

Palacký University Olomouc
University of Clermont Auvergne
University of Pavia

MASTER THESIS
Sustainable Development Goals and the National Budgetary Processes

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Supervisor: Professor Miroslav Syrovátka

GLODEP 2023

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Declaration

I, Akylbek Bakytov, hereby declare that the Master Thesis “Sustainable Development Goals and the National Budgetary Processes,” submitted to the Erasmus Mundus Joint Master Degree in International Development Studies GLODEP Consortium, is my original work, except where it is explicitly stated by referencing other sources. This document has not been submitted to any other organization or university.

May 2023

UNIVERZITA PALACKÉHO V OLMOUCI

Přírodovědecká fakulta

Akademický rok: 2022/2023

ZADÁNÍ DIPLOMOVÉ PRÁCE

(projektu, uměleckého díla, uměleckého výkonu)

Jméno a příjmení: **Akylbek BAKYTOV**
Osobní číslo: **R210651**
Studijní program: **N0588A330004 Global Development Policy**
Téma práce: **Sustainable Development Goals and the National Budgetary Processes**
Zadávající katedra: **Katedra rozvojových a environmentálních studií**

Zásady pro vypracování

The Sustainable Development Goals (SDGs) are stagnating due to the pandemic outbreak and other major world crises over the past two years. Indeed, this slow progress has been a chronic issue due to resource allocation problems. As governments worldwide are among the most vital actors in SDG financing, we must integrate SDG financing into the budgetary processes. This integration will help improve the effectiveness of funding usage and direct attention to the most urgent SDGs target within the country. However, the integration of SDGs into budgetary processes was only studied by either international organizations (World Bank, OECD, UN) or different institutes and NGOs. This lack of literature in academia prompt this study to provide a solid foundation for future research by summarizing and assessing the existing literature from the practical field. Through this synthesizing and analyzing process, this study will also develop a set of recommendations on how to integrate the SDGs into the budgetary processes better, depending on different country contexts.

Rozsah pracovní zprávy: **dle rozsahu**
Rozsah grafických prací: **10 – 15000 slov**
Forma zpracování diplomové práce: **tištěná/elektronická**
Jazyk zpracování: **Angličtina**

Seznam doporučené literatury:

Benedek, D. et al. (2021) „A Post-Pandemic Assessment of the Sustainable Development Goals,“ *International Monetary Fund Staff Discussion Note* [Preprint]. Available at: https://books.google.it/books?hl=ru&lr=&id=K_E_EAAQBAJ&oi=fnd&pg=PA3&dq=Senhadji+et+al.,+2021&ots=dQRv8q3pfc&sig=QdQAjuRII8xwfp

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Datum zadání diplomové práce: **19. ledna 2023**
Termín odevzdání diplomové práce: **31. května 2023**

L.S.

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vedoucí katedry

Acknowledgements

I am deeply grateful to Professor Miroslav Syrovátka for the support provided during our meetings and calls through his valuable comments and supervision. I want to extend my appreciation to the whole GLODEP consortium of universities, with special thank you to Ms. Žwaková from Palacky University Olomouc and Ms. Belot from the University of Clermont Auvergne for their continued support in providing GLODEP students with much-needed guidance, without which the GLODEP experience would not have been possible. I would also like to acknowledge the opportunity provided by Professor Maria Sassi from the University of Pavia for providing GLODEP students with an opportunity to apply the knowledge received into practice through the Student Challenge program.

I extend my heartfelt thanks to Nadyrbek and Kaushal, who made the GLODEP program a life journey for me, where academic knowledge went hand in hand with knowledge of a true friendship. I appreciate my dear colleagues Alexandru and Luisa for their support and kindness throughout these two years. My gratitude goes to Hoàng Phương Hải Châu, whose unique perspectives have made our academic journey fruitful and exciting. Your contributions have played a significant role in successfully completing this thesis.

Most importantly, I am truly thankful for everything I have for my mother, Irina, and my aunt, Margarita, who inspired my life vision and made this incredible journey possible. I am deeply indebted to them for instilling the values of hard work and perseverance in me. I would also like to thank my life companion, Roza, for her faith in our future and the great patience that allowed us to stay together for these two years. Lastly, I would like to dedicate this thesis to Aika eje. Today, as I reach this important milestone, I am reminded of your unwavering support and celebrate this achievement with you.

Abstract

The Sustainable Development Goals (SDGs) are a comprehensive set of goals, targets, and indicators agreed upon in 2015 by 193 UN member states. Such an extensive framework of goals requires governments worldwide to localize the SDGs for the local contexts, for which the UN offers various instruments. One of the tools for SDG localization is SDG-based state budgeting. However, due to the recent emergence of this practice, there is a gap in the literature on current trends and existing limitations of the initiative. Firstly, by conducting an extensive content analysis of 210 Volunteer National Reviews, this study finds three main approaches to SDG-based state budgeting adopted by governments. Secondly, the associated limitations in the used approaches and recommendations to address them are defined. Third, this study applies the developed knowledge to an action plan for introducing the SDGs to the budgetary frameworks of the Kyrgyz Republic using a multi-dimensional budget tagging technique. Most importantly, this study paves the road for further comparison of the initiative with other tools, its efficiency in SDG progress, and its implication for fiscal decentralization processes.

Keywords: Sustainable Development Goals (SDGs), SDG localization, SDGs mainstreaming, Budgeting for SDGs, Incorporation of SDGs into budgetary processes.

Contents

Introduction	1
Chapter I: Methodology	4
Content analysis of VNRs.....	4
Country grouping for comparative analysis.....	5
Chapter II: SDG-based budgeting in selected countries	8
Shared features in identified countries.....	8
Group 1: SDG budget tagging	12
Group 2: SDG-based budget M&E.....	15
Group 3: Sub-national SDG budgeting.....	19
Chapter III: Comparative discussion between limitations of SDG integration and recommendations to address them	22
Limited coverage of the state budget	22
Interactions between SDGs.....	26
Chapter IV: Action plan on SDGs integration into the budgetary frameworks of the Kyrgyz Republic	29
The rationale for country selection	29
Budgetary frameworks of the Kyrgyz Republic	30
Scope of the action plan and main considerations to take into account.....	30
Methodology for SDGs integration into the budgetary frameworks of the Kyrgyz Republic	32
Results.....	36
Conclusion	41
References	44
Appendices	52

List of tables

Table 1: Grouping of the selected countries.....	6
Table 2: Budgetary programs, measures, and indicators of the MoES for the year 2023	31
Table 3: SDG budget tagging application	35
Table 4: The MoES budgetary program measures for the year 2023 and assigned SDG targets.....	36
Table 5: SDG budget tagging of MoES program budget for 2023	38
Table 6: Selected countries during the first stage of content analysis.....	52
Table 7: Selected countries during the second stage of content analysis	58
Table 8: Complete list of SDG targets and indicators mentioned in the thesis	60
Table 9: SDG budget tagging implementation plan in the Kyrgyz Republic.....	62

List of figures

Figure 1: SDG coordination structure in the Government of Maldives.....	9
Figure 2: The national coordination mechanism for Agenda 2030 implementation in Finland.....	10
Figure 3: Classification of Nepalian budgetary programs by SDGs (2016-2017).....	14
Figure 4: Budget linkage to SDGs in Uruguay	18
Figure 5: MoES expenditures for the year 2023 by SDGs.....	39

List of abbreviations

Agenda 2030	Agenda 2030 for Sustainable Development
CoM	Cabinet of Ministers of the Kyrgyz Republic
CSDG	Cambodian Sustainable Development Goals
CSO	Civil Society Organization
EU	Executing Units
HLPF	High-Level Political Forum on Sustainable Development
IMF	International Monetary Fund
KGS	Kyrgyzstani Som
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MoES	Ministry of Education and Science of the Kyrgyz Republic
MoF	Ministry of Finance of the Kyrgyz Republic
MPMAR	Ministry of Planning, Monitoring and Administrative Reform of Egypt
NDPCG	National Development Planning Commission of Ghana
NGO	Non-governmental Organization

NMCC	National Ministerial Coordination Committee for SDGs of Maldives
NSC	National Statistics Committee of the Kyrgyz Republic
OECD	Organisation for Economic Co-operation and Development
PEMDS	Municipal Strategic Sustainable Development Plans in Cabo Verde
PIP	Public Investment Program
NB	National Budget of the Kyrgyz Republic
RGC	Royal Government of Cambodia
RS	Rectangular Strategy
SDGs	Sustainable Development Goals
UN DESA	United Nations Department of Economic and Social Affairs
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNU	United Nations University
VLR	Voluntary Local Review
VNR	Voluntary National Review

Introduction

The establishment of Sustainable Development Goals (SDGs) in 2015 by 193 United Nations (UN) member states was a considerable milestone toward building a sustainable future for both high- and low-income countries ([UN, 2015](#)). Balancing the economic, social, and environmental dimensions, the SDGs provide a comprehensive and multi-dimensional view of the challenges faced by humankind. However, the progress toward established ambitious goals had chronically been slow ([UN DESA, 2022](#); [UN DESA, 2021](#); [UN DESA, 2020](#)) and was further exacerbated due to the COVID-19 pandemic outbreak and other major world crises ([Sachs et al., 2022](#)). In order to stay on track with the agreed Agenda 2030 for Sustainable Development (Agenda 2030), much effort must be put in place by all stakeholders, including governance reforms, improving spending efficiency, and increasing the impact of public investment ([Benedek et al., 2021](#)). This study is focused on investigating the ways in which the state budgetary frameworks are strengthened by introducing the SDGs perspective. This part of the research provides comprehensive information regarding the topic, aims, and objectives of the thesis, followed by research questions, its significance, and limitations.

Governments worldwide are among the most vital actors, shaping national development agendas, managing the involvement of stakeholders, and, most importantly, financing the national development agenda through its state budget. Sachs et al. ([2022](#)) highlight the positive and statistically significant relationship between the general government expenditures per capita and the SDG Index score. The Organisation for Economic Co-operation and Development (OECD) and United Nations Development Program (UNDP) ([2020](#)) highlighted the critical role of governments and public resources in developing the Framework for SDG Aligned Finance, a tool designed explicitly for mobilizing and enhancing the development impact of private finance. Therefore, the state budget, and subsequently its transparency, accountability, and evaluation framework, can significantly influence the achievement of SDGs through its legislative and resource allocation power ([UNDP, 2020](#)).

One way to utilize the state budget's influence over the development agenda is to include the goals and their respective targets in the budgetary frameworks. The development practitioners and think tanks highlighted the potential capacity of SDG-based state budgeting in various ways. For example, SDGs are believed to bring coherence between public entities ([UNDP, 2020](#)),

enable an assessment of expenditures from the sustainability perspective ([OECD, 2020](#)), increase accountability ([Hege, Brimont, 2018](#)), and realize the commitment to “leave no one behind” ([United Nations University \[UNU\], 2022](#)). However, the literature on integrating SDGs into the budgetary processes is predominantly owned by international development-oriented organizations or think tanks, with the academic community being left aside. In particular, while development practitioners actively introduce the SDGs into the national budgetary frameworks, the academic literature on the potential implications of these approaches and inconsistencies in their methodologies is unavailable.

