Some considerations on external audits of SDG implementation

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ABSTRACT

Supreme audit institutions (SAIs) have started to audit the implementation of the Sustainable Development Goals (SDGs). While there is no one single audit model or approach to audit SDG implementation, audits should incorporate a few core methodological features related to the principles of the 2030 Agenda. Four methodological and practical challenges associated with conducting performance audits of SDG implementation, as they differ from traditional audits, are discussed in this paper: 1) problem definition, including the level of investigation in the SDG hierarchy of goals and targets and the audit scope; 2) conceptual challenges inherent in going from the level of individual entities or programs to that of whole-of-government performance; 3) practical considerations that should inform an analysis of the coherence of government actions in a given policy area; and 4) the ways in which audit guidance at the international level can help individual SAIs going forward. Ultimately, this paper aims to inform the broader discussion on evaluation of the SDGs.

JEL Classification: H83; O19; O20

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Sustainable Development Goals: 16; 16.6; 17.14

CONTENTS

I Introduction

Four years and a half after the adoption of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) by UN Member States (United Nations, 2015), assessing progress towards the goals has become a central focus. A critical element of this concerns the evaluation of the performance of national governments in furthering the goals through their various roles. Many actors are involved in SDG evaluation, from governments themselves to international institutions to non-State actors including academia, think thanks, and many others. This paper explores the contribution to SDG evaluation made by supreme audit institutions (SAIs)[1] through audits of SDG implementation. Supreme audit institutions around the world are starting to conduct performance audits of the implementation of selected SDG goals and targets. Alongside this first wave of SDG implementation audits, ongoing efforts in the SAI community aim to define proper methodologies and to provide guidance to SAIs on how to conduct this work (see UNDESA, 2019a). Specifically, this paper explores some of the methodological and practical challenges and opportunities associated with (external) audits of the implementation of the SDGs.

Conducting performance audits of SDG implementation (which for simplicity we will call "SDG audits" hereafter) presents methodological and practical challenges. On the methodology side, a first class of problems concerns the identification of the subject matter to audit. The SDGs are made of 17 broad goals, each encompassing several targets. The breadth of the targets varies widely, going from relatively narrow and well-defined issues, to more complex ones. In this context, a question is, at what level of the SDG hierarchy should SDG audits focus, and what guidelines could help auditors select the subject matter and define the scope of the audit.

A second problem comes from the fact that all the SDG targets[2] speak to society-wide themes. Hence, any meaningful evaluation of performance against a target has to be based on a government-wide (or society-wide) assessment. This presents a challenge to SAIs, as traditional audits focus on individual entities or programmes. Indeed, the leap from that level to that of a whole-of-government evaluation presents methodological challenges, essentially through an "aggregation problem" – the efficiency and effectiveness of a collection of programmes cannot usually be derived from those of their individual components.

A third problem, directly linked with the previous one but of a more practical nature, relates to the analysis of policy and institutional coherence in a given policy area. In the context of the SDGs, awareness of the synergies and trade-offs among policy areas has grown, highlighting the importance of policy coherence. How to assess policy and institutional coherence as part of auditing SDG implementation is therefore an important issue that SDG audits have to address.

A fourth problem, which is both methodological and practical, comes from the extensive scope of the SDGs. The SDG targets cover practically all fields of human endeavor, with few exceptions. In this context, in order to be helpful, any methodology for auditing SDG implementation should ideally be complemented by target-specific guidance, which sketches the contours of the related policy area, identifies broad themes that audits should consider, as well as more specific questions that audits in that area may want to address.

The paper addresses each of these problems in turn. It argues that the appropriate level of analysis for SDG implementation audits should be that of SDG targets, and presents examples of how to use a systemic approach

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[1] A supreme audit institution is a state body that, by virtue of law or other formal action of the state, exercises the highest public auditing function of that state in an independent manner, with or without jurisdictional competence. (See https://www.intosai.org/about-us/overview accessed 20 Nov. 2019).

[2] The focus of this paper is on SDG targets that refer to the national level. We do not consider targets that mainly talk to the international level, such as the need for more balanced representation in international institutions. This is because the mandate of supreme audit institutions is national in nature.

to define and empirically investigate the subject or problem of analysis. It illustrates some of the conceptual challenges of adopting a whole-of-government approach to auditing and how they may be addressed. The paper highlights key elements to consider when analyzing policy coherence at the level of individual targets. It illustrates how the production of target-specific guidance for SDG implementation audits can be done economically through dialogue between thematic experts and auditors. The paper provides examples taken from current practice in SAIs; indeed, much innovative work currently done by SAIs can readily inform SDG audits going forward.

The objective of this article is twofold. First, we aim to contribute to ongoing efforts in the SAI community to systematize some of the methodological questions involved in auditing SDG implementation in order to provide guidance to audit teams interested in this type of work. Second, we aim to present the SAIs' efforts to audit SDG implementation to a broader audience that shares the concern of evaluating government performance in implementing the SDGs. The arguments developed in this paper were presented by the authors during discussions among experts held in February and July 2019 in the context of the elaboration of an SDG implementation audit model under the leadership of the INTOSAI Development Initiative (IDI) (see UN DESA, 2019a), as well as during two large meetings of supreme audit institutions held in July 2018 and July 2019 at United Nations Headquarters in New York (see UNDESA, 2018 and 2019b). The recently issued IDI SDGs audit model (IDI, 2020) provides concrete guidance to SAIs on how to address many of these issues.

The rest of the paper is structured as follows. Section II provides a brief background on the history and status of SDG audits. Section III introduces a definition of SDG audits. Section IV explores implications of this definition for the work of SAIs and presents practical approaches that could inform SDG audits. Section V presents a generic map of sustainable public procurement that could inform audits of SDG target 12.7, as an example of the potential of generic domain maps to support SAIs' SDG audit work. Section VI briefly discusses where SDG audits can be expected to fit in the universe of SDG-related evaluations at the national level. Section VII concludes.

II Supreme audit institutions and SDG audits: A short background

Shortly after the adoption of the 2030 Agenda for Sustainable Development in 2015 (United Nations, 2015), supreme audit institutions around the world began to audit the preparedness of governments to implement the SDGs. This was strongly encouraged by the International Organization of Supreme Audit Institutions (INTOSAI), which included SAIs' contribution to the follow-up and review of the SDGs as a cross-cutting priority in its strategic plan for 2017-2022.[3] In 2016, the INTOSAI Development Initiative (IDI), the capacity building arm of INTOSAI,[4] launched a worldwide capacity development programme on "Auditing SDGs" to support SAIs to conduct performance audits of government preparedness to implement the SDGs according to the international standards of SAIs (ISSAI). As of 2019, more than 70 SAIs have conducted audits under this programme. Insights from the programme are provided in a dedicated publication issued by IDI in July 2019 (IDI, 2019). Other initiatives from the SAI community have also supported SDG-related work by SAIs in various parts of the world (see Guillán Montero and Le Blanc, 2019).[5]

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[3] Cf. http://www.intosai.org/about-us/strategic-plan-of-intosai.html.

[4] An INTOSAI organ with separate legal identity (see https://www.intosai.org/about-us/intosai-development-initiative).

[5] Some of these audits have looked at preparedness to implement specific SDG targets, in addition to the preparation of the center of government. In 2017, for example, OLACEFS conducted a coordinated audit with the participation of 11 Latin American SAIs, coordinated by SAI Brazil, to evaluate the preparedness of national governments to implement the SDGs as well as SDG Target 2.4 on food security (EUROSAI WGEA 2018). Other SAI initiatives include capacity building and awareness raising efforts on SDGs, integration of SDGs into SAIs' strategic plans and annual audit plans, reviews of past audits to identify baselines and existing experience in SDG areas, among others.

