

CHAPTER

2



IDENTIFYING POLICY
PRIORITIES, BUILDING
SYNERGIES, AND ADDRESSING
TRADE-OFFS AT THE 2030
AGENDA MIDPOINT

2.1 Introduction

Since 2016, progress on the 2030 Agenda and the Sustainable Development Goals (SDGs) has been slow and uneven.¹ Early advancements have been undermined by the COVID-19 pandemic and its lingering effects as well as by the various crises that have occurred in recent years. Multiple waves of COVID-19, rising inflation, supply-chain disruptions, labour market challenges, political instability and policy uncertainties have tested the capacity of Governments in all countries to deliver on the SDGs.

According to the *Global Sustainable Development Report 2023*,² recent crises have seriously undermined the early gains achieved across many SDGs, with progress on a number of targets having stalled or suffered a reversal.³ Most targets—in particular those linked to SDGs 2, 11, 13 and 16—are not on track to be achieved, and progress does not seem fast enough for the few targets that are closer to being met (such as target 3.1 on reducing maternal mortality and target 8.5 on achieving full and productive employment).

These trends have affected the interdependencies between the SDGs.⁴ Many policy trade-offs related to the SDGs (for example, between knowledge-driven growth and inequality) were well-defined before the pandemic,⁵ but recent multiple crises have created new trade-offs (for instance, between limiting energy price increases and mitigating their impact by supporting lower rents)⁶ and have exacerbated existing trade-offs. Crisis conditions have also made it difficult to mobilize the resources, knowledge and institutional elements needed for the integrated implementation of the SDGs.⁷

Halfway towards 2030, transformative actions are needed to unlock progress across the SDGs. This requires prioritizing actions that are particularly synergistic and offer entry points for transformation, leveraging interlinkages, and managing trade-offs across Goals and targets. Institutional integration and policy coherence are critical for supporting these efforts and addressing the complexity and normative conflicts deriving from the interdependent nature of the SDGs.

The adoption of the SDGs has encouraged Governments to think about sustainable development in terms of systems and interconnected goals. In practice, however, this perspective has not always led to synergistic action. Integration and policy coherence continue to be challenges for public administrations.⁸ Faced with rising uncertainty, diminishing budgets, complex interrelated risks, growing public dissatisfaction and limited trust, institutions are finding it increasingly difficult to deliver on sustainable development commitments through their own activities and to ensure that policies and actions are consistent and mutually reinforcing. Governments need to lead and manage complex institutional systems that can translate more integrated and coherent policy action into long-term transformative actions to achieve the SDGs.⁹

This chapter focuses on how Governments can assess competing priorities, enhance synergies, and manage trade-offs under conditions of instability and uncertainty, diminishing effectiveness of policy and political solutions, legitimacy and accountability challenges, and multiple crises. It argues that strengthening the implementation of the SDGs requires using and enlarging the policy space¹⁰ and the allocation of resources to policies with the greatest impact on the SDGs. Renewed efforts in enhancing integration and policy coherence are required to leverage synergies at different levels and unleash the transformations needed to achieve the SDGs.

In this chapter, various international experts reflect on the challenges of identifying and leveraging SDG interdependencies and translating relevant policies and plans into action on sustainable development, presenting concrete examples and suggesting actionable ways to address SDG integration and existing barriers to unlock SDG progress. Actionable recommendations from the experts are presented in table 2A at the end of the chapter.

In her contribution, Nina Weitz reflects on how SDG priority-setting and action can be better aligned with the integrated nature of the 2030 Agenda and why this is key for SDG progress. Karin Fernando and Thilini De Alwis discuss the challenges of managing competing policy priorities at the national level and highlight recent efforts to enhance synergies between equality and economic growth to improve social protection in Sri Lanka.

Franklin Carrero-Martínez, Cherry Murray, E. William Colglazier and Emi Kameyama present several case studies focusing on the intersection of nature, society, science and technology that illustrate the importance of building trust among stakeholders to enhance science-policy interfaces for SDG implementation. Catarina Tully explores recent progress in strategic foresight practice and how it can support policy coherence and integration, outlining ideas to accelerate its adoption to unlock SDG progress. Carlos Eduardo Lustosa da Costa, Isabela Maria Lisboa Blumm and Simran Dhingra examine how transnational networks and professional exchanges can contribute to SDG implementation, highlighting the importance of accessible and inclusive approaches to capacity-building and collaboration.

Rolf Alter explores the potential role of risk management in supporting integrated SDG implementation, drawing on COVID-19 experience and the evolution of SDG coordination structures. Raquel Ferreira, Aura Martínez and Juan Pablo Guerrero provide an overview and examples of budget tagging as a method to link budgets to development outcomes and identify some of the current gaps in this approach. Omar A. Guerrero and Gonzalo Castañeda discuss the lessons for SDG prioritization from quantitatively analysing the linkage between government expenditure and development outcomes from a multidimensional perspective. Finally, Ole F. Norheim underlines the importance of building legitimacy and consensus around

SDG policy choices, which in turn requires open, deliberative and inclusive processes.

The next three sections of this overview frame the various contributions by reflecting on the challenges of harnessing SDG interdependencies and translating them into policy action, the contextual determinants of SDG interactions, and how science, knowledge and analytical tools can support integrated SDG implementation. The last two sections focus on strengthening systemic SDG implementation through public financial management and institutional approaches.

2.2 Harnessing SDG interdependencies and synergies halfway to 2030

COVID-19 and its aftermath, together with multiple overlapping global crises, have made accelerating progress towards the SDGs particularly challenging—but also extremely urgent. Now, more than ever, the implementation of the 2030 Agenda depends on harnessing synergies (where progress towards one goal supports progress towards another) and limiting trade-offs (where progress towards one goal hinders progress towards another) among the various SDGs and associated targets.

To ensure progress towards realizing this interdependent set of Goals, the 2030 Agenda calls for policy coherence and integrated institutional approaches—both of which are essential for addressing the complexity and normative conflicts inherent across Goals and targets. Institutional integration involves bringing together the different dimensions of sustainable development through collaborative institutions and processes. Policy coherence refers to maintaining the consistency and alignment of policies and strategies across sectors and levels of government to ensure mutual reinforcement and avoid inefficiencies. The *World Public Sector Report 2018* addresses integration and policy coherence in some detail.¹¹

2.2.1 Understanding SDG interactions

Since the adoption of the 2030 Agenda, a growing number of studies have incorporated or reviewed the use of different methodologies and approaches to analyse and understand the interdependencies among the SDGs. The literature on SDG interdependencies has contributed to a more systematic mapping and understanding of the interactions at the Goal and target levels and has contributed to a better understanding of the impact of various interventions on the SDGs.

This subsection does not provide an exhaustive review of the different methodologies and approaches. Recent reviews of the literature on SDG interdependencies can be found in works put out by Cameron Allen, Graciela Metternicht and Thomas Wiedmann in 2016 and 2021,¹² by Anita Breuer,

Hannah Janetschek and Daniele Malerba in 2019,¹³ by Therese Bennich, Nina Weitz and Henrik Carlsen in 2020,¹⁴ and by Lorenzo Di Lucia, Raphael Slade and Jamil Khan in 2022.¹⁵ These reviews highlight some takeaways of the studies that are relevant for the purpose of framing the contributions to this chapter and will be addressed below.

First, current methods have limitations in terms of considering the dynamic and contextual nature of SDG interdependencies, which has implications for policymaking.¹⁶ Second, while many studies have analysed SDG interactions, there has been only limited research focused on prioritizing actions.¹⁷ Third, as highlighted by Weitz in her contribution, there is a gap between the available methods and results of the analyses and decision-making. Different methods serve different purposes for policymaking, but the results of these studies are often neither actionable nor tailored to the demands of decision makers. While most countries recognize the interdependencies of the Goals and related targets, there is less evidence of how the integrated nature of the SDGs translates into specific actions.¹⁸

The table below provides an overview of methods used to analyse SDG interdependencies and how they support policymaking.

2.2.2 The contextual and dynamic nature of SDG interactions

In the aftermath of the pandemic, some of the pressures surrounding the 2030 Agenda and SDG interactions have become more apparent. The COVID-19 crisis affected most SDGs, with the lockdowns, labour market shifts, institutional closures, dilution of funding, and many other factors contributing to an overall decline in SDG performance.¹⁹ Asymmetries and reversals in progress across targets are evident at the national, regional and global levels;²⁰ Guerrero and Castañeda address this issue in their contribution and previous research. The pandemic has purportedly had an adverse impact on 12 of the 17 SDGs, and there are 28 low-income countries that are unlikely to achieve Goals 1-4, 6 or 7 by 2030.²¹ The loss of momentum highlights the critical importance of enhancing integration and policy coherence to unlock progress on the SDGs.²²

SDG interdependencies are contextual and dynamic. They are sensitive to context, vary across countries, and change over time. SDG targets and the nature of their interconnections and interactions with one another are largely defined by geographical context, the availability and allocation of resources, governance approaches and priorities, and the confluence of events and circumstances at a particular juncture.²³ Over time, trade-offs can change into synergies (for example, between SDG 13 and SDGs 6, 7, 9, 11 and 16),²⁴ and new trade-offs and challenges related to specific Goals may arise during implementation. Projections indicate

Table 2.1 Methods of analysing SDG interdependencies and how they inform policymaking

Methodology for analysing interdependencies	Support for policymaking	Sources of selected examples*
Self-assessment SDG interactions characterized based on pre-existing knowledge	<ul style="list-style-type: none"> Scoping 	<ul style="list-style-type: none"> SDG Impact Assessment Tool (2021)
Expert judgement Systematic assessment by experts to characterize relations between SDG targets	<ul style="list-style-type: none"> Scoping Prioritization 	<ul style="list-style-type: none"> International Council for Science (2017) Le Blanc (2015) Weitz and others (2015, 2017, 2018), with country applications, including Sweden, Colombia and Sri Lanka Collste, Pedercini and Cornell (2017) Van Soest and others (2019)
Literature-based analysis Evidence from scientific literature used to analyse SDG interactions	<ul style="list-style-type: none"> Scoping Prioritization Identification of alternatives 	<ul style="list-style-type: none"> Roy and others (2021), systematic literature review on demand climate mitigation actions and SDGs Leite de Almeida and others (2021), systematic mapping of literature to assess synergies or trade-offs in the SDG Impact Assessment Framework for Energy Projects (SDG-IAE Framework)
Statistical analysis Statistical techniques used to analyse relationships between SDG targets based on historical data	<ul style="list-style-type: none"> Prioritization Monitoring 	<ul style="list-style-type: none"> Pradhan and others (2017) Kroll, Warchold and Pradhan (2019)
System Dynamics (SD) Modelling Systems thinking flow models used to simulate impacts of interventions on SDGs over time	<ul style="list-style-type: none"> Scoping Prioritization Identification and evaluation of alternatives 	<ul style="list-style-type: none"> Allen and others (2020) Simulation models such as United Nations (2017) forecasting global system dynamics over time
Coupled Component Modelling (CCM) Computer-based models used to simulate the impacts of scenarios on a set of SDGs over time and under different conditions	<ul style="list-style-type: none"> Evaluation of alternatives Monitoring 	<ul style="list-style-type: none"> Guerrero and Castañeda (2019, 2020, 2021, 2022), Policy Priority Inference computational model with applications at national and subnational levels (examples from Mexico and Colombia) OG-Core (2023), long-run baseline to study fiscal policy and demographic effects on economies and population and assess impacts of other policies, with application in South Africa

Sources: Author, based on Lorenzo Di Lucia, Raphael B. Slade and Jamil Khan, "Decision-making fitness of methods to understand Sustainable Development Goal interactions", *Nature Sustainability*, vol. 5, No. 2 (February 2022), pp. 131-138; Anita Breuer, Hannah Janetschek and Daniele Malerba, "Translating Sustainable Development Goal (SDG) interdependencies into policy advice", *Sustainability*, vol. 11, No. 7 (January 2019), 2092, available at <https://doi.org/10.3390/su11072092>; and the sources included as examples in column 3.

* Full citations for the sources listed in the third column are provided in a special reference section at the end of the chapter 2 overview.

that certain Goals (including SDGs 1, 3, 7, 8 and 9) are likely to continue to behave quite synergistically, while trade-offs among other Goals (SDGs 11, 13, 14, 16 and 17) can be expected going forward.²⁵

Analysis of how SDG interactions may have changed due to the impact of the pandemic is limited. Some SDGs, including SDG 1, have experienced significant reversals, and this affects their synergies with other SDGs.²⁶ However, research seems to indicate that previously identified patterns of synergism among

some SDGs (including Goals 1, 3, 4, 5, 6 and 7) may not have changed and will continue to provide good entry points for enhancing SDG implementation in the current context.²⁷

Shifts in budget allocations and public expenditure provide an indication of how SDG priorities may have changed in recent years. Between 2019 and 2022, there were significant (and often negative) shifts in public investment in SDGs that are particularly synergistic and critical for the realization of human rights, including those relating to education and social protection.

The COVID-19 pandemic prompted significant budget revisions and additional resource mobilization, but education systems received almost no additional financial support. Education spending has lost importance in national budgets, particularly in lower-middle- and middle-income countries. In Ghana, for example, education spending was reduced by 4 per cent to 13.5 per cent of government expenditure between 2019 and 2021. Overall, the share of education spending in lower- and middle-income countries fell from 17 per cent in 2019 to 15.9 per cent in 2020, improved slightly in 2021, then fell again (below 2019 levels) in 2022; there were 14 countries that did not meet any of the international benchmarks for education spending (4-6 per cent of GDP and/or 15-20 per cent of total government expenditure).²⁸

Moreover, the share of the education sector in development aid fell from 11 per cent in 2019 to 9.7 per cent in 2020—its lowest level in five years.²⁹ This reallocation of funding may have a long-term impact on the learning outcomes gap between lower-income and higher-income countries.³⁰ With less overall public spending and increasing fiscal pressures, the actions needed to recover learning losses might not be implemented.

Similar trends can be observed for other SDGs. Many countries increased support for health and social protection to address the emergency, but half of the world's low- and lower-middle-income countries cut health and social protection spending, leading to increased inequality.³¹ Uganda saw social protection spending decline from 8.4 per cent of total spending in 2019 to 1.2 per cent in 2021, and in Kenya, social protection funding decreased from 26.49 per cent of the total budget in 2019 to 23.05 per cent in 2022.³² There are some countries that have remained committed to improving social protection. For example, Costa Rica has maintained high levels of social spending over time, and Mongolia increased social protection spending from 21.27 to 29.24 per cent of expenditure between 2018 and 2020.³³

2.2.3 Considering SDG interactions for the prioritization of Goals and actions

The selection of policy priorities is often sidelined in discussions relating to the 2030 Agenda because of the risk of undermining the interdependent nature of the SDGs. Some countries may prioritize certain SDGs to legitimize existing policy priorities.³⁴ In the aftermath of the COVID-19 pandemic, risks to the integrity of the SDGs may have increased as countries sacrifice certain Goals and targets to achieve others. Many societies have become far more polarized in recent years, and the decision to focus (for example) solely on economic growth for pandemic recovery may lead to negative trade-offs vis-à-vis other SDGs, making it much harder to promote consistent progress on all aspects of sustainable development.³⁵ The

contribution of Karin Fernando and Thilini De Alwis explores the building of synergies for economic recovery.

Prioritization is inevitable during SDG implementation, as countries have limited resources and different development needs. Moreover, prioritization recognizes the inherent political, normative and legitimacy conflicts surrounding different policy objectives and the stakeholders that pursue them³⁶ and can facilitate the identification of innovative policy mechanisms to support progress towards specific development outcomes as well as multiple synergistic Goals.³⁷

During this second half of the SDG implementation period, prioritizing certain Goals and targets can help leverage synergies and accelerate progress on the 2030 Agenda. Selecting SDG policy priorities according to each country's challenges and development needs—while simultaneously considering the integrated nature of the 2030 Agenda—can enhance the effectiveness of implementation and advance overall progress.

Various studies have suggested a range of prioritization criteria, including urgency, systemic impact, policy gaps, citizen or expert perceptions, and return on budgetary allocations.³⁸ A practical approach is to contextualize policy prioritization and resource allocation based on the trade-offs and synergies within a particular country or group of countries.³⁹ For example, lower-income countries may benefit most from addressing poverty reduction, while prioritizing integrated strategies to tackle climate change and inequality may best support progress in high-income countries.⁴⁰ This approach enables countries to identify entry points for sustainable development and evaluate how key policies and investments may help to achieve these outcomes and the broad suite of SDGs.

The identification of priority entry points in a particular national context (for example, poverty reduction and education, or decarbonization and inequality) makes it easier to address interlinkages and trade-offs in decision-making.⁴¹ In pursuing the identified priorities, Governments can focus on identifying the main synergies and trade-offs related to those priorities and determining how they can be harnessed to deliver broader outcomes while ensuring that progress in other areas is not undermined. This reduces the complexity of the SDGs and provides a simpler and more integrated framework for advancing the 2030 Agenda.

The six-entry-point framework presented in the 2019 and 2023 editions of the *Global Sustainable Development Report*⁴² could help countries identify key transformations linked to contextualized SDG prioritization. In Australia, for example, integrated modelling of these entry points and their interactions found that the opportunities created by recent crises together with available policy interventions and long-term investment in climate action could accelerate SDG progress.⁴³ Guerrero and Castañeda's contribution underscores how computational

models can support such efforts, as they have expanded the capacity to inquire into the analysis of policy priorities and the impact of budget allocations.⁴⁴

The criteria, processes and tools used for national SDG prioritization and the trade-offs and synergies involved should be transparent and clearly communicated, as Weitz emphasizes. After priorities are set, it is critical to enhance institutional integration and policy coherence to support SDG implementation. This may be achieved through, for example, better coordination across sectors and levels of government and collaboration with multiple stakeholders (as reported, for example, by Argentina, Botswana, Jamaica, and the Philippines); in many countries, these and other key elements need to be strengthened to move the SDG process forward. Weitz's contribution offers specific illustrations of this.

2.2.4 Integrated SDG implementation in practice

A systemic understanding of SDG interdependencies is critical for advancing an integrated implementation of the SDGs that is sensitive to national circumstances and the need to set policy priorities.⁴⁵ However, perspectives on SDG interdependencies and policy coherence are not yet incorporated in national reports on SDG implementation.⁴⁶ In 2019 and 2020, the voluntary national reviews (VNRs) included very few references to trade-offs.⁴⁷ In 2021, only a quarter of the 41 VNRs referred to policy coherence. This could indicate a failure to recognize and address the integrated nature of the sustainable development challenges and the changes needed to realize the ambitions of the 2030 Agenda in the current context.⁴⁸

Broadly speaking, there is limited evidence on how institutional fragmentation, interdependencies and integration play out in different national contexts and across sectors and levels of government. Similarly, evidence of how a systemic understanding of the SDGs translates into actual policy actions is scarce.

A recent analysis of the impact of the SDGs (based on a meta-analysis of over 3,000 studies) has⁴⁹ found that Governments have not made significant progress in terms of achieving policy coherence for SDG implementation. Most national Governments acknowledge the trade-offs and synergies surrounding in the SDGs, but there are significant opportunities for strengthening institutional integration and policy coherence. So far, integration of the SDGs into national strategies and plans has not led to the development of cross-sectoral policies or programmes.⁵⁰ Risk management systems exist in public administration, but they are generally not integrated into coordination structures for SDG implementation, as noted by Alter.⁵¹

It is unclear whether institutional changes have led to enhanced integration and coherence. Drawing on examples from the

2021 and 2022 VNR synthesis reports, Weitz's contribution highlights examples of how countries report on setting priorities and their efforts to improve coordination, policy coherence and integration. As noted in her contribution, independent evaluations are needed to assess whether the institutional measures adopted actually make priority-setting and implementation more systemic. As highlighted in box 4, external audits can help in this regard.

Although a higher degree of policy coherence is likely when government entities use coordination mechanisms, there are several barriers and challenges that can undermine progress in this area, including bureaucratic obstacles, limited political will, waning SDG ownership, and the prioritization of short-term agendas.⁵² The transformational impact of the 2030 Agenda depends on addressing these challenges. A systemic understanding of SDG interdependencies needs to be considered in national implementation processes to help inform priority-setting and efforts to advance policy coherence and integration. The United Nations' work on Integrated national financing frameworks (INFFs) provides practical guidance for countries to address these multifaceted challenges and enhance policy coherence in various SDG sectors.⁵³

2.3. Contextual determinants of an integrated SDG implementation

Global, regional and domestic conditions affect how and why State actors set policy priorities, whether they have the capacity to implement certain SDGs and targets, and how effectively they implement them.⁵⁴ Some of the global and local contextual factors that have gained relevance in the aftermath of COVID-19 include declining prosperity, increased poverty and inequality, security and technology threats, domestic challenges related to limited resources and fiscal space, data and capacity constraints, and the erosion of governance. These factors are intertwined, underlining the complex cross-sectoral and transnational nature of sustainable development challenges.

The effects of the pandemic and the war in Ukraine have halted global progress on poverty eradication.⁵⁵ Inflation and rising food and energy prices have contributed to worsening poverty, with 93 million people pushed into extreme poverty in 2020 and increased income poverty in all countries.⁵⁶ Asymmetries in social protection in response to the pandemic have deepened inequalities, increasing income differences across countries.⁵⁷ Structural and systemic discrimination has intensified, and there has been a global regression in women's rights.⁵⁸

The global security scenario has changed with the erosion of multilateralism, increasing strategic competition among countries (including in newer areas such as cyberspace) and

escalating threats such as climate change and natural disasters, biological incidents, and misinformation.⁵⁹ Responding to these threats requires enabling and strengthening collaboration between State actors and non-State actors, including the private sector.

There have been significant digital and other technological advances over the past several years, many of them driven by the urgent need to address pandemic-related challenges.⁶⁰ These developments, while largely positive, also involve risks and may create or reinforce existing policy trade-offs (including those relating to inequalities). International cooperation and domestic policy changes may be needed to allow Governments to fully access and leverage the potential of digital advancements.⁶¹

At the national and regional levels, resource constraints make it difficult to achieve policy coherence. Growing needs and declining resources have affected SDG financing.⁶² Pandemic-induced increases in spending and decreases in tax revenues have exacerbated the unsustainability of the fiscal path taken by many countries, contributing to growing debt and further limiting the fiscal space.⁶³ These trends are also evident at the regional level; for example, fiscal space limitations linked to large national debt burdens, low levels of economic diversification, and the lack of sustainable funding for development limit policy options for fighting inflation and undermine coherence in the Caribbean region as a whole.⁶⁴

The suspension of governance principles, declining trust in democratic institutions, political polarization, and challenges to civic space undermine the legitimacy of SDG policy choices at the national level. The number of democracies stagnated between 1980 and 2021, institutional innovation remains limited, and the number of countries moving in an authoritarian direction is more than double the number of those moving towards democracy.⁶⁵ According to the CIVICUS Monitor, only 3.1 per cent of the world lived in open civic space in 2022.⁶⁶ Positive perceptions of autocratic leadership have also increased, with 52 per cent of the respondents to the 2021 World Values Survey leaning in this direction.⁶⁷

Countries may lack the analytical capacities and tools to assess SDG interdependencies or the frameworks to prioritize SDG policy goals.⁶⁸ Policy and planning processes may be hindered by data constraints or by insufficient input from stakeholders. For example, Indonesia has faced challenges in setting a long-term vision and objectives because of the limited engagement of non-State actors.⁶⁹

Global factors, including external shocks, affect SDG policy choices at the national level. The trade-off between security and safety and personal freedoms requires regulatory responses and monitoring technologies which may not develop as quickly as technological solutions (see chapter 1).⁷⁰ Countries may need to strengthen national innovation strategies and systems

and their integration into sustainable development plans.⁷¹

Governments also face difficult choices relating to monetary and social policies to control inflation, with mitigation measures often involving reduced social spending. There is an urgent need to prioritize strategies that ensure long-term fiscal sustainability, including changes to fiscal rules, tax reforms, and expenditure and revenue optimization, which may involve drastic trade-offs in terms of the activities and programmes financed. The analytical work of INFFs provides a framework to help policymakers think through these trade-offs and make informed policy choices.⁷²

There are synergistic efforts being undertaken to address inequalities and progress on SDGs, particularly in the key areas of poverty, productive employment, health and education; however, there is significant debate around these efforts in many countries. The alternatives around COVID-19 responses highlighted the tensions between health and socioeconomic rights in many countries, as illustrated in box 2.1. While at times the subject of contention, these trade-offs have also contributed to innovation, as analysed in the contribution of Fernando and De Alwis for the case of Sri Lanka.

