations or establishing new bodies. The design and implementation of institutions needs to take into account the capacities of people and organisations. Consequently, overly ambitious and technocratic institutional reforms have often resulted in little improvement being made in function, in spite of changes in appearances and structures.\textsuperscript{39}
Institutions mirror the culture and history of the national contexts from which they emerge and in which they are meant to work. This cultural dimension of institutions means that “best practices” are elusive and at best relative. The cultural dimension of institution-building and their underlying values have to be taken into account (e.g. by striving for at least a minimum of cultural compatibility during transformations to new and more inclusive institutions), as they can be very resistant to change and not accounting for them can lead to failure in changing institutions.\(^{40}\)

It is, therefore, important to support drivers of institutional change. Examples used over the world have included facilitation and strengthening of stakeholder feedback mechanisms, review mechanisms, and support to design and implementation of client voice mechanisms (e.g. citizen report cards), as well as promotion of public information disclosure at national and local levels. Large numbers of better educated, and politically and economically aspirational young men and women, effective organisations to represent them, and the middle classes that support more inclusive institutions are all vital. Growing migration and urbanisation offer possibilities for social mobility and stronger voices for inclusive institutional change, but can also increase marginalisation within cities.\(^{41}\)

It is in this context that the chapter looks at two particular types of institutions, NCSDs and parliaments. Even though they are of different nature and serve different functions, they both strive for representation and inclusion and can be important mechanisms to ensure that no one is left behind in the implementation of the 2030 Agenda.

### 4.3 National Councils for Sustainable Development

National Councils for Sustainable Development (NCSDs) were once considered critical to achieving integration in decision-making and participation, two dimensions that were at the heart of the concept of sustainable development. NSDCs witnessed rapid development in the first five years after the Earth Summit.\(^{42}\) Today, the number of NCSDs and similar bodies has reached over 100 globally, with a wide variety of forms and functions.\(^{43}\) However, they have had mixed levels of success over the past two decades years, with some fading from the policy landscape.\(^{44}\) Yet, the challenges that were the rationale for their creation have not disappeared. In particular, NSDCs typically answer the request for “responsive, inclusive, participatory and representative decision-making at all levels” (target 16.7) and “policy coherence” (target 17.14) articulated in the 2030 Agenda. Hence, NCSDs, whether newly created or revived, may have the potential to play an effective role in implementing the 2030 Agenda, helping countries to “develop ambitious national responses”, building on “existing planning instruments, such as national development and sustainable development strategies, as appropriate”.\(^{45}\)

This chapter, in line with the theme of this Report, mainly approaches NCSDs from the angle of inclusiveness rather than covering the whole spectrum of NCSDs’ functions.\(^{46}\) The review is limited by the limited attention given to NCSDs by academia. But despite the absence of an up-to-date stock-taking of NCSDs on the global scale,\(^{47}\) the challenges they face are relevant for all countries today. The Annex to this chapter provides an overview of selected studies that have examined NSDCs since the Earth Summit in 1992.

The composition of NCSDs usually reflects the characteristics of the political system and/or culture in which they exist.\(^{48}\) In general, the more the NCSD is dominated by the government, the more it turns out to be a “communication platform”, used to communicate government policy to a range of stakeholders. Conversely, more independent NCSDs often tend to play a more advisory role in the decision-making process.

The extent of stakeholder engagement can vary from: (1) communication and awareness raising; to (2) consultation; to (3) involvement in decision-making; to (4) involvement in various parts of implementation and progress reviews.\(^{49}\) The level of stakeholder engagement—and a government’s attitude toward such engagement—has a significant impact on the effectiveness of NCSDs and is often reflected in the resources that are provided to NCSDs.\(^{50}\) Table 1 provides a summary overview of potential advantages and drawbacks of specific types of NSDCs, as well as lessons learned to make them more effective.

NCSDs can serve as platforms for dialogue between governments and all relevant stakeholders, in a form that usually encourages open and respectful debate.\(^{51}\) At the same time, NCSDs and other multi-stakeholder processes can also be dominated by specific interest groups, resulting in lack of accountability and lack of ownership. Potential solutions can include: transparency about roles, rights and responsibilities of participants and managing of expectations of what participation entails (e.g. information, collaboration or co-decision); having procedures in place to balance vocal minorities and silent majorities; setting rules for inclusion and exclusion of actors; as well as organizing how to codify agreement.\(^{52}\)

The mix of experts represented in NCSDs is variable. Participation of senior business leaders with sustainability interests and concerns is found to have worked well in a number of cases. Senior scientists, economists or other intellectuals with good practical experience and networks have provided added value in many cases.\(^{53}\) Adding an expert-type scientific body can potentially provide a more
deliberative setting, rather than the negotiation-style often seen in representative bodies. For example, the Finnish National Commission for Sustainable Development (FNCSD), the longest-standing sustainable development council of the representative style, has added an independent panel of scientific experts in the early 2014. The expert panel scans the main obstacles and research concerning sustainable development, raises questions that should be taken into discussion and gives input to the work of the FNCSD. It also evaluates the implementation process of society’s commitment to sustainable development and gives advice for its development.

Regarding oversight of Councils, some researchers see having leadership for sustainable development at the highest level (e.g. reporting directly to the Head of Government) as the most desirable arrangement, as high-level leadership can foster horizontal coordination within the government, including for budgetary processes. High level representation can help integrate goals and objectives throughout the policy management cycle and among different sectors, as ministries tend to comply with executive orders from the highest national offices. In addition, direct linkages between NCSDs and key decision makers increase the effectiveness of NCSDs.