The next step was to launch SDG-specific audits, which focused on SDG implementation and aimed to assess the performance of policies and programmes to advance specific SDG areas. Costa Rica's SAI and the General Comptroller of Bogotá, for example, have conducted audits on poverty reduction (SDG 1) (Costa Rica SAI, 2018; General Comptroller of Bogotá, 2019). The SAI of Costa Rica has also conducted an audit on water and sanitation for vulnerable populations (SDG 6), and plans to conduct additional audits on different SDG areas including health, transportation, agriculture, and judicial institutions (Costa Rica SAI 2018). Brazil's SAI is coordinating an audit (including subnational audits institutions in Brazil and, internationally, Latin American SAIs and the SAIs of Spain and Portugal) on the implementation of selected targets of SDGs 14 and 15 (TCU, 2018). Other ongoing or planned initiatives in Latin America, under the aegis of the Organization of Latin American and Caribbean Supreme Audit Institutions (OLACEFS), include conducting audits of SDG 1 (poverty with a gender perspective), SDG 7 (renewable energy), environmental liabilities related to mining (targets 12.4 and 15.3), in addition to recent audits on gender (SDG 5). IDI is developing an SDG audit model and aims to pilot it on specific SDG targets in two regions (Asia and Latin America) in 2020.

The value of external audits of SDGs is well recognized (see Guillán Montero and Le Blanc, 2019). External audits can bring additional and original information to the follow-up and review of the SDGs at the national level, in countries at all levels of development. Results from external audits of government preparedness to implement the SDGs made it clear that SAIs can provide insights on institutional arrangements, on means of implementation and on monitoring and evaluation systems for the SDGs which complement those produced by government agencies and other stakeholders (UNDESA, 2018). In addition, SDG audits have the potential to bring value added at broader geographical levels. At the regional level, coordinated audits can provide a unique regional perspective, which would be difficult to achieve through other means. SDG audits also have the potential to inform the review of progress on the 2030 Agenda at the global level.[6]

III Defining audits of SDG implementation

Performance audits of SDG implementation will necessarily be different, use diverse tools, and focus on different implementation dimensions (e.g., long-term planning, monitoring and evaluation), since they are ultimately driven by the specific target(s) and policy area(s) to be evaluated.[7] However, they must also retain certain core methodological characteristics to be considered SDG audits (in contrast to traditional performance audits conducted on any policy area that may be reflected in the SDGs).[8]

This distinctive nature calls for a definition of SDG audits. SDG audits recognize the distinctive principles of the 2030 Agenda and, through an integrated approach, aim to evaluate the realization of those principles in the implementation of policies and programmes that contribute to the achievement of national sustainable

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[6] The special report of the UN Secretary-General on progress on the SDGs (United Nations, 2019) specifically flags two contributions of SAIs (page 33): 1) audits may lead to identifying and addressing implementation challenges that countries face; and 2) enshrining the Goals in institutions such as parliaments and supreme audit institutions will help ensure that they remain a priority independently from electoral cycles.

[7] The specific dimensions of implementation to be considered are related to the topic of the audit. Many dimensions are of potential interest. They can relate to processes (are those effective?), to inputs (what needs to be changed?), or to outputs. Factors belonging to the broader policy or legal environment may also be of interest. The selection of relevant dimensions of analysis for the audit should be based on the conceptual map for the problem (see section 6). Also, relevant dimensions may be identified based on previous audits and the clusters identified for the audits of preparedness for SDG implementation. Relevant pointers might be found in evaluation or assessment reports produced outside the SAI. Agreement on dimensions of interest can be achieved through various methods, including consultative or participatory ones (expert interviews, Delphi method, stakeholders' workshop, etc.), or internally if sufficient expertise on the subject exists in the SAI.

[8] SDG audits complement yet do not replace traditional performance audits. At the same time, they can be a source of innovation and capacity building for conducting traditional performance audits.

development objectives and outcomes that contribute to the SDGs. A definition that fits these requirements is that selected for IDI's SDG audit model (IDI, 2020), which was elaborated in July 2019 in an expert group meeting organized by the United Nations Division for Public Institutions and Digital Government of UNDESA (UNDESA, 2019a). The definition is as follows:

> Audit of SDG implementation: Audit of implementation of the set of policies that contribute to the achievement of a nationally agreed target linked with one or more SDG targets.
>
> The audit of SDG implementation needs to conclude on:
> - progress made towards the achievement of the nationally agreed target;
> - how likely the target is to be achieved based on current trends;
> - the adequacy of the national target in comparison with the corresponding SDG target(s).
>
> An audit of SDG implementation needs to be conducted considering a whole-of-government approach.
>
> The audit of SDG implementation needs to conclude on the extent of coherence and integration in the implementation of policies.
>
> To the extent possible, the audit of SDG implementation could include objectives and questions that allow to conclude on:
> - leave no one behind;
> - multi stakeholder engagement.
>
> Source: IDI (2020).

This definition implies a whole-of-government approach and the consideration of policy coherence. These are the two dimensions that most critically distinguish audits of SDG implementation. The definition also addresses the difference between international and national targets. Because the two are mentioned in the definition, it implies that a judgment has to be made on the adequacy of the national target in relation to the SDG target. Therefore, in addition to conclude on progress made towards the achievement of the nationally agreed target and related aspects (e.g., how likely the target is to be achieved based on current trends, the adequacy of the national target in comparison with the corresponding SDG target/s), an audit of SDG implementation needs to conclude on the extent of coherence and integration in the implementation of policies.

The definition considers two broad principles of the 2030 Agenda: leaving no one behind and stakeholder engagement. The importance they are given in any particular audit would depend on the policy area (target) under consideration. To the extent possible, an audit of SDG implementation could also include objectives and questions to conclude on other relevant principles and aspects, such as inclusiveness, fairness, equity, risk management, and long-term perspective.

The audit of SDG implementation should be result-oriented. For audits of SDG implementation, results (outputs, outcomes, impacts) refer in general to the measurable changes in nationally agreed results linked with one or more SDG targets that occurred because of government action.[9] Therefore, an SDG audit should

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[9] Outputs are the direct immediate results associated with a project. In other words, they are usually what the project has achieved in the short-term. The second level of results (outcomes) refers to the medium-term consequences of the programme. Outcomes refer to finite and often measurable changes that are brought about by achieving the programme's goal or aim. Finally, impacts refer to the long-term effects of an outcome. It is difficult to ascertain the exclusive impact of a programme, as several programmes and other conditions can lead to the same impact (https://impact-evaluation.net/2013/06/10/difference-between-inputs-activities-outputs-outcomes-and-impact/, accessed 19 August 2019; Andrew Harding 2014, "What is the difference between an impact and an outcome?" LSE Impact blog, https://blogs.lse.ac.uk/impactofsocialsciences/2014/10/27/impact-vs-outcome-harding/, accessed 20 August 2019).

focus on the contribution of the audited programmes to results – i.e., how the audited plans, programmes and policies are jointly contributing to achieving the nationally agreed results that are linked to the selected SDG target/s. This poses a challenge to SAIs, given that their traditional focus is on the actions that the government controls. Outcomes and impacts are often difficult to audit, as they fall out of the control of any audited entity.[10] Moreover, impacts are dynamic and change as a result of several factors (e.g., in public procurement, the impacts of long tender processes only become evident over time). To conclude on outcomes and impacts, SAIs often need to find methodological solutions.

IV   SDG audits: Exploring some implications of the definition for SAIs' work

The SDGs are a complex subject to audit. This section focuses on several aspects that SAIs will have to manage when they conduct SDG audits according to the definition presented in section III. Specifically, we consider in turn: (i) the appropriate level of analysis in the SDG hierarchy; (ii) the focus on national versus international targets; (iii) the need to develop a conceptual map of the subject matter of the audit; (iv) the need for whole-of-government approaches; (v) how to conduct analyses of policy and institutional coherence; and (vi) how to assess performance. As relevant, we introduce some of the tools that may be useful for SAIs to address those issues.