2.4 The importance of science-policy interfaces in supporting integrated action on the SDGs

The COVID-19 pandemic both challenged and affirmed the importance of science-policy interfaces (SPIs).⁷³ Some scientific contributions were critical to the pandemic response and were widely accepted and integrated into national policies; however, as highlighted in Norheim's contribution, there were many cases in which the role played by the scientific community was contested and scientific advice and evidence-based policy alternatives disregarded.

Maximizing synergies and mitigating trade-offs among the SDGs requires SPI processes that enable collaboration between policymakers and the scientific community. Such collaboration should be built on productive exchanges and the co-creation of knowledge to inform SDG implementation and enhance the legitimacy and effectiveness of policy decisions.⁷⁴ SPIs can contribute not only to greater policy coherence for the SDGs but also to enhanced trust in science, as noted by Carrero-Martínez and others in their contribution to this chapter. Various strategies that facilitate the exchanges between the scientific community and policymakers have been formalized in different types of SPI frameworks.⁷⁵

In this context, two relevant questions relate to what scientific methods and capacities are needed to help policymakers address SDG interdependencies and improve policy coherence

Box 2.1 Trade-offs between health and socioeconomic rights in response to COVID-19: the case of Malawi^(a)

The COVID-19 pandemic forced Governments to make difficult choices that affected the health, wealth and freedoms of their populations.^(b) Governments had to manage difficult policy trade-offs such as health preservation versus economic stability; in many countries, policymakers imposed national lockdowns and travel restrictions to lessen the spread of the virus, resulting in severe economic downturns.^(c) Globally, more than 100 countries had instituted either a full or partial lockdown by the end of March 2020.^(d)

Responding to the declaration of the COVID-19 pandemic by the World Health Organization on 11 March 2020, the then President of Malawi declared a state of national disaster in line with section 32 of the Disaster Preparedness and Relief Act on 20 March.^(e) On 1 April, the Government established the special Cabinet Committee on Coronavirus, chaired by the Minister of Health. On 13 April, when the number of COVID-19 cases had reached 16 and 2 deaths had been confirmed, the Committee announced that a 21-day lockdown would be imposed to contain the virus, in line with the COVID-19 rules established under section 31 of the Public Health Act and gazetted by the Government.^(f)

On 17 April, two individual citizens joined a human rights coalition and a religious organization to obtain an injunction and apply for a judicial review to restrain the Government from implementing the lockdown on the basis that it would severely affect citizens' socioeconomic status.^(g) Another individual filed a separate application on the same issue, but the two cases were joined.

The claimants challenged the constitutionality of the lockdown on the basis that public health rules had been issued without the parliamentary oversight required by section 58 of the national Constitution. Additionally, they claimed that the lockdown had been adopted without the declaration of a state of emergency, which would have been required as it involved a substantial derogation of fundamental rights.^(h) The claimants further argued that the lockdown would impose an economic burden on Malawians since it was not accompanied by social protection interventions to support marginalized groups.⁽ⁱ⁾

The injunction was granted pending a full hearing of all the parties involved.^(j) After the public hearing, the High Court Sitting on Constitutional Matters ruled that the lockdown was unconstitutional and limited fundamental rights, namely the right to economic activity (to work and pursue a livelihood) and the right to education. The Court stated that the rights restrictions deriving from the lockdown provisions under the COVID-19 rules exceeded the permissible constitutional limits.^(k) Following the Court's ruling, the lockdown was suspended.

This challenge to the legitimacy of the lockdown and the consequent judicial decision were exceptions in the regional context. Multiple factors influence how Governments manage policy trade-offs in times of crisis and how citizens respond to the policy choices adopted by Governments; in the case of Malawi, such factors included the strength of the rule of law, the level of civic engagement, and the role and involvement of civil society.

Sources: (a) Written by Jessie Kalepa, Junior Professional Officer, DPI/DG, UN DESA; (b) Ole F. Norheim and others, "Difficult trade-offs in response to COVID-19: the case for open and inclusive decision making", *Nature Medicine*, vol. 27, No. 1 (January 2021), pp. 10-13, available at doi: [10.1038/s41591-020-01204-6](https://doi.org/10.1038/s41591-020-01204-6); (c) Daniel Dunford and others, "Coronavirus: the world in lockdown in maps and charts", *BBC News*, 7 April 2020, available at <https://www.bbc.com/news/world-52103747>; (d) *ibid.*; Vibhuti Mendiratta, Olive Nsababera and Hannah Sam, "The impact of COVID-19 on household welfare in the Comoros: the experience of a small island developing State", World Bank Policy Research Working Paper No. 9964, available at <https://documents1.worldbank.org/curated/en/349051646942786069/pdf/The-Impact-of-Covid-19-on-Household-Welfare-in-the-Comoros-The-Experience-of-a-Small-Island-Developing-State.pdf>; (e) High Court of Malawi, Constitutional Reference No. 1/2020: case of Esther Cecilia Kathumba and 4 others versus the President of Malawi and 5 others, available at <https://malawilii.org/akn/mw/judgment/mwhc/2020/29/eng@2020-09-03/source>; (f) *ibid.*; (g) Zodiak Broadcasting Station in English, available at <https://www.zodiakmalawi.com/>; see also <https://pknewspapers.com/malawi/english/zodiak-broadcasting-station.html>; (h) High Court of Malawi, Constitutional Reference No. 1/2020 (case of Esther Kathumba and others versus the President of Malawi and others); see also Malawi's Constitution of 1994 with Amendments through 2017, available at https://www.constituteproject.org/constitution/Malawi_2017.pdf?lang=en; (i) High Court of Malawi, Constitutional Reference No. 1/2020 (case of Esther Kathumba and others versus the President of Malawi and others); (j) *ibid.*; (k) *ibid.*

and what institutional forms or models of SPIs may be particularly conducive to enhancing such capacities. Several contributions to this chapter address this question. Tully explores the use of strategic foresight to guide SDG implementation. Lustosa da Costa, Lisboa Blumm and Dhingra reflect on the

benefits of networks, as one institutionalized SPI mechanism, in bridging the gap between research and decision-making and ensuring inclusive capacity-building. The importance of inclusive collaborative processes is also emphasized by Norheim and by Carrero-Martínez and others.

2.4.1 Scientific support for SDG implementation

The scientific community can help policymakers translate knowledge and evidence surrounding SDG interactions into more coherent and integrated policy implementation. Enabling the co-production of policy-relevant knowledge, providing institutional mechanisms through which knowledge can inform policymaking, and establishing guiding principles or policies that ensure transparency and collaboration are vital elements.⁷⁶

Science can support integrated SDG policymaking in different ways. It can provide early warning and support the identification, avoidance and control of risks.⁷⁷ Science provides analytical methods and tools that can help Governments understand SDG interlinkages and assess trade-offs and synergies with a long-term perspective (using nexus and systems thinking, trade-off analysis, behavioural science and strategic foresight, for example).⁷⁸

Science can also be used to help synthesize evidence to enable policymakers and advocates to frame policy problems and legitimize policy priorities.⁷⁹ For example, within the realm of SDG interlinkages, there are empirical grounds for arguing that investments in the governance targets of SDG 16 can catalyse interventions to reduce poverty and inequalities, since participation and inclusion are positively correlated with poverty reduction, and higher levels of transparency and accountability help improve access to basic services and social protection targeting.⁸⁰

Some of these approaches facilitate participatory processes and the engagement of stakeholders. More inclusive knowledge generation and sharing can build the expertise needed to support informed decision-making. As an illustration, there has been an increasing focus on integrating local and Indigenous knowledge into science-policy interfaces for the SDGs (see box 2.2).⁸¹ Several examples of participatory processes are also provided in the contribution of Carrero-Martínez and others.

Box 2.2 Integrating traditional knowledge into the science-policy interface^(a)

Conservation science is often the leading voice in efforts to foster conservation, ensure the sustainable management of forests, protect biodiversity, and address climate change (SDGs 13 and 15). Conservation science supports spatial conservation through the creation of protected areas. However, this can violate the territorial and cultural rights of Indigenous Peoples as enshrined in the Declaration on the Rights of Indigenous Peoples. Though Indigenous Peoples protect 80 per cent of the Earth's biodiversity,^(b) they have legal rights to only 18 per cent of the world's land area.^(c) Recognizing and respecting the role of Indigenous Peoples as caretakers of the land enables them to engage in the conservation and management of natural resources and eventually be compensated for the use of their traditional knowledge (for private purposes, for example).

Traditional knowledge includes the “innovations and practices of Indigenous Peoples in matters related to agriculture, environmental management, art and language”.^(d) Indigenous knowledge is necessary to identify priority areas to be protected, to ensure the preservation of Indigenous ways of life and food security, and to mitigate climate change. Welcoming the voice of traditional knowledge creates space to consider SDG trade-offs, synergies and intergenerational fairness, since Indigenous Peoples practice decision-making that prioritizes future generations.

A partnership formed between the Nature Conservancy of Canada and the Cree Nation Government exemplifies how utilizing both traditional knowledge and conservation science can inform conservation policy decisions that respect Indigenous rights. The Nature Conservancy and the Cree Nation Government worked together to identify “ecologically and culturally significant” land areas and practised consultation, flexibility and effective collaboration to refine the boundaries of protected areas in line with the global conservation commitments of Canada.^(e) This example illustrates how the inclusion of Indigenous traditional knowledge contributes to the recognition of Indigenous Peoples' rights and aids in the effort to protect biodiversity and mitigate climate change.

Sources: (a) Written by Kiana Schwab, an intern working with DPIDG, UN DESA; (b) Gleb Raygorodetsky, “Indigenous peoples defend Earth's biodiversity—but they're in danger”, *National Geographic*, 16 November 2018, available at <https://www.nationalgeographic.com/environment/article/can-indigenous-land-stewardship-protect-biodiversity/>; (c) Morgan Erickson-Davis, “Catastrophic failure: world's indigenous communities lack rights to 75% of their land”, *Mongabay Environmental News*, 2 October 2015, available at <https://news.mongabay.com/2015/10/catastrophic-failure-worlds-indigenous-communities-lack-rights-to-three-quarters-of-their-land/>; (d) Tom Kwanya, “Indigenous knowledge and socioeconomic development: Indigenous tourism in Kenya”, in *Knowledge Management in Organizations: 10th International Conference, KMO 2015, Maribor, Slovenia, August 24-28, 2015—Proceedings, Lecture Notes in Business Information Processing*, vol. 224 (August 2015), Lorna Uden, Marjan Heričko and I-Hsien Ting, eds. (Springer), available at doi: https://doi.org/10.1007/978-3-319-21009-4_26; (e) Commission for Environmental Cooperation, “Partnerships in indigenous-led land-use planning for an environmentally and economically sustainable future”, NAPECA Project, available at <http://www.cec.org/north-american-partnership-for-environmental-community-action/napeca-grants/partnerships-in-indigenous-led-land-use-planning-for-an-environmentally-and-economically-sustainable-future/> (accessed on 8 November 2022).

2.4.2 The use of strategic foresight and similar methodologies to support policy coherence

There are multiple science-based methods, tools and practices that can help strengthen policy coherence and integration for the SDGs (see the table in subsection 2.2.1). In the context of the pandemic and the climate crisis, strategic foresight has gained increased attention as an effective framework for ascertaining and analysing the implications of external shocks and identifying longer-term policy alternatives.⁸²

As described in Tully's contribution, strategic foresight can contribute to increased policy coherence for the SDGs in different ways and in various contexts.⁸³ It can help institutions assess and manage risks associated with different policy alternatives so that they can make informed choices or identify reinforcing synergies to achieve long-term goals.⁸⁴ It can also help bring an intergenerational lens into decision-making and engage multiple stakeholders in strategic planning, help mobilize multiple inputs, build a shared vision or common understanding of policy problems, and enhance trust among stakeholders. These elements contribute to fostering integration and institutional collaboration.

The menu of strategic foresight tools available is vast and includes intergenerational fairness assessments, participative foresight and cross-generational dialogues, and building foresight ecosystems and future generations institutions, among others.⁸⁵ Tully presents some experiences of the use of these tools to support integration and policy coherence for the SDGs.

Government and other State entities have started to institutionalize and build capacity for strategic foresight to advance sustainable development.⁸⁶ For example, the Senate of the Philippines⁸⁷ has established the Committee on Sustainable Development Goals, Innovation and Futures Thinking to incorporate strategic foresight in government actions related to sustainable development. The Committee has used futures thinking and strategic foresight to explore prospects and solutions for different sectors, including education, health, food security and infrastructure.

Supreme Audit Institutions (SAIs) have also incorporated strategic foresight in their independent assessments of government policies.⁸⁸ Strategic foresight is used by the United States Government Accountability Office's Foresight Center to analyse trends and their impact on various policy areas, including sustainable development, highlighting drivers of uncertainty and identifying possible scenarios and policy implications.⁸⁹

The examples provided affirm the value of science-based approaches, but there are still gaps in terms of how these methods perform and support countries in SDG implementation, help policymakers understand SDG

interactions, and provide the tools and evidence needed to identify, evaluate and prioritize policy alternatives.

Moreover, while strategic foresight and similar methods can be used to engage stakeholders around a common vision, non-State actors have yet to leverage these capabilities to the same extent. Some initiatives are trying to address this gap. For example, the Civil Society Foresight Observatory in the United Kingdom aims to create space for civil society organizations to take part in strategic foresight by prioritizing outcomes and anticipatory knowledge from people and communities.⁹⁰

2.4.3 SPI institutional forms and processes

Given these challenges, there is a need to identify how SPIs can better support policy coherence and integration for the SDGs and what institutional forms and processes may be most conducive to developing capacities for strengthening SDG implementation. While global SPIs offer cutting-edge knowledge and evidence on critical areas such as climate change, the multiplication of SPIs may also contribute to fragmentation and undermine integrated SDG implementation at the national level.

The urgency of undertaking transformative actions to advance the SDGs in a complex context underlines the existing challenges to a linear understanding of the relationship between science and policymaking. Government institutions need to manage available knowledge and tap into new sources of knowledge (including Indigenous Peoples, local communities, civil society and youth), but they require relevant, easy-to-use approaches and tools with actionable results to allow them to leverage this expanded body of knowledge to inform decision-making on SDG implementation.

Improving responsiveness to the needs and demands of policymakers may require a stronger focus on co-producing inclusive alternatives and facilitating capacity-building efforts. First, iterative co-development or co-production of research leads to more robust and legitimate outputs and helps bridge the gap between evidence, policymaking and practice.⁹¹ Moreover, these approaches can help improve the alignment between the views and priorities of researchers and users with regard to methods and tools.⁹² Box 2.2 and the contribution of Carrero-Martínez and others present examples of collaborative inclusive experiences. Second, the adoption and use among policymakers of available science-based methods and tools for SDG implementation—including systems thinking, strategic foresight, and analyses of interdependencies—can be supported through capacity-building and sharing, as highlighted by Weitz.

Identifying and mapping the SPI capacities needed to support policy coherence for the SDGs are critical, as public entities with different experiences in SDG implementation will have diverse capacity needs. Moreover, some institutional forms of SPIs such as networks and other collaborative mechanisms can

provide the institutional space for enhancing the development of capacities and ensuring the adoption of inclusive approaches to capacity development, as illustrated in the contribution of Lustosa da Costa, Lisboa Blumm and Dhingra. Section 6 of this overview offers further elaboration on capacity development.

2.5 Supporting integrated SDG implementation through public financial management

Strengthening public financial management (PFM) systems and the efficiency, efficacy and equity of public expenditure are critical for enabling the coherent and synergistic implementation of the SDGs. With the fiscal space shrinking due to declining domestic revenues and growing debt burdens in many countries, Governments face harsh policy trade-offs in their efforts to boost SDG implementation. Some countries, in particular those with limited domestic resources, may deprioritize investment and public spending on the SDGs.⁹³

Resource limitations and spending inefficiencies exacerbate financing gaps and undermine progress on the SDGs. Mobilizing additional spending on specific SDGs (according to recent estimates, an extra ten percentage points of GDP would be needed for low-income countries and two percentage points for emerging market economies)⁹⁴ may be difficult given the limited fiscal space in many countries. Improving the efficiency of public spending would help strengthen progress on the SDGs while reducing the need for additional spending.⁹⁵ Policy alternatives for expanding the fiscal space—including increased revenue mobilization, narrowing the gaps between budget allocations and actual spending, improved fiscal transparency in revenue generation and budget execution, and new approaches to debt management—could be used to sustainably finance spending on synergistic SDGs.⁹⁶ For example, Barbados has laid out a plan for restructuring the country's debt, taking into consideration the risks of climate change and ensuring sustainable financing for biodiversity conservation.⁹⁷

Understanding the links between public spending and the attainment of SDGs on a cross-national basis may help identify the main drivers of inefficiencies and incentivize countries to take further action that can boost performance on SDG implementation.⁹⁸ There is also a need to understand the financing needs, flows, risks and constraints in specific national financing contexts. Research has found a non-linear relationship between public spending and SDG performance. Therefore, it is critical to identify the impact on performance of additional public spending as well as areas where additional investments may have limited impact due to structural bottlenecks that would require long-term institutional changes.⁹⁹ This can shed

light on where public spending and major investments to achieve specific priorities can generate synergies or trade-offs with other SDGs and help advance the 2030 Agenda.

Computational models and scenario and pathway approaches in combination with simulation modelling are useful for supporting these efforts. However, they should be adapted to various contexts and local capacities to leverage their potential. For example, computational modelling has found that environmental issues relating to clean air could be substantially improved with additional budget resources while other issues relating to SDGs 14 and 15 would require improving the effectiveness of programmes.¹⁰⁰ Similarly, institutional levers related to SDG 16 are important for enhancing management effectiveness and have a positive impact on SDG 14 outcomes.¹⁰¹

At the country level, national modelling studies in Australia and Fiji have identified variations in SDG performance for alternative scenarios due to the differences in public and private expenditure and revenue settings. In Fiji, scaling up investment and ambition would allow the country to make 83 per cent of targeted progress on the SDGs by 2030, but the scale of investment might not be achieved without significant support. Moreover, it might be impossible to overcome persistent trade-offs such as increasing agricultural output and improving nutrition (Goals 2 and 8) versus ensuring sustainable fish stocks (Goal 14).¹⁰² In Australia, a sustainability approach based on the coherent management of economic, social and environmental trade-offs instead of an exclusive focus on economic growth would lead to the best SDG performance, but closing the gaps to full SDG achievement might be challenging given the diminishing returns on investment, even for the top-performing SDGs.¹⁰³

Monitoring the efficiency of budget execution and whether Governments spend what they plan to spend according to the approved budget is critical for SDG performance and provides a measure of the overall credibility of government budgets. SDG 16 recognizes the importance of budget credibility through a dedicated indicator (16.6.1). The COVID-19 pandemic caused budget disruptions and impacted aggregate spending; in several regions, the average deviations between actual and planned budgets were higher during 2020 and 2021 than in previous years—an indication of changing policy priorities due to the emergency.¹⁰⁴ In Europe and Central Asia, more than half of the countries overspent by more than 15 per cent. However, most countries in other regions underspent; in Eastern Asia and Pacific, some countries underspent by more than 10 per cent, countries in Southern Asia underspent by 20-30 per cent on average, and most of the countries in Latin America and the Caribbean and in Sub-Saharan Africa also underspent to varying degrees.¹⁰⁵

These patterns have implications for SDG performance. Research in 14 countries and seven policy areas related to

10 SDGs between 2018 and 2020 shows that Governments often reduce the share of spending (relative to the aggregate budget) in the education, social protection, water, agriculture and environment sectors during budget implementation.¹⁰⁶ This affects performance not only on those SDGs but also on interrelated Goals and targets.

There are significant opportunities to improve the efficacy of public spending. The adoption of the SDGs represents one such opportunity, as it has prompted the development of financing and budgeting initiatives that may support an integrated SDG implementation. For example, the United Nations is supporting over 70 countries in the development of INFFs to mobilize financing for the SDGs and to enhance coherence across financing policies and their alignment with national priorities.¹⁰⁷ They provide a framework for developing financing strategies and related financing policies, resource mobilization efforts and governance frameworks, and allow countries to align their financing policies (from taxation to investment and development cooperation) with their sustainable development strategies and the SDGs. There is still limited evidence on how they may have affected SDG budget allocations.

The interdependent and cross-cutting nature of the SDGs and associated targets makes it difficult to track SDG spending. However, several countries (including Argentina, Colombia, Denmark, Finland, Mexico and the Philippines) have developed methodologies to link the budget to development objectives and the SDGs.¹⁰⁸ More countries (including Australia, Canada and New Zealand) are also adopting well-being budgets to support expenditure on the SDGs.¹⁰⁹ Advances such as these can help Governments identify contributions to progress on specific Goals and targets from interrelated policy areas. Some countries (such as Afghanistan and Ghana) are increasingly reporting on SDG budget execution and how it may support progress on the SDGs.¹¹⁰ In their contribution, Ferreira, Martínez and Guerrero discuss the strengths and limitations of SDG budgeting based on recent experiences.

Governments can improve policy coherence and increase accountability by linking or tagging the budget to the SDGs and to national monitoring and performance frameworks.¹¹¹ A coherent budget enhances the efficiency of public spending by addressing conflicts or overlaps between budget allocations.¹¹² One limitation is that many countries have barely started to integrate the SDGs into their budgetary processes. Moreover, there is a lack of widely accepted general guidelines and methodologies to link public spending to progress on the SDGs, and the quality of information varies.¹¹³ Some methodologies may be better at identifying positive spending contributions than accounting for negative impacts on interrelated programmes.¹¹⁴ It should also be noted that reforms to link budget allocations with development objectives have not generally informed policymaking. For example, there is little

evidence yet on how the information generated through budget markers in Colombia has informed policy dialogue between the executive and legislative branches and civil society, or how it has affected budget formulation (see box 2.3).¹¹⁵

Budget information helps stakeholders advocate for and support integrated SDG implementation. Ideally, the proactive publication of thematic budgetary reports should be part of a comprehensive policy of budget transparency and participation, which would allow civil society to monitor SDG implementation, ensure that policy priorities reflect social demands, advocate for corrections, and exercise social control (see chapter 3).¹¹⁶ Budget information also enables the critical role of oversight institutions, which can hold Governments accountable for their SDG performance. For example, SDG budget tagging enables SAIs to audit the effective implementation of the budget and its contribution to progress on the SDGs.¹¹⁷

The budget is a key distributive mechanism. Governments should be encouraged to better link PFM decisions to development outcomes for different groups in society. A systematic link between PFM decisions and development outcomes would allow Governments to identify the implications of budget allocations and actual expenditures for specific groups and how trade-offs affect them. This means that potential winners and losers of policy choices could be clearly identified, including from an intergenerational perspective.¹¹⁸

Fiscal sustainability and debt management are relevant considerations from an equity and intergenerational perspective. This is exemplified in Kenya, where one of the objectives of the 2020 public debt policy was to guarantee the sustainability of public debt to prevent negative effects on future generations and ensure regional equity in the distribution of costs and benefits of projects financed with public debt.¹¹⁹ In the aftermath of COVID-19, the discussion on fiscal sustainability has to address critical trade-offs related to managing future crises while improving the quality of public services and strengthening social protection to prevent further negative impacts on inequality and social conflict.¹²⁰

Complex intersecting and intergenerational challenges such as gender equality and climate change require integrated government responses supported by responsive PFM systems.¹²¹ Countries have advanced gender- and climate-responsive budget reforms,¹²² but few have considered the interlinkages and made a climate-responsive budget also gender-responsive or vice versa.¹²³ Information disaggregated by cross-cutting priorities, with consideration given to their intersections, is essential for strengthening budget methodologies and processes in a way that can not only improve monitoring and reporting but also inform SDG implementation by leveraging synergies and enhancing coherence and coordination.