### Table 4-1: Overview of strengths and challenges of NCSDs

<table>
<thead>
<tr>
<th>Composition</th>
<th>Strengths</th>
<th>Challenges</th>
<th>Lessons learned</th>
</tr>
</thead>
</table>
| Government representatives         | • Greater influence over policy, even potentially having legislative powers | • Potentially less independent and objective  
• Higher risk of being influenced by political interests  
• Not necessarily conducive to long-term thinking  
• Can result in lower levels of ambition | It is important for such ministerial NCSDs to ensure that they have access to objective, evidence-based information and analysis about current sustainable development issues and trends, along with the impacts of continuing or altering current policies |
|                                   | • Strong leadership  
• Greater resources to implement strategies  
• Higher public profile |                                                                                                                                                                                                           |                                                                                                                                                                                                            |
| Mixed membership                  | • Likely to be more representative  
• Can facilitate greater participation  
• Greater ability to draw on a wide range of opinions and expertise  
• Likely to lead in more progressive recommendations | • Dominance of government voices over those of stakeholders  
• Difficulty to avoid deadlock and producing coherent messages in a timely manner  
• Difficulty avoiding silo thinking and keeping track of the broader picture | It is important to ensure:  
1) adequate representation of key sectors; good representatives of business interests on NCSDs appear to be particularly important  
2) that non-governmental representatives do not feel inhibited by the diversity and are able to speak up and participate freely  
3) all need to be given access to information in order to make informed and significant contribution |
| Non-governmental and stakeholder representative memberships | • Independence enables thorough scrutiny of government policy and speaking out about perceived unsustainable policies and practices  
• Likely to be very representative and have strong connections to stakeholder networks at the subnational level  
• Can potentially call upon large public support base to provide legitimacy and help advocate for recommendations | • Influence over decision-makers and policy  
• Having representatives of a high enough status and standing  
• Ensuring interests and expertise that go beyond environmental issues  
• Securing long-term funding | It is important to ensure that  
1) members’ interests, experience and expertise cut across all dimensions of sustainable development; strong capabilities in the fields of science, environment and economic would help  
2) they have a status and standing to be able to engage effectively with ministers and senior officials in a range of departments, such as economic, finance, industry, social affairs, planning, environment  |

Source: Authors’ elaboration, based on Osborn et. al., 2014.
4.4 Parliaments

As legislatures bodies, parliaments are very important for the implementation of the 2030 Agenda and SDGs. Whichever form they take, parliaments execute three basic functions: representation, legislation, and oversight. Parliaments represent their respective constituencies; as part of their legislative duties they debate and approve legislation and in their oversight capacity they oversee the execution of these laws, national policies, and strategic plans. In turn, governments are expected to report back to parliaments, which have at their disposal evaluations and assessments from bodies such as audit institutions. While countries differ in their parliamentary systems, all of them require parliamentary approval for legislation pertaining to the SDGs.

In looking at the contribution of institutions in leaving no one behind, it is relevant to make the distinction between inclusiveness of institutions, and inclusiveness through institutions. The former refers to whether institutions themselves are designed in a way that is conducive to inclusive representation and voice of all sections of society (or all countries). Representation is most inclusive when it encourages marginalized groups to express their perspectives. Parliaments constitute an arena in which people’s representatives can use language both to comment on the nation and try to shape it. When attempting to address a social inequity, for instance, a parliament can enlist culture, race, ethnicity, and similar identity categories. Insofar as any group’s distinctive concerns are not included, the parliamentary process itself may fail in its representative function. Parliaments, as the most representative decision-making bodies, should normally aim to mirror the diversity of the society outside. This involves trying to ensure that all groups are represented, and that each group is represented more or less proportionally to its share of the general population.

In turn, inclusiveness through institutions refers to whether institutions through their actions directly support or enable inclusive outcomes that advance the common good as opposed to particular interests. In the case of parliaments, this means examining both how parliaments themselves are inclusive in their representation of all segments of society, including of marginalized groups, and how, when adopting legislation, they take into account the views, interests and needs of these groups. For example, parliaments are in a unique position to enact legislation to ensure that gender-based discriminatory norms and practices are eliminated, foster women participation in decision-making processes at all levels, and ensure equal access to resources such as health, education, economic resources, private property, and new technology, all of which are specifically highlighted in the targets of the SDGs.

In order to illustrate how parliaments can foster these two dimensions of inclusiveness, this chapter looks specifically at four categories of persons in vulnerable or marginalized situations: women, indigenous peoples, persons with disabilities, and children and youth. These four groups are chosen as examples because they have received consistent attention from the institutional literature.

4.4.1 Women and girls

Promoting gender equality has been recognized as a priority for development for a long time, and it is a key prerequisite for the success of the 2030 Agenda. Parliaments are in the unique position to enact binding legislation within their sovereign limits to ensure that gender-based discriminatory norms and practices are eliminated. When women are denied participation in decision-making processes, it has been observed that they also have reduced equal access to resources such as health, education, economic resources, and new technology, among others. Women and girls constitute approximately half of a country’s population and their participation in parliaments is critical. Legislatures with more female parliamentarians are more likely to have an impact by adopting policies benefiting women and promoting gender equality.

A way to achieve higher women’s participation is through gender based quotas in Parliaments, which have gained significant prominence since the adoption of The Beijing Declaration and Platform for Action at the United Nations Fourth World Conference in Beijing in 1995 as well as the Committee on the Elimination of Discrimination against Women’s general recommendation No. 25 (2004) on special temporary measures, including quotas. Since the Beijing World Conference, States have increasingly adopted quotas to boost women’s participation, counter discrimination and accelerate the slow pace at which the number of women in politics is rising. These measures are meant to correct some of the obstacles, especially institutional and systemic barriers that still prevent women’s equal access to politics.

To varying degrees and subject to differing national situations, gender quotas in Parliaments have specified the rules and procedures for selecting women candidates, promoted higher similarity and a better sense of connection between voters and their legislators, who act on behalf of women and their concerns.

In the 1960s, less than 0.6% of legislators globally were women, whereas as of 2015 that percentage has risen to 22.1%. This increase is particularly prevalent throughout the Africa region, where over 25 percent of parliamentarians are women in 17 countries. It is important to note that these gains have generally been more rapid in developing countries than in developed countries. Recent gains are largely attributed to opportunities created during political transitions, pressures from women’s movements...
4.4.2 Indigenous Peoples

Indigenous peoples are characterized by their specific relationship to the land or territory they inhabit, and their distinct culture often inclusive of language, practices, and art. There are more than 370 million self-identified indigenous people in some 70 countries around the world. In Latin America alone there are more than 400 groups, and an estimated 705 groups in Asia and the Pacific. Worldwide, they account for 5% of the population, but represent 15% of those living in poverty.