Therefore, this research aims to investigate the current approaches to integrating SDGs into state budgets through existing sources, such as the governments themselves, international organizations, and other development practitioners. This study will highlight the methodological limitations of each identified approach and provide practical recommendations to overcome the identified barriers. Lastly, based on identified recommendations, this study presents an action plan on how to properly integrate the SDGs in the context of a developing country.

By summarizing and accessing the existing literature from the practical field, this research aspires to provide a solid foundation for further critical research works of the academic community on SDG-based state budgeting and associated advantages and limitations. The recommendations provided in this thesis also allow the national governments to strengthen their budgetary frameworks by addressing the highlighted shortcomings. Lastly, the action plan developed as a part of this thesis can benefit substantially the national government of the considered country itself and serve as a foundation for designing SDG-based state budgeting policies in other countries by international donors in developing countries, non-governmental organizations (NGOs), local authorities, and other relevant stakeholders.

Even though the study combines different sources of information to overcome biased conclusions, it mainly relies on the information reported by the governments of countries under consideration through the Voluntary National Reviews (VNRs) during the High-Level Political Forums on Sustainable Development (HLPF) and does not question their credibility. For instance, some of the achievements in SDG mainstreaming reported by the governments might be exaggerated and the evaluation methods used by the governments to derive the conclusions might have been biased. As a result, some of the implemented practices that were reported in

VNRs and assessed in this study might not fully reflect the practical implications from the fields. Given that the resources and time available for the conduction of this thesis were limited, those VNRs submitted in French, Spanish, and Arabic were not considered during the analysis, leaving a significant portion of countries with innovative SDG-based state budgeting aside.

Due to the fact that SDG-based state budgeting is a relatively recent practice, there is a lack of critical academic literature on the associated shortcomings, which makes this study a solid background for further in-depth research. However, this lack of knowledge limits the complete picture of SDG-based state budgeting, as those entities who analyze SDG-based budgeting are organizations that are implementing this process themselves, which might cause biased conclusions about the efficiency of this initiative in mainstreaming the SDGs.

Given that there is no single database with both a complete list of countries that integrated SDG into their budgets and their methodological approaches, this study used the manual content analysis of 210 VNRs. The content of VNRs has no agreed structure, and each country is free to include any information it considers crucial for HLPF. Therefore, during the content analysis, if a country did not explicitly announce the integration of SDGs in their VNR but has been actively using such a system, it would not be included in the list of considered countries.

The first chapter of this thesis will introduce the methodology applied to each research stage. In chapter two, an exhaustive summary of the current practices towards integrating SDGs into the state budget is presented, highlighting the main limitations of each approach. The third chapter compiles all of the previously identified limitations and provides a set of recommendations. The knowledge developed throughout this thesis is applied to a practical action plan, which is presented in the fourth chapter.

Chapter I: Methodology

This chapter is intended to present the methodological approach used in this thesis. The primary data sources for analysis in the second and third chapters are the VNRs presented by countries during the HLPFs from 2016 to 2022. Each VNR consists of 100-200 pages and summarizes the government's ongoing efforts toward Agenda 2030, including the innovative national practices in mainstreaming the SDGs into the national development framework and progress toward SDG indicators. In total, 185 countries participated in VNR sessions at least once during the six years. As a result, 288 reports were submitted since the annual HLPF events emerged, of which 210 were written in English, 41 in French, 35 in Spanish, and 2 in Arabic. Given the time constraint, only those reports written in English or had an official translation to English are considered in this thesis.

Content analysis of VNRs

To compile the data for the analysis presented in the second and third chapters, a two-step content analysis was performed for 210 selected VNRs from 141 countries (countries are not limited in their desire to participate in HLPF, with some of them participating every two-three years). The first step of the content analysis investigated whether the country had reported any adjustments to its national or sub-national budgets related to SDGs. In particular, the content analysis selected only those countries that integrated SDGs into their budgetary programs/lines¹ (depending on the type of the budgets) or into their budget assessment tools (budget indicators) and regularly assessed their budget performance/planning based on SDGs. In other words, a country was not shortlisted if it introduced SDGs to its budget as a part of a pilot/experimental project. Moreover, a country was also left aside if the SDG integration was reported as planned due to the unavailability of practical implications.

Hence, 33 countries with 62 VNRs were shortlisted for the second content analysis phase.

Appendix A of this thesis demonstrates the complete list of the selected countries and the years of their VNRs presentation. At this phase, a more in-depth investigation of the selected VNRs

¹ Some countries under consideration are utilizing program budgeting, a form of state budget that groups expenditures into programs and establishes specific targets and indicators. Contrary to that, a line-item budget represents a list of governmental expenditures by categories. The program budgets are output-driven (program goals and targets), while the line-item budgets are focused on inputs (categories of expenditures).

was performed to define the exact mechanisms and possible similarities in the institutional structure of the SDG integration process into the state budget. The outcomes are presented in the second chapter of this thesis, which elaborates on the exact mechanisms of SDG integration and highlights the pros and cons of their respective methodologies.

Country grouping for comparative analysis

Given the differences in the national contexts, the UN never established any strict procedures to introduce SDGs to the budgetary frameworks, instead providing states with a set of potential ways to do so and sharing lessons learned from the implementation experiences of different countries ([UNDP, 2023](#); [UNU, 2022](#)). As a result, each country is currently implementing this initiative in a different, context-specific way. However, the perceived outcomes of the integration process are similar to each other, with some countries performing the initiative together with international organizations to evaluate the resources directed towards SDGs ([Vorisek & Shu, 2022](#); [United Nations Conference on Trade and Development \[UNCTAD\], 2021](#); [International Monetary Fund \[IMF\], 2015](#)), which is also known as SDG costing analysis, and other states tracking the performance of their budgets based on SDG indicators ([Presidency of Uruguay, 2021](#); [RGC, 2019](#); [Government of Norway, 2016](#)).

At the same time, some of the think tanks in their policy papers are grouping the current initiatives in SDG integration into budgetary processes to the categories of expenditure tracking, expenditure monitoring and evaluation, SDGs as a negotiation tool in budgetary discussions, and integration of SDGs into local budgets ([UNU, 2022](#); [Hege, Brimont, 2018](#)). In the discussion around ways to integrate SDGs into the governance assessment, Alen et al. ([2021](#)) highlighted two main approaches: rapid assessment approaches, such as SDG budget tagging, and dynamic modeling, which is focused on assessing the potential environmental, economic, and social effects of specific policies. However, the current literature on ways of SDG integration remains predominantly owned by UN bodies, with evidence from think tanks and academia being scarce.

Combining the existing approaches toward grouping the countries, this study distinguishes two main country groups. The first group represents the countries that track their budgetary expenditures toward SDGs, which can also be referred to as SDG budget tagging and does not produce any information on the quality of those expenditures. The second group, in turn, consists

of countries integrating the SDGs into the budgetary assessment procedures, therefore monitoring the performance of the state budget based on SDGs.

The content analysis also found a growing trend of integrating the SDGs into local budgetary frameworks ([UNU, 2022](#); [Ministry of Finance of Cabo Verde, 2021](#); [SDG Technical Secretariat in Costa Rica, 2020](#); [Government of India, 2020](#); [RGC, 2019](#); [Government of Norway, 2016](#); [Government of Sierra Leone, 2016](#)). Given that the integration of SDGs into the local budgets is not compatible with national-level practices but represents a valuable dimension for further research into SDG localization ([Masuda et al., 2022](#); [Prorok et al., 2019](#); [Brandi, 2018](#)), a third group was developed, which is focused on those countries that reported integrating SDGs into local budgets. Thus, the following three groups were established:

- I. SDG Budget Tagging. The shared feature among these countries is the classification of budget expenditures by SDGs.
- II. SDG-based Budget Monitoring and Evaluation (M&E). The countries in this Group integrated SDGs into the budgetary M&E tools, such as budgetary indicators.
- III. Sub-national SDG Budgeting. The countries in this group reported the development of sub-national mechanisms to include the SDG perspective in their local budgets.

Table 1: Grouping of the selected countries

Group 1: SDG Budget Tagging	Group 2: SDG-based Budget M&E	Group 3: Sub-national SDG Budgeting
Afghanistan	Egypt	Sweden
Gambia	Austria	India
Ghana	Cambodia	Costa Rica
Guyana	Finland	Cabo Verde
Malawi	Iceland	Sierra Leone
Malaysia	Kenya	
Nepal	Mauritius	
Pakistan	Norway	
Philippines	State of Palestine	
South Africa	Sudan	
Sri Lanka	Switzerland	
Timor-Leste	Thailand	
	Trinidad and Tobago	
	Uganda	
	Tanzania	
	Uruguay	

Source: author based on reported VNRs during the 2016-2023 on HLPF ([2023](#)).

The third chapter addresses the identified gaps in the methodologies of selected groups and addresses them with recommendations based on a comparative analysis of each country's case. In other words, the identified gaps in the methodology are addressed by deriving the experience of other countries. In those cases where the identified challenges persist among all countries, the recommendations are prepared based on the existing academic and practical literature.

The last chapter of this thesis, an action plan, is focused on the practical application of identified literature and developed recommendations in a real-case scenario of a developing state where the SDGs integration into the budgetary frameworks has not taken place yet. The methodological approach used in the action plan is represented in the respective section of chapter four, as it requires the reader to have a brief understanding of the SDG-based state budgeting concept and trade-offs provided in the second and third chapters.

Chapter II: SDG-based budgeting in selected countries

The integration of SDGs into the budgetary processes, and subsequently, the approach used to guide the national budget, tends to vary depending on the country of implementation, with each state being a unique example of efforts taken, considering the local opportunities, challenges, and capacities. Nevertheless, the vast majority of countries share comparatively similar institutional instruments available for SDG integration, such as national parliaments, respective line ministries (ministries of economy and finance are usually the guiding ones), statistics and audit agencies, local authorities, and other relevant national, sub-national and international actors.

Therefore, the selected countries are grouped according to the shared set of instrumental institutions and the characteristics of the adopted policies. In the beginning, this chapter will shed light on the shared characteristics of the reforms performed in selected countries, highlighting the role of institutional mechanisms in the governments, SDG ownership, and national policy frameworks. Moving further, the chapter is going to present the results of VNR analysis, which are disaggregated into three following groups: (i) Budget classification according to SDG goals and targets (SDG budget tagging); (ii) SDG-based monitoring and evaluation and (iii) SDG integration into the sub-national budgetary processes. The challenges and inconsistencies faced by the governments in the respective groups are summarized at the end of the chapter and will be addressed in the third chapter of this master thesis.