Box 2.3 Budgeting for sustainable development: the experience of Colombia

Colombia has developed methodologies to monitor budget allocations and execution for cross-cutting sustainable development issues and the SDGs. Law 1955 of 2019, which issued the 2018-2022 National Development Plan,^(a) gave the Ministry of Finance and Public Credit and the National Planning Department the mandate to develop a methodology to track cross-cutting expenditure categories on gender, peacebuilding, and the integration of ethnic minorities, allowing the identification of objectives and indicators related to these priorities, together with the associated budget allocations and actual expenditures.

The law also establishes requirements for the submission of annual reports to Congress on the cross-cutting expenditure categories of gender and peacebuilding and the inclusion of annexes with the cross-cutting figures in the annual budget proposal submitted to Congress for legislative discussion. The annual reports are submitted when the Ministry of Finance and Public Credit submits the annual budget. The reports have informed the debates of some special legislative committees, including the Special Committee on Equity.

Drawing on this experience, the Ministry of Finance and Public Credit has worked jointly with international partners in applying an SDG budget coding and tagging methodology for the 169 SDG targets and 232 indicators.^(b) The methodology considers the interlinkages among SDG targets and identifies for each main target up to five possible complementary or associated targets. International partners have also supported the application of the Policy Priority Inference methodology^(c) to identify expected progress on the SDGs based on the current budget allocations. The results showed that 43 per cent of the indicators would be reachable by 2030, 16 per cent would require more than ten years, and 40 per cent would need more than twenty years to be achieved.

Institutional fragmentation has been a challenge in these efforts. The National Planning Department is responsible for planning, while budget legislation plus monitoring and reporting on budget execution are within the purview of the Ministry of Finance and Public Credit. Work carried out on SDG budgeting and the cross-cutting budget indicators requires ongoing coordination and joint efforts between the two entities. Horizontal coordination has also been key to gathering information on budget execution relating to cross-cutting issues from different public entities and departments. Personnel rotations have sometimes hindered these efforts. The creation of an Intersectoral Commission on Public Financial Management has helped prevent duplication and has enhanced the interoperability of data. Ongoing communication with the entities and training public officials on the cross-cutting methodology have been critical. Focal points have been designated in each entity, which has also contributed to strengthening coordination, and the annual reporting to Congress has provided the incentive for public officials to gather the required information.

The Ministry of Finance and Public Credit is working on making the data publicly available in 2023, including setting up a dashboard for data visualization. The Ministry is also working to link budget execution to advances on the SDG targets; to this end, they have conducted a pilot exercise related to climate financing.^(d) Another way to further advance this work would be to fully incorporate the territorial dimension into the methodology, including all the public resources allocated to and disbursed at the subnational level.

Similar efforts to link budgets to development priorities have taken place at the subnational level in Colombia. For example, the Capital District of Bogotá is working on integrating cross-cutting budget lines relating to, for example, gender, youth, ethnic minorities and marginalized groups. The city government has also opened up participation spaces for the targeted groups.

Sources: Based on interviews conducted in December 2022 with representatives of the Ministry of Finance and Public Credit in Colombia, as well as the following sources: (a) Regional Observatory on Planning for Development, Law 1955 of 2019 of Colombia (Spanish), available at <https://observatorioplanificacion.cepal.org/en/regulatory-frameworks/law-1955-2019-colombia-spanish>; (b) Joint SDG Fund, INFF Colombia and United Nations Development Programme, "Alineación de presupuestos públicos y otros flujos a ODS: hacia una taxonomía ODS-análisis para el caso colombiano" (1 July 2022), available at <https://www.undp.org/es/colombia/publications/alineacion-presupuestos-publicos-otros-flujos-ods>; Guerrero and others, "Budget trackers and fiscal transparency"; (c) see the contribution by Omar A. Guerrero and Gonzalo Castañeda in this chapter; (d) Colombia, Ministerio de Hacienda y Crédito Público, "Boletín No. 38: el país adopta Marco de Referencia para la Emisión de Bonos Verdes, Sociales y Sostenibles Soberanos de Colombia", available at https://www.irc.gov.co/webcenter/portal/IRCEs/pages_Deuda/bonosverdessosociales (accessed on 20 February 2023).

2.6 Institutional arrangements for integrated SDG implementation

Effective, responsive and accountable institutions are conducive to successful SDG implementation.¹²⁴ Human rights principles and the institutional principles of SDG 16—many of which overlap—can help Governments navigate difficult trade-offs and manage complex policy choices.¹²⁵ They can guide macroeconomic and budget decisions and inform policymaking.¹²⁶ Open, coherent, and accountable institutions help convene multiple stakeholders to facilitate the implementation of long-term strategies that promote sustainable development and overall well-being.¹²⁷ They enable Governments to promote mutually reinforcing policy actions, create synergies, and address trade-offs.

Institutional changes could be a first indication of more integrated institutional approaches and coherent policymaking. However, such changes do not always bring about the intended results.¹²⁸ Many opportunities exist to advance institutional arrangements to enhance integration and policy coherence.

The dichotomy between SDG implementation and national development processes could be narrowed. Social, economic and environmental considerations could be further mainstreamed into development strategies or plans, sectoral planning instruments, and budgets. Moreover, planning and budget processes for various global sustainability frameworks and the SDGs could be better aligned. Particular urgency should be attached to enhancing coherence between the climate framework and the 2030 Agenda, which could be achieved, for example, by aligning budget processes for the SDGs and climate action or by integrating climate commitments into relevant national SDG targets.¹²⁹

There has been a strong focus on establishing coordination mechanisms, particularly at the centre of government,¹³⁰ but there is relatively little evidence on their effects, whether they have enhanced institutional integration and SDG performance, and the nature and extent of their variation across contexts. Some argue that cross-sectoral coordination might be time-consuming or unmanageable when dealing with issues that are very complex.¹³¹ Factors that can challenge or undermine coordination include bureaucratic inertia, limited resources, unclear responsibilities, capacity constraints, and the lack of well-structured collaboration with non-State actors.¹³² There is a need to draw lessons from the results of existing experiences across different contexts to better understand how COVID-19 and multiple crises may have affected coordination arrangements and their effects on integration. In some countries, coordination mechanisms set up during the pandemic proved successful and have acquired permanent status; an example is the National Cabinet in Australia, which now serves as the primary intergovernmental decision-making forum for the country.¹³³

The lack of a long-term approach to risk management will exacerbate SDG trade-offs. Managing risks requires governance systems with adequate legal and policy frameworks, clear roles and responsibilities, leadership, sufficient resources, effective coordination, and institutionalized monitoring and accountability.¹³⁴ One area of opportunity involves the systematic integration of risk management into cross-cutting processes and institutional arrangements at the centre of government, including strategic planning and foresight, coordination structures, and monitoring and evaluation systems.¹³⁵ However, as Alter notes, persistent institutional fragmentation and the challenges surrounding the development of responses to long-term issues hinder these efforts. Investing in strengthening risk anticipation capacities and preparedness and promoting shared learning can bolster progress.¹³⁶

One way to discern the differentiated effects of specific factors on various SDGs is to use impact evaluation tools more systematically (to gauge environmental or social impact, for example). This can help identify some of the potentially discriminatory impacts of new programmes, policy tools and even technologies across different groups and sectors and can also enhance the post-intervention assessment of programme impacts. For example, the integration of evidence-based policy tools such as regulatory impact analysis into governance processes can contribute to increased coherence between increasingly complex regulatory policies.¹³⁷ A systemic approach to impact evaluation, taking into consideration the joint actions of different initiatives, can help enhance coordination across entities and with other stakeholders.¹³⁸

Progress in this area has been somewhat uneven, as there are still significant asymmetries in the adoption of regulatory impact evaluation across countries due to the absence of legal obligations, the lack of guidelines and robust methodologies, insufficient institutional support and skills, and the scarcity of reliable data and appropriate indicators, among other factors.¹³⁹ Similarly, countries have a wide range of legal requirements for environmental impact assessment, and the uptake of strategic environmental assessments has generally been slow.¹⁴⁰

External audits can also help identify systemic challenges, supporting efforts to maximize efficiency and assess the value for money of policy alternatives.¹⁴¹ Specifically, performance audits contribute to policy coherence and to the identification of constraints in policies and programmes, enhance the monitoring and performance framework, and promote transparency and accountability in the use of budget resources.¹⁴² Performance audits can assess and make recommendations to improve policy coherence (eliminating the overlap and duplication of responsibilities, for example) and to strengthen the effectiveness of institutional mechanisms such as coordination bodies, information exchange and participatory mechanisms in supporting integration (see box 2.4).¹⁴³

Box 2.4 External audits as a tool to advance the integrated implementation of SDGs

Supreme Audit Institutions contribute to strengthening the integrated implementation of the SDGs. Performance audits are a valuable tool for identifying and addressing systemic constraints that may hinder integrated policymaking and for assessing the value for money of programmes and policies for SDG implementation. External audits related to SDG implementation have focused on health (SDG 3), sustainable public procurement (SDG 12), gender (SDG 5) and the environment (SDGs 13, 14 and 15), among other areas. Some of these audits have had a significant impact in terms of strengthening SDG implementation in different countries.^(a)

In 2020, the Federal Court of Accounts of Brazil coordinated an audit on selected targets of SDGs 14 and 15 with a focus on protected areas.^(b) The audit evaluated 2,415 protected areas in 17 countries. It assessed progress towards the achievement of the SDG quantitative targets on protected areas, the performance of the protected areas policy, and the coherence among policies on protected areas, land use and tourism. The audit identified fragmentation and overlapping competencies between ministries and entities responsible for environment and tourism, with no instruments of coordination nor clear definition of how they should act individually or jointly to achieve common objectives. The audit recommended the establishment of strategic mechanisms for ecological tourism in protected areas and the integration of government agencies responsible for environment and tourism. In the area of governance, the audit prompted Governments to ensure that public participation mechanisms were active and representative and involved traditional and/or local communities, and to strengthen monitoring activities to generate information on the conservation results and to enable the timely identification of environmental vulnerabilities and biodiversity risks.

Sources: (a) Aránzazu Guillán Montero and David Le Blanc, “The role of external audits in enhancing transparency and accountability for the Sustainable Development Goals”, Working Paper Series, No. 157, 28 February 2019 (New York, United Nations, Department of Economic and Social Affairs, 2019), available at <https://doi.org/10.18356/3fe94447-en>; (b) COMTEMA-OLACEFS, Federal Court of Accounts of Brazil, “Protected areas: coordinated audit–executive summary” (Brasilia, TCU, 2021), available at [EXECUTIVE SUMMARY](https://portal.tcu.gov.br/portal.tcu.gov.br/file/fileDownload)<https://portal.tcu.gov.br/portal.tcu.gov.br/file/fileDownload>.

In addition to adopting an appropriate mix of strategies, ensuring their coherence (the alignment of objectives), and implementation, there are certain procedural elements required to sustain integration and policy coherence. Sustainable development problems reflect value-based issues that cannot be addressed in purely objective scientific terms. First, a common policy framework or shared understanding of the problem and of the responsibilities of all involved is critical to sustaining integration and coherence, as it affects the implications and trade-offs related to various policy interventions. Norheim notes in his contribution that consensus, shared values and principles, and a common understanding of the nature of the problems are critical for identifying the relevant evidence and potential choices, facilitating collaboration, and building legitimacy around the policy solutions.

Different stakeholders can work together to foster a common understanding of problems and possible policy solutions. As indicated earlier, SPIs go beyond bringing evidence into policymaking and enable the collaborative framing and structuring of a policy problem.¹⁴⁴ Similarly, as highlighted in the contribution of Lustosa da Costa, Lisboa Blumm and Dhingra, SDG networks enable governmental and other stakeholders to frame issues for collective debate, thereby affecting decision-making and implementation and the resulting outcomes.¹⁴⁵

Two other relevant procedural elements are the authority to steer the implementation process and carry out changes and

the strategic production and use of information and data on the implementation of strategies and instruments.¹⁴⁶ In Chile, legislation adopted in 2018 established the responsibilities for each ministry and level of government with regard to a comprehensive child protection system.¹⁴⁷ A coordinating body was created in the Ministry of Social Development to steer activities across three sectors (health, education and childcare) and regional and municipal authorities.¹⁴⁸ Its mandate included not only overseeing implementation, but also allocating budgets and monitoring compliance.¹⁴⁹ An information system was established to manage and share information on the programme’s beneficiaries and on the performance indicators that were used to allocate budget resources to various entities.¹⁵⁰

Other foundational elements that are important for supporting and sustaining integration and policy coherence for the SDGs are the organizational culture within public administrations and the capacity and skill sets of civil servants and other stakeholders. Institutions are made up of people who require specific skills, knowledge, and capacities to identify policy priorities, collaborate, and enhance policy coherence and integration. Training public sector and other stakeholders is key to supporting the sustained integration of systems and processes.¹⁵¹ In the Philippines, for example, the Government understood that prior to the adoption of foresight methods, it was crucial to provide the personnel of the National Economic and Development Authority with relevant training to enable

them to think creatively and find new solutions to sustainable development challenges.¹⁵²

Investing in talent and capacities and co-creating capacity development and training for the public sector is critical. A 2020 review of 24 countries found that capacity-building strategies and plans for SDG implementation at the whole-of-government level were uncommon.¹⁵³ Nonetheless, national Governments have made efforts to incorporate the SDGs into capacity-building at the sectoral and thematic levels and to enhance the capacity of public officials to analyse synergies and trade-offs, conduct assessments and analysis of policy coherence, and enhance policy integration.¹⁵⁴ Guidance, toolkits, training materials and online tools have been developed to support these efforts.¹⁵⁵ However, the fragmentation of these efforts might have increased in the aftermath of COVID-19 despite the move to online activities.¹⁵⁶

The development of capacities and skills to operationalize the interdependencies of the SDGs would benefit from inclusive approaches that engage multiple stakeholders. Joint training and activities, the dissemination of common conceptual frameworks, and mutual learning can contribute to increasing the use of science-based tools, supporting collaboration around sustainable development challenges, promoting policy innovation, and enhancing trust. They can also contribute to identifying capacity gaps and needs, and to assessing capacity-building efforts and monitoring results.¹⁵⁷ Rigorous and systematic evaluation of capacity-building and other SDG implementation efforts could help strengthen strategic and sustainable approaches to transform the integrated nature of the SDGs into an institutional reality.

Endnotes

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Managing Policy Trade-Offs and Synergies at the National and Local Levels as the Urgency of Sustainable Development Goal Progress and Priority-Setting Rises

Nina Weitz¹

This contribution focuses on managing policy trade-offs and building synergies at the national and local levels in a context of rising urgency to achieve progress towards the Sustainable Development Goals (SDGs). Drawing on recent science and country practice, it exemplifies how priority-setting and action can be better aligned with the indivisible and integrated nature of the 2030 Agenda for Sustainable Development, and why this is key for moving forward on efforts to realize the SDGs by 2030.

Introduction

The first half of the SDG implementation period is coming to an end amidst multiple crises, with insufficient progress and even backsliding on several indicators and targets.² The impacts of COVID-19, climate change and conflicts show the vulnerability and interconnectedness of progress. The additional challenges posed by crises, poor performance on many SDGs, and a limited timeframe for delivery elevate the competition between multiple policy priorities and present new trade-offs for decision makers to manage. The voluntary national reviews (VNRs) for 2022 reflected the need to reprioritize investments and showed that strategic implementation of the SDGs was becoming more difficult with a larger share of countries' gross domestic product being spent on COVID-19 response.³ It should be noted, though, that insufficient progress was being made even prior to the pandemic.

When adopted in 2015, the 2030 Agenda marked a shift in the global governance approach to development by integrating Goals and targets across social, economic and ecological dimensions of development and recognizing that they are indivisible and comprise essential parts of a whole. With this came a renewed focus on the need for policy integration and coherence, which has been a recurring challenge for public administration since long before the SDGs were in place.

The approach of the SDGs as indivisible and integrated is key to ensuring, for example, that social, economic and environmental Goals and targets are not being pursued at the expense of one another. To achieve sustainable outcomes, policy development and interventions at national and subnational levels should therefore be informed by analysis of the synergies between various development goals and how trade-offs can best be handled in specific contexts. To unlock progress across the 17

Goals and ensure that progress remains robust for the long term, countries need to manage both historically persistent and emerging interactions.

The upcoming SDG Summit, to be held in September 2023,⁴ is an important junction for SDG implementation; Member States will review progress to date and explore ways to accelerate it in the time remaining until 2030. Countries will set priorities by identifying areas in which they want to speed up progress in the second half of the 15-year implementation period (how to do this will be a focus of the 2024 Summit of the Future).⁵ With the fast-approaching deadline, poor performance to date, and multiple competing agendas, there is a risk that countries will focus their implementation efforts on Goals and targets that are of political or economic interest or that are just more easily achieved rather than prioritizing those that can effectively drive progress towards the vision of the 2030 Agenda. Those that choose expediency over the implementation of a cohesive strategy for comprehensive sustainable development risk further abandoning the indivisibility and integration reflected in the 2030 Agenda.

Some SDGs already receive more attention than others in national implementation, with Member States understandably prioritizing and adapting the SDGs according to their specific contexts, needs, capabilities, levels of urgency and existing policy landscape. However, countries now need support—underpinned by science—in setting priorities that remain aligned with national plans but also contribute towards the overall vision and intended outcomes of the 2030 Agenda. Priority-setting should not just be about the achievement of separate Goals; it must be informed by how the Goals drive change both individually and through their interactions with one another. The nature of progress on the SDGs is predominantly synergistic;⁶ there are more synergies than trade-offs, and these dynamic relationships can be used as leverage points for countries to more effectively advance the 2030 Agenda in the second half of the implementation period. Analysis of how the Goals interact also informs priority-setting by clarifying which Goals do not benefit from progress towards other Goals and therefore stand a higher risk of not being met. Other reasons for careful analysis are to ensure that implementation strategies mitigate any unintended impacts from prioritizing certain Goals and to enhance transparency in priority-setting.

Clarifying SDG interactions and allowing information about synergies and trade-offs to guide priority-setting for the second half of the implementation period holds untapped potential for accelerating progress on the 2030 Agenda.

Approaches and tools for operationalizing indivisibility

With the 2030 Agenda, there have been signs of a growing interest among policymakers in exploring systemic approaches to governance. Recognition of the indivisible nature of the SDGs is critical to achieving the Goals, but supporting integrated policymaking in practice requires an understanding of how different approaches could be helpful and which innovative governance approaches could be used to manage synergies and trade-offs.⁷ A useful heuristic on levels of systems thinking suggests that actors move from a realization that systemic features and interactions exist (sensibility) through systems literacy to the capability of operationalizing systems thinking in practice.⁸ A comprehensive scientific review presented in 2022 showed that the political impact of the SDGs was limited and concluded that, for the SDGs to drive change, institutional and regulatory changes would need to follow to put the powerful principle of indivisibility into practice.⁹ In this regard, the research community has progressed in support of systems literacy,¹⁰ but further support is needed to operationalize systems thinking and institutionalize systemic governance approaches.

There are several tools and approaches available that can support more systemic decision-making around the SDGs, including conceptual and quantitative systems modelling, network analysis, participatory methods, cross-impact methods and scenario analysis. The various approaches reflected in the literature are used to respond to different policy questions. One set provides specific tools and processes to inform priority-setting, ensuring that this is guided by systems thinking. For example, frameworks are provided to guide priority-setting for all 17 SDGs and targets or specific topics, to rank synergies and trade-offs between SDGs at the global and country levels, and to inform strategy development through the study of different pathways for achieving long-term objectives and what they imply for short-term action.¹¹ These approaches are used to enhance understanding of policy interactions and can support more integrated policymaking. Other approaches are useful for assessing ex ante policy decisions and can thus support monitoring and evaluation of the SDGs and the extent to which they deliver on the principle of indivisibility.¹²

These approaches and tools must be more rapidly adopted and applied if they are to inform priority-setting and help accelerate progress on the SDGs. Uptake rates are relatively low at present, likely because there is no political and academic consensus on how the SDG interlinkages are best

managed in practice,¹³ because implementation is complicated by the contextual nature of SDG synergies and trade-offs, and because the tools are not always easy to use or able to produce the actionable results decision makers demand.¹⁴ The practical value of the tools and approaches highlighted here and relevant academic and scientific knowledge relating to SDG interlinkages must be communicated to decision makers as actionable advice, and such advice must take into account the implementation capacity of different countries. As Goal interactions, conditions and solutions are likely to change over time, such advice should ideally be an integral and enduring component of policymaking cycles rather than a one-off assessment.

Managing SDG synergies and trade-offs: country practices

The VNRs and other SDG follow-up and review processes are meant to “track progress in implementing the universal Goals and targets, including the means of implementation, in all countries in a manner which respects their universal, integrated and interrelated nature and the three dimensions of sustainable development”.¹⁵ The VNR synthesis reports from 2021 and 2022 incorporate key messages and information from reporting countries on their fulfilment of the mandate to respect the indivisibility and integrated nature of the SDGs in their implementation of the Goals and targets.^{16,17} Some examples from these reports are highlighted here to show how countries set priorities and are working to strengthen coordination, policy coherence and integration. Further research and independent assessment on a case-by-case basis are needed to evaluate whether these processes and institutional measures effectively make priority-setting and implementation more systemic and enhance the capacity to manage synergies and trade-offs, whether they are helpful in identifying measures to resolve or mitigate trade-offs and leverage synergies, and the extent to which tools and approaches developed to support systems thinking in decision-making on the SDGs have been utilized.

Tools for SDG prioritization and integration. Several countries (including El Salvador, Gabon, São Tomé and Príncipe, Lesotho, Kazakhstan, Uruguay and Switzerland) report that SDGs are prioritized based on a review of the Goals and their associated targets within the national context or a mapping of SDG targets to existing national development plans and strategies. Several VNRs reflect upon the potential of maximizing benefits through interlinkages, note the benefit of integrated policy development and implementation, or acknowledge that assessing synergies and trade-offs can facilitate the preparation of cohesive plans for accelerating the achievement of many SDGs. Some countries (such as Botswana, El Salvador and the United Arab Emirates) have developed their own tools and guidelines for SDG prioritization and integration with national

strategic plans. Others (including Chad and the Dominican Republic) report using the UNDP Rapid Integrated Assessment tool,¹⁸ which supports an integrated approach and highlights the need to understand links and synergies between policy areas and the potential trade-offs surrounding policy choices and competing priorities. In its 2021 VNR, Sweden reports being guided by the decision-support tool *SDG Synergies*,¹⁹ developed by researchers at the Stockholm Environment Institute; this same tool is mentioned in the 2021 VNR for Colombia and has also been used by the Governments of Sri Lanka and Mongolia.

Institutionalizing coordination for SDG implementation. A number of countries report having made institutional changes to facilitate coordination and improve policy coherence; various national institutional arrangements that have evolved for this purpose are illustrated in the VNRs. Argentina, Botswana, the United Arab Emirates, El Salvador, Djibouti, Luxembourg, Equatorial Guinea, Ghana, Jamaica and the Philippines have established interministerial structures or mechanisms to mobilize the various parts of the Government around the SDGs, facilitate work across multiple policy areas, and advance whole-of-government approaches.

The local role in SDG prioritization and implementation. The VNRs reflect a growing subnational focus, as effective SDG implementation relies on the concrete application of programmes and policies at the local level. Because this is where the impacts of the synergies and trade-offs play out, the involvement of local-level authorities in setting priorities is key to establishing clear policy directions and building ownership for planning, implementation and monitoring. Generally, policy coherence is seen to be strengthened by localizing the SDGs. Actors at the subnational level play an important role as change agents, so it is essential that their involvement in priority-setting be well supported by ensuring that tools and approaches that facilitate prioritization and integration are adaptable to specific local contexts and are effectively and consistently utilized.

Budgetary linkages. Another way countries approach priority-setting is by linking their budgets and budget processes with the SDGs. Andorra, Argentina, Ethiopia, Ghana, Italy, Lesotho, Malawi, Sri Lanka and Uruguay are mapping their budgets to the SDGs and measuring their contribution to each Goal. Ethiopia, Lesotho and the Philippines incorporate the SDGs in their medium-term expenditure frameworks. Botswana, Cameroon, Grenada, Jordan, Liberia, Montenegro and Togo are implementing gender-responsive financing strategies and budgeting. Ethiopia and Sri Lanka are decentralizing budgeting to empower SDG implementation at the local level.