Since the mid-20th century, indigenous peoples have struggled to obtain recognition of their socio-cultural specificities and consequent rights before States. As such, the issue of self-determination has been at the forefront of the relationship between the state and their indigenous communities. Indigenous self-determination mainly refers to political participation and is explicitly limited by the states’ right to territorial integrity, although some external aspects of self-determination can still be in place, such as international representation and cross-border cooperation. The connection between the right of self-determination and the right of political participation is indivisible, and has been recorded by the UN Human Rights Committee.

As such, representation in parliament is a powerful symbol of indigenous self-determination and inclusion. The first step is to officially recognize the community as indigenous. Affirmative action in terms of preferential policies is a strategy that is commonly used to tackle the structures of inequality. Measures to improve indigenous participation include periodic reviews of the electoral system and the introduction of quotas, promotion of a more active indigenous role in political parties, employment and training opportunities for indigenous peoples in political bodies, veto powers for indigenous communities, indigenous direct input into legislative and policy processes, enhancement of indigenous participation in local government and youth participation in political processes through legislation, capacity building activities and education.

In some cases, indigenous populations have established their own parliaments or councils, which do not exercise political or legislative power, but rather act as a consultative body. A prominent example is the case of the Sami people residing in Norway, Sweden and Finland. Conversely, New Zealand has the longest history - over 140 years - of indigenous self-representation in a national legislature. Other countries do not recognize the rights of indigenous peoples within their borders, and have therefore no specific provision for their political representation in the national parliament. While countries differ in their approaches towards indigenous peoples, it is important for the academic community as well as civil society experts to continue to assess methods for ensuring long-term engagement of the various indigenous populations and their meaningful contribution to the 2030 Agenda.
Box 4-2: The Maori case

The Maori Representation Act of 1867 introduced a dual constituency system in New Zealand, where representatives to the parliament are elected from two sets of single member electorates, one for persons of Maori descent and the other for those of European descent - nowadays referred to as general electorates. Electoral reform in the 1990s succeeded in furthering Maori representation by allowing the number of Maori electorates, which had remained fixed at four, to vary on the basis of enrolment; and by introducing proportional representation. Since the party list determines the overall allocation of seats in parliament, parties have an incentive to appeal to Maori voters despite the segregation of their constituency votes. Therefore, such a system enables the minority to have a guaranteed level of descriptive representation without risking loss of substantive influence. The adoption of a proportional party list electoral system together with the dual electorates has succeeded in increasing Maori representation dramatically.

Source: Banducci et al., 2004.

4.4.3 Persons with Disabilities

Over a billion people are estimated to live with some form of impairment. They remain among the most marginalized in most societies due to a lack of disability sensitive and responsive policy interventions, barriers like stigma and discrimination as well as inaccessible physical and virtual environments, such as communication devices and transportation methods, and segregated educational institutions. Accessibility and inclusion are fundamental human rights for persons with disabilities, and are critical to empowering persons with disabilities to live independently, be included in their communities, and to participate in and make contributions to society and development on an equal basis with others. In essence, the issue of accessibility and inclusion is a critical starting point that Parliaments and the global community have to take up by in order to incorporate persons with disabilities and their needs.

Parliaments have been critical channels for promoting the rights for persons with disabilities through implementing frameworks such as the Americans with Disabilities Act of 1990 in the United States of America and the Disability Discrimination Act of 1995 in the United Kingdom. One important achievement at the global level was the adoption of the United Nations Convention on the Rights of Persons with Disabilities, which was ratified by 164 countries and one regional group, the European Union, as of June 2016. Persons with disabilities have also benefited from the changing policy trend towards the removal of legal, institutional and physical environment barriers, expansion of access to opportunities for participation, including in public services, increased social protections, and improved recognition of people with disabilities in social programmes. For example, 155 countries mandate cash benefits to persons with disabilities that serve as income replacement or supplement. However, narrowly focusing on the ‘letter of the law’ may create a basic level of rights; but more must be done to instil a culture of fair and equitable treatment of persons with disabilities and facilitate full and active participation by persons with disabilities in society in a meaningful manner.

4.4.4 Children and Youth

The term “youth” usually refers to people from 15 to 24 years of age. Children (defined as all under the age of 18) have the right to express their views freely on matters affecting them. However, voting, which is often the main venue to exert influence on a political process, is not an option normally open to children given that the vast majority of countries have legislation in place setting the age of 18 as threshold for voting. Therefore, despite advances in their rights to political participation, citizenship, and voice, it remains the case that a third of humanity around the world who are under 18, exercise relatively little political power, whether in electing representatives, influencing laws, or shaping policies. In addition, not all young people, even though they are old enough to vote, choose to engage with formal political processes. The general downward trend in voter registration among younger age cohorts points to the fact that young people are increasingly looking to social movements and community organisations as platforms for their political interests and action. Whether this is a symptom of exclusion, or just a different form of participation, is debated.

In terms of participation in formal political processes, young women appear to be even more disadvantaged in terms of opportunities to be elected. Some of these variations can be explained in relation to electoral systems, youth quotas, eligibility ages and levels of women’s representation (as a measure of the broader inclusiveness of a parliament). Alternative measures for increasing youth political participation include, for instance, participation in government sponsored advisory roles, in youth parliaments and in roundtable discussions, as well as less formal activities such as political fundraising, volunteer work, protest movements and youth groups. At least thirty countries have some kind of non-adult parliament structure, whether nationally or in cities,
villages, or schools. These include India, Sri Lanka, Norway, Finland, Germany, Slovenia, Bolivia, Ecuador, Brazil, Nigeria, Zimbabwe, Congo, Burkina Faso, Liberia, New Zealand, the UK, Scotland, and a Children’s United Parliament of the World (See box 4-3 for examples).131

Municipal plans of action for children, designed to translate commitment into specific activities, are often adaptations of national plans of action—as in the ones in Honduras undertaken by 293 municipalities.132 Children’s participatory budget councils, such as the one in Barra Mansa, Brazil, can also foster citizenship and be real fora for public participation in defining and implementing public policies.133 Youth and children development agendas developed by governments, such as the ones developed by New Zealand, can also be potentially effective tools for promoting youth participation, among others, through advocacy, services, and governance.