Shared features in identified countries

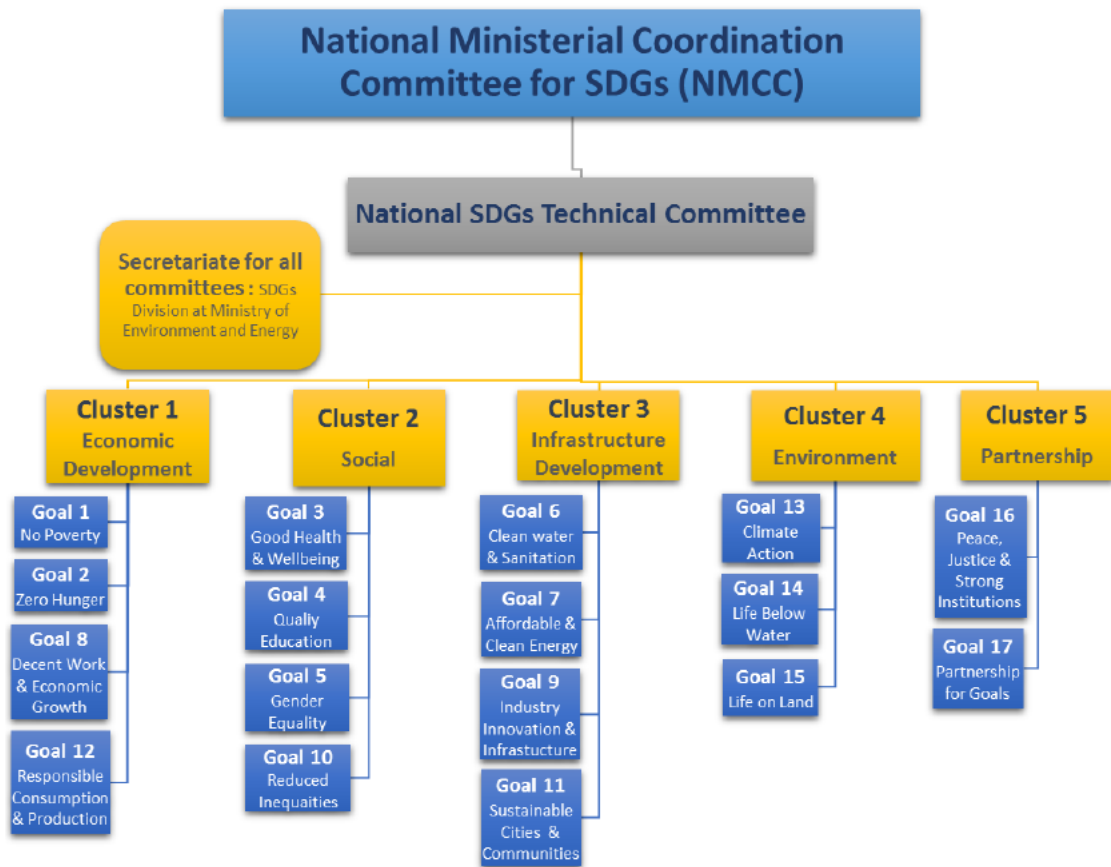
Once the Agenda 2030 and SDGs were adopted, countries around the world started localizing the global goals into their national contexts, which is a massive process that ensures appropriate policymaking for the promotion of SDGs on a national level and progress towards the achievement of the goals. The process of localizing the SDGs involved the development of institutional mechanisms in the governments, the creation of SDG ownership on a national level, and the incorporation of the SDGs into the national policy frameworks.

First, it was essential to ensure the effective coordination and supervision of the efforts between the national and international actors in the country towards the implementation of SDGs. As a rule, one coordinating body was appointed in each country to supervise the efforts of national actors, as well as to report on the progress to the international community during such events as

HLPF. For example, in the case of Finland, the Coordination Secretariat was established under the Prime Minister’s Office with representatives from the Secretariat General of the Finnish National Commission on Sustainable Development and the Ministry for Foreign Affairs with the goal of planning, preparing, coordinating and ensuring the national implementation of Agenda 2030 ([Office of the Prime Minister of Finland, 2016](#)).

On the contrary, some countries like Sierra Leone have taken the approach of raising the capacity of the existing institutional mechanisms to promote the SDGs in the country, assigning the Ministry of Finance and Economic Development as a coordinating body with relevant modifications and extensions of its office in order to perform new roles ([Government of Sierra Leone, 2016](#)). Several working groups and ministries in different countries were formed within the governments to support the main supervising body, which is represented in Figure 1.

Figure 1: SDG coordination structure in the Government of Maldives

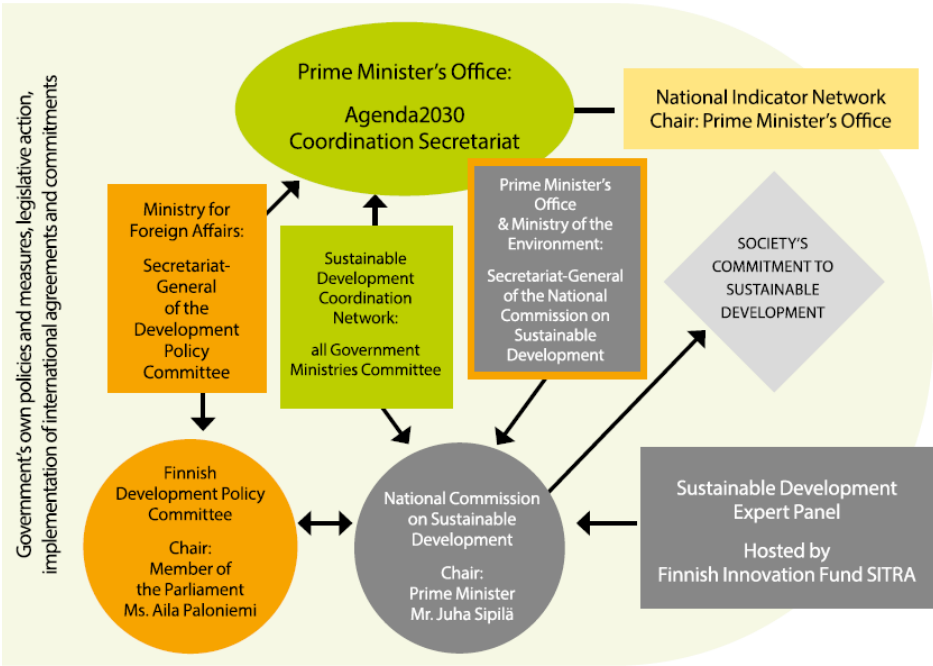


Source: Ministry of Environment and Energy of Maldives ([2017](#)).

Secondly, the successful establishment of SDG ownership in the national context ensures the public participation of all relevant stakeholders in SDG achievement and supports the whole-of-society approach that SDG Action Campaign is promoting. In order to bridge the gaps between the government and various national actors, several initiatives took place in different states under consideration.

In Finland, the National Commission on Sustainable Development considered one of the oldest of such kind, was established in 1993 as a part of national efforts towards implementing and monitoring the outcomes of the United Nations Conference on Environment and Development in Rio de Janeiro. Chaired by the Prime Minister of Finland, the Commission involved representatives of 84 different bodies, including the government, local authorities, civil society sector, NGOs, academia, and other vital stakeholders ([Office of the Prime Minister of Finland, 2016](#)). In 2016, the Commission was re-appointed to serve as a platform for dialogue between the various national actors to accelerate the progress toward SDGs. The interaction networks between the actors are represented below in Figure 2.

Figure 2: The national coordination mechanism for Agenda 2030 implementation in Finland



Source: Office of the Prime Minister of Finland ([2016](#)).

In Kenya, the series of national and sub-national events organized by the government with national actors led to the development of the SDG Road Map, which was focused on the identification of needed milestones for an effective transition from MDGs to SDGs to ensure the fast and reliable way of achieving the SDGs ([Presidency Ministry of Devolution and Planning of Kenya \[PMDP\], 2017](#)). The Royal Government of Cambodia (RGC) developed the Development Cooperation and Partnerships Strategy with dedicated working groups to serve as a dialogue mechanism between the RGC, development partners, and CSO representatives ([RGC, 2019](#)).

Finally, incorporating SDGs into the national development policy frameworks is one of the main milestones toward the domestication of the global agenda in considered countries. The most widely used approach is the inclusion of SDGs into national development strategies. Acting as the overarching framework for all development programs and projects, Egypt's Sustainable Development Strategy: Egypt Vision 2030 triggered the development of ministry-level development programs that focus on areas of education, industry and trade, energy sector, and others, which cover the respective SDGs ([Ministry of Planning, Monitoring and Administrative Reform of Egypt \[MPMAR\], 2018](#)).

The Cambodian Sustainable Development Goals (CSDG) Framework became a cross-cutting network between the primary strategic planning documents in the country, such as Cambodia Vision 2050, Rectangular Strategy (RS), and National Strategic Development Plans. In particular, the RS-IV of Cambodia had integrated the three dimensions of SDGs into its four policy rectangles, including (i) Human resource development; (ii) Economic diversification; (iii) Private sector and market development; and (iv) Sustainable and inclusive development, thus mainstreaming the SDGs into the national level, while the sub-national integration was identified as a priority area for the year 2019 ([RGC, 2019](#)).

Ghana is one of the examples of one of the most comprehensive integration processes, where the domestically-developed 3A approach (Alignment, Adaptation, and Adoption) was utilized to (i) assess the alignment of current national frameworks with SDGs; (ii) adaptation of the developing Ghana Shared Growth and Development Agenda to SDGs; and (iii) inclusion of SDGs into the national development blueprint the Agenda for Jobs ([National Development Planning Commission of Ghana \[NDPCG\], 2019](#)). By doing so, the Government of Ghana has ensured that currently existing national frameworks and those policies that are on the way are updated to

be in line with Agenda 2030. The inclusion of SDGs into the national policy frameworks has taken place in all countries under consideration, mainly through the national development plans, which is not surprising as the latter is becoming increasingly popular ([Chimhowu et al., 2019](#)) and an influential instrument of governmental policy.

Overall, the SDG localization process tends to vary depending on the local context, with some of the features being relatively similar in the considered countries. The following groups represent the national efforts in 33 countries in mainstreaming the SDGs into the budgetary frameworks to ensure adequate resource allocation towards SDGs. As a result, SDGs become a synergizing bridge between high-level commitments and development policymaking due to its simultaneous influence on the economic, legal, and political dimensions.

Group 1: SDG budget tagging

Budget classification according to SDGs (commonly referred to as SDG budget tagging) is one of the most popular approaches towards integrating SDGs into the national budgetary frameworks. It serves as a fundamental exercise for any further SDG-based initiatives. In its nature, this approach represents linking budgetary items and state programs to specific SDG goals and targets, allowing governments to prioritize certain SDG areas that need to be addressed in the national context and understand the interlinkages between the currently implemented policies.