IV.1   Appropriate level of analysis in the SDG hierarchy

A key consideration for SDG audits is the capacity to provide policy- and process-relevant recommendations to specific government entities. The level of depth in analysis that this implies means that the subject matter cannot be too broad, because it would not be auditable.[11]

The SDGs are based on two tiers, goals and targets, with each goal comprising on average 10 targets. While all the goals cover very broad policy areas, the policy areas associated with SDG targets vary considerably in breadth, from narrowly defined topics (e.g., target 16.9, "by 2030, provide of legal identity for all, including birth registration) to very broad ones (e.g., target 1.3 on implementing social protection systems for all). They also vary in terms of "actionability" – while some targets are quite specific and measurable (e.g., target 3.1), others are more an expression of intentions (e.g. target 12.7, or some targets under SDG 16). In general, though, the level of complexity of SDG targets is more "manageable" from the perspective of policy analysis than that of whole goals. One indicator of complexity that is relevant in this context is the number of linkages between the problem being studied and other policy areas. Existing studies show that the potentially relevant linkages at the level of a goal are typically of the order of tens and sometimes more than a hundred (for SDG 6, UN Water, 2016; for SDG 12, see OECD, 2018; for SDG 14, see Le Blanc, Freire and Vierros, 2017). Studies also show that any two goals may be linked through many different causal linkages (see Vladimirova and Le Blanc, 2016, for an illustration on education).[12]

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[10]   While an entity can control its outputs, a range of factors which are typically outside of an organization's control intervene in the causal chain between outputs and outcomes, and between outcomes and impacts.

[11]   Auditability is one of the criteria (together with materiality, relevance and value added) used to select the topic of an audit: it means whether the topic is suitable for an audit, including, for instance, whether there are methodologies available, audit criteria, availability of information, capacity of the audit team, etc. (ISSAI 3000/94, 2016).

[12]   Since 2015, the SDGs have been used as a framework to systematically reference policy linkages among the different goals and targets (see ICSU, 2017; Independent Group of Scientists, 2019).

For all these reasons, assessing the performance of public policies at the level of goals is both too complex (it becomes hard to disentangle the effects of many concomitant causal linkages) and impractical (the analysis becomes intractable). For the purpose of policy evaluation, focusing on the level of individual SDG targets (or even sub-targets), while considering their interlinkages with other targets across the SDGs, is therefore likely to be conceptually and practically more sensible. This has been the conclusion of studies of SDG interlinkages (e.g. Nilsson, 2017). Pioneering attempts at SDG audits also support this conclusion. For example, the audit of target 2.4 (sustainable food production) done by the Brazilian Court of Accounts not only focused on a single target, but examined only selected policies and their interactions within the scope of that target (TCU, 2018). Similarly, the coordinated audit of SDGs 14 and 15 underway in Latin America, Spain and Portugal focuses on a few targets per goal (TCU, 2019).

IV.2   National versus international targets

Focusing the evaluation of performance on the level of individual SDG targets leads to the question of which target to audit. In the 2030 Agenda, goals and targets are defined as aspirational and global, with each government setting its own national targets considering national circumstances (United Nations, 2015, paragraph 55). Accordingly, countries have set and prioritized national targets for the SDGs in different ways.

SAIs should audit national targets for several reasons. First, this is consistent with SAIs' mandates, and reinforces the legitimacy of SDG audits. Second, in practice, national targets in relation to any SDG target vary, depending on country circumstances. For example, while some countries have gone through the process of aligning their national sustainable development strategies and development plans with the SDGs, including mapping national targets and indicators to SDG targets, others have not. For any SDG target, in national contexts, there may be no related target; or the related targets may be more or less ambitious than the global target. A low-ambition national target might be effectively achieved, while the corresponding international target remains distant, and vice-versa.

These are relevant considerations for the selection of targets to be audited and, at a more strategic level, to decide whether to engage in auditing the implementation of the SDGs in the first place. The political importance and ambition of a national target may be a relevant dimension for a SAI to decide on auditing the target in question. SAIs may not want to allocate resources to auditing a policy area that receives little attention in the national context, even though it may be a salient issue at the international level.

IV.3   Understanding the topic of the audit

The first challenge for an SDG audit (as for any audit or evaluation) is to understand the topic of the audit in order to define the audit's scope (in terms of entities and programmes to be included in the audit), objectives, questions and criteria. In general, the outcomes of interest at the level of an SDG target will be influenced by many public policies and programmes, the implementation of which will involve many different institutions and layers of laws and regulation. These interact in different ways, which makes it more difficult to identify causal relationships between policies, inputs, processes, outputs and outcomes. The scope of the audit must be large enough to encompass all the policies that impact the problem (to avoid "wicked problems"), but small enough to remain manageable.

A first step in the analysis is to take a systemic approach to understanding the topic of the audit and produce a conceptual map of the "system" that relates to the selected SDG target. The conceptual map should build on a socio-economic-environmental analysis of the problem and reflect the complexity of the issue under consideration, identifying the main factors that contribute to the outcomes of interest. Precisely defining the system under investigation is important, because it determines the perimeter of the mappings (e.g. institutional) that

will have to be undertaken; what factors will be considered internal and external; and the relationships among the various elements within the system.

This exercise will be specific to each target of interest. As an illustration, consider the hypothetical case of auditing target 11.1, "By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums"; and further assume that, given the breadth of this target, a supreme audit institution narrows down the focus of the audit to the last part of the target, upgrading slums by 2030. In this example, focusing only on slums without consideration of the broader land and housing markets might be appropriate for auditing the performance of a single slum upgrading programme, but is probably not a good choice for auditing the performance of slum upgrading, because it misses all the interactions around land and housing markets that create slums in the first place. In such a case, proper identification of the root causes requires the consideration of a system that is broader and more complex than the initial subject matter of the audit might have seemed to imply (Figure 1).

Figure 1
Defining the system for consideration in the audit: example of slum upgrading

Slum eradication: simplified model of housing markets for system identification

Source: Authors' elaboration.

The degree to which policy areas corresponding to SDG targets have been mapped as part of broader socio-economic-environmental systems varies considerably across the targets. For some, such mappings will be readily available, including in policy evaluation reports produced by government agencies, parliaments, international institutions, audit offices themselves, and others – and not necessarily under an SDG label. For others, the elaboration may require more time and resources. Among others, one resource to identify the different policy areas that impact the problem under consideration is to use the SDGs themselves as a map, and use work done at the global level to identify interlinkages among the SDGs,[13] while adding a national "filter" to identifying critical interlinkages in the country context. However, this should not be the only source, as many issues are not explicitly reflected in the SDG targets. Desk review of relevant reports and literature as well as interviews

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[13]   See section IV.1 above for selected references. The work on interlinkages is vast, and almost all of the SDGs have been covered in recent years. Relevant references are readily identified by a Google search.
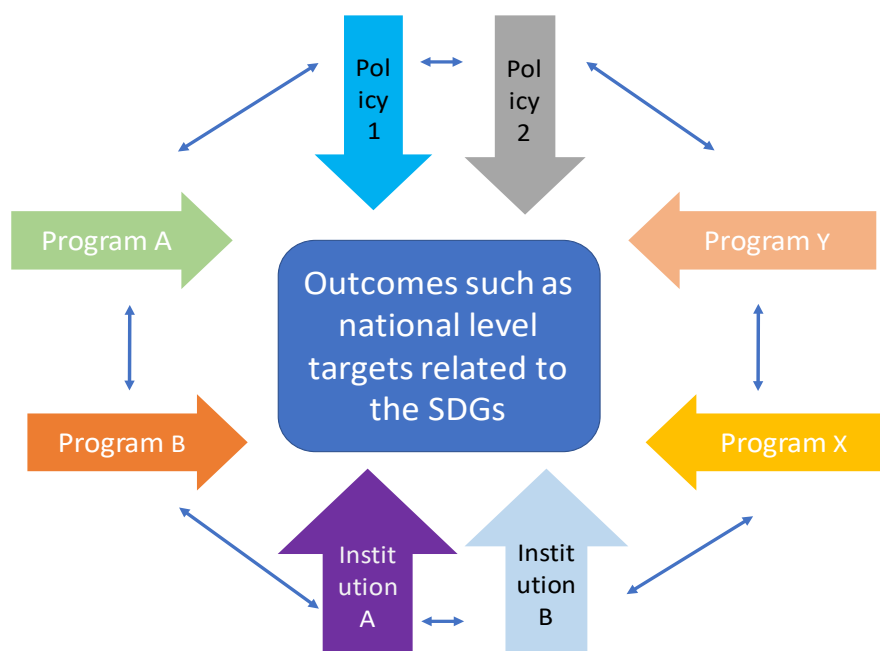
and consultations with government agencies, civil society, experts, and other non-governmental stakeholders can also be useful to audit teams in this respect.