4.5 Conclusion – Considerations for Policy Makers

Institutions are established by people to guide the pursuit of equitable and equal fulfilment of their human rights and needs. In turn, institutions shape all human interaction, including in the family, community, and political and economic spheres, influencing how societies develop. The patterns of behaviour generated by institutions can be either positive or negative for development outcomes and for inclusiveness. The 2030 Agenda and the SDGs call for inclusion and participation in the social, political and economic spheres of all societal groups. This chapter looked at how two types of institutions - NCSDs and Parliaments – can be active promoters of inclusion.

Research reviewed for the report suggests that, if provided with adequate resources, NCSDs can be effective mechanisms for stakeholder participation and engagement across the whole policy cycle, to: inform and educate the public at large on sustainable development related topics; stimulate informed public debates; engage key stakeholders in formulating policy recommendations; and involve stakeholders in various parts of implementation and progress reviews. The review in this chapter is limited to a certain extent by the lack of empirical data, even though dispersed data do exist and would merit further study. The limited attention given to NCSDs by academia is an example of an area where research could be encouraged.

With respect to parliaments, the chapter looked specifically at women, indigenous peoples, persons with disabilities, and children and youth. Research reviewed for the report suggests that progress has been made with respect to the representation of these groups in national parliaments. However, gaps still exist. Similarly, while progress has been made in terms of codifying the rights of marginalized groups, there is still a long way to go in this respect, and parliaments will have a key role to play in ensuring that no one is left behind. Other marginalized and vulnerable groups would also deserve attention in the context of a more comprehensive review.

In order to improve the science-policy interface on institutions for sustainable development, it will be important to collect evidence on other types of institutions and how they can foster inclusiveness. Examples include Local Agendas 21 and other participatory processes at the local level; mechanisms for access to information and access to justice; norms and standards in various areas; and mechanisms to represent future generations in policy-making.138 Conversely, it will be important to collect evidence on what combination of institutions and institutional features are successfully used to address specific goals and targets, including those related to inclusiveness. This should be a critical component of future Global Sustainable Development Reports.

Box 4-3: Examples of youth participatory mechanisms

An example of effective children’s parliament is the Bal Sansad Children’s Parliament in Rajasthan, India, which brings together children from different villages to discuss and deal with common concerns such as schooling and all aspects of village life.134 Additional examples of children being given some form of representative voice in governance include: the 2003 South African “Children in Action” project to include children’s participation in parliamentary hearings and public debates; the 2004 appointment of four Children's Commissioners in the UK to safeguard and promote children’s rights in legislation and policy; the Israeli Knesset regular invitation to children to participate in its child-related committees; and the Rwandan annual National Summit for Children and Youth around a particular child-related theme.135

The Smithston Student Borough Council and Baston Young People’s Town Council in the UK, and the Association Nationale des Conseils d’Enfants et des Jeunes found in French towns are also examples of youth participatory mechanisms.136

“Urban consultations” between urban administrations and children and youth, like the ones undertaken in the cities of Cotacachi, Ecuador, Barra Mansa and Icapuí, Brazil, and Ciudad Guayana, Venezuela, have also been successful mainly due to the commitment of the municipal authorities to their success and political, economic and social viability.137
Endnotes

1 UN General Assembly, 2015, Transforming our world: the 2030 Agenda for Sustainable Development, resolution A/RES/70/1, September, New York.


5 For more information see Ch 38, Agenda 21; paragraph 165, https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf.


17 Government Governance (GG) and Inter-Ministerial Policy Coordination (IMPC) in Eastern and Central Europe and Central Asia, Raymond Saner, Gordana Toseva, Aziz Atamanov, Roman Mogilevsky, Aleksandar Sahov.


23 See e.g. Rodrik, D., Subramanian, A. & Trebbi, F. (2004), Institutions rule: The primacy of institutions over geography and integration in economic development, Journal of Economic Growth, 9(2). This cross-country econometric study estimates the contributions of institutions, geography and trade in determining income levels around the world. Based on a sample of over 200 countries, it finds that the quality of institutions ‘trumps’ everything else. Once institutions are controlled for, geography has at best a weak direct effect on incomes, although with a strong indirect effect on influencing the quality of institutions. Similarly, once institutions are controlled for, trade is almost always insignificant.


29 Ibid.


Parliaments usually consist of chambers or houses, and are usually either bicameral or unicameral. In some parliamentary systems, the prime minister is a member of parliament (e.g. in Britain), whereas in others he is not (e.g. the Netherlands). He or she is commonly the leader of the majority party in the
lower house of parliament, but he or she only holds his or her office as long as the “confidence of the house” is maintained. In some countries there is a stricter separation of powers whereby the executive does not form part of, nor is it appointed by, the parliamentary or legislative body. In such a system, parliaments do not select or dismiss heads of governments, and governments cannot request an early dissolution as may be the case for parliaments where the executive is also a member of parliament. Some states have a combination of a powerful head of state, with a head of government responsible to the parliament.


71 Jones, H. (2009), *Equity in development. Why it is important and how to achieve it*, London: ODI.


74 Stockemer, D. (2014), *Women’s descriptive representation in developed and developing countries*, *International Political Science Review*.


87 Stockemer, D. (2014), *Women’s descriptive representation in developed and developing countries*, *International Political Science Review*.


From the early 1970s onwards, the language of self-determination became part of the official lexicon in Indigenous policy settings, and some significant features were introduced into the legal and policy landscape in Indigenous affairs, including land rights, native titles, and indigenous representative structures and organisations. Self-determination can have long-lasting positive effects for indigenous populations. Lino, D. (2010), The Politics of inclusion: The right of self-determination, statutory bills of rights and indigenous peoples, Melbourne University Law Review, 34, 839-869.

There is growing evidence to suggest that the social and economic success of indigenous communities is intrinsically linked to governance. A Harvard Project on American Indian Economic Development concluded that education, natural resource endowments, location or the availability of capital are not as important to successful economic development on reservation lands as the development of sovereignty, governing institutions, strategic thinking and leadership. Humphage, L. (2005), Experimenting with a whole of government approach: Indigenous capacity building in New Zealand and Australia, Policy Studies, 26, 1, 47-66, DOI: 10.1080/0144287050041744.


As in the case of the Sámi people.


See the forthcoming Report on the World Social Situation, United Nations, Department of Economic and Social Affairs, Division for Social Policy and Development.