Support from legislative bodies. Some countries (including Botswana and Switzerland) highlight the role of parliaments or similar decision-making bodies in providing oversight, legislation, resource mobilization and support for the SDGs.

Managing trade-offs is ultimately about balancing or negotiating the conflicting interests of various actors, and the pledge made in the 2030 Agenda to leave no one behind makes impacts on inequality a key consideration in this process. While policy coherence is a precondition to promoting the achievement of Goals across the 2030 Agenda, strengthened coherence does not necessarily reduce inequality. Ensuring that policies are representative and respect the principle of leaving no one behind is essential. Legislative bodies have an important role to play in this by ensuring that outcomes and new laws are inclusive in that they represent the interests, needs and views of all segments of society, in particular marginalized groups, both within and outside national borders.

Competition, conflict and trade-offs surrounding the SDGs are not always possible to avoid, but striving for policy coherence and the effective management of trade-offs and synergies can help Governments navigate these challenges in a transparent and equitable manner, ensuring that all pillars of sustainable development are given fair consideration so that progress can be achieved towards all Goals.

Some implications for SDG implementation going forward

The VNRs exemplify how countries are seeking and activating strategies that promote respect for the integrated and indivisible nature of the SDGs; as shown above, some of the approaches taken include aligning the pursuit of SDGs with national strategies and budget processes, localizing implementation, establishing coordination mechanisms, and actively engaging parliamentary or other decision-making bodies in SDG priority-setting and implementation to improve oversight and alignment with legislation.

While efforts such as those highlighted above are noteworthy, there is little empirical evidence to suggest that impacts across all SDGs are being duly considered during the implementation process or that systemic approaches are being used to guide priority-setting up front. It is unclear whether the institutional changes reported actually help to resolve trade-offs in implementation of the SDGs. National reporting and independent evaluation can furnish the evidence needed to build a political and scientific consensus on how SDG interactions should guide priority-setting and how synergies and trade-offs can best be managed in implementation in different contexts.

Recommendations

As the SDG Summit approaches and priority-setting becomes more urgent, Member States need to be proactive in exploring and activating strategies and mechanisms that can help them optimize the management of policy trade-offs and synergies in the second half of the implementation period. The scientific

community and intergovernmental organizations can provide the necessary tools, guidance and support and facilitate the sharing of best practices. Some recommendations on next steps are provided below.

Member States should adopt scientifically sound but easy-to-use decision-support tools that reflect and facilitate systems thinking to ensure full implementation of the SDGs. Developers should understand the dynamic nature of this process and be prepared to adapt their tools to diverse and changing needs; broader and faster uptake will occur with stronger alignment between the development of tools and the demands of decision makers in different contexts. The scientific community should better communicate and demonstrate the value of the tools created to address complex trade-offs and pressing challenges, ensure that tool development is focused on responding to the needs of decision makers, and work with decision makers to build capacity (including through training and knowledge exchange).

In the light of the midterm review, Member States should revisit their implementation strategies and action plans, using local knowledge and decision-support tools based on systems thinking to assess how SDG interactions are playing out within national and subnational contexts. Guided by findings indicating how action on various Goals supports or inhibits progress on other Goals, countries can then work on setting priorities that align with the vision of the 2030 Agenda. It is important that Governments be transparent about trade-offs (how prioritizing certain development objectives affects progress on other Goals or targets) and about the implications for addressing inequalities. Countries should document the process, reporting on the use of evidence and analytical tools,

the choices made and their implications, and the extent to which new approaches have strengthened decision-making and implementation. Finally, countries should share knowledge and information about their processes for managing implementation synergies and trade-offs with other Member States through VNRs and other means.

The High-level Political Forum on Sustainable Development can help mitigate the problem of partial implementation by encouraging Member States to share successful implementation experiences founded upon the principles of integration and indivisibility. The Forum can also facilitate the exchange of knowledge on how synergies and trade-offs can best be managed in practice.

Conclusion

The information provided here is intended to help Member States effectively manage existing and emerging synergies and trade-offs across indivisible SDGs. Examples have been provided to show how some countries are approaching this challenge today, but there is very limited empirical evidence suggesting synergies and trade-offs across all SDGs are being duly considered during the implementation process or are guiding priority-setting up front. The SDG Summit presents an opportunity for Governments to correct their course and place greater emphasis on systemic governance in the second half of the implementation period. Priority-setting and managing trade-offs and synergies to address sustainable development challenges can involve political maneuvering and cause contention, but they can also make the implementation of the SDGs impactful and transformative.

Endnotes

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Building Synergies for Equality and Economic Recovery: Innovation in Social Protection Systems in Sri Lanka

Karin Fernando and Thilini De Alwis¹

Historically, rapid social or economic change has forced Governments and leaders to rethink development strategies. The global shock of the COVID-19 pandemic exposed flawed institutional processes and inequalities in many countries, making it clear that many of the traditional approaches to governance and development were not sustainable in the face of emergencies. The experience of Sri Lanka, presently struggling to deal with its waning economy, clearly illustrates the need for innovative and accountable reform. This contribution examines how the country's management of competing policy priorities (reducing debt, controlling foreign trade, enhancing sustainable agriculture, and safeguarding vulnerable communities) has impacted its citizens. It also highlights recent efforts by the Government and various development partners to enhance synergies between equality and economic growth and improve social protection mechanisms.

Setting the context: the current economic predicament of Sri Lanka

In Sri Lanka, the pandemic shock and subsequent economic crisis occurred against the backdrop of pre-existing development challenges, including slow progress in securing wider private sector participation in the economy, the lack of export orientation, and inadequate integration into the global value chain.² While Sri Lanka ranks relatively high in the Human Development Index, its score declines when adjusted for inequalities,³ clearly indicating that growth is not equitable. With the adoption of low-tax-revenue policies in 2019 and high non-discretionary expenditures, there was little room left for critical development spending, including on health, education and infrastructure.⁴ By the end of 2021, the country's difficult fiscal and debt positions could not withstand forex liquidity constraints,⁵ causing the rupee to crash and the cost of living to triple in the first half of 2022.⁶ This sets the context for the next phase of development in Sri Lanka. Overcoming these challenges will require institutional reform, accountability, and economic recovery but also ensuring the protection of vulnerable communities.

Progress towards achieving the SDGs in Sri Lanka

The already fragmented Sustainable Development Goal (SDG) process in Sri Lanka has been losing momentum since 2018 due to a constitutional crisis, major shocks such as the Easter

Sunday bombings in 2019, and a lack of commitment from subsequent administrations.⁷ Furthermore, the institutional positioning of the SDG agenda has shifted from a separate ministry (in 2015) to a unit within the Ministry of Environment (since 2018), where it is a subtopic rather than a key area of focus. Progress continues to be hindered by the current economic crisis. Seven years after the launch of the SDGs, Sri Lanka has yet to fully adopt a comprehensive plan for SDG implementation. Low political will and the fragmented nature of public administration have caused policy planning processes to be carried out in silos, with little to no intended coherence or coordination across sectors. It has also been noted that policymakers tend to downplay the negative trade-offs of their own sectors⁸ and hence do not grapple with the need for policy coherence. Furthermore, economic growth remains the key priority over social policy and environment planning,⁹ which is symptomatic of the lack of a holistic approach to policy design and implementation. Frequent policy changes undermine consistency and stability, rendering policymaking a political exercise. Balancing and indeed achieving the three domains of economic growth, social inclusion and environmental sustainability requires political commitment coupled with integrated planning and managing policy trade-offs to mitigate any unintended consequences of prioritizing one over the others.

The SDGs offer a framework for understanding the interlinkages and spillover effects of development goals. The Stockholm Environment Institute (SEI) developed a methodology for identifying and selecting Goals and targets with the most synergistic effects.¹⁰ The application of the methodology in Sri Lanka was guided by an expert committee led by the Ministry of Sustainable Development, Wildlife and Regional Development. The interactions among the SDG targets were scored during a national consultation workshop in 2019 that brought together 40 experts from the Government, civil society, academia and development partners. This exercise revealed that among the prioritized targets, those that had the greatest potential to accelerate progress on other targets were strengthening policy coherence (target 17.14), reducing corruption (target 16.5), and enhancing capacity for dealing with climate change (target 13.3).¹¹

The extent to which development priorities can intersect and require integrated action on multiple fronts was recently brought to light through a policy decision to ban chemical fertilizer in Sri Lanka. In 2021, against the backdrop of the country's mounting debt crisis, a ban on chemical fertilizer

was put in place with the idea that it could address multiple challenges, including saving foreign currency, reducing chemical inputs, and making farming more sustainable and food systems healthier. However, the lack of an integrated policy decision-making process¹² led to a severe loss in productivity, a reduction in farming income, and an unprecedented food security crisis.¹³ A rapid food security assessment carried out in mid-2022 indicated that families in Sri Lanka were spending an average of 82 per cent of their household budget on food.¹⁴ A World Food Programme report released in January 2023 revealed that 32 per cent of the country's residents were not able to satisfy their nutritional requirements.¹⁵ The lack of an integrated plan caused a chain of events that affected nutrition and food security as well as the stability of farming as a source of livelihood, increased poverty rates, and had an impact on the well-being of women.

Because of the financial crisis, Sri Lanka has lost significant ground on the progress made towards achieving SDG 1. The poverty rate is estimated to have doubled between 2021 and 2022, rising from 13.1 to 25.6 per cent (\$3.65 per capita, 2017 purchasing power parity).¹⁶ As the World Bank observed, "not only are more people living below the poverty line; they have also fallen further in terms of their current living standards relative to the minimum threshold represented by the poverty line. The average distance between the poor and the poverty line ... increased to 27.4 per cent of the poverty line in 2022—up from 18.9 in 2019."¹⁷ Better social safety protection mechanisms are needed to ensure that people are able to meet their basic needs and are also able to get back to productive work.

Economic recovery and social protection reforms

Application of the SEI interaction model showed how progress on social protection (target 1.3) may not be pivotal but supports targets aimed at economic development, including innovation (target 8.2), food and nutrition (targets 2.1 and 2.2), equality (targets 5.1, 10.3 and 10.4) and the environment (targets 13.2, 12.3, 14.1 and 15.1).¹⁸ Social protection has been critical for supporting or providing a cushion for households in the pandemic and post-pandemic periods,¹⁹ but there are several gaps that undermine the fair and efficient delivery of social programmes.²⁰

The approach to social protection in Sri Lanka is fragmented; many social protection schemes have been implemented, but there is no coordination among them. There are also challenges relating to the disbursement of allowances, mainly because delivery mechanisms are inefficient and beneficiary databases are not yet digitized and must be updated manually. Beneficiaries are still compelled to queue to access cash transfer schemes. The lack of good governance practices is a key reason why countries lag behind on their development

targets.²¹ Reducing corruption (target 16.5) in countries such as Sri Lanka could improve access to social protection and service delivery, thereby accelerating progress on achieving substantial social protection coverage (target 1.3).²² Perceptions of bias, discrimination and political interference in programme delivery are a main source of public dissatisfaction; there have been complaints among social protection programme applicants and recipients, for example, that some beneficiaries are selected because they "know someone".²³ Finally, the country's lack of a reliable system for identifying those in need of social protection, the lack of preparedness to cover many new beneficiaries, and the lack of exit protocols for graduated beneficiaries could have an impact on the equitable distribution of funding.²⁴ During the pandemic, the Government's response was limited by the lack of data on which households were most seriously affected. Assistance was being provided based on existing lists of current programme beneficiaries and waiting lists assembled between 2016 and 2019.²⁵ As a result, social assistance did not reach those who were newly poor due to the COVID-19 crisis.

With mounting economic pressures, the increase in the number of those needing assistance, and the conditionalities and austerity measures imposed by the International Monetary Fund (IMF), the Government recently took steps to modernize the welfare benefits programme through the Welfare Benefits Board. By the end of 2022, the Board had begun working on a management system based on a single source of verified information on each citizen and household to facilitate better targeting.²⁶ Having a central registry can facilitate better recording and monitoring. While the new welfare benefits scheme has yet to be rolled out, the steps taken towards building a digitalized registry, the willingness to embrace innovation in assigning a QR code to each family, and the establishment of a decentralized system of data collection²⁷ are positive signs of a commitment to move forward. An appeal procedure has also been proposed to ensure transparency and accountability.

Another relevant addition to the process has been the identification of criteria for determining eligibility for social protection schemes,²⁸ developed for the purpose of reducing corruption and capturing multidimensional poverty. The methodology adopted to verify eligibility for social benefit payments uses six criteria relating to education levels, health conditions of family members, economic activity, ownership of assets, housing conditions and family demographics. There are 22 specific indicators that are used to measure these criteria.

The data collection process is under way; it needed to be innovative to ensure comprehensive coverage and optimal efficiency in a narrow window of time. When the process was launched, people were required to self-register (to the extent possible) to receive a QR code; assistance was provided to those who found the digital process daunting

and to ensure the widest coverage possible. By the end of the registration drive, more than 3.5 million people across the country were signed up and needed to have their information verified to receive support. As data had to be collected in a few months, it was necessary to train a large pool of data collectors to use a computer-assisted personal interview tool designed for data collection. A combination of face-to-face and video-assisted training was provided to more than 14,000 ground-level implementation officers across the country's islands. The training was carried out by State and non-State partners working collaboratively.

Lessons learned

Several lessons have been learned in this process. The implementation has involved experts from various fields and has included input from civil society. However, interactions have been inadequate due to the lack of transparency and short time frames (linked to pressures to implement and meet IMF conditions). The multidimensional approach and the indicators should have been discussed more widely. For example, it is unclear whether a rigorous pilot test of the indicators was conducted, and there are some indicators, such as the threshold value for electricity and economic assets, that are being debated only after they have been published in the official *Gazette of the Democratic Socialist Republic of Sri Lanka*. Once the indicators are published, the procedure for changing them is cumbersome. In addition, there are unclear methodological aspects (such as the cut-offs) that create doubt about the approach. Strengthening ownership and the inclusion of ground-level implementation officers could have resulted in better support for the proposed changes, the data collection and the consequent implementation. Protests against the penalty clauses in the data collection process have hampered the roll-out and caused delays. This situation has also led to the use of alternative modalities to complete data collection that could have compromised the rigour of the process.

There is still work to be done, and a number of challenges remain. The data collected will have to be verified. There is also a fear that funding may be insufficient, since the

redesigned social protection system would likely need to cover more people and provide more substantive support.²⁹ It is unclear what the potential fallout might be if the Government is unable to meet its social protection obligations, especially if there is no alternative plan in place, and if steps are not taken to establish a proper grievance redress mechanism. It must also be noted that implementation modalities are still unknown at this stage. The lack of overall awareness of the processes among both local-level officials and the general public has hampered acceptance and implementation.

Conclusion

The COVID-19 pandemic and subsequent economic crisis showed how critically important it is for a country such as Sri Lanka to have an effective and efficient social protection mechanism in place. The shock of the pandemic, followed by the economic crisis, has brought serious challenges that have necessitated the adoption of innovative approaches such as the use of QR codes and digitized registries, as well as the use of multidimensional poverty measures and video-based training, to revamp the social protection system. The renewed determination to overhaul social protection has been a positive step, and the process has been supported by collaboration with stakeholders whose inputs have been leveraged to address complex policy design and implementation challenges. Intentional efforts are being made to acknowledge the multidimensionality of poverty and to consider different dimensions of well-being in alignment with the SDGs. Social protection provides a cushion for achieving several of the other SDGs and related targets—highlighting the need to build on synergies and manage trade-offs. As a final caveat, it is important in development efforts such as these to ensure adequate consultation and transparency, to thoroughly test new ideas and make adjustments where necessary, to establish a realistic time frame for programme planning and execution, to ensure that all parties are on board, and to undertake an assessment of synergies and trade-offs in order to identify effective policy solutions aimed at improving the delivery of public services and building a more resilient society.

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Strengthening the Science-Policy Interface in Order to Operationalize Sustainable Development

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Introduction

The COVID-19 pandemic and overlapping global issues, including geopolitical conflicts, economic crises and climate change, have made the achievement of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) more challenging. Realizing the objectives set out in the SDGs will require broad engagement and commitment from Governments, the private sector, funding bodies, scientists and engineers, and civil society. In some countries, including the United States of America,² recognition of the SDGs remains low, despite the high degree of interest in the types of activities included in the SDGs.

As the midpoint of the 15-year timeline for achieving the SDGs approaches, it is becoming increasingly clear that action must be taken to strengthen the science-policy interface and create research agendas to inform the post-2030-Agenda processes. In November 2022, an expert committee of the National Academies of Sciences, Engineering, and Medicine (NASEM) in the United States released a short consensus report, *Operationalizing Sustainable Development to Benefit People and the Planet*, that identifies key research priorities and possible actionable steps to operationalize sustainable development.³ The present contribution offers constructive, forward-looking assessments based on the lessons learned from some of the positive case studies in the NASEM report, focusing on the productive intersection of nature, society, science, and technology.

As the SDGs are interrelated and can often be mutually reinforcing, common priorities across the eight themes highlighted in the report include the need for multi-stakeholder, multisectoral collaboration and the importance of participatory processes in decision-making. One takeaway from the case studies presented below is that it is important to build trust among different stakeholders to enhance science-policy interfaces for an integrated implementation of the SDGs that builds on their synergies and minimizes possible negative interactions.

The scientific community can play an important role in building trust among government, industry, and local community stakeholders by listening to and acknowledging their needs and by exploring ways to make science systems more inclusive, equitable and socially relevant. The science-policy interface is strengthened by all stakeholders collectively participating in decision-making, setting priorities, and managing trade-offs, which could help strengthen public trust in science and support

inclusive knowledge production and capability-building. This collective listening and decision-making process takes time and effort but is essential. Scientists working together with other stakeholders can support the adoption of evidence-based policies and actions that can bolster and even accelerate the implementation of the SDGs.

Education and capacity-building

Education is critical to achieving the SDGs, and educational institutions at all levels are powerfully positioned to stimulate the operationalization of sustainable development across society. Achievement of SDG 4 (quality education) requires making complex subjects understandable, building mindsets for long-term engagement, transforming abstract SDGs into locally relevant issues, taking actions for change, and engaging children at a young age.

One promising initiative at the K-12 level is the work of the Smithsonian Science Education Center (SSEC),⁴ which promotes active inquiry-based science, technology, engineering and math (STEM) teaching and learning; advances K-12 STEM education for sustainable development; and ensures diversity, equity, accessibility and inclusion in K-12 STEM education.⁵ In 2016, SSEC intentionally aligned its work with the SDGs, creating the Smithsonian Science for Global Goals project in collaboration with the InterAcademy Partnership, an umbrella group of more than 140 science and medicine academies, to help young people discover, understand and act. Locally relevant, locally driven but globally important experiential learning experiences combine STEM education, social and emotional learning, and civic engagement in a process similar to the multi-stakeholder process described above.

At the tertiary level, Carnegie Mellon University (CMU) serves as an example of how colleges and universities can operationalize sustainability. In 2019 CMU launched the campus-wide, multidisciplinary Sustainability Initiative, through which the first United States-based voluntary university review (VUR) was developed to assess how education, research and practice in a post-secondary educational setting align with the SDGs.⁶ CMU students have been involved in creating a voluntary local review (VLR) for the City of Pittsburgh and capstone projects to develop case studies in several cities in the United States and Canada that are tracking the impact of pandemic relief and recovery funds on issues relating to social justice needs (including SDGs 2, 3, 10 and 16). To operationalize sustainable

development, universities could develop partnerships with local and national governments, business communities, and civil society organizations to develop VURs and VLRs for their local communities to evaluate needs and take actionable steps to advance progress toward the SDGs.

Localization of the SDGs

While the SDGs embrace global aspirations, they must be rooted in local buy-in and implementation. Local communities have an important role to play in achieving the SDGs; however, jurisdictional boundaries, regulatory limitations and financing considerations can create obstacles. Electoral cycles can be tricky as government champions may come and go, but embedding sustainability into government, citizens groups, and informal networks provides the longevity needed.

As an on-the-ground example of localization, Hawai'i Green Growth (HGG) uses and contributes knowledge through a number of networks that provide examples of what works and what could be approached in a better way.⁷ Launched in 2011, HGG brings together more than 150 diverse stakeholders committed to economic, social, and environmental priorities. Success rests on four key pillars: leadership commitment, public-private partnerships, measurement of progress, and concrete, on-the-ground action. The common language of the SDGs can be used to produce data that are transparent and useful. An online open data dashboard shows citizens the progress being made and where work is falling short. Measuring what matters encourages multi-stakeholder-driven development of local metrics and indicators and an understanding of how diverse metrics are related to each other and to the SDGs. Progress towards SDG 17 (partnerships) is essential but must move at the pace of trust.⁸ People often want to take quick action, but process matters; it takes time to convene and connect diverse partners, identify shared priorities, measure what matters, and coordinate partnerships to drive action. In 2020, Hawai'i became the first state in the United States to conduct a voluntary state review.

To localize the SDGs, there is a need to explore ways to make science systems more inclusive and equitable—to involve a wider range of voices, institutions, types of knowledge, and approaches to learning that are designed to capture local needs and thus strengthen the local science-policy interface. Local officials could use the SDG framework to align local policies and initiatives. Urban and community leaders could tap into existing knowledge networks to advance sustainability, exploring the resources and activities of entities such as C40, the Brookings Institution (SDG Leadership Cities initiative), the Global Island Partnership, UCLG Learning, Vikalp Sangam, the Global Tapestry of Alternatives, and the African Network

of Cities.⁹ As more states and cities in the United States conduct VLRs, the federal Government could leverage and synthesize this knowledge and work to conduct a voluntary national review (VNR).

Urbanization

Although SDG 11 (sustainable cities and communities) most directly targets urban areas, cities will not realize the goal of becoming “inclusive, safe, resilient and sustainable” without progress on related SDGs. Many opportunities exist for synergies among SDGs related to urbanization. For example, restoring wetlands and urban forests can bolster food security, provide flood and drought relief, buffer urban heat island effects, and reduce air pollution, as well as providing city dwellers mental and physical relief from stress. Transitioning to low-carbon (including bike-friendly or bus-based) transport systems can not only reduce carbon emissions, but also decrease obesity levels, improve local economies, and reduce air pollution. Decreasing carbon emissions by x per cent or increasing tree cover by y per cent may be possible, but doing so without exacerbating inequity or worsening poverty and vulnerability is more challenging and difficult. To generate sustainable prosperity and improve the quality of life for urban residents, a new development paradigm is required.

An initiative being carried out in Porto Alegre, Brazil, illustrates how this synergistic approach can help engage citizens at the local level and over the long term to make sustainability fun and aspirational. Founded in 2001, Global Urban Development has been involved in a World Bank-funded strategy for the state of Rio Grande do Sul in southern Brazil. The Sustainable Innovation Zone was created within Porto Alegre, a city of 1.5 million, with the aim of making the city the most solar-powered, energy-efficient, bike-friendly, circular-economy, and digitally connected community in Latin America by 2030.¹⁰ Community members have joined together to plan and take part in activities involving community gardens, composting centres, electric car and bike sharing, solar posts and rooftops, and much more. A bottom-up approach, with neither State nor city officials in charge, involves civil society, academia, business, and government actors. Elements for change include taking actions and producing results to show what sustainable improvements will look like, participatory inclusiveness, and independent non-partisanship to survive electoral changes in political leadership. This experience demonstrates that strategies must be participatory and co-developed at all stages, with recognition given to the importance of collaboration and knowledge-sharing in achieving sustainable urbanization. If tied too closely to the agenda of a mayor or other leader at the helm, strategies could fall apart with changes in leadership.

Science, technology and innovation for the SDGs

Science, technology and innovation (STI) are major pillars for accelerating progress towards the SDGs. STI partnerships across sectors and disciplines offer hope for resurgent multilateralism and innovative approaches to advance the SDGs.¹¹ Several challenges to applying STI have surfaced and in some cases have been exacerbated by the COVID-19 pandemic and geopolitical and social unrest. One such challenge is the digital divide, in which access to digital technologies is uneven and inequitable across and within countries. As the interconnected world relies more heavily on such technologies, countries and people without digital access may fall further behind.¹² Full realization of the benefits of digital technology and mitigation of its detriments require appropriate governance, infrastructure, resources, and capabilities, as well as the capacity of individuals, communities, and companies to absorb and apply them.