IV.4 The need for a whole-of-government approach to audit SDGs

The complexity of the societal problems captured at the level of SDG targets, illustrated in the previous section, has direct implications for auditing SDG implementation. Each SDG target spans the responsibilities of various ministries and entities, levels of government, and sectors, which means that an audit needs to be equally "boundary-spanning" and assess performance at the whole-of-government level.

Hence, in SDG audits, the focus of government performance shifts toward the results and outcomes that government seeks to achieve to address a societal problem and sustainable development challenge, rather than the operations of any single program or agency. A whole-of-government approach seeks to ensure that the efforts of different entities and programmes are aligned and coordinated to provide integrated responses to national development challenges and priorities. These changes must be reflected in the audit practice. The audit should be planned and conducted with a whole-of-government, not entity-based, approach (Figure 2).

Figure 2
Whole-of-government approach

Source: Authors' elaboration.

Auditing societal level objectives with a whole-of-government approach creates additional methodological challenges compared to programme or entity-based audits. Some of these challenges relate to what can be called the "aggregation challenge"- i.e. aggregating information on the economy, efficiency and effectiveness of individual programmes into information on the economy, efficiency and effectiveness of sector-wide actions.[14]

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14 Economy: minimizing the costs of resources. Efficiency: getting the most from available resources – relationship between resources and outputs delivered (quantity, quality and timing). Effectiveness: meeting the objectives set and achieving the intended results. See ISSAI 3000/1.5; ISSAI 100/41.
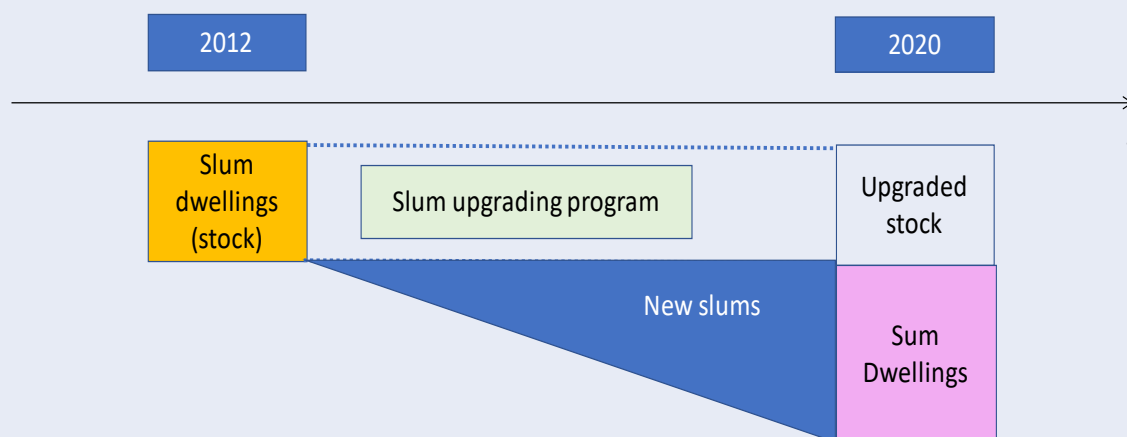
In particular, the analysis of effectiveness becomes more complex. It will generally be the case that multiple public programmes contribute to changes in outcomes. While some programmes may be deemed highly effective on their own (and would be assessed so by traditional performance audits), in the context of the whole system they may fail to deliver the objective (see Box 1).

Box 1
How going from programme to target level complicates the analysis of effectiveness of government interventions: the case of slum eradication

In the case of slum eradication, a highly efficient and effective programme of slum upgrading covering all slum areas present in a metropolis as of 2012, may result in full upgrading of those settlements by 2020. However, within those eight years, a greater number of new slum dwellings may have been created at the fringe of the agglomeration, due to migration. This would be a situation typical of many Indian cities in the 2000s, or of Dhaka, Bangladesh, where at the beginning of the 21st century, about 400,000 new people were added to the city every year, mostly living in newly constructed slums at the periphery of the city (World Bank, 2006). In such a case, whereas the slum upgrading progamme might be highly effective and efficient by itself, it is not effective to address the overall objective of eliminating slums. An audit focused only on the slum upgrading programme will not identify the ineffectiveness of the government in confronting the broader societal problem. This indicates the importance of analyzing not only the effectiveness of individual programmes, but of the multiple programmes contributing to the results (effectiveness at the scale of the whole system).

Objective: eradicate all urban slums by 2020

Source: Authors' elaboration.

Similarly, the analysis of resources is likely to be complicated because multiple programmes scattered across many different ministries and public entities may be contributing to changes in outcomes. Some of these programmes may be straightforward to analyse in terms of economy and efficiency (e.g. "brick-and-mortar" investment programmes in infrastructure, housing, electrification, etc.). Others, especially those related to laws and regulations,[15] do not lend themselves to comparable analyses. The aggregation problem also applies

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[15]   In the case of laws and regulations, alternative methods exist and can be used – using costs or opportunity costs as opposed to outlays – estimates may be available from government offices or academia. Typically, in the USA they would be produced before a law is passed.

here. For example, even though some components of a given public intervention might be very efficient on their own, it may be the case that better results could be achieved for less public outlay – e.g. in the case of legal framework having strong negative impacts on one outcome, which public outlay can only partially mitigate for; in such a case, reforming the legal framework in a judicious way might create better outcomes while at the same time diminishing the need for the use of public funds. Therefore, the resources devoted to the problem as a whole should be carefully analysed. A key additional question compared to a programme-level analysis is the opportunity to reallocate resources from one programme to another in order to achieve greater efficiency – the marginal benefit of an additional dollar of public money will differ across programs.

In addition to the "aggregation challenge", another challenge has to do with evaluating new areas that are important in a whole-of-government approach. Beyond what happens within individual entities, a range of functions and services are provided by the government through center of government functions (e.g., coordination, systemic risk management, collaborative mechanisms). The effectiveness of the government in delivering those functions can critically impact the overall effectiveness of individual organizations and of the whole system. Moreover, there is an even higher level of strategic action by the government, which includes its commitment to action in a given area, and the means (e.g., capacity building, budgetary resources, technology) it uses to ensure that it can follow upon those commitments. Weaknesses and leverage points for change at this strategic level need to be identified in order to improve government action. However, evaluating these dimensions may be new for SAIs; they may not have much accumulated experience in these areas and require new or additional staff capabilities and skills (see section V for an example on target 12.7).

IV.5 Scoping the audit

The map of the system for the audit subject at the SDG target level can be used to guide the scoping of the audit, i.e. the identification of the boundaries of the system to be considered. When the conceptual map is clear, the team should determine the boundaries of the system and the focus of the audit, which will be reflected in the audit objective/s and questions/sub-questions. Audit questions and sub-questions can be linked to specific components of the system (for instance, for the target 12.7, examples of questions pertaining to the performance of the central e-procurement platform in relation to the other features of the procurement system).