In general, if it is innovatively conceptualized, targeted and operationalized, affirmative action has the potential to address inter-ethnic inequality. Its success, however, depends on the ideological framing of affirmative action, the degree of political control, the design of the affirmative action management and monitoring structure. Ratuva, S. (2014), Ethnicity, affirmative action and coups in Fiji: indigenous development policies between the 2000 and 2006 coups, Social Identities, 20, 2–3, 139–154, http://dx.doi.org/10.1080/13504630.2014.881281.


There is no internationally accepted definition of disability. Under the United Nations Convention on the Rights of Persons with Disabilities, persons with disabilities include - but are not limited to - those who have long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with other. Under the International Classification of Functioning, Disability and Health (ICF), “disability” serves as an umbrella term for impairments, activity limitations or participation restrictions and, in this International Classification, a person’s functioning and disability is conceived as a dynamic interaction between health conditions (diseases, disorders, injuries, trauma, etc.) and contextual factors, which include both, personal and environmental factors. UNWHO, 54th World Health Assembly. WH/A/54/VR9 (2001). http://apps.who.int/gb/archive/pdf_files/WHA54/ea54r21.pdf?ua=1.

Identifying persons with disabilities is critical in understanding and improving the interface between sustainable development and persons with disabilities. It is generally accepted that disability is a continuum from little or no disabilities to severe disabilities rather than a binary state of disability/no disability. Due to the lack of internationally agreed methodologies to identify persons with disabilities, different countries continue to measure disability differently. A joint World Health Organization and World Bank report identified nine recommendations to improving the situation of persons with disabilities: Enable access to all mainstream policies, systems and services; Invest in specific programmes and services for people with disabilities; Adopt a national disability strategy and plan of action; Involve people with disabilities; Improve human resource capacity; Provide adequate funding and improve affordability; Increase public awareness and understanding of disability; Improve disability data collection; Strengthen and support research on disability. World Health Organization & The World Bank. (2011), World Report on Disability. Accessed 22 April 2016. http://www.who.int/disabilities/world_report/2011/report.pdf.

Ibid.


In the 1990s the academic community itself acknowledged that a widespread oversight in their objectification of persons with disabilities was skewing the results of their analyses and negatively impacting the policy implications. These analyses resulted in a fundamental shift in the methodology and focus of the research going forward. Stone, E., & Priestley, M. (1996), Parasites, pawns and partners: disability research and the role of non-disabled researchers, British Journal of Sociology, 47, 4, 699-716.


On the one end of the spectrum, countries including Austria, Bosnia-Herzegovina, Brazil, Cuba, and Nicaragua have lowered the voting age to sixteen (as well as Germany and Israel for local elections), and East Timor, Indonesia, Seychelles, and Sudan to seventeen. On the other hand, in countries like Gabon, Malaysia and Samoa youth cannot participate in national elections until their 21st birthday. Hurst, G. (2003), Ministers contemplate lowering the voting age to 16, The Times, 14 February 2003. Accessed 10 April 2016.

Adults’ reservations about the participation of children - and youth under the age of 18 - revolve around the perceived lack of competency, disinterest, the view that children should be sheltered from adult pressures or letting go of the power that places them in positions of advantage. Matthews, H. (2001), Citizenship, Youth Councils and Young People’s Participation, Journal of Youth Studies, 4, 3, 299-318.

Rights to self-determination are also considered to take certain responsibilities and powers away from adults and therefore viewed as threatening the protective and established roles of adults. Wyness, M. (2002), Children, childhood and political participation: Case studies of young people’s councils, The International Journal of Children’s Rights, 9, 193-212.


Moreover, the general downward trend in voter registration among younger age cohorts points to the fact that young people are increasingly looking instead to social movements and community organisations as platforms for their political interests and subsequent action. While electronic technologies offer young people an alternative political arena for organisation and action. Fyfe, I. (2009), Researching youth political participation in Australia: Arguments for an expanded focus, Youth Studies Australia, 28, 1, 37-45.


To maximize youth participation, youth councils share the following qualities: venues and times of meetings, where young people feel comfortable; agenda set by the youth; provision of information about available options, procedures and processes that control these options and the implications of their decision-making; genuine communication; and no tokenism. Matthews, H. (2001), Citizenship, Youth Councils and Young People’s Participation, Journal of Youth Studies, 4, 3, 299-318.


Guerra, E. (2002), Citizenship knows no age: children’s participation in the governance and municipal budget of Barra Mansa, Brazil, Environment & Urbanization, 14, 2, 71-84.