In total, twelve countries under consideration had reported implementing the SDG budget tagging to their state budgets during the HLPF events from 2016 to 2022, namely: Afghanistan (initiative itself and participation of Afghanistan in HLPF was turned down in 2021), Ghana, Guyana, Malawi, Malaysia, Nepal, South Africa, Sri Lanka, and Timor Leste. At the same time, the Philippines, Gambia, and Pakistan reported conducting budget tagging exercises on climate topics only. Among the typical characteristics of this approach are relatively simple integration and further monitoring in the context of program-based budgeting, which does not require substantial resources allocated towards this initiative, which is an essential factor for developing countries. The degree of alignment and implementation phase for each country tends to vary, as some of the countries in the group had spearheaded the initiative right from the year 2016, such

as Sierra Leone or Nepal, while the government of Sri Lanka had just initiated the coding exercises jointly with UNDP in 2022.

The integration process revolves around the programs implemented by the government, as the majority of countries have been using program-based budgeting or similar schemes. First, one of the governmental bodies accountable for the compilation of the budget prepares the methodology, which is later used by the primary users, such as ministries. In 2015 the Resource Committee in Nepal developed the guideline for the ministries to align their annual 484 programs with the SDGs ([UNDP, 2017b](#)). Similar approaches were evident in Ghana in 2019, Sri Lanka in 2022, and Timor-Leste's planned implementation in 2020 ([NDPCG, 2019](#); [Government of Sri Lanka, 2022](#); [Government of Timor-Leste, 2019](#))

The method of identification of alignment of certain programs with one SDG used by the governmental bodies focuses on the programs' contribution towards goals and targets. In Nepal, the detailed Chart of Accounts and the program documents are utilized to track their contributions towards SDGs, which is similar to the approach that the country used before the introduction of SDGs when tracking their progress toward gender, poverty, and climate codes ([UNDP, 2017b](#); [Government of Nepal, 2020](#)). The government of Malawi performs the coding exercise of SDGs on its state budget using the Key Priority Areas of the national development program, which is aligned with SDGs ([Government of Malawi, 2020](#)). The government of South Africa reports using the UN Tier Classification for Global Indicators² to allocate certain SDGs or targets to each budgetary item ([Government of South Africa, 2019](#)). In 2015, the Philippines government adopted the Climate Budget Tagging System, which is focused on monitoring climate-related expenditures of the state budget ([Government of the Philippines, 2019](#)). Following the example of the Philippines, the national governments of Gambia and Pakistan had also introduced similar initiatives, which could later be transferred into a comprehensive assessment of the budgetary expenditures towards all SDGs. One of the examples of tagging exercise outcome is represented in Figure 3 below.

² The UN Tier Classification for Global SDG Indicators classifies the SDG indicators into three tiers, where Tier 1 includes the indicators that are regularly produced by the governments of at least 50% of countries and have clear established methodology, Tier 2 are the indicators which are not regularly collected by the government but have established methodology and Tier 3 represents the indicators that doesn't have an established methodology and are currently being developed. For more information, please refer to the [UN Statistics Division](#).

Figure 3: Classification of Nepalian budgetary programs by SDGs (2016-2017)

SDG	Number of programmes	Amount (Nepali Rs million)	Share of development budget, percent
SDG 1	49	20,910	3.42
SDG 2	92	60,447	9.88
SDG 3	45	31,639	5.17
SDG 4	17	32,078	5.24
SDG 5	6	2,073	0.34
SDG 6	26	33,577	5.49
SDG 7	35	53,841	8.8
SDG 8	19	8,832	1.44
SDG 9	96	168,901	27.59
SDG 10	8	4,377	0.72
SDG 11	39	175,123	28.61
SDG 12	-	-	-
SDG 13	6	2,056	0.34
SDG 14	-	-	-
SDG 15	24	8,692	1.42
SDG 16	19	8,422	1.38
SDG 17	3	1,227	0.18
Total	484	612,097	100%

Source: UNDP (2017b).

Most importantly, once the programs of the budgets are identified, the annual audits take place in countries under consideration to provide a comprehensive picture of governmental expenditures towards certain SDGs. At this phase, it becomes evident what are the priority areas of the national budgets. In Nepal, after an assessment of governmental expenditures, one the most prioritized SDGs were identified as 7, 9, and 11, which highlights the focus of the expenditures on infrastructure-related projects. A benefit of utilizing the budget tagging exercise is that the expenditures towards SDGs are being regularly revised by the national parliaments, such as the case in South Africa ([Government of South Africa, 2019](#)) or Timor-Leste, where the national parliament is planning to revise its expenditures towards SDGs on a quarterly and annual basis ([Government of Timor-Leste, 2019](#)).

The instrument of SDG budget tagging, being implemented in this group of countries, had proven to be a reliable and relatively simple instrument to track the compliance of state

expenditures with development priorities identified in the national strategic documents. The main advantage of this approach is its relative simplicity, which does not require any significant adjustments in the institutional structures of the government. The revisions of the budget through the SDG lens allow the countries to monitor the interlinkages between their programs, as several public authorities are implementing the goals at the same time, therefore bridging the existing gaps between the executing bodies. Based on the SDG budget tagging audits, the governments are later designing their action plans, performing an SDG costing analysis, monitoring the sources of funding (central government, internally generated funds, development cooperation, etc.) and needs assessments, which substantially contribute to the strengthening of the budgetary and policymaking processes.

However, the simplicity of the approach has its shortcomings related to the availability of information and methodology used, evident in the cases of implementing countries. For example, none of the budget tagging exercises covered the total fiscal year budget, as the linkages between some budget areas and a country's development performance are unclear. The tagging exercise conducted in Nepal only accounted for 58.4% of the total budget ([UNDP, 2017b](#)), as such expenditure categories as direct transfers from central government to sub-national authorities, administrative expenditures of the public authorities, and defense-related expenditures were left aside. As a result, such incomplete tagging exercises present a biased picture of the national expenditure framework toward SDGs, leaving a significant portion of the national budget outside the analysis. Most importantly, the information produced by a budget tagging exercise is limited in its applicability compared to other approaches toward SDG integration into the state budget. In particular, the budget tagging demonstrates the public expenditures towards the SDGs but has no information on the quality of implementation of those budgetary programs. While Chapter 3 elaborates more on the shortcomings of each approach, the following section presents an approach that utilizes the SDGs to monitor the performance of budgetary programs, therefore serving as an M&E tool of the budget.

Group 2: SDG-based budget M&E

The SDG budget tagging has proven to be an accessible and relatively easy tool to implement, which informs the national actors on the distribution of current governmental expenditures. The

SDG-based budget M&E takes the initiative further by ensuring that the information produced by budget tagging contributes to the further assessment of SDG progress on a regular and institutionally established mechanism. In contrast to budget tagging, the countries in this group had integrated SDGs into the budget M&E tools, such as indicators of budget programs or assessments. For example, while Nepal's tagging system is only answering the question of "how much was spent?" the M&E system of Uruguay provides information on (i) the distribution of budgetary programs by public entities' functions, (ii) interconnections between the functions of different public entities toward achieving the SDGs (when two or more entities are working on the same SDG indicators/targets), and most importantly, (iii) SDG-based M&E tool assess the performance of public entities based on SDG achievement progress.

In total, throughout 2016-2022, 16 countries had reported in their VNRs to have developed and further implemented measures related to M&E of the national budget through the SDGs perspective, namely: Egypt, Austria, Cambodia, Finland, Iceland, Kenya, Mauritius, Norway, Palestine, Sudan, Switzerland, Thailand, Trinidad and Tobago, Uganda, Tanzania and Uruguay. As the result of the analysis revealed, the usage of SDGs in the budgetary M&E procedures in the given countries is utilized mainly through two different channels: *evaluation* of the government's performance using the SDGs and its targets and *prioritization* of specific budget initiatives that are focusing on the most relevant SDGs in the country context.

The *evaluation* method used by such countries as Austria, Cambodia, Iceland, Mauritius, Norway, the State of Palestine, Sudan, Switzerland, Uganda, and Uruguay, in its nature, is focused either on the inclusion of SDGs into the national assessment networks, such as the case with Cambodia, where 40% of all assessment indicators are taken from SDGs ([RGC, 2019](#)), or on the inclusion of SDGs into the budgetary proposals to the national parliaments, like follow-up reporting provided by each Norwegian ministry together with its budget proposals to the Storting ([Government of Norway, 2016](#)).

While the methodologies used by national governments tend to vary, the main principles of the evaluation process remain relatively simple and focus on including the SDG targets in the outcomes of the programs sponsored by the national budgets and later reporting to the national parliaments. One outstanding example of methodologies used to incorporate SDGs into the budget evaluation was reported from Uruguay, where the SDG indicators were distributed among

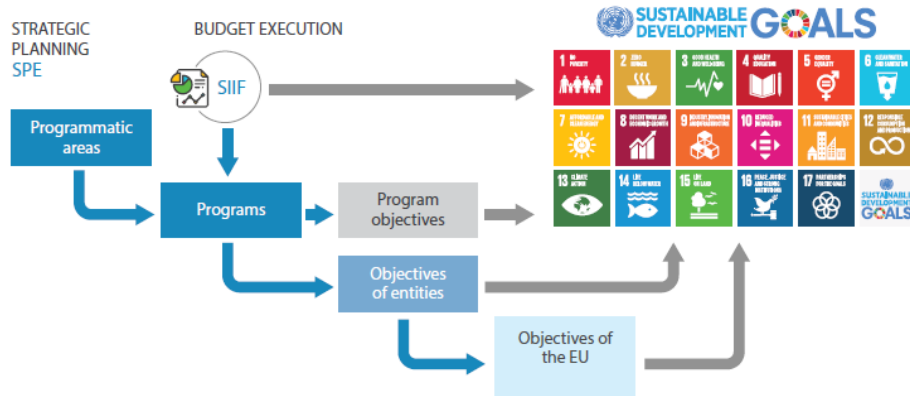
the “layers” of disaggregation of budgetary expenditures information using a four-step process ([Presidency of Uruguay, 2021](#)) that is illustrated on Figure 4.

The first step of the methodology utilizes the first “layer” of information, which corresponds to the *program objectives*. At this stage, SDGs and targets are assigned to the programs with a “unique” relationship with SDGs (corresponding directly to the SDGs, such as expenditures related to national defense, which were considered to have a 100% relationship to SDG 16). Moving further, the execution of programs contributing to more than one SDG is included in the *objectives of the executing entities*. The situations in which the objectives of one executing entity contribute to achieving several SDGs are addressed by including those SDGs and targets in the *objectives of the executing units* (EU). Lastly, the most narrowly focused level of analysis concerns *projects* or *objects of expenditures*, which is the last disaggregation measurement of Uruguay’s national budget and concerns the situations in which the activities of one *executing unit* contribute to the progress towards different SDGs. As a result, the Government of Uruguay could disaggregate the national budget by SDGs solely, by SDGs and program areas, and by SDGs and national entities.