The United Nations Interagency Task Team on Science, Technology and Innovation for the SDGs (IATT), coordinated by the United Nations Department of Economic and Social Affairs and United Nations Conference on Trade and Development,¹³ is leading the Global Pilot Programme on STI for SDGs Roadmaps, which offers a promising approach to planning for how STI can accelerate a country's efforts towards achieving the SDGs. IATT began this pilot project with Ethiopia, Ghana, India, Kenya and Serbia and continued to scale with the addition of Ukraine. The Roadmaps process involves six steps: (1) define objectives and scope; (2) assess the current situation; (3) develop a vision, goals, and targets; (4) assess alternative pathways; (5) develop a detailed STI for SDGs roadmap; and (6) execute, monitor, evaluate, and update the plan.¹⁴ Key inputs include stakeholder consultations, technical and managerial expertise, and data and the evidence base. Lessons from the Roadmaps pilot underline the importance of (a) ensuring active participation across government, scientists and engineers, industries, and non-governmental and local community stakeholder groups to develop a coherent vision, goals, and targets;¹⁵ (b) using this enhanced science-policy interface and up-to-date data and expertise to assess STI options; and (c) earmarking budgets

to implement the initiative. Among the pilot countries, Ghana is committed to strengthening institutional coordination and institutionalizing mechanisms for monitoring and evaluating STI for SDG strategies,¹⁶ while Ethiopia and Ukraine are involved in conflicts that have disrupted their plans for sustainable development, illustrating that wars and local conflicts may be the greatest threat to achieving the SDGs.¹⁷ Although countries are dealing with different challenges that may affect the prioritization or implementation timeline of STI for SDG strategies, the Roadmap offers a clear pathway for moving forward when the time is right.

Conclusion

As the midpoint of the implementation of the 2030 Agenda approaches, there is an urgent need to accelerate actions for sustainable development. Accelerating progress on operationalizing sustainable development involving all levels of government and all sectors of society can be a major stepping stone towards realizing the optimistic future envisioned in the 17 SDGs. Experience has shown the folly of relying on technology-only solutions or simply copying something that has worked in one place but will generally not work in another.¹⁸ The positive case studies shared in this contribution demonstrate that it is important to build trust among different stakeholders to enhance science-policy interfaces for the integrated implementation of the SDGs. The scientific community can play an important role through actively collaborating in multi-stakeholder processes in decision-making, setting priorities, and managing trade-offs to help enhance public trust in science and support inclusive knowledge production. To operationalize sustainable development, there is a need to explore ways to make science systems more inclusive and equitable—to involve a wider range of voices, institutions, types of knowledge, and approaches to encourage learning, capacity-building, and producing knowledge that are attuned to local needs. It is essential to identify governance models and arrangements that could strengthen science-policy interfaces and accelerate local transformations for sustainable development.

Endnotes

- 1 Franklin Carrero-Martínez is the Senior Director of the Science and Technology Sustainability Program at the National Academies of Sciences, Engineering, and Medicine; Cherry Murray is a Professor of Physics and Deputy Director of Research at Biosphere 2 at the University of Arizona; E. William Colglazier is Editor-in-Chief of *Science & Diplomacy* and Senior Scholar in the Center for Science and Diplomacy at the American Association for the Advancement of Science; and Emi Kameyama is a Programme Officer for the National Academy of Sciences.
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Operationalizing Strategic Foresight to Better Support Governments in Managing Sustainable Development Goal Trade-Offs and Synergies in the Post-COVID Context

Catarina Zuzarte Tully¹

*The challenges and commitments ... are interrelated and call for integrated solutions. To address them effectively, a new approach is needed.*²

As the midpoint of the implementation of the 2030 Agenda approaches, the world is changing rapidly, and resources are growing scarce. The COVID-19 pandemic and its aftermath have increased uncertainty and budgetary pressures. Policymakers need to make difficult trade-offs to achieve the Sustainable Development Goals (SDGs) and navigate the technological and environmental transitions ahead. The pressure to deliver on global commitments is ever more intense, and yet global uncertainties are threatening to derail efforts to achieve the 2030 Agenda for Sustainable Development.

Building robust institutions and resilient and effective long-term policies is more important than ever. Strategic foresight can support decision makers in these areas in times of uncertainty, risk, and social and technological innovation.³ Strategic foresight contributes to effective governance for sustainable development in various ways, providing a solid framework for strengthening strategic planning, risk management, innovation, community empowerment and intergenerational equity. Thinking about the future is powerful because, when undertaken strategically, it can help inform technical decisions on policy trade-offs and—even more importantly—can contribute to building a consensus on a shared vision for the future across society.

Over the past few years, the unfolding of the pandemic, the growing urgency surrounding climate change, and the deeply transformative implications of accelerating technology development have kindled a growing interest in the adoption and operationalization of strategic foresight. Governments have stepped up efforts to build strategic foresight capabilities with the help of peer-to-peer networks and United Nations entities such as the accelerator labs and regional offices of the United Nations Development Programme, United Nations Global Pulse training programmes,⁴ and United Nations regional commissions. Strategic foresight can help Governments with the following challenges:

- Addressing the urgent need not only to identify risk, but also to institutionalize prevention and to implement contingency plans (the pandemic was an example of a known future risk, and yet countries were globally unprepared for its arrival);

- Responding to wide-scale misinformation and mistrust in scientific data and technocratic policies;
- Bringing together fragmented and siloed policymaking approaches to address the many (often multidisciplinary) aspects of human well-being, including health, education, decent jobs and housing;
- Allaying concerns about the depth of multilateral cooperation and solidarity around any burden-sharing that might lie ahead, given the largely non-collective response to pandemic recovery;
- Mitigating intergenerational tensions and balancing the needs of today's citizens with the needs of future generations.

The present contribution explores recent progress in strategic foresight practice and outlines ideas for accelerating its adoption—particularly by national Governments—to unlock SDG progress and accelerate advancement towards the 2030 Agenda.

Why strategic foresight is needed to successfully implement the 2030 Agenda

There are three imperatives for the continued adoption of strategic foresight as a pillar for effective governance:

- *Supporting trade-offs.* Managing trade-offs is not an objective scientific exercise involving top-down technocratic analysis; it is a political issue that requires principle-driven decision-making. It is critical for communities to come to a consensus on shared problems and the implications of future decisions. This can enable early action and investment in prevention. The systems-thinking logic underpinning foresight can help with the exploration of alternative scenarios and how best to use scarce resources to build resilient policies.
- *Supporting capability-building.* Governments around the world—overwhelmed by major crises and grappling with declining legitimacy and public trust—are struggling with how best to respond to the public administration challenges that lie ahead. An anticipatory policymaking

approach needs to be adopted early enough, fast-tracked, and supported with adequate resources.⁵

- *Supporting the ambitious 2030 Agenda principles of interdependence, universality and leaving no one behind.* During the first half of the implementation period, policymakers have applied the SDG framework as if it is a static vision composed of 17 siloed Goals rather than the interconnected, inclusive and universal framework that it has the potential to be if seen as a dynamic and integrated solution. This has resulted in incremental rather than transformative change. The SDG midterm review can be an inflection point to commit to the widespread adoption of strategic foresight as the basis of the “new approach” called for in the 2030 Agenda and outlined in the vision of the Secretary-General of the United Nations in *Our Common Agenda*.⁶

Towards the new approach: What does good practice look like?

There are a number of recent examples of innovative country-level strategic foresight approaches being implemented at low cost and with the use of minimal resources.⁷ The adaptive nature of foresight and its ability to support emergent strategic planning is helpful for designing and implementing an effective national sustainable development plan that takes into account inherent interdependencies. Some examples below demonstrate the diversity of application and purpose characterizing this approach.⁸

Young people from China, Japan, Mongolia and the Republic of Korea have contributed to the design and facilitation of Futuring Peace in Northeast Asia, an initiative launched by the United Nations Department of Political and Peacebuilding Affairs, using a risk-management approach to strategic foresight to find new ways to share their vision of a peaceful north-eastern Asia region. The young people have discussed future scenarios to better understand how identifying anticipated challenges and making informed decisions today can support a better future.⁹ In the strategic planning category, foresight has been used in the process of domesticating the SDGs and integrating them into national processes according to each country’s context, capacities and priorities, including South-South collaboration and support. Cambodia, for example, has a long-term development plan to become a middle-income country¹⁰ and achieve net-zero emissions¹¹ by 2050, and similar approaches to foresight and planning are reflected in the Strategic Sustainable Development Plan 2022-2026 in Cabo Verde and the National Development Strategy for North Macedonia.¹² There are inspiring examples of strategic foresight being leveraged for community empowerment and Indigenous stewardship. In Aotearoa (New Zealand), Maori communities are adapting foresight approaches so that

they can be embedded in *rangatahi* (youth) culture and drive *rangatahi*-led change; key aims include developing future-focused skills within communities and providing the tools for self-governance, with the ultimate vision being income, education, and employment equity by 2040.¹³ In the Manguinhos favela in Rio de Janeiro, Brazil, young citizens are coming together as part of the Sementes Manguinhos Favela project to reimagine their desired community.¹⁴ In Barbados, foresight for leadership is being activated, with emerging political leaders using foresight to build consensus to address the ever-more-serious impacts of climate change.¹⁵ In South Africa, the Geekulcha platform, supported by the Government’s Centre for Public Service Innovation, has recently started to use foresight to build intergenerational equity by upskilling young people to encourage a deeper understanding of the future of technology and the impact it will have on societies.¹⁶

Interestingly, there is a growing trend of building strategic foresight capability across different government departments and levels, reflecting the adoption of an ecosystemic approach. Finland and Wales are oft-cited examples, where strategic foresight culture, processes, and institutions are being adopted in a systematic way across public administrations, regional bodies and local municipalities. There are other countries where this journey has started and where capability has survived political transitions. In Colombia, for example, strategic foresight has been steadily integrated into public administration. The adoption of strategic foresight in policymaking can be seen in multiple contexts: at the city level (in the multidisciplinary growth framework for Barranquilla through 2050 and beyond, to 2100, and as a youth engagement approach to respond to the 2021 demonstrations); as part of outreach efforts by the former public prosecutor; integrated into capability-building and reforms at the National Planning Department; and as part of a national dialogue for the National Development Plan 2022-2026.¹⁷

Implications for policymakers

There are two main implications for policymakers looking to apply strategic foresight in the service of achieving sustainable development in their countries.¹⁸

The first implication is the importance of supporting the efforts of public administrations and State institutions to prepare for the future through the adoption of an integrated approach across a nation’s governance ecosystem.¹⁹ Building anticipatory governance structures and processes and a network of strategic foresight champions across different institutions is critical to ensuring a lasting impact. They form an internal infrastructure for connecting signals of the future to decision-making today in a wide range of areas, including policy development, strategic planning, risk assessment, investment, innovation and recruitment. This will require new methods of data scraping, artificial-intelligence adoption signal adjustments and effective

content collection, as future-facing data and information are needed to sustain policy integration and coherence over time.

A recommended first step is to establish a centre of foresight excellence at the heart of government that is charged with ensuring that foresight is connected to policy impact, which can be achieved through building a quality supply of insights, educating senior policymakers on how to use the insights, and coordinating existing capability across government.

Building a governance culture of addressing differences by using strategic foresight approaches consistently over time is ultimately what will drive deep, lasting transformation. Consistency and commitment are needed to navigate the pendulum swing where successive Governments build and then halt the integration of foresight capability.²⁰ Building collective resources and networks to circulate success stories and support movements to document and build evidence of what works is crucial. This is particularly needed in States facing serious long-term challenges or uncertainties, including those that are fragile, undergoing stabilization, or affected by climate change.²¹ This process must be seen as a marathon, not a sprint; institutional change cannot happen overnight.

While digital technologies play an important role in promoting sustainable development and are essential for institution-building to support the integration of strategic foresight, technocratic approaches by themselves are not sufficient to lead to societal transformation on the scale needed to achieve the vision of the 2030 Agenda. The second implication is that harnessing strategic foresight for societal transformation for sustainable development requires two additional components to achieve a fairer future for current and future generations—namely, citizen engagement and leadership support.

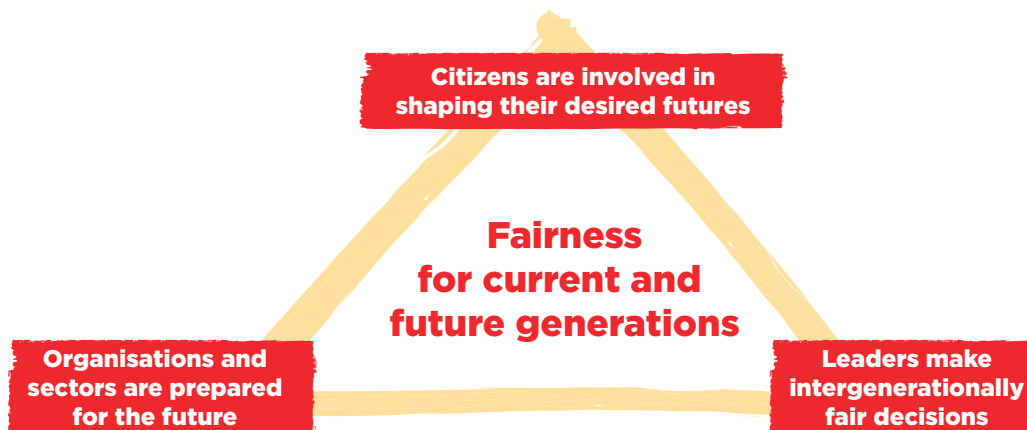
It is essential to engage citizens so that they are involved in shaping their future; participatory foresight processes—including building strategic foresight into the design of participatory

budgeting and citizens' assemblies—are critical. As noted previously, sustainable development trade-offs are driven more by social considerations than technocratic solutions. Foresight strategies can contribute by supporting the efforts of public administration officials to build resilient policies, assess choices, and connect to cross-society voices and innovations. However, it will be critical for communities to develop a consensus on shared problems, activate their imaginations to generate responses, and explore the implications of these decisions for the future (including actively considering the interests of future generations). Activating meaningful participation and validating lived experience and community knowledge and stewardship, including among youth and Indigenous communities, form the basis for profound change.

It is also vital to support the efforts of leaders to make intergenerationally fair decisions and to hold political leaders to account for the intergenerational impact of policies. Public administrations have often been held back from long-term policymaking by the lack of political support for addressing thorny issues beyond politicians' terms of office. The pandemic changed this political calculation; it not only intensified uncertainty about the future but also heightened awareness and political salience around intergenerational impacts. Citizens are now more interested in the distribution of the costs and benefits of measures—relating to priorities such as employment, education, housing and health—that will impact generations alive now and in the future. Some political leaders are explicitly stating they are championing intergenerational fairness and solidarity between all citizens, both present and future.²² One of the most potentially transformative developments is the focus on exploring the incentives of public administrations to support and facilitate the investigation of the long-term, integrated systemic impact of policies and investments made now.

The strategic foresight for societal transformation and effective governance triangle is illustrated in the figure below.

The transformative foresight triangle: an integrated strategic foresight approach to governance for societal transformation



Takeaways for Governments and international stakeholders

For public officials:

- Create a strategic foresight centre of excellence to spearhead a lean and outcome-focused multi-year initiative to build an effective anticipatory governance ecosystem across executive, legislative and audit institutions, government agencies, and municipal bodies.
- Integrate strategic foresight into civil service training and the education of current and next generations of public officials.
- Prioritize the principle of fairness for current and future generations across the public sector and assess policies from the standpoint of intergenerational fairness.
- Support global innovations to protect the rights of current and future generations by, for example, contributing to efforts to develop a declaration of rights of future generations, advocating for a strong multilateral policy scrutiny role for the Special Envoy for Future Generations, and committing to a national listening exercise that connects foresight-enabled intergenerational dialogues about the future to national strategic planning.²³

For multilateral organizations and donors:

- Use the United Nations summits taking place over the next few years (the SDG Summit in 2023, the Summit of the Future in 2024, and the proposed World Social Summit in 2025)²⁴ as an opportunity to commit to the rapid adoption of strategic foresight as the basis for the 2030 Agenda's "new approach" to local, national, and multilateral public administration and anticipatory global governance fit for the twenty-first century.
- Support a high-ambition strategic foresight capability-building programme in government.
- Champion a responsible foresight agenda for societal transformation. This involves recognizing the risk of a performative adoption of strategic foresight, challenging the existing organizational culture and ways of working, and prioritizing transformational values. Specific commitments that address key priorities, such as strengthening intergenerational citizen engagement (especially from the global South) and developing accountability mechanisms to assess the intergenerational distributional impact of policy decisions, should be integrated into international standards, programme design and *Our Common Agenda* proposals.

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The Role of Transnational Networks and Professional Exchanges in Supporting an Integrated Implementation of the Sustainable Development Goals

Carlos Eduardo Lustosa da Costa, Isabela Maria Lisboa Blumm and Simran Dhingra¹

Introduction

The 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) offer an ambitious and integrated strategy for emerging and developed countries to address familiar yet complex sustainable development challenges. The interconnected nature of the SDGs requires a comprehensive and holistic approach which depends on, among other factors, the participation and collaboration of different stakeholders to enhance institutional integration and policy coherence in their implementation.

Transnational networks and professional exchanges, involving practitioners, civil servants, and representatives from academia, civil society, the private sector, and non-governmental organizations, are an important resource to support an integrated implementation of the SDGs. Networks facilitate the development of mutual and collaborative responses, as members are encouraged to identify and characterize common challenges, to find solutions, and to discuss policy alternatives to address global issues. These forums represent a fruitful locus to advance technical discussions, support the exchange of knowledge, experiences, and good practices, and promote innovation in SDG implementation.

This contribution examines how transnational networks and international professional exchanges can help foster sustainable development. It builds on the example of a network for sustainable development that brings together young professionals from different countries. This case highlights the importance of supporting accessible and inclusive approaches to capacity-building and collaboration, especially at the crucial midpoint of the implementation of the 2030 Agenda, where insufficient progress and a complex context call for strengthening the integrated implementation of the SDGs.

Networks as catalysts for change

With the increasing complexity of society's challenges—including the COVID-19 pandemic, climate change and migration—networks are becoming more important. Global and complex issues demand collaborative solutions as they cannot be tackled by one nation or independent actors. Communities and societies need to cooperate to collectively define problems and agree on possible solutions; broad collaboration allows a variety of perspectives to be shared and

considered and increases the legitimacy and local suitability of policy alternatives.

The Oxford Handbook of Public Policy defines policy networks as “sets of formal institutional and informal linkages between governmental and other actors structured around shared if endlessly negotiated beliefs and interests in public policy making and implementation. These actors are interdependent, and policy emerges from the interactions between them.”²

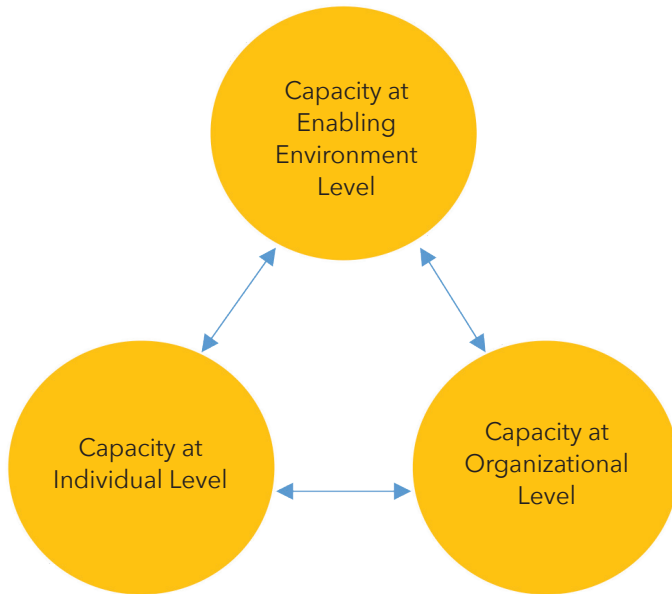
Networks facilitate cooperation, enable collaboration and create space for mutual dialogue.³ They have the potential to work as connectors between researchers and policymakers.⁴ This is extremely relevant to the development of evidence-based policies, especially in times where social phenomena such as “fake news” and misinformation may impact policy processes and undermine their legitimacy. Networks not only connect actors and knowledge but can also support the legitimization of governmental policies and programmes.

Furthermore, with the ultimate objective of advancing international cooperation on sustainable development and supporting the implementation of the SDGs, particularly in the present context of high uncertainty, it is imperative to ascertain the channels through which those networks may influence the design and implementation of policies to advance the SDGs, as well as any evidence of their benefits and results.

Networks can contribute to the building and sharing of capabilities at three interconnected levels:⁵

- *Individual*: improving individual skills, knowledge and performance through training, experiences, motivation and incentives;
- *Organizational*: improving organizational performance by optimizing and leveraging strategies, plans, rules and regulations, partnerships, leadership, and organizational politics and power structures, and by strengthening organizational systems, processes, roles and responsibilities;
- *Environmental*: creating an enabling environment for improving the policy framework to address economic, political, environmental and social factors, including economic growth, financing, labour markets, the political context, the policy and legislative environment, class structures, and cultural dynamics, in a coherent and mutually reinforcing fashion.

Three interconnected levels of capacity



By convening multiple stakeholders, networks enable capacity-building and sharing, the dissemination of knowledge, and collaboration. Some key elements through which transnational networks and their activities can support multi-stakeholder collaboration for an integrated implementation of the SDGs include continuous communication, mutually reinforcing activities, shared purposes, and a common agenda. Furthermore, transnational networks contribute to the identification of similar problems, shared understandings and aspirations, and the identification of blind spots among the broad spectrum of stakeholders, including scholars or institutions that are working on similar topics or dealing with similar issues.

Networks can facilitate growth and development at different levels (including the individual, organizational and environmental levels) over time. The impact of networks is typically linked to the progress made towards their stated objectives, which vary across networks. For example, a network that aims mainly to facilitate information exchange may not be expected to generate collective action but can nonetheless have a demonstrable impact on policy outcomes downstream.⁶

Ultimately, the effectiveness of policy networks for sustainable development would depend on whether Governments changed policies or policymaking in response to the networks' efforts. For example, countries would act differently on the implementation of a health policy depending on whether they were or were not signatories to a certain international treaty.⁷ For the SDGs, an effective network could contribute to more integrated, coherent and inclusive implementation because of the effects of the network on its members' capacities, skills and practices (including collaboration).

Given the challenge of measuring the impact of networks, less demanding forms of monitoring and evaluation could consider intermediate indicators and focus on the deliverables or outputs expected depending on different networks' goals and evaluation criteria as well as the competency effects on their members. Some of the indicators that could be used would entail curating or implementing joint projects, the adoption of new or improved practices, and more inclusive representation and participation in decision-making processes.⁸ These indicators could be intertwined with different levels of capacities and competencies.

Moving from theory to practice

The effective implementation of the 2030 Agenda requires a rich ecosystem that involves multiple stakeholders. While there are several examples⁹ of global networks for sustainable development, this section highlights the experience of the Managing Global Governance (MGG) Academy and how it contributes to SDG implementation by mobilizing, connecting, and enhancing global expertise and promoting practical solutions for sustainable development.

The MGG Academy is a training programme that has been organized annually by the German Institute of Development and Sustainability since 2007. It brings together young professionals with diverse backgrounds from Brazil, China, India, Indonesia, Mexico, South Africa, and the European Union to collectively address global challenges. Currently, the MGG network includes more than 100 institutions and approximately 380 alumni that interact through an online platform, national meetings, and global conferences.

The main objective of the MGG Academy is to foster "an innovative platform for multi-stakeholder collaboration" on global sustainable development. The programme was built with insights from behavioural sciences, investing in the idea of building transnational cooperation for primarily relational rather than transactional or instrumental purposes.¹⁰

The MGG Academy also aims to prepare future change-makers for a professional and personal life dedicated to sustainable development. Participants take part in a four-month training programme that combines a broad range of working methods, including practical experience and participatory approaches, training, lectures, discussions with experts, study trips, and peer coaching through academic and leadership modules and a change-maker project.

For the change-maker projects (CMPs), the participants have to develop a prototype incorporating a practical solution to a real-world challenge. The CMP process essentially involves deep navigation through the challenge or problem, assessment of its causes and effects, consideration of alternative perspectives, and the development of possible solutions. It encourages

participants to use holistic approaches and apply analytical tools, including systems-thinking methodology, to tackle complex sustainable development challenges in innovative ways.