## ANNEX 4

### Selected studies analysing NCSDs

<table>
<thead>
<tr>
<th>Study</th>
<th>Main topic covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Earth Council (1997), A Vision and Practical Measures for National Councils as Effective Mechanisms for Sustainable Development, Annex 1.¹</td>
<td>The report is the outcome of the National Councils for Sustainable Development working group at the Rio+5 meeting held in Brazil. It gives recommendations for future strengthening of the NCSDs.</td>
</tr>
<tr>
<td>UNECA (2005), National Councils for Sustainable Development in Africa: A review of Institutions and their Functioning, Addis Ababa³</td>
<td>The report takes stock of established NCSDs in Africa and their operations, in the context of the requirement for a balanced integration of the economic, social and environmental dimensions of sustainable development.</td>
</tr>
<tr>
<td>Niestroy, I. (2007): Stimulating informed debate – Sustainable Development Councils in EU Member States. A compilation of tasks, capacities, and best practice.⁴</td>
<td>Commissioned by the German Council for Sustainable Development (RNE), the paper explores two tasks and functions allocated to the sustainable development councils in EU Member States by the EU SDS of 2006, namely stimulating informed debate on SD and involving civil society.</td>
</tr>
<tr>
<td>Berger, G. and Steurer, R. (2009), Horizontal policy integration and sustainable development: conceptual remarks and governance examples, ESDN quarterly report, June 2009.</td>
<td>The report explores the meaning of horizontal policy integration in the context of sustainable development. It highlights how the functioning of public administrations may stand in the way of this objective, and what governments can do to overcome existing barriers.</td>
</tr>
<tr>
<td>Busch and Jorgens (2009), Governance by diffusion. International environmental policy coordination in the era of globalization, Dissertation, FU Berlin, 2009.</td>
<td>The paper explores systematically the aptitude of diffusion as a distinct mode of international policy coordination, its functioning and its relative importance compared with other, more centralized steering mechanisms.</td>
</tr>
<tr>
<td>Niestroy, I. (2012), Sustainable Development Councils at National and Sub-national Levels Stimulating Informed Debate: Stocktaking, Stakeholder Forum Sdg2012.⁵</td>
<td>The paper aims to provide useful lessons learned on NCSDs. It focuses on the purpose, composition and functions of NCSDs, and reviews common trends and best practices.</td>
</tr>
<tr>
<td>Cornforth, J., I. Niestroy and D. Osborn (2013): The governance of scaling up successful sustainability practices: How can National Councils for Sustainable Development organise the wider use of national and regional examples?⁷</td>
<td>The paper discusses the governance of scaling up, looking at different factors which affect the transferability of successful practices and explores examples of mechanisms for scaling up that could be used by the NCSDs.</td>
</tr>
<tr>
<td>Osborn, D., Cornforth, J. and Ullah, F., (2014), National Councils for Sustainable Development: Lessons from the past and present, Stakeholder Forum.⁷</td>
<td>The report draws on a survey focusing particularly on countries where NCSDs have been seen to function well in order to try to identify best practises and success factors.</td>
</tr>
<tr>
<td>De Vries, M. (2015), The Role of National Sustainable Development Councils in Europe in Implementing the UN’s Sustainable Development Goals: Overview and Conclusion, Background Paper commissioned by the German Council for Sustainable Development (RNE) and EEAC.⁹</td>
<td>The report analyses the main challenges tasks, and functioning of National Sustainable Development Councils in Europe, and their capacity for participating effectively in the SDG implementation.</td>
</tr>
<tr>
<td>Niestroy, I. (2015), Governance approaches and tools for SD integration: good practice (what has worked where and why) at national level, paper for the UNDESA/UNEP Technical Capacity Building Workshop Sustainable Development Integration Tools, Geneva, 14-15 October 2015</td>
<td>The paper presents key steps to take for translating the SDGs in national policies and processes and highlights key governance principles and respective integration approaches.</td>
</tr>
</tbody>
</table>

Source: Authors’ elaboration.
Endnotes

1 Available at http://www.un.org/documents/ga/docs/S-19/plenary/as19-9.htm


3 Available at http://www.uncsd2012.org/content/documents/UNECA.pdf


6 Published online by the Global Network of National Sustainable Development Councils NCSDs

7 Available at http://www.sdplanet.org.


Acknowledgements and Disclaimer

The terms ‘country’ and ‘economy’ as used in this Report refer, as appropriate, to territories or areas; the designations employed and the presentation of the material do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. In addition, the designations of country groups are intended solely for statistical or analytical convenience and do not necessarily express a judgement about the stage of development reached by a particular country or area in the development process. Major country groupings referred to in this Report are informed by the classification of the United Nations Statistical Division. Reference to companies and their activities should not be construed as an endorsement by the United Nations of those companies or their activities. The boundaries and names shown and designations used on the maps presented in this publication do not imply official endorsement of acceptance by the United Nations.

The views expressed in this publication are those of the authors and do not necessarily reflect those of the United Nations or its senior management, or of the experts whose contributions are acknowledged. The valuable comments provided by the United Nations Department of Economic and Social Affairs Editorial Board are gratefully acknowledged.

The Report benefitted from additional resources provided by the General Assembly through the Revised estimates resulting from the decisions contained in the Addis Ababa Action Agenda of the Third International Conference on Financing for Development and the outcome document of the United Nations summit for the adoption of the post-2015 development agenda, entitled “Transforming our world: the 2030 Agenda for Sustainable Development (A/70/589)”. It also benefitted from the Expert Group Meeting that was organised by the Division for Sustainable Development on the report and was held in New York from 5 to 6 April 2016.

Authors

This Report was prepared by a team of United Nations staff based on inputs from expert contributors. The team comprised David Le Blanc, Richard Roehrl, Clovis Freire, Friedrich Soltau, Riina Jussila, Tonya Vaturi, Meng Li and Kebebush Welkema (UN Division for Sustainable Development), Vito Intini (United Nations Capital Development Fund, on chapter 2) and Ingeborg Niestry (IISD Associate, on chapter 4). Research assistance and contributions was provided by Anastasia Kefalidou, Esther Lho, Crispin Maconick, Nelya Rakhimova and Lina Roeschel.

The coordinators for the chapters were David Le Blanc (Chapter 1, conclusion), Clovis Freire (Chapter 2), Richard Roehrl (Chapter 3), Irena Zubcevic (Chapter 4), and Friedrich Soltau (Chapter 5).

Contributing Organizations


Individual contributors by chapter:

Chapter 1

Marcia Tavares (UNDESA), Abdelkader Bensada (UNEP), Ana Persic (UNESCO), Anna Rappazzo (FAO), Babatunde Omilola (UNDP), Astrid Hurtley (UNDESA), Chantal line Carpentier (UNCTAD), Chris Garroway (UNCTAD), Claire Thomas (Minority Rights Group International), Clare Stark (UNESCO), Clarice Wilson (UNEP), Devika Iyer (UNDP), Doris Schmitz-Meiners (Office of the United Nations High Commissioner for Human Rights), Edoardo Zandri (UNEP), Elena Proden (UNITAR), Fackson Banda (UNESCO), Fanny Demassieux (UNEP), Halka Otto (FAO), Ines Abdelrazek (UNEP), Irmgarda Kasinskaite (UNESCO), Isabel Garza (UNCTAD), Isabell Kempf (UNEP), Jacqueline McGlade (UNEP), Jason Gluck (UNDP), Jean-Yves Le Saux (UNESCO)
Acknowledgements and Disclaimer