To identify the boundaries of the system, the auditor can consider the following questions: (i) What is the system (in a systems thinking sense, i.e. what are the boundaries of the system considered in the investigation, and its relationships with outside factors?); (ii) Which parts of the system are directly controlled, affected by public action (versus private action and resources)?; (iii) How will the audit address actions by non-State actors that impact or are impacted by public actions? In particular, while the audit considers only actions by the government, appropriate indicators of the effectiveness of public actions will often have to be looked for in terms of actions by non-state actors (e.g., when considering topics such as access to education, health, where outcomes may be primarily determined by those actions).

The audit teams may also use risk assessment methodologies, which allow the auditor to start with the acquired knowledge of the audit area and to progressively focus on the key critical risks that lead to relevant potential audit questions and potential audit scope. The risk assessment provides the link between the knowledge of the audit area that is reflected in the conceptual map and the audit questions and scope.[16]

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[16] See, for example, guidance on risk assessment in performance audits by the European Court of Auditors (https://www.eca.europa.eu/Lists/ECADocuments/GUIDELINE_RISK_102013/GUIDELINE_RISK_102013_EN.pdf).

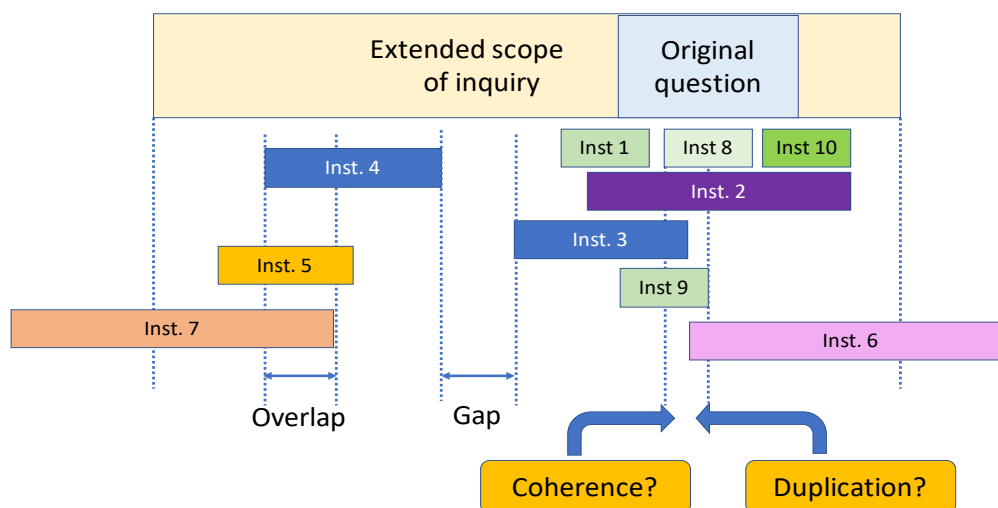## IV.6   Mapping entities, strategies, programmes and policies

Once the system has been defined, the next practical step for auditors is to identify the public entities that are responsible for managing the factors that influence the achievement of the national targets of interest, and the strategies, programmes and policies they have in place.

The audit teams may, first, identify how the issue of interest is reflected in the long-term national vision, National Sustainable Development Strategy, or similar overarching development plan, mid-term plans as well as existing sectoral strategies or plans (analyzing whether the issue is covered or not, adapted, related, etc.). Then, they can conduct a policy review to identify and analyse relevant policies, laws and regulations in all sectors impacting on the problem. Finally, they can map the public institutions, entities and agencies whose mandates cover the scope of the problem, and any relevant institutional arrangements for coordination to address specific linkages. For example, if the subject of the audit is on protection of marine areas, then there should probably exist an institutional mechanism for collaboration between the Ministries in charge of trade, fisheries and environmental issues.

To map the relevant policies, the audit team should consider the factors that influence the system to be investigated and the relevant national target. Then, the auditors need to gather information on essential aspects of the relevant policies, including their objectives and expected results, beneficiaries and target population, key benefits, services and outputs, and the government entities responsible for their formulation and implementation (this helps to conduct the institutional mapping). Additional information on the relevant policies will also be useful (see GAO, 2015). This information will be critical to assess the coherence between different policies or components of reform.

Relevant sources of information include existing studies – such as legal reviews done as preparatory work for sector lending by international financing institutions, academic evaluations, internal reports from Ministries or agencies, etc. – norms and regulations, performance reports, previous audits, official databases, and expert opinions, among others. Different tools such as mapping matrixes, institutional mapping figures, or maps of attributions/competencies can be used to facilitate the analysis and reflect and visualize the results.[17]

Figure 3
Mapping public institiutions and their mandates

Source: Authors' elaboration.

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[17]   For mapping institutional attributions, see, for example, TCU (2018).

Figure 3 presents a generic map of institutions in relation to an issue of interest. It illustrates how institutions may have overlapping mandates, potentially resulting in tensions (lack of coherence) and duplications; and how some of the relevant policy issues identified at previous stages might not be covered by the mandates of existing institutions (gaps). In this context, it is important to note that institutional overlaps are not by themselves a problem and can have positive effects. They often are "natural" in the sense that they reflect interlinkages among policy areas, and can serve as opportunities for dialogue and collaboration.

IV.7   Understanding the actors involved and their interests

In parallel to identifying policies, institutions and programmes relevant to outcomes in the policy area that is considered for the audit, it is also important to identify the stakeholders involved in the relevant policy domain (the system of the SDG issue area mapped by the audit team). The aim of this step is to map all relevant stakeholders and understand their interests, roles, and agendas (power vs. interest in status quo/change), including international pressures and actors as relevant, as well as the potential impact if the programmes under consideration do not respond to those stakeholders' interests.

Stakeholder mapping and analysis should consider the interlinkages between SDGs as a starting point to identify the set of stakeholders that can support integrated policies in relation to specific issues and in understanding their interests (United Nations, 2018). Teams should look at the stakeholders most active on the core question being investigated, but also at those operating within the whole scope of investigation. It is also important to map excluded or potentially excluded groups in order to bring their perspective into the audit.

There are multiple tools available for stakeholder mapping and analysis (such as RECI analysis, stakeholder matrixes, etc.), as well as specific guidance on how to use such tools in planning and conducting performance audits.[18]

In addition, when relevant for the subject matter of the audit, the scoping of the audit and the definition of the audit objectives and related audit questions/sub-questions can incorporate a specific focus on stakeholder engagement. The audit can consider, for instance, assessing the performance of participatory mechanisms (in general or for specific groups such as local communities, women, etc.) in a specific policy area, the effectiveness of the policy framework in enabling the participation of non-state actors, the distribution of benefits from specific programmes among all relevant stakeholders according to equity considerations or based on their contribution to policy implementation, among other possible dimensions. For example, a coordinated audit on protected areas conducted in 2014 in Latin America included access of local communities to the management of protected areas as one of the performance dimensions to be evaluated; on a scale from 1 to 3, this dimension scored 1.37 on average for the 1,120 protected areas audited (TCU, 2015). Also, stakeholder engagement could be considered as a cross-cutting dimension to be analysed in all audit objectives through the inclusion of relevant audit questions.