The challenges considered for the CMPs are very diverse and relate to different SDGs. Past projects have focused on, for example, the use of green and sustainable packaging (SDG 12); expanding branchless banking to improve the digital and financial inclusion of low-income populations, especially women (SDGs 1, 2 and 5, among others); and leveraging the voices of small civil society organizations (CSOs) to promote more efficient cooperation with local governments around the 2030 Agenda (SDGs 11 and 16).

The development of such prototypes contributes to enhancing different types of competencies and capacities at the individual, organizational and environmental levels. For instance, the project aimed at leveraging the voices of small CSOs introduced an initiative called “BW4SD” (Be Wise for Sustainable Development) to empower a network of CSOs while opening avenues for potential collaboration with other stakeholders. It envisioned the organization of a change-maker fair to provide a space for CSOs to draw attention to their projects’ unique value and share objectives and results. Additionally, it aimed to leverage partnerships on common agendas with other stakeholders. Such an initiative could provide opportunities for CSOs to address common

challenges and conduct new research and case studies to open doors for new partnerships.

In the process of developing these projects, the participants apply and strengthen different competencies for innovation, transformation and cooperation.¹¹ The groups are composed of young professionals of different nationalities who have to reflect on their own values, communicate their ideas and motivate others, manage conflicts, practise their ability to strategically design interventions for change, apply design thinking to explore the problems in a holistic way, focus on the common good, and apply their knowledge of the SDGs to come up with practical and feasible solutions with the potential to positively impact society.

This experience demonstrates that networks, as a nexus of capacity-building and exchange, can help strengthen soft and hard skills, particularly among young people, to promote positive change in addressing sustainable development challenges. Networks contribute to creating and sustaining more inclusive approaches to knowledge generation and capacity-building for the SDGs by bringing together people with different professional backgrounds from the global South and North and by encouraging genuine collaboration. The MGG network can not only impact individuals’ careers and competencies but can also influence institutional capacity-building, as illustrated in the box below.

Anecdotal evidence of institutional capacity-building by Managing Global Governance partners

The Managing Global Governance (MGG) programme has supported the formation of multi-stakeholder voluntary sustainability standards (VSS) platforms in Brazil and China. Standards bodies and ministries in Indonesia, Mexico and South Africa are engaged in setting up similar institutions. MGG think tanks have expanded their expertise and provide advice to national VSS platforms and standards bodies in Brazil, India, Indonesia and South Africa. MGG has also facilitated the interaction of national platforms and other actors with the United Nations system.

MGG was instrumental in bringing Southern think tanks into the “Think 20” (T20) process during the 2017 German Group of 20 (G20) presidency. MGG partners assumed roles as co-chairs in five out of ten T20 task forces. This led to the founding of the T20 Africa Standing Group, with the participation of the United Nations Economic Commission for Africa, which serves as a platform for knowledge institutions from G20 countries and Africa.

The Research and Information System for Developing Countries (RIS) in India used the MGG Programme to acquire expertise on the development cooperation modalities and experiences of Organisation for Economic Co-operation and Development countries. This benefited the institution’s analytical and advisory work on South-South and triangular cooperation. In hosting international forums on this topic, RIS draws widely from partners in the MGG network.

Source: Thomas Fues, *Investing in the Behavioural Dimensions of Transnational Cooperation: A Personal Assessment of the Managing Global Governance (MGG) Programme*, Discussion Paper 12/2018 (Bonn, Deutsches Institut für Entwicklungspolitik, 2018), available at https://www.idos-research.de/uploads/media/DP_12.2018.pdf.

By creating a space for reflection and innovation, networks enable members to identify and frame policy problems, develop common understandings, and comprehend the causes and consequences of present challenges. Networks help disseminate concepts and analytical frameworks to facilitate understanding of complex sustainable development issues (such as trade-offs relating to inequalities in the context of climate justice). They emphasize the importance of holistic and integrated approaches and encourage the use of available tools to support policy coherence. These elements are fundamental for a systemic approach, as called for in the 2030 Agenda.

Conclusion

Transnational networks constitute an effective mechanism to support Governments and non-State stakeholders in building

their capacities to enhance integrated SDG implementation. Networks can promote an inclusive approach to capacity-building and knowledge generation. These forums should increase the participation of regions, countries and actors historically underrepresented, providing an arena in which all voices can equally contribute to developing practical solutions to global sustainable development challenges. Moreover, global networks can promote the dissemination and adoption of analytical tools and models to support policy coherence and integration and encourage their practical use. Members can learn the value of these tools, offer practical advice, and acquire the skills needed to use them in practice. Finally, networks are a starting point for identifying synergies and mutual interests since they leverage partnerships and common projects with a globally cooperative approach that can impact lives and nations for a more sustainable future.

Endnotes

- 1 Carlos Eduardo Lustosa da Costa is Director of the Brazilian Court of Audit and a Managing Global Governance (MGG) Academy alumnus, Isabela Maria Lisboa Blumm is a Policy Analyst and MGG Academy alumnus, and Simran Dhingra is a Research Officer for the Konrad-Adenauer-Stiftung India Office and MGG Academy alumnus.
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Risk Management in the Aftermath of COVID-19: Its Role in Improving the Assessment of Interlinkages and Strengthening Synergies to Support the Implementation of the Sustainable Development Goals

Rolf Alter¹

Introduction

Priority-setting inherently involves assessing the trade-offs and synergies of policy objectives. This assessment involves finding a balance between long-term and short-term goals, addressing the needs of multiple stakeholders, and sequencing policy actions with incomplete and imperfect information. Risk management provides an additional dimension to the evaluation of policy trade-offs and synergies, identifying the uncertainties attached to individual objectives as well as the multiple interlinkages. In this regard, how can risk management contribute to improving evidence-based priority-setting in the context of the implementation of the Sustainable Development Goals (SDGs)?

The assessment of trade-offs and synergies among the SDGs reflects the imperative of policy coherence recognized in the 2030 Agenda for Sustainable Development.² In a recent strategic guidance note, the United Nations Committee of Experts on Public Administration argues in favour of integrating risk management in priority-setting processes and institutions.³ The integration of the risk management portfolio implies expanding the critical coordination function of specific SDG piloting structures such as centres of government (CoG).⁴ This contribution explores the potential role of risk management in supporting SDG implementation, drawing on the COVID-19 experience and the evolution of SDG coordination structures.

Experiences and evaluations of COVID-19 crisis management

The COVID-19 pandemic and multiple global crises have dramatically sharpened the appreciation of the central role of risk management in the public sector. The growing transnational and interlinked character of risks has been perceived as a relatively new challenge for risk management—one that requires action beyond the systematic assessment of the probability and impact of uncertain events. The results of the most recent Global Risks Perception Survey, elaborated in the World Economic Forum's *Global Risks Report 2023* and illustrated in the figure below, provide valuable insights into the complex interconnectivity among risk categories.⁵

During the COVID-19 pandemic attention was focused primarily on crisis management, while the critical earlier stage of the risk policy cycle—risk anticipation and preparedness—was largely

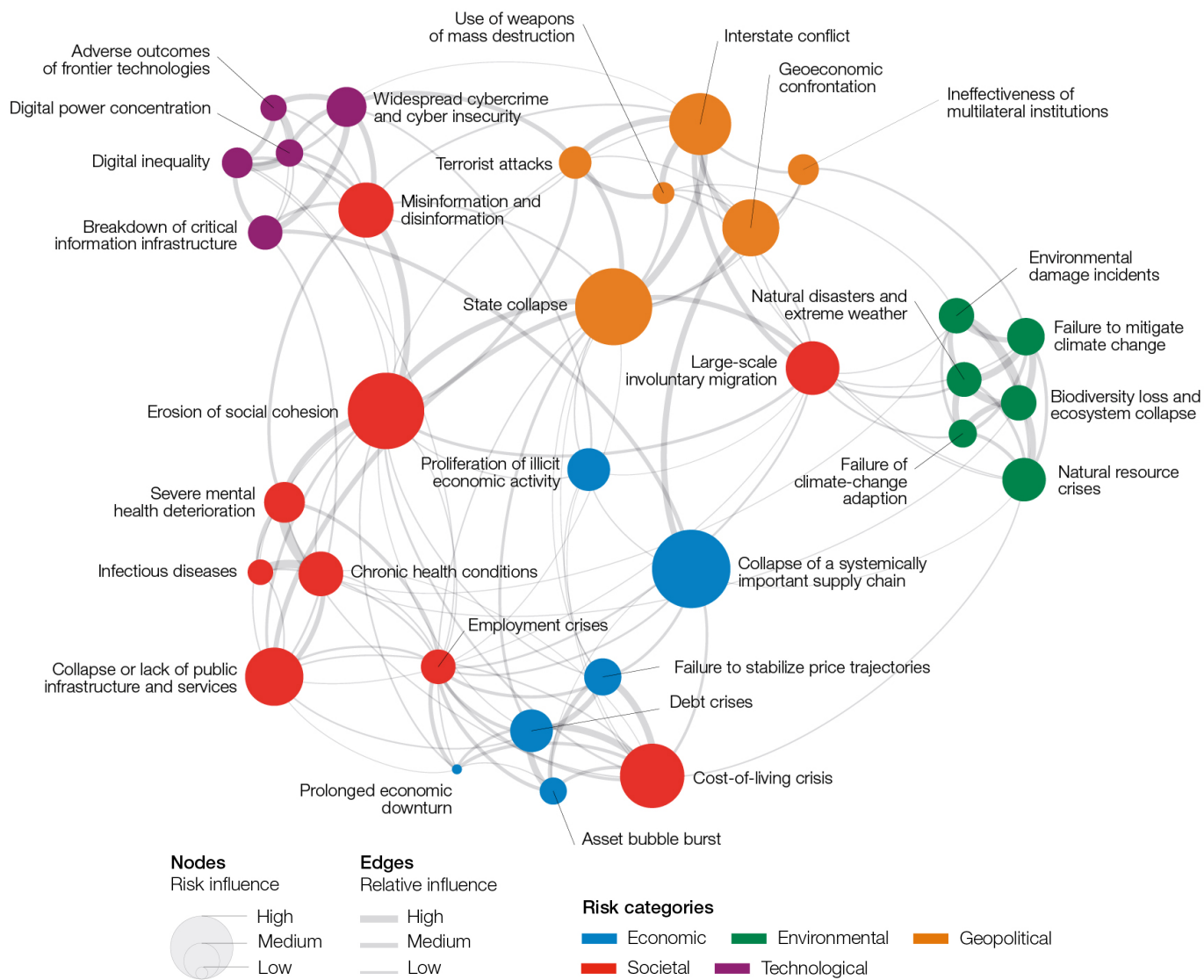
left aside. Internationally comparable and comprehensive evaluations of risk management related to COVID-19 are not yet available. Individual countries undertook assessments of specific dimensions, sectors and instruments at different points in time, mostly in response to urgent decision-making needs, which has made comparative analysis difficult. The comparability of these evaluations has also been weakened by the lack of sufficient evidence on critical sectors' preparedness for pandemics, the proportionality of policy responses, their coherence, and the impact of what were often seen as centralized, confusing and costly government interventions on citizens' trust in government institutions. The need for further ex-post analysis—at the policy level and through academic research—is obvious.

Nevertheless, some common features have been identified across the diversity of evaluations, most recently in the context of a survey of country members of the Organisation for Economic Co-operation and Development (OECD).⁶ First, pandemic preparedness was generally insufficient.⁷ Second, massive budgetary resources were mobilized to mitigate the economic and financial effects. Finally, the engagement of stakeholders and the public in risk-related decision-making was the exception. While conclusions are still preliminary, some relevant lessons for risk management can already be identified.

There is a need to invest in risk anticipation capacities and in critical sectors to strengthen preparedness for pandemics and other major crises through early warning systems, foresight, systematic horizon scanning, scenario planning and risk assessments.⁸ Higher levels of risk interconnectedness must be compensated for through additional data collection and deepening expertise in government to fully exploit available data and provide evidence-based advice to decision makers. Calls for appointing national risk and resilience officers in the United States of America and the United Kingdom of Great Britain and Northern Ireland seem to reflect this concern.⁹

Care must also be taken to increase the impact of anticipation measures on actual preparedness—or in other words, to reduce the "impact gap". Despite national risk assessments frequently and prominently including the risk of pandemics, the track record of countries' responses once the risk of COVID-19 materialized was mostly inadequate. Many countries established national security strategies, including national risk assessments and institutional frameworks, which turned out

The Risks Map 2023



Source: World Economic Forum, Global Risks Perception Survey 2022-2023.

to be inadequate as they focused on centralized, top-down, sectoral management of emergency situations.

For both risk anticipation and crisis management, inter-agency cooperation requires stronger commitment from leadership and fit-for-purpose governance structures with clear mandates. Scientific advisory bodies providing valuable evidence to inform decision-making need to rely on more varied sources of expertise.

During the pandemic, insufficient international coordination on risk anticipation and crisis management may have contributed to the adoption of mostly national-level emergency measures, despite the global and interconnected nature of the crisis. Hefty competition among countries for emergency equipment, resources and protection instead of international coordination led to the waste of public resources and reduced effectiveness of the response measures.

Whether and to what extent the implementation of the SDGs worldwide is being negatively influenced by these risk management weaknesses remains an open question. However, the massive mobilization of budget resources for the immediate protection of citizens and the private sector may well have diverted critical financing from SDG implementation.¹⁰

The preliminary results and lessons learned from COVID-19 crisis management suggest that the potential contributions of risk management to SDG priority-setting are likely to remain weak. Existing gaps in risk management systems need urgent attention both to improve the performance of the systems themselves and to strengthen their contribution to SDG implementation, particularly in a context of growing uncertainty and complexity and the potentially significant impacts associated with current and future risks.

Upgrading existing risk policies and institutions should not be limited to technical modifications of the concepts of preparedness, mitigation and adaptation as they relate to risk and resilience. The 2014 OECD Council Recommendation on the Governance of Critical Risks¹¹ suggests a whole-of-society approach, which might be translated into “building a risk culture”. This approach is aimed at raising risk awareness, facilitating a better understanding of the economic and social implications of risks, and highlighting both individual and collective responsibilities for risk management among all stakeholders and the public.

A risk culture based on the understanding and transparency of risks would likely change the attitudes of all stakeholders towards, and facilitate a more effective distribution of, the ownership of risks. In terms of the political economy of risks, government risk management would be less negatively affected by the “paradox of prevention”.¹² Governments would no longer be expected to assume exclusive responsibility for risk and crisis management and for financial compensation for damages and losses. Citizens would be able to decide on insurance on the basis of their risk appetite. The private sector would be incentivized to prepare better for uncertainties and invest in protection and resilience for businesses. Finally, well-regulated ownership of risks would offer the conditions for closer coordination among all stakeholders to anticipate and be prepared for risks and respond to emergency situations when risks materialize.

Integrating risk management into existing priority-setting architecture

The role and success of public risk management in supporting the assessment of trade-offs and synergies related to the SDGs do not depend solely on its own performance. Equally important is how effectively risk management can be brought into the architecture of the SDG policymaking process, including the CoG and their coordination function across ministerial portfolios.

In principle, piloting structures for SDG implementation should be well set up to integrate risk management functions and benefit from the opportunity to strengthen their priority-setting capabilities through reliance on risk-enhanced evidence of trade-offs and synergies. Implementing this approach remains a complex task, however, for two main reasons.¹³ First, piloting structures for SDG implementation may not be very risk-versed in their functions and responsibilities. In its 2017 Survey on Organisation and Functions of the Centre of Government, OECD found that 83 per cent of CoG assumed some responsibility for risk management, with over a third assuming primary responsibility. Despite these figures, only around 10 per cent of the CoG surveyed listed “risk management and strategic foresight for the whole of government” as a key responsibility.¹⁴

Second, despite the impressive reforms of CoG in many countries, priority-setting processes continue to suffer from major constraints. For example, in Finland, considered one of the frontrunners in innovative governance, the gap between the ambition and reality of future-oriented policymaking remains significant.¹⁵ Constraints include the silo mentality of ministries, especially in the budget area, no systemic future seeking, and foresight impact gaps (where foresight exercises do not impact policy decisions). While COVID-19 crisis management lacked coordination capacity for timely responses to the pandemic, the crisis triggered the preparation of COVID-19-specific scenarios (published in April 2021), with three possible paths of development from the summer of 2021 through the end of 2023.¹⁶

A recent in-depth review of the CoG in Brazil¹⁷ aimed at better supporting decision-making and steering government action to define and achieve high-level priorities identified two main constraints: the absence of shared policy goals and institutional fragmentation. The former would imply a considerable institutional gap around policy formulation and decision-making, while the latter would likely result in overlapping mandates. In fact, four institutions are responsible for strategic foresight and risk anticipation within this country's CoG: the Institutional Security Bureau (responsible for national security, including cyber security and cyber incident management), the Ministry of Foreign Affairs, the Special Secretariat for Strategic Affairs, and the Casa Civil (Executive Office of the President of Brazil).

While the range of institutional arrangements for SDG implementation is evolving over time, the *World Public Sector Report 2021* confirms that most countries are relying on piloting structures for SDG implementation.¹⁸ Integrating risk management into the SDG coordinating architecture remains desirable but highly complex. The incentives could be higher if integrating risk management also helped improve coordination capacities and performance overall.

In future work on the CoG and other coordinating institutions, attention should be given to the potential opportunities and benefits deriving from the risk-informed assessment of policy trade-offs and synergies, including rebuilding trust in government, better calibrating SDG-related public investment across sectors and over time, protecting public assets, reducing the waste of public resources, and strengthening national resilience on the way to greater prosperity.

Options for international cooperation

International cooperation could help strengthen the role of risk management in setting policy priorities and assessing trade-offs and synergies for SDG implementation.

An exchange of good practices in the monitoring and evaluation of risk and crisis management could help address the knowledge gap surrounding what has worked and what should be avoided in the future. Extracting insights and lessons learned would contribute to “building back better” and could also help deepen international coordination around risk, crisis and resilience management. Strengthening data governance to accelerate the generation of reliable, timely and shared data and to ensure easy access to data through compatible technologies would be an important topic within this context.

Deliberations on how to best close the impact gap as it relates to risk management should involve risk managers in both the public and private sectors as well as political leaders. The paradox of prevention could be explored against the background of a risk culture characterized by higher levels of awareness and understanding of individual and collective responsibility for preparedness. Ongoing knowledge-sharing and peer learning exchanges in which a wide range of experiences and practices are reviewed should also include subnational authorities in order to strengthen coordination across levels of government.

Learning from CoG or other piloting structures for SDG implementation that have had some success in integrating risk anticipation in the assessment of trade-offs and synergies could be a demanding yet rewarding exercise. Exchanges of good practices and experiences could potentially take place

at the regional level (as has occurred with the African Peer Review Mechanism). Moreover, the role of risk management in policymaking, priority-setting and SDG implementation could be explicitly addressed in voluntary national review and voluntary local review processes.

Conclusions

Mainstreaming risk management into priority-setting processes holds promise for improving SDG implementation. The experiences surrounding COVID-19 crisis management indicate that reaping the benefits of risk-informed assessments of policy trade-offs and synergies will require considerable investment in building risk-anticipation capacities and preparedness and establishing effective coordination mechanisms in centres of government or other coordinating structures.

The emerging and ongoing crises and incessant high levels of uncertainty prevailing in the world today highlight the urgent need for a medium-term investment strategy for risk management and the reform of coordinating structures at this critical midpoint in the implementation of the 2030 Agenda. International cooperation to support shared learning and the exchange of good practices could facilitate better (and faster) priority-setting in the development of national SDG strategies and ultimately accelerate SDG implementation.

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Evidence-Based Resource Prioritization for Sustainable Development Goal Implementation

Raquel Ferreira, Aura Martínez and Juan Pablo Guerrero¹

Limited resource availability and growing needs—exacerbated by economic downturns due to unexpected global occurrences such as the COVID-19 pandemic—mean that Governments have to make tough budget choices and that the efficiency of those choices matters more than ever. Engaging key stakeholders in making these choices increases the likelihood that they will support healthy public finances, better fiscal outcomes, and more responsive, effective and equitable public policies. Their involvement also strengthens the legitimacy of these choices and contributes to increased trust in public institutions.

To make informed choices, Governments and other stakeholders need to have, at a minimum, technically sound, quality information to weigh the potential positive and negative consequences of the policy choices available to them. Providing key decision makers with solid data facilitates a collaborative resource allocation process that contributes to the achievement of long-term development goals, including the Sustainable Development Goals (SDGs). Budgets are key in this process, as they reveal information about unavoidable trade-offs, allowing stakeholders to plan public policies accordingly. The extent of information largely depends on how budget systems are technically set up and whether the information emanating from them meets quality considerations. To participate effectively, stakeholders outside government need access to this information and open engagement spaces where their contributions can have an impact.

This contribution presents budget tagging as a method that can be used to link budgets to development goals, allowing policymakers and other stakeholders to quantify priority resource requirements, to target resources accordingly, and to monitor results and take corrective action as needed. Practical examples from several countries illustrate the application of this approach and highlight the important role of stakeholders outside the executive branch. The contribution also identifies some of the current gaps in this approach and offers recommendations to address them.

What is budget tagging and what are its benefits?

Budget tagging can be used to technically link financial resources in budgets to priority development goals. In this methodology, individual budget allocations or programmes are assessed and given specific tags when they are considered to affect particular priority goals. Methodologies differ in terms of levels of granularity and coverage. The goals targeted can be directly linked to the SDGs or can be tied to particular national development goals relating to, for example, traditionally marginalized populations such as women, children, youth and Indigenous Peoples or even to specific agendas such as climate/green goals. They can also cover different levels of government and different budgetary classification levels.

Within government, budget tagging facilitates internal review, including the identification of priority goal resource requirements, budget allocations and actual spending, as well as comparisons of actual spending with budget allocations (to assess budget credibility).² Further, it provides civil society and other stakeholders with the information required to contribute to budget development and monitor budget execution. Essentially, it facilitates the identification of commonly understood policy priority trade-offs, providing a direct and consistent tool that can be used by all stakeholders in linking public financial management (PFM) decisions to development outcomes over time.

Budget tagging also enriches monitoring and evaluation. It facilitates not only the monitoring of follow-up action in daily operations but also analysis for decision-making, and it enables international comparisons to some extent. When financial resources are linked to priority goals, with budget development and monitoring supported by strong public participation, the impact of public spending becomes traceable and measurable, potentially triggering significant social development improvements. The table below details some of the benefits of SDG tagging throughout the budget cycle.

Table. Benefits of the SDG-tagging methodology in specific budget phases

Budget formulation	Legislative approval	Budget implementation	Audit and oversight
<ul style="list-style-type: none"> Facilitates identification of development goal resource requirements Supports the use of SDGs as an arbitration tool and a driver for evidence-based allocation adjustments Mainstreams national efforts towards the achievement of the SDGs into operational procedures directed by the ministry of finance towards line ministries 	<ul style="list-style-type: none"> Enriches the debate around the proposed budget, showing allocations to development goals Facilitates clear identification and communication in terms of investment in target populations and cross-cutting priorities such as children and youth, gender, and climate change Enriches communication with non-PFM-oriented civil society groups and the private sector 	<ul style="list-style-type: none"> Improves the assessment of budget performance Allows the design of budget monitoring dashboards for decision makers and the public Monitors expenses through a cross-cutting-priority lens and facilitates evidence-based allocation improvements 	<ul style="list-style-type: none"> Integrates a focus on particular SDGs in expenditure reviews Allows Supreme Audit Institutions to undertake audits of the impact of SDG-related policies Allows parliament and other oversight stakeholders to scrutinize Government's performance in achieving development goals and recommend corrective measures in cases of deviation from budget targets

Budget tagging in practice

Several countries, including those in which members and partners of the Global Initiative for Fiscal Transparency (GIFT) network operate,³ have been working on integrating development objectives and the SDGs into budget systems.