Jillian Campbell (UNEP), Joerg Mayer (UNCTAD), Katrin Fernekess (ITC), Kathryn Leslie (Office SRSG on Violence against Children), Kirsten Isensee (UNESCO), Konstantinos Tararas (UNESCO), Lucas Tavares (FAO), Ludgarde Coppens (UNEP), Lulia Nechifor (UNESCO), Mara Murillo (UNCTAD), Maria Martinho (UNDESA), Mariann Kovacs (FAO), Marie-Ange Theobald (UNESCO), Marion Jansen (ITC), Marta Pedrajas (UNDP), Matthias Eck (UNESCO), Michael Clark (FAO), Michael Stanley-Jones (UNEP), Monika Macdevette (UNEP), Natalia Linou (UNDP), Natalie Sharples (Health Poverty Action), Nicholas Bian (WB), Nina Atwal (Minority Rights Group International), Patrick Keuleers (UNDP), Pedro Conceicao (UNDP), Pedro Manuel Monreal Gonzalez (UNESCO), Piedad Martín (UNECE), Renato Opertti (UNESCO), Renata Rubian (UNDP), Salvatore Arico (UNESCO), Solene Ledoze (UNDP), Sylvia Hordosch (UN Women), Tim Scott (UNDP), Tina Farmer (FAO), Trang Nguyen (UNEP), Verania Chao (UNDP), Vinicius Carvalho Pinheiro (ILo).

The chapter was peer reviewed by Lucilla Spini, Head of Science Programmes, International Council for Science (ICSU).

Chapter 2

Ana Paula Barcellos (State University of Rio de Janeiro, Brazil), Ana Persic (UNESCO), Ananthanarayan Sainarayan (ICAO), Andrew Fyfe (UNCDF), Antonio A. R. Ioris (University of Edinburgh, United Kingdom), Chantal line Carpentier (UNCTAD), Chris Garraway (UNCTAD), Clare Stark (Delft University of Technology, the Netherlands), Edsel E. Sajor (Asian Institute of Technology, Thailand), Epo Boniface Nga (University of Yaoundé II, Cameroon), Florence Bonnet (ILO), Gail Ridley (University of Tasmania, Australia), Geraldo Mendoza (ECLAC), Gwen DiPietro (Carnegie Mellon University, United States), Holger Schtór (Institute of Energy and Climate Research, Germany), Isabel Garza (UNCTAD),Jean-Yves Le Saux (UNESCO), Jimena Blumenkron (ICAO), Joerg Mayer (UNCTAD), Julie-Maude Normandin (École nationale d’administration publique, Canada), Kash A. Barker (University of Oklahoma, United States), Kristen Isensee (UNESCO), Kristen MacAskill (University of Cambridge, United Kingdom), Lulia Nechifor (UNESCO), Mara Keller (ICAO), Maria Ortiz (ECLAC), Marie-Ange Theobald (UNESCO), Marie-Christine Therrien (École nationale d’administration publique, Canada), Michael Rütimann (Biovision Foundation for Ecological Development, Switzerland), Miguel Esteban (The University of Tokyo, Japan), Mike Muller (University of the Witwatersrand, South Africa), Nikki Funke (The Council for Scientific and Industrial Research, South Africa), Nicholas Bian (WB), Paolo Bocchini (Lehigh University, United States), Ranwa Safadi (UNESCO), Remi Lang (UNCTAD), Romain Zivy (ECLAC), Samuel Choritz (UNCDF), Silvana Croope (Delaware Department of Transportation, United States), Simona Santoro (UNCDF), Sophie Browne (UN Women), Stig Ole Johnsen (SINTEF, Norway), Sylvia Hordosch (UN Women), Thomas Poder (Université de Sherbrooke and CIUSSS de l’Estrie - CHUS, Canada), Thomas Ummenhofer (Karlsruhe Institute of Technology, Germany), Tim Zinke (Karlsruhe Institute of Technology, Germany), Tirusew Asefa (Tampa Bay Water, United States), Valérie Angol Zogo (Ministry of Transport, Cameroon), Vinicius Carvalho Pinheiro (ILo), Wang Xiaojun (Nanjing Hydraulic Research Institute, China).

Chapter 3

Bert de Vries (Utrecht University, The Netherlands); Thomas Reuter (University of Melbourne, Australia); Birama Diarra (Agence Nationale de la Météorologie, Mali); Erick R. Bandala (Division of Hydrologic Sciences, Desert Research Institute, Las Vegas, USA); E. William Colglazier (Center for Science Diplomacy, American Association for the Advancement of Science, USA); R.B. Singh (Delhi School of Economics, University of Delhi, India); Bartlomiej Kolodziejczyk (Department of Mechanical Engineering, Carnegie Mellon University, USA); V.N. Attri (IORA, University of Mauritius, Mauritius); Muhammad Saidam (Royal Scientific Society, Amman, Jordan, and International Council for Science, ICSU); H-Holger Rogner and Nebojsa Nakicenovic (IIASA, Austria); Nicholas Robinson (Pace University, New York USA); Franz W. Gatzweiler (ICUS-IAMP-UNU Urban Health and Wellbeing Programme, and Institute of Urban Environment, Chinese Academy of Sciences, Xiamen, China); Muhammad Yimer (Department of Civic and Ethical Studies, Arba Minch University, Ethiopia); Moshe C Kinn (The University of Salford, Manchester, UK); Oliver Mutanga (Bloomfontein, South Africa); Robert Brinkmann (Director of Sustainability Studies, Hofstra University, USA); Pan Jiahua (Institute for Urban & Environmental Studies, Chinese Academy of Social Sciences, China); Matteo Pedercini and Steve Arquitt (Millennium Institute, USA); Adriaan Kamp (Energy for One World, Oslo, Norway); Akiko Okabe (The University of Tokyo, Japan); Alice C. Hughes (Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, China); Qiungkin Dai and Yu Yang (School of Humanities, Southeast University, Nanjing, China); Sigrid Kusch (ScEnSers Independent Expertise, Germany); Emmanuel Letouzé and Anna Swenson (Data Pop Alliance, Harvard Humanitarian Initiative, MIT Media Lab and Overseas Development Institute, USA); Anjali Intlekofer (Institute of Security Studies, Pretoria, South Africa); Vania Aparecida dos Santos (Forest Institute - IF / SMA / SP, Brazil); Patrick Paul Walsh, Caroline O’Connor and Purity Mwendwa (University College Dublin, Ireland); Mahua Mukherjee (Department of Architecture and Planning, Indian Institute of Technology Roorkee, India);
Claudio Huepe Minoletti (Centro de Energía y Desarrollo Sustentable, Universidad Diego Portales, Chile); Anita Shankar (Johns Hopkins University, Bloomberg School of Public Health, Maryland, USA); Lucilla Spini (International Council for Science, France); Laura Diaz Anadon, William C. Clark and Alicia Harley (Kennedy School of Government, Harvard University, USA); Gabriel Chan, (Humphrey School of Public Affairs, University of Minnesota, USA); Kira Matus (Department of Science, Technology, Engineering and Public Policy, University College London, UK); Suerie Moon (Harvard Kennedy School of Government and Harvard T.H. Chan School of Public Health, Harvard University, USA); Sharmila L. Murthy (Suffolk University Law School, Suffolk University, USA); Keigo Akimoto (Research Institute of Innovative Technology for the Earth, Kyoto, Japan); Ambuj Sagar (Indian Institute of Technology Delhi, India); Chijioke Josiah Evoh (UNDP and Economic & Urban Policy Analysts, Yonkers, USA); Deepak Sharma (Faculty of Engineering and Information Technology, University of Technology, Sydney, Australia); Melika Edquist (Sustainable Development Solutions Network, USA); Richard Watson, Alex Ayad, Chris Haley and Keeren Flora (Imperial College London, UK); Lawrence Whiteley (Wond.co.uk); Dušan Jasovský (ReAct - Action on Antibiotic Resistance, Uppsala University, Sweden); Magdalena Muir (Arctic Institute of North America, University of Calgary, Canada); Jüll Jaeger (Vienna, Austria); Manuel Montes (The South Centre); Prof. Xiaolan Fu (Technology & Management for Development Centre, University of Oxford, UK); Steve Sparks (School of Earth Sciences, University of Bristol, UK); Javier Garcia Martinez (University of Alicante, Spain); Stewart Lockie (The Cairns Institute, Australia), Dong Wu (UNCTAD), Claudia Contreras (UNCTAD), Bob Bell (UNCTAD), and Arun Jacob (UNCTAD).