IV.8   Analysing policy integration and institutional coherence

The multiplicity of policies, programmes and institutions impacting outcomes at the level of an SDG target creates the need for looking at their coherence – how they interact, whether they are aligned and promote coherent results, and whether (in the case of institutions) they are coordinated and jointly contribute to the achievement of results.
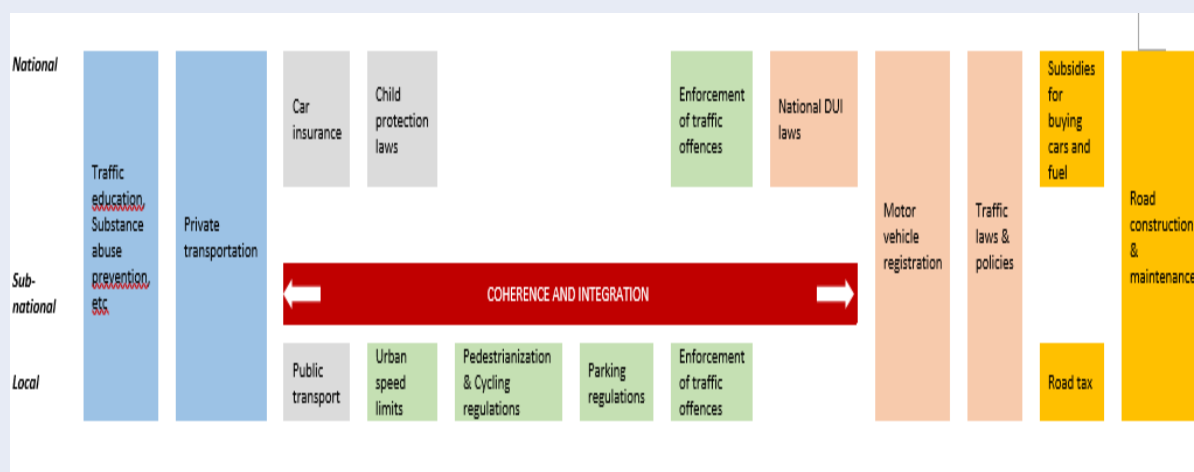
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[18] For material developed by supreme audit institutions, see, for example: TCU (2001, 2002), IDI (n.d., 2016). For one of the well-known methods for conducting stakeholder analysis, see Mitchell et al., 1997.

The analytical framework used in UNDESA's World Public Sector Report 2018, which considers three dimensions of policy integration (horizontal integration, vertical integration and engagement with stakeholders), may be a source of audit criteria to evaluate integration in audits of SDG implementation (United Nations, 2018). The audit should examine in which way the coordination, cooperation and communication across entities (horizontally) and/or levels of government (vertically) as well as with other non-state stakeholders in the implementation of the relevant programmes and policies have contributed to the achievement of the outcomes.

Box 2
Example of areas to be considered as part of a systemic analysis of road safety

This box presents a generic map of policy areas to be considered in relation to road safety. Road safety is one of the areas included under SDG 3 (target 3.6). Examples of some potentially relevant policy areas to be considered as part of a systemic analysis of this topic are represented below.

SDG Target 3.6 aims to halve the number of global deaths and injuries from road traffic accidents by 2020. Preparatory work for an audit on this topic may consider synergies and trade-offs with other SDG targets and analyze them in the country context. For example, stronger prevention and treatment of substance abuse (target 3.4) would reduce the number of traffic accidents and related deaths and injuries (target 3.6) and improve road safety; corrupt practices (target 16.5) for obtaining driving licenses, avoiding traffic penalties, etc. may increase the probability of traffic accidents and deteriorate road safety.

Source: Authors' elaboration.

In practice, the analysis of policy and institutional coherence needs to be based on a mapping of relevant laws, strategies, policies, institutions, and stakeholders, as described above. In a generic way, the analysis could start by considering the consistency of the stated goals in different policy documents such as strategies and plans (are they consistent in the way they look at the problem?), then moving to specific policies (are they aligned with the stated goals? How are they impacting outcomes?) and then to political economy considerations (what do the relevant stakeholders want? how are they engaged?). The different layers of analysis should inform the analysis of coherence.

This analysis can benefit from assessments conducted during the audits of SDG preparedness, which inquired into issues of vertical and horizontal coordination at the systemic or center of government level. It can also benefit from previous audits and evaluations and available tools developed by SAIs.

At the level of policies, there are methodological tools available for SAIs to examine policy consistency. For example, the US GAO has developed a framework to analyse the existence of fragmentation, duplication and overlaps in public policies. This framework has been further developed by the Brazilian SAI, which added an additional category of omissions or gaps. The framework also analyses the potential and actual positive and negative effects of the fragmentation, duplication, overlaps and omissions in the analysed public policies (e.g., lack of coordination; opportunities for better allocation of responsibilities among multiple entities). There is detailed guidance available on how to apply this methodology as well as templates that can be used by SAIs to conduct this type of analysis (see GAO, 2015; TCU, 2019; TCU, 2018).

IV.9   Assessing and measuring performance

SDG audits should say something regarding the implications of the assessed performance in terms of progress to achieve the agreed national targets and related SDG targets, as well as other relevant consequences (e.g., for interrelated SDG targets).[19] They would assess whether the country is well positioned to achieve those results by the end date of the target and what actions would be required to improve the current situation. One of the possible rubrics for the audit conclusion, besides concluding on the audit objectives, may be an opinion on whether, based on the current assessment of performance, the SDG targets as well as related national targets, and intermediate milestones, are likely to be achieved by its term date.

In the context of the 2030 Agenda, countries will assess progress using data that are appropriate to the country – they can adapt the global indicators established in an intergovernmental context,[20] and complement them with others that are unique to the country. In some cases, for example, there are no prescribed numerical targets/standards or benchmarks at the global level and countries need to set their own in order to evaluate performance (Dickens et al., 2019).

At the level of individual targets, global SDG indicators are unlikely to provide a rich enough picture of the field and reflect all results and outcomes of interest for the audits. Sector-level indicators, coming from national or international sources, often exist and offer a richer picture. Such sets of indicators may be found in sector strategies (e.g., for fisheries or energy access) and related performance measurement systems at the national and local levels (e.g., for sustainable transport), among others. International standards and national regulations and reporting requirements in some policy areas may include the obligation to set up performance measurement systems with associated targets and indicators. In some countries, national strategies in specific sectors or policy areas also include associated roadmaps with targets and indicators.

In conducting audits of SDG implementation, audit teams may select, prioritize or develop relevant indicators. Teams may consider available national indicators and benchmarks and global indicators related to the SDGs. There may be differences across countries regarding the availability of indicators and baselines for measuring similar outcomes. In cases where the government has not identified indicators and benchmarks to measure progress, audit teams may develop their own performance indicators.

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[19] For example, the performance audit on water quality in vulnerable communities in Costa Rica analyzed the consequences of poor water quality in terms of interrelated SDGs such as climate change, health and productive activities. See Contraloría General de la Republica de Costa Rica, 2018b.
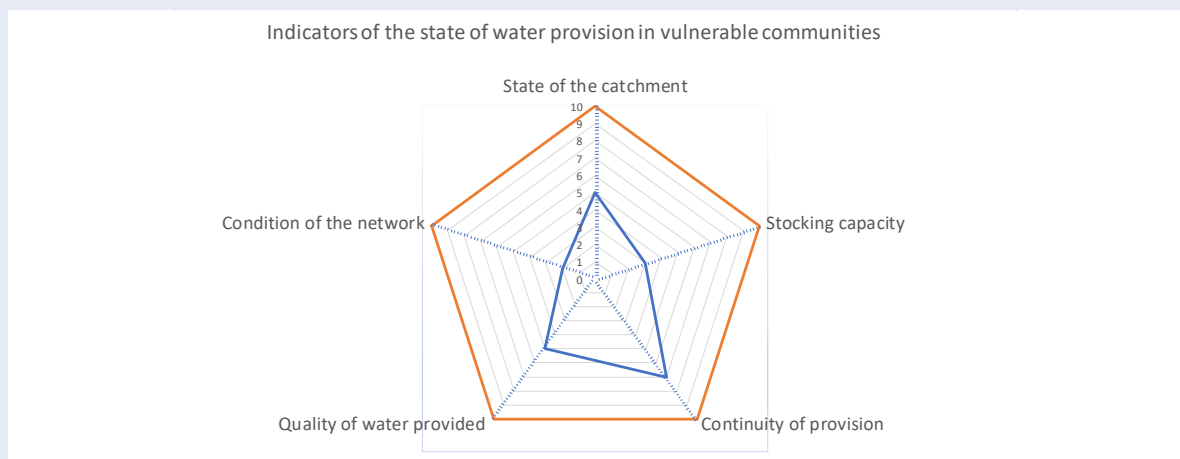
[20] https://unstats.un.org/sdgs/indicators/database/