In the Americas, the Ministry of Finance and Public Credit in Mexico publishes a database on its *Transparencia Presupuestaria* website that shows at a granular level how government programmes and projects are linked with the SDGs for each fiscal year and throughout all phases of the budget cycle.⁴ The information is provided in an open data format that is easily accessible to the public. This annual information supports user-engagement initiatives focused on innovative analysis of budget data for sustainable development. While these exercises were co-pioneered by the Ministry and local data-driven civil society organizations (CSOs), GIFT has documented and promoted the model in its *Dataquest and Rally* concept note,⁵ which has been adapted for application in Argentina, Chile, Colombia (at the national level and in Bogota City), Costa Rica, Indonesia, Mongolia, the Philippines and Uruguay, as well as at the subnational government level in Guanajuato and Mexico City in Mexico. Guanajuato has made further progress by identifying gender considerations in budgeting.

The financial management information system (FMIS) in Argentina consolidates data on national budget allocations to priority areas such as gender-, youth- and child-related

policies. Quarterly spending reports are published,⁶ with data presented in open data formats, enabling public administration agents to re-use the data and publish progress dashboards. In Colombia,⁷ international partners developed an SDG budget coding and tagging methodology for the 169 SDG targets, as detailed in box 2.3 in the overview section of this chapter.

In Africa, the Government of Ghana has incorporated SDG budgeting and financing into its national budgeting processes at an aggregated level, with SDG codes being added to the standard chart of accounts. The Ministry of Finance publishes periodic SDG budget reports detailing central and local governments' annual budgetary allocations to each SDG. Data on actual spending, however, are not published. The Ghana Statistical Service launched an online interactive dashboard for monitoring the country's SDG progress.⁸ To help fill SDG data gaps, the Kenya National Bureau of Statistics initiated partnerships with CSOs and integrated a set of quality criteria for citizen-generated data in the Kenya Statistical Quality Assurance Framework.⁹ With the support of the United Nations Children's Fund and the GIFT network, Egypt and Lesotho have also taken steps towards linking their programme-based budgets with cross-cutting development goals.

In Asia, the Philippines is developing a policy-based, unified codification of SDG-related programmes, activities and projects using a whole-of-government approach, providing a basis for linking budgets and the prioritization of public resources as well as private investment with programmes that will impact the SDGs.¹⁰

The role of stakeholders outside government

Stakeholders outside the executive branch can advocate for the publication of quality budget information and the creation of public participation spaces. They can actively use information to contribute to policy decisions and to monitor the execution of budgets towards the achievement of the SDGs. If those outside of government do not demand information or use the budget information provided, there will be little or no broad-based pressure on the public sector to start or keep producing and publishing such information. Further, stakeholders can undertake research and provide inputs, monitor and advocate for SDG goals, and provide opportunities to educate the public on PFM, among other actions. Relevant examples from the GIFT network illustrate such contributions.

Many CSOs are actively involved in budget monitoring, research and advocacy. The Centro de Investigación Económica y Presupuestaria (CIEP),¹¹ a Mexico-based think tank, and the Instituto Centroamericano de Estudios Fiscales¹² in Central America have analysed budget allocations and execution, including intergenerational implications. A mapping exercise based on the methodology of the Development Financing Assessment, complemented by an integrated national financing framework, was carried out by CIEP to link resources to actions relating to progress on the SDGs.¹³ To explore the connections between budget credibility and efforts to achieve the SDGs, the International Budget Partnership¹⁴ coordinated country research which revealed key data gaps and ways in which budget credibility could be strengthened to support the achievement of development goals.¹⁵

In Colombia, information from the equity for women budget tracker, available since 2019, has been used by Congress and independent observers to monitor budget allocations to this priority area. The Budget and Public Accounts Committee of the Chamber of Deputies in Mexico has developed technical tools to guide policymakers in the analysis, examination, discussion and approval of the budget from a sustainability perspective towards the allocation of public resources for the achievement of the SDGs. The National Strategy for the Implementation of Agenda 2030 in Mexico¹⁶ states that the Executive Secretary of the National Council on the 2030 Agenda for Sustainable Development is to report every two years on the progress of the Strategy, including on the budget allocated to the SDGs.

Academia can also make valuable contributions. For instance, the public policy programme of the Alan Turing Institute uses a survey to estimate, through predictive statistical models, how the trajectory of achievement of the SDGs will be directly impacted by existing allocations on specific policy instruments.¹⁷

Current limitations

These and other examples provide encouraging signs that a growing body of information is available at different levels of government and on different key areas. This information can be leveraged by civil society and other stakeholders. International platforms such as the GIFT network provide critical spaces to promote the exchange of experiences and peer learning. Despite these developments and opportunities, significant gaps remain.

As seen in the United Nations *Sustainable Development Goals Report 2022*,¹⁸ few countries have internationally comparable data on most of the SDGs. When information is available, it often fails to meet quality considerations: the information is generally too aggregated to be useful, and there is often a risk of double counting in the case of intragovernmental transfers; SDG washing often occurs, with tagging only being done on positive contributions, while negative implications are ignored; not all public resources, including those reserved for contingencies or debt financing, can be incorporated into an SDG tagging methodology; the quality of information varies between levels of government and ministries, often depending on the officials in charge of record management; publicly available data may differ between official sources; and the information generated by budget tagging is mostly used to compile reports rather than in decision-making processes at other stages of the budget cycle.

Multiple methods can be used for budget tagging,¹⁹ and the consequent lack of uniformity makes it difficult to objectively evaluate data emanating from these systems and to produce internationally comparable data. Key stakeholders such as supreme audit institutions (SAIs) are also often left out of the process. In addition, while budget tagging provides a diagnosis, it cannot accelerate the closing of development gaps. Finally, the balance between the administrative burden budget tagging imposes and its value added is not always clear.

Overcoming limitations

Several actions could help address these shortcomings. Governments should integrate development goals/SDGs in all stages of the budget cycle in a sufficiently disaggregated manner. It is necessary to have open, structured data on the administrative, economic, functional and programmatic classifications, which are the pillars for SDG budget tagging. SDG mapping should consider not only positive links but also negative links and spillovers.

Governments should provide the evidence-based rationale for the prioritization method used, disclosing the methodology applied. A systematic link between PFM decisions and development outcomes should enable the identification of

budget implications for specific groups and policy agendas and how they are affected by trade-offs. Governments can better manage public interest trade-offs if democratic checks and balances are in place.

An automated method is essential for expanding the use of tagging and bringing it into common practice. International financial institutions could assist Governments in doing this by developing a simple internationally accepted budget tagging and prioritization model that could be freely used to link budgets and spending with development results. They could provide technical assistance to Governments in integrating a goal-oriented approach across the fiscal policy cycle.

All key stakeholders should be engaged. They can help government reformers understand which policy choices are more likely to have wide backing if they have quality information and space to provide their inputs. The production of information is fundamental, and transparency is a big step forward, but ultimately actions need to be taken by different stakeholders. Civil society needs to form coalitions to bring additional power to the budget table, embracing the opportunity to serve important global movements, including those focused on gender, climate, and other key areas. For instance, the climate change movement is powerful, but advocates generally lack knowledge on budget implications. CSOs could assist them in bringing informed arguments to

the table, supporting and empowering those movements with the budget evidence and information they need to advocate for necessary PFM adaptations.

The whole accountability ecosystem—including legislators, SAIs, the media, independent fiscal institutions, and academia—should be leveraged to move this process forward. Legislators play key roles in approving and overseeing budgets. Auditors should consider adopting an SDG focus in their audits, and independent evaluations should also take SDG indicators into account. Further research into the PFM value added of adopting this approach may prove valuable in documenting benefits, potentially showing the net benefit of implementing it across the fiscal policy cycle and consequently affirming its value to various stakeholders.

Conclusion

While budget tagging shows good results and strengths across various countries in which it has been implemented, significant gaps remain. Lessons learned from these experiences point to actions that could be taken by Governments, international institutions and other stakeholders to overcome relevant challenges and fully realize the potential benefits of linking budgets to sustainable development goals.

Endnotes

- 1 Raquel Ferreira is Senior Technical Advisor with the Global Initiative for Fiscal Transparency (GIFT), Aura Martínez is the GIFT Coordinator for Knowledge and Technical Collaboration, and Juan Pablo Guerrero is the GIFT Network Director.
- 2 Budget credibility is determined based on the difference between the budget and actual revenue and expenditure; among other things, it provides an idea of whether fiscal targets set out in budgets are realistic.
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- 5 For more information on the Dataquest and Rally experiences, see Global Initiative for Fiscal Transparency, “Note on GIFT’s flagship user-engagement initiatives: Public Infrastructure #DataOnTheStreets Rallies and #BetterBudget Dataquests for Sustainable Development”, available at <https://fiscaltransparency.net/wp-content/uploads/2023/02/Rally-Dataquests-ConceptNote-2023.pdf>.
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- 8 For more information on this national SDG reporting platform, see <https://sustainabledevelopment-ghana.github.io/>.
- 9 For more information on the Framework, see <https://www.knbs.or.ke/download/kenya-statistical-quality-assessment-framework-kesqaf/>.
- 10 For more information on the Joint Programme on INFF Philippines and the ongoing development of the country’s Integrated National Financing Framework, see <https://medium.com/@jp.inff.ph>.
- 11 For more information on the Center for Economic and Budgetary Research (CIEP), see <https://ciep.mx/>.
- 12 For more information on ICEFI, see <https://intranet.eulacfoundation.org/en/mapeo/instituto-centroamericano-de-estudios-fiscales-icefi>.
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- 14 For more information on the International Budget Partnership, see <https://internationalbudget.org/>.
- 15 Sally Torbert, “Connecting budget credibility and the Sustainable Development Goals: results from 13 country investigations”, synthesis paper (Bill and Melinda Gates Foundation and International Budget Partnership, October 2022), available at <https://internationalbudget.org/wp-content/uploads/Connecting-Budget-Credibility-and-the-Sustainable-Development-Goals-Results-from-13-Country-Investigations2.pdf>.
- 16 See Mexico, Presidencia de la República, *Estrategia nacional para la implementación de Agenda 2030 en México* (2019), available at https://www.gob.mx/cms/uploads/attachment/file/514075/EN-A2030Mx_VF.pdf.
- 17 For information on the work being carried out by the public policy programme of the Alan Turing Institute, see <https://www.turing.ac.uk/research/research-programmes/public-policy>; specific information on automatic SDG alignment and budget tagging is available at <https://www.turing.ac.uk/research/research-projects/automatic-sdg-alignment>.
- 18 United Nations, *The Sustainable Development Goals Report 2022* (Sales No. E.22.I.2), available at <https://unstats.un.org/sdgs/report/2022/The-Sustainable-Development-Goals-Report-2022.pdf>.
- 19 See, for example, Organisation for Economic Co-operation and Development, *Green Budget Tagging: Introductory Guidance and Principles* (Paris, OECD Publishing, 2021), available at https://www.oecd-ilibrary.org/governance/green-budget-tagging_fe7bfcc4-en.

Government Expenditure and Sustainable Development Prioritization: Lessons from the Policy Priority Inference Research Programme

Omar A. Guerrero and Gonzalo Castañeda¹

Artificial intelligence and computational models can support efforts to accelerate the implementation of the 2030 Agenda for Sustainable Development. This contribution examines the lessons learned from quantitatively analysing the linkage between government expenditure and development outcomes from a multidimensional perspective. It builds on the Policy Priority Inference (PPI) research programme,² which uses computational methods to analyse how budgetary priorities impact the performance of various development indicators representing interdependent policy dimensions. The computational approach developed in PPI enables multidimensional impact evaluation in the context of the Sustainable Development Goals (SDGs). It allows exploiting new open-spending data sets to understand how policy priorities shape the dynamics of the SDG indicators. This piece summarizes and reflects on insights obtained from various academic and policy studies, particularly regarding their policy implications. It looks at studies that focus on a single country (Mexico) and then at analyses comparing several countries.³

Data challenges: government spending, indicators, and computational models

The amount and quality of government spending data have increased in the past decade thanks to the efforts of public administrations and international organizations in setting standards for the publication of data sets.⁴ The main objectives of these initiatives are to support the good-governance agenda and to empower citizens and non-governmental organizations by enabling the monitoring of public funds via fiscal transparency. While these efforts are commendable, using open-spending data for the sole purpose of promoting transparency is limiting. Given the ongoing multiple crises, it is important to move beyond monitoring concerns and take on impact-evaluation challenges. This type of analysis is indispensable when policymakers need to align government budgets to the SDGs.

Several barriers prevent using detailed expenditure data in impact evaluation across multiple interrelated development dimensions, such as those reflected in the SDGs. First, spending categories are usually mismatched with the policy issues covered by development indicators. This drawback means that the mapping of expenditure programmes to the outcome variables is far from perfect.⁵ Second, since open-spending data sets are relatively new, they often come with few observations across time (the same happens for

many development indicators). Such “small” data do not meet the technical requirements of methods stemming from econometrics and machine learning to produce impact evaluations.⁶ Third, even when data on spending and indicators are “big”, aligning budgets to the SDGs means that one needs to account for the interdependencies between SDG indicators, which is not an easily scalable task when employing expert analysis or traditional quantitative tools. Fourth, the efficacy of government expenditure varies depending on the institutional context of each country; thus, it is necessary to account for governance and political economy features such as technical inefficiencies and corruption.

Computational frameworks can help overcome these challenges by accommodating the intricacies of multilevel causal chains between government expenditure and development indicators. These analytical tools allow a detailed description (informed by theory and expert knowledge) of the process through which government programmes influence the dynamics of the outcome variables. This level of theoretical content is necessary to fill gaps related to the lack of data. In contrast to structural interventions such as building physical infrastructure or creating anti-poverty programmes, financial interventions mainly focus on the short term because they tend to operate with already existing policies. Thus, computational tools designed to analyse short-term interventions are important to properly understand the scope and reach of policy prioritization via budgets. One example is the PPI research programme, which builds on a type of artificial intelligence known as agent-based modelling or agent computing.

The Policy Priority Inference research programme

The PPI computational model simulates a central Government facing the problem of allocating resources to a set of agencies that must implement the existing programmes. The model considers that the implementation of such programmes may not be efficient since public officials have conflicting incentives (including competing goals). In addition, the effectiveness of these programmes may be limited by long-term structural factors such as poor infrastructure and lack of capacity. Initially, PPI started with a model specifying how Governments formulate policy priorities—in terms of budgets⁷—in a setting with uncertainty and interdependencies. Then, through collaboration with the United Nations Development Programme (UNDP), the framework was improved to make it usable with open-spending data of various levels of granularity in the context of the SDGs.

PPI accounts for the interdependencies between indicators and institutional factors that shape a country's quality of governance. Because it is a simulation tool, it enables counterfactual analyses to assess the impact of government expenditure at a high level of disaggregation. This capability is essential for producing multidimensional impact evaluations and quantifying concepts used in discussions on SDG implementation (such as accelerators and bottlenecks). Finally, the algorithmic nature of PPI allows the inclusion of expert knowledge regarding the distinction between policy issues that can be affected by government programmes (instrumental) and those where the Government has limited or no influence (collateral).

PPI has been used in collaboration with local and national governments (including Colombia and Mexico), specialized agencies (such as Public Health Wales and the Office for National Statistics in the United Kingdom of Great Britain and Northern Ireland), and international organizations (including UNDP). In some cases, it has been adopted as part of planning processes and assessment exercises. The rest of this contribution elaborates on how PPI has been used to draw new insights related to policy prioritization in various countries in the context of the 2030 Agenda.

Country-level experience: the case of Mexico

The development of PPI has benefited from country-specific studies. Several of them have focused on Mexico (between 2008 and 2021) as its Government holds one of the best expenditure data sets available in terms of both disaggregation and time coverage. For instance, one of these studies quantifies the concept of accelerators—a policy issue that, if well-funded, can catalyse development in other dimensions through indirect effects. Surprisingly, in Mexico, there are more SDG accelerators than bottlenecks (33 SDG targets out of 75 are identified as accelerators). Among these catalysers, targets 3.7 (ensure universal access to sexual and reproductive health-care services) and 16.5 (substantially reduce corruption and bribery in all their forms) stand out as the two most influential targets. The policy implications are self-evident: when considering development dimensions with similar development levels, policymakers should secure funding for the associated targets identified as accelerators to produce systemic impacts.

PPI has also been applied to investigate how socioeconomic deprivation⁸ has evolved in Mexico due to the financing of government programmes, remittances, and the domestic income of households. The results show the importance of household remittances in alleviating poverty, not only due to their monetary importance but also because they reach their targets through channels other than those used for public spending. Furthermore, these results indicate that income shocks can severely harm social progress, so Governments would have to implement compensatory measures through focalized public spending.

Finally, PPI was used to analyse SDG implementation at the subnational level, considering the large fiscal imbalances across the 32 Mexican states. The analysis focused on how federal transfers to the states could be reconfigured to reach the aspirations captured by one specific SDG or all of them simultaneously.⁹ These transfers, traditionally justified in terms of compensation for historical inequalities related to poverty rates (SDG 1), are allocated annually through the Fiscal Coordination Act via a mathematical formula. PPI was used to evaluate whether the formula employed by the Fiscal Coordination Act provides the best possible allocation when the government prioritizes SDG 1. The results indicate a high sensitivity of the optimal allocations to the Government's development goals and that federal transfers could be better allocated according to the SDGs that the Government seeks to prioritize.

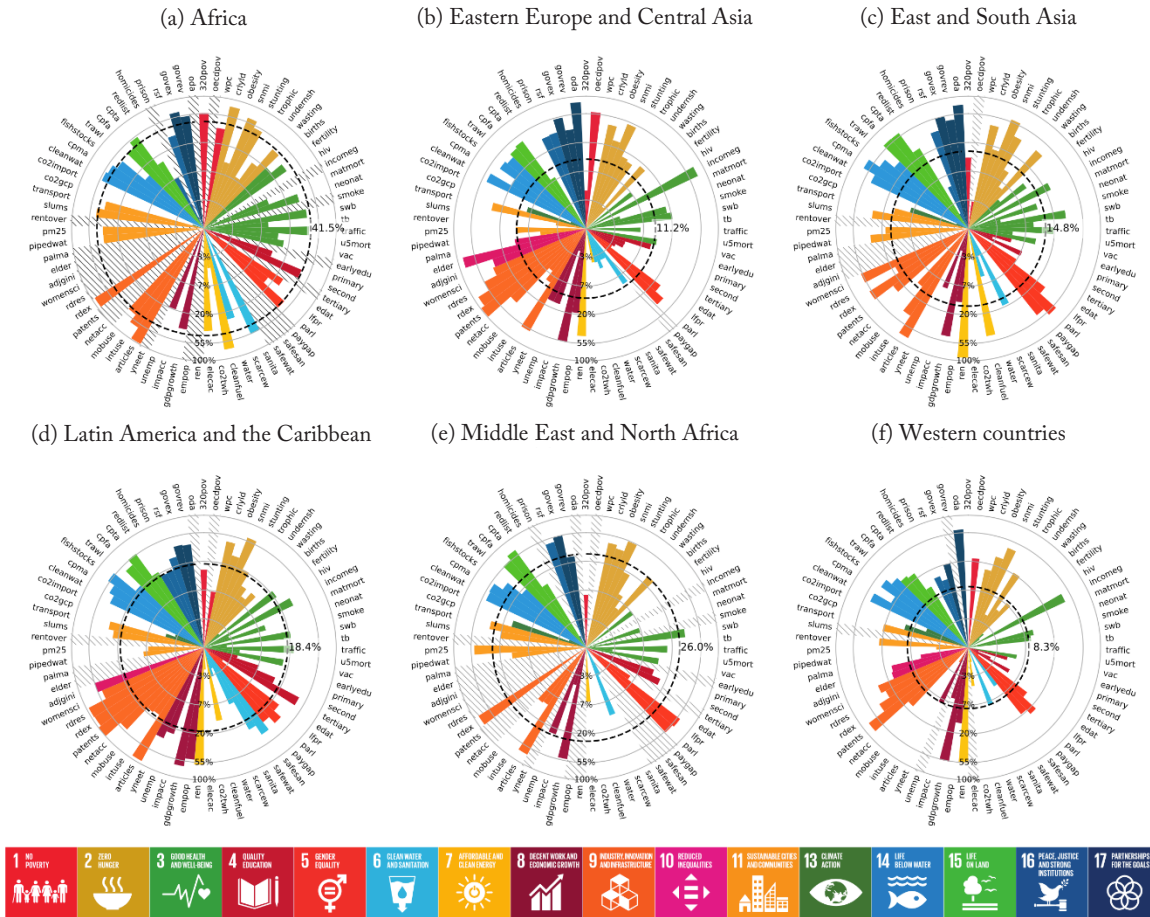
Why has public spending shown modest impact on the SDGs?

Moving to multi-country studies, the first lesson derived from PPI is not surprising: the 2030 Agenda is overambitious. Even without considering the COVID-19 pandemic, numerous development gaps will remain by 2030 (and even by 2040),¹⁰ with the findings suggesting wide disparities across indicators and countries. As illustrated in figure 1, Western countries are expected to experience an 8.3 per cent average SDG gap, Eastern Europe and Central Asia an 11.2 per cent gap, Eastern and Southern Asia a 14.8 per cent gap, Latin America and the Caribbean an 18.4 per cent gap, the Middle East and North Africa region a 26.0 per cent gap, and Africa a 41.5 per cent gap.

The response of development indicators to budgetary changes varies considerably across SDGs, countries and regions. One way to measure the potential impact is through the number of years saved (or lost) to close the gaps through increments (or reductions) in the budget. For instance, in an average country in Latin America and the Caribbean, the largest impact of budgetary increments corresponds to SDG 13, while the smallest one corresponds to SDG 8. In contrast, for the average country in the West, an augmented budget produces the largest impact on SDG 5 and the smallest one on SDG 1. This type of analysis has implications for Governments in terms of identifying policy issues that respond well to additional public expenditure and could boost SDG implementation.

While there are indicators that respond well to financial interventions, government spending on others is ineffective as a result of long-term structural factors such as poor infrastructure, lack of capacity, or ill-designed government programmes. These constraints create idiosyncratic bottlenecks, which are specific to individual policy issues and vary across country contexts.

Expected development gaps in 2030



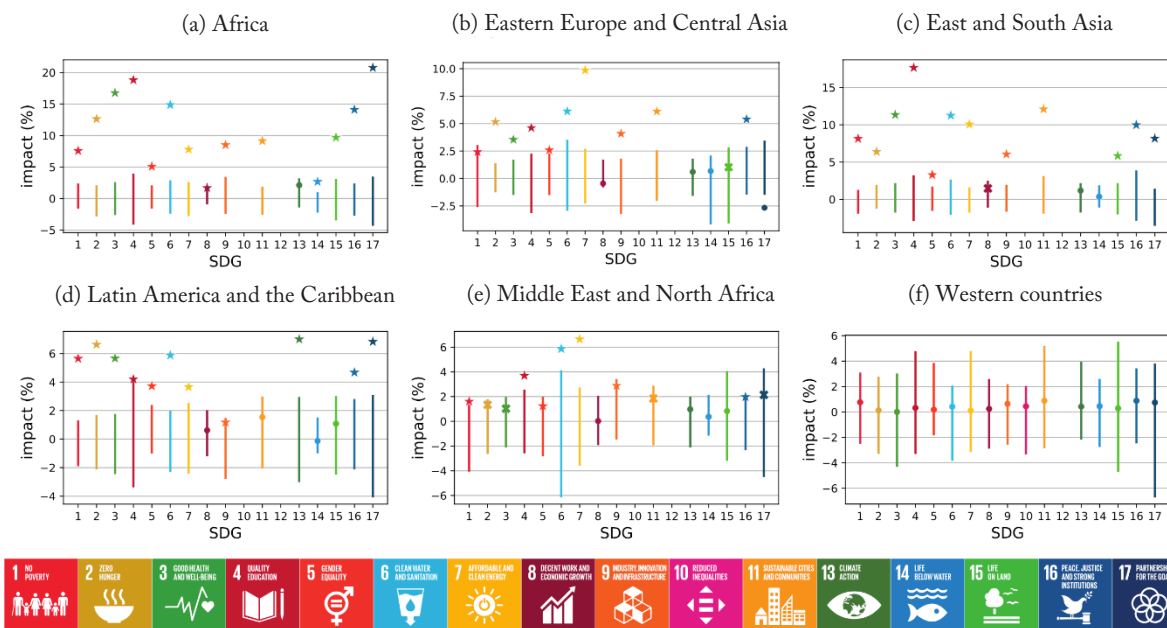
Source: Omar A. Guerrero and Gonzalo Castañeda, *Complexity Economics and Sustainable Development: A Computational Framework for Policy Priority Inference* (Cambridge, United Kingdom, Cambridge University Press, 2023).