In addition, the following 97 individuals provided science-policy briefs on technology issues which were also considered:

Manish Anand, Shailly Kedia (TERI, India); Erick R. Bandala (DRI, USA); Ashantha Gooetilleke (QUT, Australia); Lindy Weilgart (Dalhousie University, Canada); Ashish Jha, Nicholas Zimmermann (Harvard University, USA); Iiona Kickbusch (Graduate Institute, Switzerland); Peter Taylor (IDRC, Canada); Kamran Abbasi (The BMJ, UK); Friedrich Soltau (UN-DESA); Bartlomiej Kolodziejczyk (IUCN CEM, Switzerland); Raymond Saner (CSEND, Switzerland); Steven A. Moore (University of Texas, USA); Carole-Anne Sénit, Henri Waisman (IDDRI, France); Ademola A. Adenle (UNU); Klaus Ammann (University of Bern, Switzerland); Zeenaid Mourao, Dennis Konadu, Keith S. Richards (University of Cambridge, UK); Thematic Group on Sustainable Agriculture and Food Systems; Cart Mas, Emmanuel Guerin (UN-SDSN); Timothy O. Williams, Javier Mateo-Sagasta, Pay Drechsel, Nicole de Haan, Fraser Sugden (IWMI, Sri Lanka); Karumuna Kajjage, Pamela Flattau (PsySiP, USA); Karl Aiginger, Michael Boehmeik (AIER, USA); James Ehrlich, Sanjay Basu (Stanford University, USA); David Acuna Mora, Arvid de Rijck, Daphne van Dam, Mirle van Huet, Stan Willems, Carmen Chan, Guilia Bongiorno, Janne Kuhn, Hein Gevers (Wageningen University, Netherlands); Hyosun Bae, Zoraida Velasco, William Daley, Rajiv Nair, Elizabeth A. Peyton, Margaret McKenzie (Tufts University, USA); Lucy Fagan (Global Health Next Generation Network, UK); Adrian Paul Jaravata Rabe, Sharon Lo, Luca Ragazzoni, Frederick M. Burkle; Ali J Addie (Center of Advanced Materials, USA); Moa M. Herrgard (UN Major Group for Children & Youth); Charles Ebiakeme, Heide Hackmann, Anne-Sophie Stevance, Lucilla Spini (International Council for Science, ICSU); Simon Hodson, Geoffrey Boulton (ICSU CODATA); Jari Lyytimäki (Finnish Environment Institute, Finland); Alessandro Galli, David Lin, Mathis Wackernagel, Michel Gressot, Sebastian Winker (Global Footprint Network, USA); Ibrahim Game, Richaela Primus, Darci Pauser, Kaira Fuente, Mamadou Djarma, Aaron Vlasak, Brian Jacobson, Ashley Lin (SUNY-ESF, USA); Normann Warthmann (The Australian University, Australia); Claudio Chiarolla (PSIA, France); Coli Ndzabandzaba (Rhodes University, South Africa); Alexander Gloss, Lori Foster (SIOP, USA); Davide Rasella, Romulo Paes Souza (UNDP), Daniel Villela (PROCC, Brazil), Delia Boccia (London School of Hygiene and Tropical Medicine, UK), Ana Wieczorek Torrens, Draulio Barreira (Brazilian National Tuberculosis Control Program, Brazil), Mauro Sanchez (University of Brasilia, Brazil); Pedro Piqueras, Ashley Vizenor (CE-CERT, USA); and V.N. Attri (IORA, Republic of Mauritius).

The chapter was peer reviewed by Dr. William E. Kelly (Committee on Sustainability, American Society of Civil Engineers, USA) and Prof. Dr. Gueladio Cisse, Head of the Ecosystem Health Sciences Unit, Department of Epidemiology and Public Health, Swiss Tropical and Public Health Institute, Switzerland.

Chapter 4

Simen Gudevold and Elie Hobeika, Division for Public Administration and Management, DESA.

The chapter was peer reviewed by Raymond Saner, Professor, Basle University, Sciences Po (Paris), University of Applied Sciences and Arts Northwestern Switzerland (FHNW)

Chapter 5

Gueladio Cisse (Swiss TPH and ICSU); William Colgazier (AAAS); Carl Dahlmann (OECD Development Centre);
Acknowledgements and Disclaimer