As a result of such evaluation exercises, the national audit institutions are later able to produce various policy-informing initiatives, such as assessments of compliance between the national budget’s performance indicators and SDGs in Uganda, which revealed an improvement in alignment between the two from 60.9% in 2017/2018 to 64% in 2018/2019’s ([Office of the Prime Minister of Uganda, 2020](#)). Most importantly, such a mechanism ensures that SDGs and targets are going beyond the commitments of the governments, directly participating in the budgetary processes and discussions in the parliament.

Another way of utilizing SDGs in national budgetary discussions is to prioritize budget programs that are either focused on the most acute SDGs in the country or cross-cutting budgetary programs that contribute to several SDGs. Such an approach was reported in the VNRs of Egypt, Kenya, Thailand, Trinidad and Tobago, and Tanzania. At its core, this approach utilizes the SDG tagging exercise performed earlier to distinguish the budget programs focused on more than one SDG or its dimensions (economic, social, or environmental).

Figure 4: Budget linkage to SDGs in Uruguay



Source: Presidency of Uruguay (2021).

In Egypt, for example, a previously established integrated electronic system for planning and monitoring by the MPMAR, Monitoring, and Administrative Reform links all the budgetary projects submitted by public authorities to Egypt’s national development strategy and its goals and key performance indicators (which is synergized with SDGs). Moving further, based on the data produced by the electronic system, public investments are prioritized for projects potentially contributing to all three dimensions of SDGs. Similarly, in Kenya and Trinidad and Tobago, priority investments are made towards initiatives that align with national and subnational development plans and are synergized with SDGs (PMDP, 2017; Government of Trinidad and Tobago, 2020). Such an approach allows the national governments to channel the resources of the budget towards projects that are synergized between the economic, social, and environmental dimensions.

Compared to budget tagging, the usage of SDGs in budget monitoring and evaluation is a more capacity- and resource-demanding exercise. However, this approach is one of the ways to build upon the SDG budget tagging exercise, which ensures that the regular and institutionalized mechanisms of the budget monitoring and assessment are utilizing the SDG perspective in their workflow. Furthermore, annual budget hearings and governmental reports to the national parliaments serve as a dialogue platform for discussions on the development agendas of those countries, where the SDGs serve as a language for these discussions, promoting their role in decision-making. Nevertheless, the linkage between budgetary expenditures towards national debt serving, pensions and resources managed by public companies and SDGs remains unclear

([Presidency of Uruguay, 2021](#)), which prevents the comprehensive analysis of the whole state budget and leaves a significant fraction of the state budget aside.

Group 3: Sub-national SDG budgeting

Municipalities and their local budgets are an integral part of the efforts towards localizing the Agenda 2030 in each state. Given the difference in governance systems across countries in the group, the local SDG-based budgeting procedures tend to vary significantly. In this part of the chapter, the local budgetary processes in Malmö city of Sweden and Assam state in India will be considered, complemented by the national efforts of Costa Rica, Cabo Verde, and Sierra Leone towards their local municipalities.

One of the most outstanding examples of integration of SDGs into the local budgetary frameworks is evident from the city of Malmö, which made the SDGs its municipal goals ([Government of Sweden, 2021](#)). In 2017, the city authorities initiated a special commission within its administration, which is responsible for developing appropriate strategies to implement the 2030 Agenda goals in its local context. Most importantly, the city had focused on integrating the SDGs into its local steering and management systems, one of which is the local budget, which now includes SDGs in each budgetary prioritization framework ([Malmö stad, 2022](#)).

The government of India had tasked the sub-national planning departments to align budget allocations with SDG priorities, an example of which is taken from the Assam state ([Government of India, 2020](#); [UNDP, 2017a](#)). The local planning department requires the line ministries to track their expenditures toward SDGs and their targets, which are later to be compiled by the Finance department and presented to the State Assembly. The resources distributed to sectors that directly contribute to the SDGs are fully recognized as transfers towards certain SDGs (e.g., expenditures towards SDG 3), while the cases when the purpose of the transfers is aimed at several SDGs, fractions of the budgetary transfer are allocated to each related SDG.

On the part of efforts from the central government to encourage sub-national authorities to include SDGs into its local budgetary frameworks, the government of Cabo Verde is utilizing the local development plans - Municipal Strategic Sustainable Development Plans (PEMDS), which are required to be developed in line with SDGs by each municipality ([Ministry of Finance of](#)

[Cabo Verde, 2021](#)). So far, Cabo Verde has reported twenty out of twenty-two municipalities to develop the SDG-integrated PEMDS, which are primarily focused on such SDGs as 1, 6, 11, 17, 5, 3, 4, and 8 (in the order of their popularity).

In the meantime, the central government of Costa Rica, together with UNDP, had developed a guide for local authorities on linking the local project banks to the SDGs in order to identify the ongoing progress made by public institutions towards SDGs and create a mechanism for appropriating the SDGs through the Municipal Planner Network ([SDG Technical Secretariat in Costa Rica, 2020](#)). As reported by the central government, 44% of municipalities had aligned some of their planning instruments with SDGs, which was made possible through the cooperation between various national public institutions and academic representatives. Similarly, in Sierra Leone, at the sub-national level, the budget proposals of 19 out of 22 local councils were reported to be integrated with SDGs and targets ([Government of Sierra Leone, 2016](#)).

The examples presented in this group of countries provide an insightful practice on the integration of SDGs into local budgetary frameworks from both the bottom-up approach (initiated and governed by the city itself) and the top-down approach (where the government initiates the integration process and obliges the local authorities to assign SDGs to their goals and budgets). Both approaches can be utilized in centralized and decentralized national governance schemes. However, there are several challenges that were identified from the implementation experience of the countries in the group.

For example, the methodology behind assigning SDGs to each direct supporting transfer from the central budget of India toward local authorities remains to be determined ([UNDP, 2017a](#)). The SDG budget tagging had either excluded direct transfers from the analysis due to the unavailability of information or relied on “tacit knowledge of local authorities” when assigning the SDGs to specific budgetary programs. As a result, a significant portion of the budget was left aside during the analysis.

Besides, the issue of programs potentially benefiting several SDGs remains open in this group of countries. For example, the funds allocated towards infrastructure development in Assam state became a debatable topic during the tagging exercise, as the outcomes, such as roads, potentially contribute to several SDGs. In order to address this issue, local authorities were allowed to determine the assigned SDG based on their available knowledge.

On a country scale, such an approach would inevitably lead to inconsistencies in the analysis, as municipalities would assign different SDGs to similar transfers from the central budget. For example, road construction in one province would be considered to benefit SDG 3 because it eases access to healthcare facilities for villagers. In contrast, in the other province, it would contribute to SDG 8 due to the increasing economic activity of the local enterprises. Once again, it is evident that a transparent methodology for addressing the activities benefiting several SDGs at once should be established, thus ensuring a comprehensive and systematic analysis of public expenditures on a national and sub-national level.

Overall, each approach represented in the chapter demonstrates its advantages and limitations, with some limitations being widespread among all groups (limited coverage and lack of methodologies to address the interconnected nature of SDGs). Given the differences between practices and methodologies that are adopted to the local context of each state, none of the approaches can be used to conduct cross-country comparisons of the expenditures toward SDGs.

Given its relative simplicity in terms of resources and capacities required for implementation, SDG budget tagging seems to be the best solution for developing states where local SDG awareness is yet to be raised. A more sophisticated tool, SDG-based budget M&E, requires the governments to integrate performance indicators and targets of their budgets, which is a costly and time-consuming intervention. However, it also allows governments to build result-based expenditure policies that can be driven and regularly monitored by SDG targets and indicators.

The integration of SDG into local budgets is an emerging trend, with only a limited number of countries engaged in this initiative. However, it represents a good opportunity for a bottom-up approach toward SDG localization and fiscal decentralization in the implementing countries. In general, what can be derived from the experiences of these countries is that SDG-based state budgeting is not an ultimate goal but rather a process of constant improvements. It can start with a budget tagging exercise on a national scale, gradually evolve into a performance assessment tool of the central budget (M&E of the state budget), and later be adopted for the local budgetary frameworks, thus accelerating the SDG localization on both national and sub-national scales. The following chapter will elaborate more on the potential ways to improve the existing SDG-based budgeting tools.

Chapter III: Comparative discussion between limitations of SDG integration and recommendations to address them

The introduction of SDGs into the budgetary processes has demonstrated the ability to enable implementing countries to improve the transparency and accountability of the state budget, together with the potential for further SDG-based policymaking and informing the development partners on SDG financing gaps and needs. However, as highlighted in the previous chapter, the SDGs integration initiative has specific challenges limiting the full potential of Agenda 2030 localization. Among the methodological challenges identified is limited coverage of the national budget that usually overlooks the expenditures directed towards serving the national debt, direct transfers made to sub-national budgets, defense expenditures, general administrative expenditures, and retirement transfers. At the same time, the interconnected nature of SDGs poses significant challenges for national governments to assign SDGs to specific budgetary programs, such as the case of expenditures towards building roads in the Assam state of India, which contributes to several SDGs at once. In order to address those challenges, this chapter will provide some practical recommendations developed by the author based on the observed good practices reported by the countries during the VNR process and an extensive review of the existing literature on SDG budgeting. The identified challenges are grouped into two categories: limited coverage of the state budget and interlinkages between SDGs.

Limited coverage of the state budget

According to the analysis of the VNR reports of the countries under consideration, the total coverage of expenditure items by SDGs usually remains lower than 60%, such as the case of Nepal's national budget with 58.4% coverage or India's Assam state with 55% coverage ([UNDP, 2017a](#); [UNDP, 2017b](#)). The reason for that is the exclusion of certain expenditure items usually considered irrelevant to SDGs. For example, the classification of expenditures directed towards national debt remains an issue that was hard to address in such states as Uruguay. In particular, while it is clear that on the side of loan providers, such activity would correspond to SDG 17, target 17.4, "Assist developing countries in attaining long-term debt sustainability..." ([United Nations Department of Economic and Social Affairs \[UN DESA\], 2016](#)), the question is how to address it from the side of borrowing countries. One way to align this category's expenditures with SDGs is to investigate the programs/projects implemented using the resources acquired

from a particular loan. For example, when disaggregating the structure of the national debt repayment, it will be evident what projects were implemented and the amounts scheduled for repayment during the given fiscal year. Given that tagging is usually performed by the national finance ministry, which is also responsible for the operations related to serving the national debt, such an approach would be less demanding regarding public institutions' involvement.