Not all SAIs regularly use indicators to measure and evaluate performance in the course of conducting performance audits. Some SAIs, however, have wide experience in using performance indicators and in developing their own indicators to assess results and performance. Performance indicators also facilitate communication and the dissemination of audit results. The indicators may be both quantitative and qualitative, and use different scales. The use of multiple indicators requires standardization and aggregation. Different methodologies can be used for this purpose, including approaches that engage relevant stakeholders in the prioritization and weighing of indicators.[21] Box 3 illustrates a case where SAIs have developed their own performance indicators.

Box 3
Index of quality in water service delivery in vulnerable communities developed by SAI Costa Rica

In 2018, the General Comptroller Office of Costa Rica developed an index to assess the quality of water service delivery in vulnerable communities, considering five performance indicators to measure efficacy and efficiency in the delivery of water services. Since the indicators had different units of measurement, the results had to be standardized in a common measurement scale from 1 to 10. Data for measurement were collected through field visits and analysis of relevant documents. The ponderation of the indicators to develop the index was done in a participatory way through technical workshops with stakeholders from vulnerable communities. Results showed a significant deviation from quality standards in water service delivery in vulnerable communities in Costa Rica (4,45 in a scale from 1 to 10). Results for specific indicators also confirmed deficiencies in the quality of water service delivery.

Indicators of the state of water provision in vulnerable communities

Legend: The scores are as follows. 1-3: Critical deviation from norm. 4-6: Substantial deviation from norm. 7-9: Moderate deviation from norm. 10: Norm is met.

Source: Contraloría General de la República de Costa Rica, 2018b.

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[21] For other examples of methodologies for measuring results based on indicators, see: OLACEFS Coordinated audit on protected areas (OLACEFS/COMTEMA, n.d.) and the General Comptroller of Costa Rica's methodology for analysis of multiple criteria (Contraloría General de la Republica de Costa Rica, 2018a).

V Understanding the subject matter of the audit: An example of generic map at the SDG target level

As developed in section IV.3 above, following the selection of the topic, the first step for an SDG audit is the identification of the appropriate system related to the subject of the audit, and a credible conceptual map of how the different pieces of the system interact. Ideally, the map should be based on a shared understanding of the subject matter by stakeholders. Using expert panels or workshops that bring together subject matter specialists and auditors could be a good approach to do this in a participatory way. Also, available analytical and assessment/benchmarking tools on particular subject-matter areas can be used to help develop the system (see Box 4 for the case of target 12.7).

Box 4

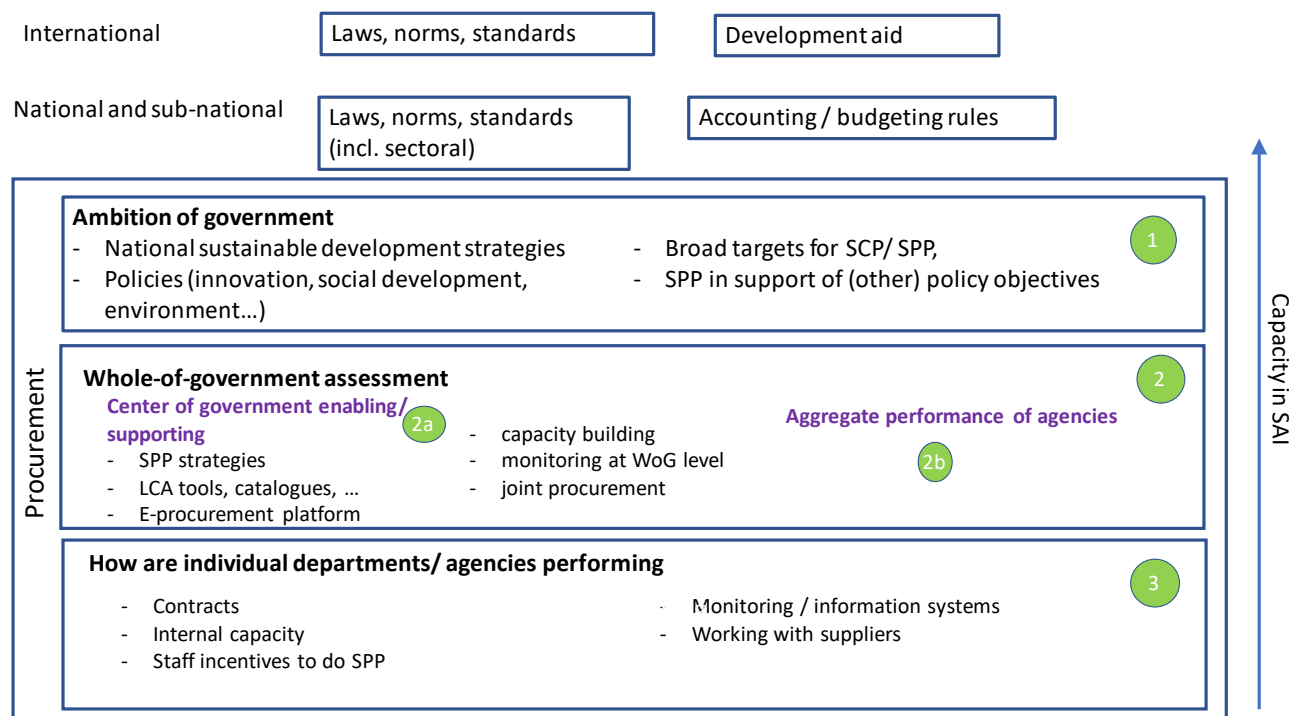### Evaluating the performance of public procurement systems

In 2015, the OECD recommended setting up performance measurement systems on public procurement. OECD's Methodology for Assessing Procurement Systems (MAPS) provides a framework for assessing procurement systems in a comprehensive way, including a module on sustainable public procurement which is currently being piloted in Norway. The OECD framework on "productivity in public procurement", which aims to assess the efficiency and effectiveness of public procurement, is currently being piloted in Finland. However, performance management systems are often weak and purely formalistic. Studies and individual audits regarding sustainable public procurement, for example, have highlighted the lack of government systems to measure how well they do in using procurement in support of social and environmental goals (for instance, to promote small and medium enterprises), even though these objectives may be part of formally adopted strategies.

Source: UN DESA (2019a).

While the relevant map for a given SDG target will differ across countries due to idiosyncratic circumstances, differences in policies, legal and institutional arrangements, there will be some cross-national similarities in the way issues are treated, in the sense that the underlying policy and institutional landscape and the technical characteristics of specific policy sectors will share resemblances. Given this, a promising option is to elaborate generic maps (or "meta-maps") at the SDG target level, which can be available to audit teams and customized by SAIs for conducting specific audits. A generic map can show in a clear manner the types of issues that are relevant to understand the topic of the audit at different levels: the entity level; the center of government level; and the strategic, policy level (see section IV.4). Such maps would include issues that are always present independently from country context, as well as others that may or may not be present in a given country but should be part of the audit if they are.

In order to illustrate the potential of generic maps to help SAIs in defining and scoping their SDG audits, the following paragraphs describe a map developed during discussions between auditors and subject matter experts during an expert group meeting on auditing sustainable public procurement (target 12.7) organized by UNDESA (UNDESA, 2019a) (see Figure 4).