Notes: Each bar indicates the expected gap in a specific indicator in 2030, averaged across the countries in the same group. The striped rings indicate that such an indicator was not available for any country in the group. The dashed ring denotes the average expected gap, and its value appears on the right. The concentric circles and the bars are presented in logarithmic scale, so differences are larger in the outer circles. These estimates use indicator data from the *Sustainable Development Report 2021*; SDG 12 lacks observations in this data set.

When the estimates from all countries are pooled together, SDG 9 stands out as the most prominent host of potential bottlenecks. On the contrary, there are no bottlenecks related to SDG 8 in any of the six groups of countries. When analysing country groups, Eastern and Southern Asia is particularly salient as the region that exhibits the most indicators subjected to idiosyncratic bottlenecks. Interestingly, countries in Latin America and the Caribbean do not present bottlenecks in programmes associated with poverty reduction (although this is a prevalent issue in the region). Consequently, their poor performance might be related to limited funding. This type of result is crucial to support Governments when determining whether a short-term financial intervention would have a significant impact or if a revamp of government programmes is necessary.

Another relevant finding relates to SDG 16 and the impact of the quality of governance on corruption. Less developed countries face greater challenges in finding the right mix between prioritizing improvements in governance versus other policy dimensions in terms of budget allocations. Additional public expenditure in governance may contribute to higher corruption levels as the underdevelopment of other SDGs may reinforce a corruption-focused strategy of public servants (for example, extracting bribes in service delivery). Finding this balance is more difficult because the interdependencies between SDGs, social norms of corruption, and higher institutional uncertainty create a more volatile environment in terms of how corruption responds to government expenditure. This result is aligned with country-level data showing that corruption has not decreased in the global South despite substantial investments in improving governance (a well-known paradox in the corruption literature).

SDG-level impact of international aid by country grouping



Source: Omar A. Guerrero and Gonzalo Castañeda, *Complexity Economics and Sustainable Development: A Computational Framework for Policy Priority Inference* (Cambridge, United Kingdom, Cambridge University Press, 2023).

Notes: The markers (dot, cross and star) indicate the statistical significance level of the impact metric: star = significant at 99 per cent; cross = significant at 95 per cent; and dot = not significant. The vertical line represents the distribution range for the impact metric. The impact metric measures the percentage of development that is attributed to the relevant aid funds; see Omar A. Guerrero, Daniele Guariso and Gonzalo Castañeda, "Aid effectiveness in sustainable development: a multidimensional approach", *World Development*, vol. 168 (August 2023), 106256, available at <https://doi.org/10.1016/j.worlddev.2023.106256>. The sample period in this study corresponds to 2000-2013. The data set contains only aid recipient countries. The indicators data were obtained from the *Sustainable Development Report 2021* (SDG 12 lacks observations), the aid flows data from AidData, and total government expenditure from the World Bank.

The contribution of international aid to multidimensional development

PPI has also been used to estimate the SDG impact of international aid. The results show that aid exerts positive impacts across SDG indicators for several country groups, though not for emerging economies within the Organisation for Economic Co-operation and Development. When looking at the average impacts on SDG indicators across countries, 52 (out of 74) indicators experience a statistically significant impact. Aid is effective in contributing to progress on several indicators across SDGs 2, 3, 4, 6, 7, 11 and 17. In contrast, aid weakly influences progress on indicators related to SDGs 8, 9, 10, 14 and 15.

A call for better data and computational modelling in evidence-based policymaking

Computational frameworks such as PPI have great potential to help Governments address SDG implementation challenges. To harness this potential, it is important that Governments

commit to the systematic generation of high-quality data in terms of both indicators and government expenditure. Furthermore, Governments should seek to advance efforts to tag expenditure data to development categories such as the SDGs, which would allow linking expenditure programmes to development indicators. New artificial intelligence methods could support these efforts to scale up budget tagging.¹¹

At present, technical barriers remain for the wider adoption of computational models to inform SDG implementation and sustainable development policies more generally. There are challenges in terms of computational literacy and the understanding of complex systems among both technical teams in Governments and social science scholars. Thus, Governments and research and educational institutions should further invest in the emerging field of computational social science to endow the new generations of decision makers and social scientists with a mix of skills and interdisciplinarity that would allow them to advance holistic and innovative policies to respond to the global sustainable development challenges of the twenty-first century.

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Endnotes

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- 2 Information on the Policy Priority Inference research programme is available at www.policypriority.org.
- 3 The lessons reviewed in this contribution come from various published academic studies as well as policy reports prepared in collaboration with local governments and international organizations; source details are provided in the Works Cited section of this contribution. Many of the analyses and their technical details have been synthesized in a new book produced by the present authors.
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- 9 In Mexico, most taxes are collected by the federal Government and then redistributed to the states through federal transfers. The study addressing fiscal imbalances analyses a specific type of transfer called *contribution* as it accounts for nearly 50 per cent of the states’ budgets.
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Building Legitimacy for Difficult Policy Choices and Trade-Offs through Open, Transparent and Inclusive Government

Ole F. Norheim¹

Introduction

Policy choices often involve difficult trade-offs between competing goals. In the current context of multiple crises, strengthening progress on the Sustainable Development Goals (SDGs) requires leveraging synergies and managing trade-offs. Trade-offs vary across countries and across population groups. A trade-off can be seen as a compromise between two or more desirable but competing policy considerations. It thus involves a sacrifice made in one dimension to obtain benefits or ensure respect for rights in other dimensions. Such trade-offs are often inevitable. One way to secure legitimacy and acceptance for the outcomes of difficult trade-offs is through open, transparent, and inclusive decision-making. The full use of public reasoning is hard to achieve and requires political will, institutional reform and a renewed investment in people, time, and resources.²

Recent history has taught the world the painful lesson that protecting a population against a deadly pandemic requires the imposition of substantial burdens on citizens. The trade-offs between the goals of saving lives (SDG 3) and protecting livelihoods (SDGs 1, 2 and 8) generated a distribution of benefits and burdens that was controversial and, in some places and phases of the pandemic, both inefficient and unfair.³ Another relevant trade-off concerns the transition to renewable energy, where, for some countries, protecting employment and income from coal- and fossil-fuel-dependent industries (SDG 8) competes with the goal of net-zero carbon emissions (SDG 13). A third example involves health-care priority-setting. In most countries, demographic change towards a larger proportion of elderly citizens, increasing expectations, and the surging availability of new and often costly technologies (including advanced cancer drugs and treatment approaches) force countries to limit public payments for health services to protect other sectors such as education and infrastructure (SDG 3 versus, for example, SDGs 4 and 9). Health authorities must decide what kind of services they can afford and sometimes proceed to rank them, often based on data on treatment effectiveness and costs and their distribution. These are hard priorities often involving medical, ethical and political disagreement.⁴

Managing trade-offs is based on objective scientific knowledge, but it is also a value-based exercise. It requires building legitimacy and consensus around policy choices and a shared understanding of problems. This requires open, deliberative

and inclusive processes. Strong arguments have been made about the importance of making decision-making processes open and inclusive, considering not only science and expert knowledge but also other sources of knowledge, including individual citizens, local communities, Indigenous populations, youth, and the elderly.

Reasons for open, transparent, and inclusive decision-making

Since hard policy choices of this kind are called for on a regular basis, it is important to firmly institutionalize open, transparent, and inclusive decision-making. The renewed importance of managing difficult trade-offs to boost progress on the SDGs in the post-pandemic period highlights the need for institutional and democratic reform.

The most important reasons for open and inclusive decision-making are that they build on democratic principles and political and human rights, they can improve the quality of decisions, and they may enhance trust, legitimacy and policy adherence.⁵ Inclusive decision-making rests on the democratic ideal that all people should have a fair opportunity to participate in decisions that affect them.⁶ It ensures that Governments act in accordance with the rights of political participation enshrined in national and international law, particularly human rights law and the principles of accountable government. Open and inclusive decision-making may lessen social disagreement because, even in the face of polarized opinions about what to do, it may be possible to achieve agreement on fair procedures for arriving at policy decisions. Policies resulting from fair procedures may be accepted even by those who disagree with them on substantive grounds.

Key principles

The principles of open, transparent, and inclusive decision-making are defined, justified and discussed in an extensive body of literature across different disciplines. While terminology varies and there are differences in the emphasis placed on certain criteria, similar concepts with common philosophical foundations emerge from this literature. A recent report from the health sector identifies three core guiding principles for fair and legitimate processes and seven implementable criteria.⁷

The core principles include equality, impartiality, and consistency. Equality builds on the idea of political equality, mutual respect, and people having equal opportunity to access information and articulate their views during a decision-making process, regardless of social or power status, gender, ethnicity or religion. Impartiality requires decision makers to produce an unbiased assessment. Their decisions should not be driven by self-interest or unduly influenced by stakeholders with vested interests in the outcome. Consistency over time requires procedures for decision-making to be stable and predictable in order to foster acceptance, sustainability and trust. Changes to decision-making procedures should be explained and justified.

The report identifies seven criteria for fair processes that are widely applicable: transparency, accuracy (in information), public reason, public participation, inclusiveness, revisability (in the light of new evidence), and enforcement. If these principles are followed, the process of making hard policy choices can clearly be improved, contributing to enhanced trust, legitimacy, and policy adherence.⁸

Policy decisions are better targeted and more effective if they are informed by accurate descriptions of the circumstances and evidence of what works. Communicating clear rationales and uncertainty and making evidence publicly accessible prevents disinformation. Open and truly inclusive decision-making can build trust and legitimacy. This improves adherence to policies, making them more effective. Greater effectiveness engenders greater trust in policymakers. Open decision-making can therefore contribute to a virtuous cycle of increasing trust, adherence, and policy effectiveness. In other cases, a fair process may at least prevent the erosion of trust.

Barriers to open and inclusive processes

The pandemic also revealed examples of relative neglect or a lack of open and inclusive processes. For example, a report on the COVID-19 response in Mexico, commissioned by the World Health Organization (WHO) Independent Panel for Pandemic Preparedness and Response, identified several shortcomings and linked them to the Government's concentration of power, extensive use of discretionary decision-making, and lack of deliberation.⁹ Another report commissioned by the WHO Independent Panel, on the United States response to COVID-19, identified the "trust deficit" as a risk factor that could lead to a poor pandemic response.¹⁰ Even in the Nordic countries, with well-established open and inclusive deliberative bodies, hearings, and public participation mechanisms, reliance on experts became the norm in the first phases of the pandemic. After a few months, though, public health authorities and Governments (in Denmark, Sweden and Norway, for example) became increasingly transparent, providing regular information,

updating evidence, and making reasons for policy changes publicly available (through dedicated websites of all reports and recommendations made to the Government). According to the Independent Panel, these mechanisms were identified as enhancing trust.¹¹

There are several well-known barriers to the implementation of deliberative processes. In addition to the obvious fact that more democratic processes will lead to the decentralization of power, they might be time-consuming and costly and might require public entities to coordinate their actions when issues are urgent and complex. Another barrier is the lack of capacity in public institutions. Often, public officials are not really equipped to conduct elaborate deliberative processes. Enhancing their capacity adds to the cost of these processes.

There can be a trade-off between efficiency in decision-making and inclusive governance that takes time and can be costly. A thorough process may involve thousands of participants and may require covering transport costs or providing compensation to enable equal participation and non-discrimination. However, the use of online channels for deliberations may reduce costs and improve impact and voice. All barriers or costs linked to democratic processes must be considered and weighed against the potential gains of improved legitimacy, trust, quality, and adherence.

The role of science

For policy choices involving a high degree of risk and uncertainty (as in the early phases of the pandemic), inclusive decision-making may be perceived as inappropriate and reliance on experts more relevant. Yet, to justify how scientists deal with these uncertainties, they must often appeal to ethical or political values concerning which risks are worth taking more seriously than others.¹² This is a question of risk management. Managing risks involves both individual and collective responsibility among all stakeholders and the public. This is an argument against relying only on experts when risks are higher. Drawing the line between facts and values and finding the appropriate role of experts and citizens in risk management is thus not always straightforward. Interaction between scientists and the public is therefore imperative.

That said, the involvement of experts in decision-making does not run counter to the ideas of deliberative processes. The scientific community not only provides objective data and evidence but also helps build a common understanding of the policy problems based on values and beliefs, as emphasized in recent literature on the science-policy interface.¹³ The neglect or even dismissal of scientific evidence is not in accordance with key principles of deliberative democracy.

Mechanisms

If there is political will, the prospects for open and inclusive processes are positive. There are essentially three mechanisms for institutionalizing and encouraging open, transparent, and inclusive government: inclusive deliberative bodies, systematic hearings, and self-selective public participation mechanisms.¹⁴

Inclusive deliberative bodies are set up to provide space and support for the sharing of relevant expertise, experiences, voices, and interests and to produce well-considered advice. Examples include ad hoc citizens' assemblies, permanent citizens' panels, biotechnology advisory boards, and advisory councils.¹⁵

Systematic hearings are set up in many countries to gather relevant insights from experts and stakeholders on draft legislation and policy. Hearing processes are often closely linked to formal decision-making and can act as a common arena or bridge between civil society, experts and the Government. They have the potential to inform and stimulate public debate and to generate legitimacy for decisions with interested stakeholders. They can expand the points of view and interests considered and improve the quality and acceptance of decisions. Examples are hearings mandated by law or optional hearings.¹⁶

Self-selective public participation mechanisms need not be but often are designed outside government and can enable everyone, in principle, to make their voice heard. Open, self-selective public participation mechanisms include town halls, (face-to-face or online) village meetings, radio and television call-in programmes, petitions, and crowdsourcing.

Various systems and mechanisms set up to facilitate public reasoning are flourishing throughout the world. One notable example highlighted by Dryzek and others is the Irish Constitutional Convention and Citizens' Assembly, whose open and inclusive processes have genuinely engaged people and transformed public discussions and decisions on same-sex marriage and abortion rights.¹⁷ Another example is the Citizens Council in the United Kingdom, where ideas and advice are shared on difficult priority-setting decisions.¹⁸ When the Citizens Council was established, the justification was directly related to ideas of deliberative democracy and the dominant framework called accountability for reasonableness (A4R). A4R is fully or partly embraced in countries such as Norway, the Netherlands, Sweden and the United Kingdom.¹⁹ Since health-care rationing so obviously creates winners and losers, and there can be legitimate disagreement about which choices are right, these countries have adopted principles from deliberative democracy and institutionalized health technology assessment and implemented open and transparent decision-making. A4R requires rationing decisions to be open and publicly made, with relevant reasons provided (for example, that a service is not cost-effective), with a mechanism for complaints and revisions.

The process itself should be institutionalized. If satisfied, these conditions can connect decisions about health-care rationing to broader democratic processes. These conditions seem to be increasingly accepted, though they are also criticized.²⁰ The institutions in Ireland and the United Kingdom are two examples of inclusive deliberative bodies.

A good practical example of regular hearing processes incorporated into a participatory governance platform is the National Health Assembly (NHA) in Thailand. By bringing in laypeople to hear and assess evidence and voice their own needs, experiences and concerns, the NHA has become a platform for building civil society capacity to engage with the policymaking process and for bringing lived experiences more strongly into policy discussions.²¹

Finally, a good example of self-selective public participation mechanisms is Participedia,²² a global network and crowdsourcing platform for researchers, educators, practitioners, policymakers, activists, and others interested in public participation and democratic innovations.

Building trust and legitimacy is possible

Open, transparent, and inclusive decision-making can improve the quality of decisions and enhance trust, legitimacy and policy adherence. There are barriers, but they can be overcome. Inclusive deliberative bodies appointed by the relevant authorities have been tried and tested successfully in Ireland, the United Kingdom, and many of the Nordic countries. Hearings have been practised in many countries and constitute a feasible, less costly, and transparent way to facilitate the use of public reasoning by all key stakeholders. The key here is to ensure that decision makers are responsive to the views and arguments presented through the hearing process. Self-selective public participation mechanisms provide novel ways to involve people outside government agencies; they often build on strong social activism and advocacy; and they have the potential to be more engaging and effective than government bodies.

The principles and examples presented here offer some key messages:

- One important way to secure legitimacy and acceptance for the outcomes of difficult policy trade-offs is through open, transparent, and inclusive decision-making.
- The most important reasons for open, transparent, and inclusive decision-making are that they respect political rights and can improve the quality of decisions and enhance trust and legitimacy.

- Implementable criteria for legitimate processes include transparency, accuracy, public reason-giving, public participation, inclusiveness, revisability and enforcement.
- Open, transparent and inclusive decision-making must be institutionalized. Governments can establish inclusive deliberative bodies (such as citizens' juries, permanent citizens' panels, biotechnology advisory boards and advisory councils) and systematic hearings with key stakeholders. Outside government, self-selective public participation mechanisms should be encouraged.
- There are costs to implementing deliberative processes. These must be considered and weighed against the benefits.

Endnotes

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Table 2A. Expert recommendations to enhance integration and policy coherence for the SDGs

Area	Action points
Global SDG follow-up and review	<ul style="list-style-type: none"> • Encourage and guide Member States to share experiences on the principle of indivisibility and integration through monitoring and reporting mechanisms at the High-level Political Forum and other global forums. • Facilitate knowledge exchange at the High-level Political Forum on how synergies and trade-offs can be managed in practice and on national processes for managing synergies and trade-offs in SDG implementation (for example, through the voluntary national reviews). • Include the role of risk management in policymaking, priority-setting and the implementation of the SDGs in Voluntary national/local review processes. • Support global innovations to protect the rights of current and future generations (including contributing to a Declaration of Rights of Future Generations, advocating for a strong role for the Special Envoy for Future Generations) through specific governmental actions. • Use the United Nations summits over the period 2023-2025 as an opportunity for advancing the adoption of strategic foresight as the basis for a “new approach” to anticipatory global governance and public administration.
SDG interdependencies, synergies, trade-offs, and prioritization	<ul style="list-style-type: none"> • Assess how SDG interactions play out in national contexts, involving local knowledge and supporting decision-making with tools that rest on systems thinking. • Revisit national SDG implementation strategies and action plans based on how priority SDGs support or inhibit progress with interrelated goals and with the vision of the 2030 Agenda in particular country contexts. • Report on how evidence and analytical tools are used to support SDG implementation by Governments and communicate about the policy choices made, their implications, and how to correct course. • Ensure adequate consultation, test new ideas, allow for adequate time, and assess synergies and trade-offs to identify effective policy solutions to improve the delivery of public services.
Transparent and inclusive decision-making to enhance integration and policy coherence	<ul style="list-style-type: none"> • Ensure transparency of Governments’ policy choices on how prioritizing progress in certain SDGs may have trade-offs with other Goals as well as implications for inequality. • Adopt operational criteria of transparency, accurate information, reason-giving, public participation, inclusiveness, revisability and enforcement to enhance the legitimacy of SDG policy choices by Governments. • Provide the evidence-based rationale for the prioritization method used by Governments, disclosing the methodology applied to identify priorities. • Further institutionalize open, transparent and inclusive decision-making by establishing inclusive deliberative bodies (such as citizens’ juries and permanent citizens’ panels) and systematic hearings with stakeholders. • Encourage self-selective public participation mechanisms (such as town halls and crowdsourcing), including outside government, which enable everyone to make their voice heard.
Budgeting and public financial management (PFM) to support integrated SDG implementation	<ul style="list-style-type: none"> • Integrate development goals/SDGs in all stages of the budget cycle in a sufficiently disaggregated manner. • Consider not only positive but also negative links and spillovers in SDG mapping. • Advance a systematic link between PFM decisions and development outcomes to enable the identification of budget implications for specific groups and policy agendas and how they are affected by trade-offs. • Form wide coalitions of civil society actors to bring additional power to the budget table, embracing the opportunity to support and engage with global movements, including on gender, climate and other areas.

Table 2A (continued)

Area	Action points
Data	<ul style="list-style-type: none"> • Promote the systematic generation of high-quality budget and public financial management data, in terms of both indicators and government expenditure. • Advance Governments' efforts to tag expenditure data to development categories such as the SDGs, which would allow linking expenditure programmes to development indicators. • Produce open, structured, high-quality data on the administrative, economic and programmatic classifications, which are the pillars for SDG budget tagging. • Strengthen data governance to accelerate the generation of reliable, timely and shared data and to ensure easy access to data through compatible technology.
Foresight and intergenerational approach	<ul style="list-style-type: none"> • Prioritize a principle of fairness for current and future generations across the public sector and assess policies from the standpoint of intergenerational fairness. • Establish strategic foresight centres of excellence to build an anticipatory governance ecosystem across the executive branch, parliaments, audit bodies, government agencies, and municipal bodies. • Conduct "national listening exercises" led by Governments to connect foresight-enabled intergenerational dialogues about the future to national strategic planning.
Risk management	<ul style="list-style-type: none"> • Learn from good practices of piloting structures for SDG implementation on how to effectively integrate risk anticipation in the assessments of trade-offs and synergies. The exchanges of experiences could potentially take place at the regional level. • Exchange good practices in the monitoring and evaluation of risk and crisis management to help address the knowledge gap on what has worked and what should be avoided in the future. • Promote exchange among risk managers in both the public and private sectors and with political leaders on how to best close the impact gap in risk management and advance a risk culture which would raise awareness and understanding of individual and collective responsibilities for preparedness.
Oversight and evaluation	<ul style="list-style-type: none"> • Conduct independent assessments of whether institutional measures make priority-setting and implementation more systemic and enhance capacity to manage synergies and trade-offs. These assessments can help identify measures to resolve or mitigate trade-offs and leverage synergies and apply tools to support systems thinking in SDG decision-making. • Take SDG indicators into account when conducting independent evaluations of budget processes and fiscal policies. • Consider further adopting an SDG focus in external audits by Supreme Audit Institutions.
Capacity-building and knowledge sharing to support integration and policy coherence	<ul style="list-style-type: none"> • Promote collaboration between scientists and decision makers to build capacity on interdependencies (for example, through trainings and knowledge exchanges). • Leverage global networks to promote the dissemination and uptake of analytical tools and models to support policy coherence and integration and to encourage their practical use. Members can learn the value of these tools and acquire the skills needed for using them in practice. • Integrate strategic foresight into civil service training and the education of current and next generations of public officials. • Increase investment in computational social science by Government, research and educational institutions to endow the new generations of decision makers and social scientists with a mix of skills and interdisciplinarity. • Include subnational authorities in ongoing knowledge sharing and joint peer learning exercises to facilitate coordination across levels of government. • Increase the participation of regions, countries and actors historically underrepresented in Global SDG networks to ensure that all voices can equally contribute towards developing practical sustainable development solutions.

Table 2A (continued)

Area	Action points
Science and research to support integration and coherence for the SDGs	<ul style="list-style-type: none"> • Ensure better alignment between tools to address SDG interdependencies and trade-offs and decision makers' demands in different contexts. • Illustrate with concrete examples the value of tools to address complex SDG trade-offs and pressing challenges. • Support efforts to scale up budget tagging through new artificial intelligence methods. • Conduct further research into the value budget tagging adds to PFM to document its benefits, showing the net benefit of implementing it across the fiscal policy cycle and its value to various stakeholders. • Engage the scientific community in multi-stakeholder processes in decision-making and priority-setting to help enhance public trust in science and support inclusive knowledge production. • Explore ways to make science systems more inclusive and equitable in order to involve a wider range of voices, institutions, types of knowledge and approaches. • Identify governance models and arrangements that could strengthen science-policy interfaces and accelerate local transformations for sustainable development.
Multilateral organizations and donors' support	<ul style="list-style-type: none"> • Develop a simple internationally accepted budget tagging and prioritization model with support of international financial institutions, which could be freely used to link budgets and spending with development results. • Provide technical assistance to Governments in integrating a goal-oriented approach throughout the budget process and across the fiscal policy cycle. • Champion a responsible foresight agenda for societal transformation by integrating specific commitments into international standards, programme design, and Our Common Agenda proposals (including intergenerational citizen engagement, especially from the global south, as well as accountability mechanisms to assess the intergenerational distributional impact of policies).