- Recommendation: the inclusion of national debt serving during the SDG budget tagging exercise should be performed based on the outcomes of the projects/programs for which the funding was initially taken for. As the planned expenditures towards debt repayment are usually disaggregated by donors and projects within which the investment was made, it is recommended to establish a link between the aims of the financed loans (e.g., roads, hospitals, and factories) and SDGs toward which the project contributed (SDGs 9, 3 and 8). For example, the debt repayment of a project focused on building a hospital is recommended to be classified as expenditures toward SDG 3. In cases where the loans are benefiting several SDGs at once, the interactions between SDGs need to be accounted for according to national methodologies. The leading executive body for this activity should be the finance ministry of implementing country, as it has the data and capacity for reaching the necessary information, complemented by the support of other public entities involved in implementing projects/programs initially sponsored by the particular funds.

Another expenditure item not aligned with SDGs was direct transfers made in favor of municipal budgets from the state budget. It is essential to highlight that the issue is not universally persistent in all countries under consideration but was reported only from India's Assam state ([UNDP, 2017a](#)). As sub-national authorities in other countries usually present their budgets and development plans that are already aligned with SDGs, it is a relatively easy challenge to address using the explanatory notes for sub-national budgets. Therefore, the challenge of assigning SDGs to the direct transfers towards sub-national budgets is not related to SDGs themselves but to the reporting capacities and involvement of sub-national authorities in the process of SDG budget tagging, which should take place on all levels, including national and sub-national authorities.

- Recommendation: in order to provide comprehensive data on the execution of direct transfers from the central government to sub-national authorities, the SDG tagging

exercise should be performed with the involvement of all relevant actors, both at national and subnational levels. Additionally, the reporting capacities of local authorities should be strengthened, particularly in describing executed resources.

The expenditures directed towards defense might be more challenging to address in countries directly engaged in armed conflicts. From one side of the conflict, those expenditures might be considered as expenditures toward restoring peace. In contrast, the other side of the conflict would consider those transfers a direct threat to their sovereignty, preventing the SDG progress. In these situations, the better option would be to leave the defense budget outside the SDG tagging exercise. However, the military's role in stable and peaceful countries is also related to other activities that are not directly related to defense. For example, the military is often engaged in natural disaster relief operations, which can also be included during the SDG budget tagging exercise. Therefore, when applicable, the involvement of armed forces in activities outside of defense frameworks should be analyzed more-depth to be connected to such SDG targets as 11.5, "By 2030, significantly reduce the number of deaths... caused by disasters..." or SDG 13.1 target, "Strengthen resilience... to climate-related hazards and natural disasters..." The departmental classification of state budgets should be utilized, where the activities of each public entity represent the expenditures and, therefore, would allow for a more in-depth analysis of the state budget on the level of executing entity.

- Recommendation: in those cases where the defense budget (or its part) is publicly available information, the analysis of budget compliance to SDGs should utilize the departmental classification and consider the expenses directed towards activities other than protecting peace, such as natural disaster response.

Another identified concern in implementing countries was expenditures towards the general administrative provision of public entities. Such expenditure items as wages, maintenance of the buildings, office supplies, communications, and transportation are usually left aside from the SDG tagging exercise due to their unclear connection to SDGs. While this kind of expenditure in the cases of specific budgetary programs or projects can be attached to the SDGs that these activities pursue, the administrative expenditures of ministries and other public entities are usually left aside. To address it, some countries, like Uruguay, included the administrative expenditures of public entities under SDG 16, where the closest target would be 16.6, "Develop

effective, accountable and transparent institutions at all levels.” However, the indicators of target 16.6 are concerned about the accountability of government expenditures and the quality of services provided to the population ([UN DESA, 2023](#)), which do not explicitly represent the government’s administrative costs. In Colombia, the SDG alignment exercise recognized all general expenditures, like salaries, utilities, payable accounts, etc., as direct expenditures of respective budgetary programs towards the achievement of SDGs, under the assumption that no policy interventions can be carried out without general expenditures ([UN Colombia et al., 2022](#)). In other words, all the administrative expenditures of program “X” were counted as direct expenditures toward achieving the SDG that was assigned to that program. The challenge of this approach is that it would consider a significant portion of the budget towards wages as directly contributing to the achievement of certain SDGs, while in the actual case, most of those funds might be general expenditures. The result of such analysis would be exaggerated estimates of expenses directly related to SDGs achievement, which would provide a biased picture to the policymakers and other development actors. One of the ways to address this challenge is to separate the general administrative expenditures from the funds directly related to SDGs implementation.

- Recommendation: in order to highlight the efforts of the governments directed towards the provision of administrative support to the implementation of SDGs, without which any activities would not be possible, the general expenditures should be included in the SDG tagging exercise. However, given the complementary role of those expenditures, they should be included in a separate category of “other costs related to the implementation of SDGs” or “administrative expenditures toward SDG implementation.” By doing so, the SDG tagging would allow demonstrating a significant portion of the government’s national budget to support the SDG achievement while not considering those expenses as fully dedicated towards SDG achievement. The separation could be done on any budget level (sectoral or departmental) and depends on the national frameworks. An example of how separation can be done on a departmental level is represented in the action plan of this thesis.

The expenditures of state budgets towards pensions and other retirement-related transfers are harder to locate within the SDGs, as they are not directly represented in SDGs. The proportion of

people covered by pensions is included in the calculation process for the indicator 1.3.1 “Proportion of population covered by social protection...” along with the proportion of people receiving disability-related transfers, maternity benefits, unemployment benefits, etc. ([UN DESA, 2023](#)). However, it utilizes the share of people covered instead of tracking the allocated resources. Indirectly, the budgetary funds for pensions are contributing to a number of social SDGs, such as SDGs 1, 3, and 5. Therefore, the only way to include these expenditures in the budget tagging exercise is by investigating their potential linkages with other SDGs and developing a methodology for including budgetary expenditures potentially contributing to several SDGs, which is elaborated in the following sub-section.

- Recommendation: to emphasize the resources governments allocate for social support systems, the state budget’s pension and other retirement-related expenses should be included as indirect support towards related SDGs during the SDG budget tagging exercise. The linkage between retirement benefits and SDGs is to be defined on the individual basis of each country, depending on the national methodology to address the interlinkages between SDGs.

Interactions between SDGs

The interconnected nature of SDGs remains a highly discussed topic in academic literature and among policymaking practitioners. The depth of the interlinkages analysis ranges from connections between SDGs ([Hutton et al., 2018](#); [Zhang et al., 2016](#)) to indicator-level linkages ([Pradhan et al., 2017](#)). At the same time, there is an increasingly large number of instruments aimed at addressing those linkages, such as network analysis ([Kurian et al., 2018](#)), analysis of correlations between SDG indicators ([Pradhan et al., 2017](#)), and conceptual framework analysis ([Manandhar et al., 2018](#)). Allen et al. ([2021](#)) summarized the different instruments and practices available for tracking the interlinkages between SDGs into two groups: “rapid assessment methods” that are aimed at identifying the nature of interconnections and “dynamic modeling,” which is more sophisticated and allows for projecting the potential effects of particular interventions related to SDGs. However, when addressing the interlinkages between SDGs, most states rely on much simpler methodologies, such as manual alignment of SDGs and budgetary items ([UN Colombia et al., 2022](#)). The motivation behind choosing simpler methodologies lies in

the available capacities of the national governments that are intended to later maintain the developed analysis and comparatively cheap and fast execution of such analysis, which makes it a perfect tool for the rapidly changing environments of developing countries. However, due to the heavy reliance of the methodology on the implementing actors, such as governments or local authorities, it is subject to inconsistencies and trade-offs that are not systematically addressed, such as in the case of Assam state, where some of the budgetary expenditures were aligned with SDGs based on “tacit knowledge” of the local authorities ([UNDP, 2017b](#)). Despite the limitations, such easy-to-implement analyses represent a solid foundation for developing states to inform policymakers on current budgetary expenditures toward SDGs. Therefore, given the differences between countries regarding capacities and local context, the recommendations to address the interlinkages between SDGs differ accordingly.

- For countries that already have single- or multi-dimensional identifications strategies and have already developed sufficient capacity for the introduction of more sophisticated tools, such as countries in the group of SDG-based budget M&E, the interactions between SDGs in the budgetary frameworks and the potential trade-offs should be addressed at the budgetary program’s planning stage. Adopting the dynamic modeling of future policies allows the governments to consider potential ways in which the new and existing budgetary programs will affect social, economic, and environmental conditions in the country. Despite higher capacity and resource requirements, the tools developed for these purposes provide the policymakers with in-depth knowledge of the resources required to implement specific programs/projects and assess the potential positive and negative contributions to indirectly related SDGs. Some of the tools available for these purposes are a combination of systems analysis and modeling techniques ([Kopainsky et al., 2017](#)), integrated assessment platforms ([Moyer and Bohl, 2019](#)), and foresight-based tools ([Glover et al., 2017](#)).
- For those countries where SDG tagging was recently introduced, the focus should be on strengthening the existing methodology. First, the existing limitations, such as the influence of the implementing bodies on the methodology of SDG identification in the national budget, should be eliminated by broadening the participation of national actors, such as NGOs, CSOs, and other relevant stakeholders. Second, the involvement of the actors in the development of the methodologies, together with the methodology itself,

should be regulated either on a legislative level in the parliament or through internal regulations within the main executing body in the country (such as economic/financial ministries). Some of the instruments that may be applied at a later stage to improve the quality of SDG interlinkage identification are cross-impact matrix and network analysis ([Weitz et al., 2018](#)), qualitative content analysis of SDGs based on the literature ([Santika et al., 2019](#)) and other indicator-based assessments ([Allen et al., 2017](#)).

Chapter IV: Action plan on SDGs integration into the budgetary frameworks of the Kyrgyz Republic

The second chapter of this thesis focused on identifying the main approaches towards integrating the SDGs into budget processes and limitations that arise during the implementation phase. Moving further, the third chapter of the thesis addressed the identified limitations by providing recommendations to overcome the identified limitations. This chapter, in turn, will supplement the developed recommendations and lessons learned from the integration processes in identified countries with an action plan in the real-case scenario of a developing country where the SDGs have yet to be introduced. In the first section, the background information on the ongoing processes complements the reasoning for country selection. The second section provides the reader with an overview of the proposed methodology to introduce SDGs to the central budget, taking into account the primary considerations, such as weights, data limitations, and indicators selection. The last section demonstrates the results of preliminary SDG budget tagging performed on the departmental level.