Figure 4

A simplified representation of a national sustainable public procurement system, with entry points for audits

Source: UN DESA (2019).

At the top of the figure, layers of laws, norms and regulations, at both the international and national levels, are represented. Those should be part of any map of the sector, even though their composition will differ across countries. The international layer also includes development aid. In many countries, procurement practices to some extent will be determined by the rules and practices of donors; therefore, overlooking those would likely affect the relevance of audits.

At the national level, beyond procurement-centered law, relevant legislation is also to be found at the sector level (e.g. in construction, labour). Accounting and budgeting rules should also be part of the investigation, as they influence the possibilities and incentives for adopting sustainable procurement practices.

Within the box labelled "Procurement", which aims to represent the country's procurement system, three levels are distinguished. Going from the bottom up, the first level maps issues that occur at the level of individual entities or programmes. Those include, among others, contract management; internal capacity of procurement officers; staff incentives to do sustainable procurement; internal monitoring and evaluation systems; and how agencies work with suppliers.

The second level lists issues that are relevant across government, and for some of them are centralised. This includes support functions such as e-procurement platforms, life-cycle analysis tools and product catalogues, and also joint procurement activities (e.g. central purchasing units), centrally administered capacity building. It also includes sector-level and whole-of-government strategies and actions plans, targets for sustainable procurement, and monitoring systems.

Lastly, the third level is that of the government strategy and ambition. It includes the inclusion of sustainable procurement in the national sustainable development strategies, other related strategies and action plans on e.g. innovation or SME development, government-wide targets in relation to public procurement, and the mechanisms and tools that the government has put in place to effectively use public procurement in support of other policy objectives. This level also includes issues relating to change in administrative culture to make the latter more supportive of structural transformation in public administration (see above).

The three levels (and four main "blocks") of the map clearly show options that are available for SAIs to audit sustainable public procurement. Most SAIs conduct most of their audits at the lower level (individual entities or programmes). Level two includes both an assessment of performance at a cross-agency level, and an evaluation of the performance of center-of-government functions. This level of audit is exemplified by the audit of sustainable public procurement conducted by the National Audit Office of the United Kingdom in 2019. At this level, the government's ambitions and own targets are taken as given. Lastly, level three focuses on the ambition of the government (for instance, in relation to global norms or aspirations), and the effectiveness with which it fosters the realization of its objectives. Audits at this level adopt a much broader perspective. For example, they can examine how the government is using sustainable public procurement strategically to further other policy objectives. Audits at this level have been conducted by the NAO of Finland, for example.

Moving from audits at level one to audits at level two then at level three is likely to require higher levels of capacity within a SAI. But other factors also matter, including the SAI's mandate and the country context and institutional environment of the SAI.

VI Where do SDG audits fit in the universe of SDG evaluation?

After exploring some of the methodological and practical issues involved in auditing SDG implementation, it is worth exploring where these audits might add value in the broader universe of policy evaluation at the national level.

External audits of SDG implementation are one among several sources for the production of information relevant to SDG evaluation. A large part of the information that is relevant to SDG evaluation at the national level does not carry an SDG label per se. Alongside mechanisms and associated outputs (e.g., reports) that have been put in place to monitor and review progress on the SDGs at the national level, other monitoring and evaluation activities have existed for a long time at different levels of granularity, from that of single entities or programmes to that of sub-sectors to sector-wide evaluations. For instance, even though they might not wear an SDG label, sector studies done by multilateral development banks might be of direct relevance to evaluating government performance on one or many SDG targets (see Table 1).

In terms of breadth of scope, placing SDG audits at the level of SDG targets positions them in between traditional audits (which look at single government programmes) and broader, sector-wide studies such as those be done by think thanks, civil society or multilateral development banks in developing countries.

Table 1
Positioning of SDG audits within national-level evaluation ecosystems

Single policy, entity or programme	Sub-sector (~ SDG target)	Sector (~ SDG goal)	Society-wide (all SDGs)
■ Academic articles ■ Reports done by Government agencies in charge of implementation ■ Ministry evaluation reports ■ National reports to international treaties (e.g. multilateral environmental agreements)	■ World Bank preparatory studies ■ Academic monographs (evaluations) ■ Government evaluations (Ministries, agencies) ■ National reports to international treaties (e.g. UN Conventions) ■ Think tank reports ■ Civil society reports	■ World Bank SWAP preparatory studies ■ National SDG progress reports ■ Think tank reports ■ "Blue ribbon" panels ■ Civil society reports ■ National reports to international treaties (e.g. UN Conventions)	■ Civil society reports on SDG implementation ■ Parliamentary Committee reports on SDG implementation ■ Government reports on SDG implementation (e.g., national reports, voluntary national reviews at the UN)
Traditional performance audits	SDG implementation audits		Audits of SDG preparedness

Source: Authors' elaboration.

In terms of political legitimacy, salience and relevance, SDG audits will compete with information coming from other sources that are governmental and non-governmental, domestic and international, all with different strengths and weaknesses (Guillán Montero and Le Blanc, 2019). One strength of SDG audits relates to the mandate of SAIs.[22] SDG audits can provide channels through which gaps, shortcomings and systemic challenges in SDG implementation are fed back to and acted upon by governments, something that ad hoc, less institutionalized review mechanisms may not be able to do. However, as many SAIs lack enforcement powers, ensuring that audit recommendations are acted upon may require engagement and collaboration with other stakeholders.

SDG audits and other forms of evaluation can complement and learn from each other. From the audit side, the analytical rigor in articulating audit questions, criteria and indicators according to international standards of auditing; the systematic assessment of policy and institutional coherence; and the focus on recommendations that are directly relevant to policy-makers can provide inspiration for others. Conversely, in going forward, SDG audits can benefit from methodologies developed elsewhere, for instance in terms of impact assessment, stakeholder analysis, and indicator development.

VII Conclusion

SDG implementation audits have the potential to shed light on successes and limitations of government action to implement specific SDG targets, as seen from a whole-of-government perspective. However, such audits present a range of methodological and practical challenges. In this article, we have focused on four classes of problems: the identification of the subject to audit; government-wide assessments of performance; the analysis of policy and institutional coherence; and how to provide target-specific guidance to SAIs, given the encompassing scope of the SDGs. This article argues that all these challenges can be addressed to some degree, and that there are many readily available tools and guidance that SAIs can use to respond to them.

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22 Even though the SAI's "de facto" institutional position and leverage varies significantly depending on the institutional context.

Nonetheless, it is also critical to recognize that not all SAIs will face these problems equally, as they have different experience and capacity in conducting performance audits, varying degrees of familiarity with whole-of-government analysis, different built-in skills, diverse organizational settings, and operate in different institutional environments, among other factors. Given this diversity, any guidance and audit models to audit SDG implementation should be tailored to existing capacity and resources in SAIs. Ideally, the models could consider a menu of options from less to more demanding in terms of capacity and resources (e.g., light, medium, heavy). They should also be defined in a flexible way, considering how they can grow and evolve over time and the kind of support SAIs may require in applying such guidance in different audits.

This paper argues that while there is no one single model or approach to audit SDG implementation, any performance audit of SDG implementation must retain a few core methodological features related to the principles of the 2030 Agenda. All different models and approaches contribute to enrich the methodologies and tools available to SAIs. In this regard, mutual exchange of experiences and knowledge will be beneficial for strengthening SDG audits and SAI capacity. In addition, the problems examined here are not unique to SAIs, but are also faced by other communities involved in SDG evaluation. Hence, the considerations presented in this paper are relevant to the various communities concerned with SDG evaluation, from the national to the global levels. This commonality of challenges points to the potential for exchanges of methodologies and practices between SAIs and other organizations concerned with SDG evaluation.

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