The rationale for country selection

The action plan will be tailored to specific national development frameworks of one country – the Kyrgyz Republic (Kyrgyzstan). Several criteria condition the choice of a country. First, in order to ensure the feasibility of the planned intervention, the country needs to represent its clear political support towards Agenda 2030 and SDGs, which was evident from the participation of Kyrgyzstan in the 2020 HLPF in New York, where the country presented its VNR on the implementation of SDGs ([Government of the Kyrgyz Republic, 2020](#)). Second, the commitments to achieve SDGs have to be mainstreamed to the national development framework, which was performed in Kyrgyzstan through synergizing the SDGs with the National Development Strategy from 2016 to 2040, which was presented in social, economic, and environmental dimensions ([Cabinet of Ministers of the Kyrgyz Republic \[CoM\], 2016](#)) and National Development Program 2026 with a specific focus on the environment ([CoM, 2021](#)). Third, the statistical capacity of a country has to allow the government to track its progress toward SDGs, which is evident in the case of Kyrgyzstan through the regular publication of SDG statistics by NSC ([2022c](#)), nationalization of SDG indicators ([NSC, 2023](#)) and development of a roadmap for strengthening the statistical capacity of the country to monitor SDGs ([NSC, 2022a](#)). Last, to be of interest to

this action plan, the integration of the SDGs into the state budgetary frameworks should not have taken place yet. Therefore, Kyrgyzstan represents the case of a country committed to further mainstreaming the SDGs into its development policy frameworks, where the integration of SDGs into the budgetary processes can play a vital role as an instrument for development policy formulation and resource allocation.

[Budgetary frameworks of the Kyrgyz Republic](#)

The National Budget of the Kyrgyz Republic (NB) is prepared by the MoF by gathering budgetary proposals from public entities and is presented to Jogorku Kenesh, the national parliament, at the beginning of January each year. The structure of the NB is line-item, with program budgeting being introduced in 2011 and piloted to all 15 ministries (except for the Ministry of Defense) and around 50 public bodies by 2016 ([MoF, 2023b](#)). Currently, two budgetary management systems are in place: traditional line-item budget with three classifications (economic, departmental, and functional) and program budgeting implemented by all public entities. Each budgetary program has its “Budget program passport form” (Бюджеттик программанын паспортунун формасы), which identifies the name of the program, executing body, supporting bodies, goals, outcomes, measures, and other relevant information and is regulated according to the instruction issued by CoM ([Ministry of Justice of the Kyrgyz Republic, 2021](#)). Program budgeting, as opposed to line-item budgeting, is a much more convenient and result-oriented budgetary tool that fits the purposes of this action plan.

[Scope of the action plan and main considerations to take into account](#)

Due to this study’s time and resources constraint, it is impossible to conduct a comprehensive analysis of around 1,000 budgetary programs currently being implemented by 65 public entities in Kyrgyzstan ([MoF, 2019](#)). Instead, conducting the tagging exercise for one particular entity – the MoES is more feasible, as this ministry is executing the largest share of the NB - 17.6%, or 60.944 billion KGS (638,698 million EUR³). Currently, the MoES executes seven budgetary programs, 13 corresponding measures, and 19 indicators represented in Table 2.

³ According to the official exchange rate of 95.4191 KGS for 1 EUR as of April 12, 2023, provided by the [National Bank of the Kyrgyz Republic](#).

Table 2: Budgetary programs, measures, and indicators of the MoES for the year 2023

Code	Budgetary program	Measure	Measure indicators
1	Management administration	Management and administration of the sector at the central level	Population Confidence Index
		Management and administration of the sector at the territorial level	
342	Early childhood education and preschool preparation	Access to quality early childhood education and preschool preparation	Share of children aged 5.5-7 years covered by preschool education
			Share of children aged 0-3 years covered by all forms of early development
			Share of children aged 3-7 years covered by all forms of preschool education
		Expanding the network of variable forms of preschool education organizations	Number of short-term kindergarten facilities for children aged 3-5 years
			Number of child development centers based in libraries
343	School Education	Accessibility of education, multilingualism, inclusive education and education of schoolchildren and school quality assessment system	Share of children in boarding schools and orphanages to the total number of children (by MoES institutions)
			Percentage of children enrolled in out-of-school education of the total number of children
			The national average score on the national exam (unified national exam)
		Continuous professional growth of teachers	Coverage of teachers in professional development programs
344	Primary and secondary vocational education	Accessibility of primary vocational education	Percentage of youth enrolled in primary vocational education (of the population aged 15-18 years)
			Proportion of teaching staff who received advanced training in the development of educational programs and modules (primary vocational education)
		Accessibility of secondary vocational education	Percentage of youth enrollment in secondary vocational education (of the population aged 17-20 years)
		Inclusive education and upbringing of intermediate vocational education students	Share of educational organizations of primary vocational education with a disabilities-friendly infrastructure and learning environment

345	Higher professional education	Maintaining the functioning of the network of organizations of higher professional education	Share of students studying under the state-supported financing to the total number of students in universities
		Development of a network of organizations of higher professional education	Share of students enrolled on a contract basis (self-funded)
346	State support for applied research and development	Development of applied science	Number of publications in periodical scientific journals indexed by "Scopus", "Web of Science", Growth of the impact factor (citation index of scientific research)
		Development of institutional capacity and improving the quality of university science, increasing the number of university research works aimed at obtaining practical applications	The number of implemented scientific findings in production, social life as a result of scientific-research and experimental-construction work

Source: author's table based on MoES budgetary program taken from MoF (2023a).

Note: the budgetary program 992, "Implementation of public investment projects" (Мамлекеттик инвестициялык долбоорлорду ишке ашыруу), was excluded from the table due to the unavailability of information on measures and indicators of the program. Adapted and translated by the author from Appendix 11, 11-1 to the NB.

Given that currently, the capacities of the national executing body (MoF) in integrating SDGs into the budgetary frameworks has not yet developed, the primary intention of this action plan is to build a solid foundation for the Kyrgyz government to strengthen the national capacity of public entities and further mainstream the SDGs into its development frameworks.

Methodology for SDGs integration into the budgetary frameworks of the Kyrgyz Republic

The selection of appropriate methodology for tagging exercise is the key element in introducing SDGs into the budgetary frameworks. In particular, the point of concern is how the SDG interconnections are addressed when dealing with state expenditures. As highlighted in the previous chapter, the recommendations for dealing with the interlinkages between SDGs heavily depend on the national capacities of the country. Given that Kyrgyzstan has not yet introduced SDG indicators directly to the budgetary frameworks, there is not enough capacity and resources for introducing sophisticated modeling tools that were initially suggested for the SDG-based M&E group of countries, such as modeling techniques (Kopainsky et al., 2017), integrated assessment platforms (Moyer and Bohl, 2019), or foresight-based tools (Glover et al., 2016). Being methodologically complex and requiring a relatively large amount of time and resources,

modeling tools are unlikely to be utilized by national public entities. Although methodologically more comprehensive, those tools fail the requirement of being politically feasible for further implementation by development policymakers in low- and lower-middle-income countries.

Based on the existing implementation experience of previously selected 33 countries that was discussed in the second and third chapters, the chosen methodological approach toward integrating SDGs into the budgetary frameworks of Kyrgyzstan had to fit the rapidly changing environment of a developing country, does not require an extensive capacity of the public executing body, and require relatively small resources to be implemented. Therefore, the suggested approach for integration is multi-dimensional SDG budget tagging, which was previously mentioned in the case of Colombia ([UN Colombia et al., 2022](#)). The data utilized for this exercise is the approved program budget of the Ministry of Education and Science of the Kyrgyz Republic (MoES) for 2023, national regulatory frameworks for the program budget, and a localized set of SDG indicators.

The multi-dimensional SDG budget tagging is an exercise where SDGs (or their targets and indicators) are assigned to each budgetary program/project/sector depending on the local context. Once all expenditure items are assigned, the governments are provided with a comprehensive picture of SDG financing priorities in the country. Given that the outcomes of assigning SDGs to the budgetary programs of MoES would probably be too general (most of the programs would be assigned SDG 4), the study is focused on SDG targets, therefore allowing for a more in-depth perspective.

While the overall methodology of multi-dimensional budget tagging is relatively intuitive, the most debatable issue is the weights assigned to primary and secondary SDG targets. The term *primary target* refers to the main SDG target, toward which the larger share of the budgetary item would be assigned (e.g., 60% of budgetary item expenditures). Contrary to that, the *secondary targets* are the SDG targets indirectly affected by this particular program (and sharing the remaining 40% of expenditures).

Some literature suggests assigning 75% of the weight to the primary target and the remaining 25% to be shared between up to five secondary SDG targets ([UN Colombia et al., 2021](#)). In other cases, the tagging exercise limited itself to assigning only one SDG and excluded the space for SDG targets and interconnections between the SDGs ([UNDP, 2017b](#)). However, no universal

agreement exists on whether tagging should be multi-dimensional or focused on individual SDGs. There is also no single agreement in the empirical literature on whether 75% of the weight is the best solution to highlight the main target of a budgetary measure. The number of secondary SDG targets to be assigned is also unclear. However, it is evident that having secondary SDG targets ensures that the interconnected nature of SDGs is reflected in the calculations. It is also clear that the weight of the main SDG target has to be bigger than 50% to reflect the major aim of the budgetary measure properly. In their discussion of weights that need to be assigned, the UN Colombia et al. (2021) make it clear that the weights are flexible and need to be established based on the discussions with the national government on the individual characteristics of each country and its central budget. Given that in this study's case, it is impossible to conduct such negotiations with Kyrgyzstan's responsible entities, the same weightage will be adopted here with a maximum of three secondary indicators for illustration purposes. In cases where certain budgetary measures are related only to a few SDG indicators, the number of secondary indicators will be reduced accordingly.

Each budget item during the tagging exercise has more than one assigned SDG target to catch the interconnected nature of SDGs. For example, the budgetary program of the MoES 343, "School education," has two measures: "Accessibility of education..." and "Continuous professional growth of teachers" (Ministry of Finance of the Kyrgyz Republic [MoF], 2023a). I assigned the former one main SDG target with a weight of 75%, while the remaining 25% is shared between secondary targets, which represent the portion of the program expenditures directed toward those SDG targets. Table 3 presents the outcome of the tagging exercise for one particular measure under program 343.

Table 3: SDG budget tagging application

Budgetary measure	Accessibility of education, multilingualism, inclusive education and education of schoolchildren and school quality assessment system			
Budgetary measure indicators	<ul style="list-style-type: none"> • Share of children in boarding schools and orphanages to the total number of children (by MoES institutions) • Percentage of children enrolled in out-of-school education of the total number of children • The national average score on the national exam (OPT) 			
Budgetary expenditures toward the measure (million KGS)	39,906			
SDG indicators assigned	4.1	4.5	4.6	10.2
Weights	75%	8.33%	8.33%	8.33%
Budgetary expenditures by SDG indicators (million KGS)	29,930	3,326	3,326	3,326

Source: SDG indicators assigning and expenditure distribution among SDGs is prepared by the author. The budgetary programs are derived from MoF (2022b) and SDG indicators are taken from the National Statistics Committee of the Kyrgyz Republic (NSC) (2023).

The main limitation of multi-dimensional budget tagging is the subjectivity of decisions regarding the allocation of SDGs to budgetary programs, as the executing body and the availability of disaggregated information influence the judgment. To address the potential bias in the actual case tagging exercise, it is essential to ensure the participation of a wide range of national actors, such as local authorities, NGOs, CSOs, and other relevant stakeholders.

Lastly, data availability and disaggregation are critical to a more precise tagging analysis. First and foremost, the main document of the analysis is the budget database itself, which contains all the budgetary expenditures and tends to vary in size and disaggregation depending on each country. In the case of Kyrgyzstan, the program budget was utilized. Secondly, the set of SDGs and respective targets will be used as an instrument for the analysis. In the case of Kyrgyzstan, the SDGs were adopted into a national context ([Ministry of Economy and Commerce of the Kyrgyz Republic \[MoEC\], 2023](#); [NSC, 2023](#)), which gives an opportunity to regularly monitor the SDG progress on a national scale.

Results

Table 4: The MoES budgetary program measures for the year 2023 and assigned SDG targets.

Budgetary program	Measure	Main SDG target	Secondary SDG target	Secondary SDG target	Secondary SDG target
Management administration	Management and administration of the sector at the central level	Overall administrative support toward implementation of SDG 4			
	Management and administration of the sector at the territorial level	Overall administrative support toward implementation of SDG 4			
Early childhood education and preschool preparation	Access to quality early childhood education and preschool preparation	4.1	4.2	N/A	N/A
	Expanding the network of variable forms of preschool education organizations	4.2	4.1	N/A	N/A
School Education	Accessibility of education, multilingualism, inclusive education and education of schoolchildren and school quality assessment system	4.1	4.5	4.6	10.2
	Continuous professional growth of teachers	4.c	N/A	N/A	N/A
Primary and secondary vocational education	Accessibility of primary vocational education	4.3	4.4	4.6	8.5
	Accessibility of secondary vocational education	4.3	4.4	4.6	8.5
	Inclusive education and upbringing of intermediate vocational education students	4.a	4.5	11.7.1	8.5

Higher professional education	Maintaining the functioning of the network of organizations of higher professional education	4.3	8.5	10.2	N/A
	Development of a network of organizations of higher professional education	4.3	8.5	10.2	N/A
State support for applied research and development	Development of applied science	9.5	N/A	N/A	N/A
	Development of institutional capacity and improving the quality of university science, increasing the number of university research works aimed at obtaining practical applications	9.5	9.b	N/A	N/A
Implementation of public investment projects		N/A	N/A	N/A	N/A

Source: SDG indicators assigning is prepared by the author. The budgetary programs are derived from MoF (2023b) and SDG indicators are taken from NSC (2023).

Note: the budgetary program 992, “Implementation of public investment projects,” had no explanations regarding the measures and indicators, therefore, SDG targets were not applicable. Adapted and translated by the author from Appendix 11, 11-1 to the NB.

The results of the conducted tagging exercise from Table 4 demonstrate that the MoES program expenditures are mainly directed toward implementing SDG 4 targets. However, some funds also contributed to specific targets under SDGs 8, 9, 10, and 11. Based on the recommendations provided in the previous chapter, the administrative expenditures (budgetary program 1, “Management administration”) were classified separately as “overall administrative support toward implementation of SDG 4,” as the MoES is the main executing body for SDG 4. Table 5 provides information on the budgetary expenditures by SDG targets. The allocation of SDGs among the budgetary programs was conducted based on compliance with budgetary measures and SDG targets, where the most conceptually relevant SDG targets were assigned to the respective budgetary measures.

Table 5: SDG budget tagging of MoES program budget for 2023

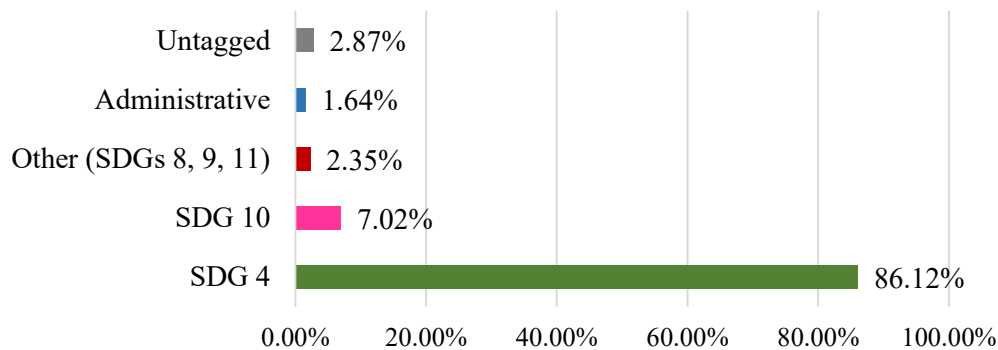
SDG	Target	Expenditures (million KGS)
SDG 4	4.1	35,482.1
	4.2	1,850.8
	4.3	7,641.5
	4.4	212.1
	4.5	3,348.7
	4.6	3,537.6
	4.a	209.1
	4.c	201.2
SDG 8	8.5	1,190.8
SDG 9	9.5	219.9
	9.b	0.6
SDG 10	10.2	4,281
SDG 11	11.7.1	23.2
Administrative		998.6
Untagged		1,746.6
Total expenditures		60,943.9

Source: SDG indicators assigning and expenditure distribution is prepared by the author. The expenditures of MoES are derived from MoF (2023b) and SDG indicators are taken from NSC (2023).

As can be observed from Figure 5, the most considerable portion of the program budget was directed towards targets 4.1 and 4.3, which corresponds to the main functions of the MoES – provision and regulation of primary and secondary education. In total, SDG 4 represents 86.12% of the total expenditures of the program budget of the MoES, followed by SDG 10 with 7.02%. The total expenditure towards the targets under SDGs 8, 9, and 11 accounted for 2.35% of the

budget. The unavailability of an expenditure description for program 992, “Implementation of public investment projects,” does not allow the assignment of any particular targets, therefore, is marked as “untagged.”

Figure 5: MoES expenditures for the year 2023 by SDGs



Source: SDG indicators assigning and expenditure distribution is prepared by the author. The expenditures of MoES are derived from MoF (2023b) and SDG indicators are taken from NSC (2023).

Overall, this short illustration for the MoES program budget demonstrated the potential methodology that can be utilized in order to perform the tagging exercise in the national context of Kyrgyzstan. The tagging exercise could provide the national development actors with an extensive range of outcomes, including but not limited to (i) a discussion platform during the annual budget reporting in Jogorku Kenesh, where the members of the parliament could request information on planned expenditures toward specific areas of SDGs; (ii) SDG costing analysis, which helps to identify the amount of financing needed to achieve SDGs and (iii) navigate the dialogue between governmental actors and international development cooperation organizations, as currently most of the international donors are utilizing SDGs as a main planning tool in their projects.

Most importantly, to unleash the full potential of SDG budget tagging, the goals must be mainstreamed further into the national and sub-national monitoring and evaluation frameworks. For example, SDG targets that would be adopted to the program budgets can be further integrated into the methodology of local authorities’ evaluation currently being implemented by the MoEC (2020). Therefore, SDGs would be further streamlined into sub-national governance levels and strengthen the result-based budgeting capacity of local authorities.

The last and most considerable effort of this chapter is the action plan for the implementation of the full-scale integration of SDGs into the program budget of Kyrgyzstan, which can be observed in Appendix C of this thesis. The Action plan takes into account the developed recommendations in the third chapter and practical implications from the second chapter that are tailored to fit the specific context of Kyrgyzstan.

The identified methodological limitations of the SDG budget tagging exercise are also addressed in the action plan. For example, the subjectivity of decisions regarding the allocation of SDGs to budgetary programs is addressed by a multi-stakeholder approach, which ensures the participation of all relevant national development actors. The main executing body of the integration process is proposed to be the MoF due to the natural proximity of its functions to the NB. The action plan itself is transferred to the appendices part of the thesis due to the word limit constraint of the thesis.

Conclusion

As the process of localizing the SDGs is constantly progressing, with new tools being designed each year, the bridge between academia and development practitioners needs to be further strengthened to bring comprehensive and practical tools for policymaking. Although there is no doubt that SDGs must be localized to a national context, ensuring the effective implementation of the goals, the idea of introducing the goals into a national budgetary framework remains yet to be discovered by scholars.

A two-stage content analysis of 210 VNRs from 141 selected countries attempted to provide a snapshot of the current trends in synergizing public expenditures with SDGs, highlighting the common limitations in the methodology and developing recommendations to address them. The analysis suggests that 33 countries worldwide had introduced the SDGs to their budgetary frameworks and reported that during their VNRs, written in or translated to English. The identified ways of integration tend to vary according to the local context, resources, and capacity available in implementing countries. Relatively easy and cheap to implement, the classification of state expenditures by SDGs (budget tagging) serves as a solid foundation for conducting SDG costing analysis. The SDG-based M&E is a more demanding and complex exercise to be conducted. However, it rewards the implementing countries with outcome-based budgeting frameworks that revolve around SDG targets and indicators. Lastly, the findings of the study suggest that the integration of SDG into the local budgetary frameworks remains in its infancy, although providing implementing countries with an opportunity for the bottom-up vision of SDG localization. Therefore, this study captures the ongoing efforts around the world for more in-depth and, perhaps, quantitative research of the methodologies of each approach and ways to address them.

Although the approaches toward integrating SDGs tend to be different, the shortcomings of the methodologies adopted shared similar characteristics, such as limited coverage of the state budget, which leaves a significant portion of the budget outside of the compliance analysis, and inconsistency in the methodologies to address the interconnected nature of SDGs. The recommendations developed to address the limited budget coverage allow the national governments to increase the coverage of expenditures by SDGs. Thus, additional efforts that are in place but usually left aside during the compliance analysis can now be a part of it. The study

also proposes two different ways to capture the interconnected nature of SDGs, which depend on the existing capacities and resources of the governments. Once the recommendations are implemented, the precision of compliance analysis in implementing countries would increase, allowing them to capture and deal with complex budgetary programs potentially contributing to several SDGs simultaneously.

A key component of this research is the designed action plan which attempts to demonstrate how the interlinked nature of SDGs in public expenditures could be addressed in the context of a developing country with limited capacity and resources in a rapidly changing environment. In particular, the multi-dimensional SDG tagging of the program budget of the MoES demonstrates a relatively simple and easy-to-implement tool that can be further integrated into the other policymaking frameworks of the country. For example, the developed tool has the potential to be further streamlined into the existing public authorities' evaluation framework that is being implemented by the MoEC and would allow for evidence-based decision-making and evaluation through the SDGs perspective.

Overall, the integration of SDGs into the NB of Kyrgyzstan represents a prominent instrument for accelerating SDG localization in the country. Apart from public entities, the potential stakeholders in implementing this methodology are national and international development actors, such as NGOs, CSOs, and international development-oriented organizations. The outcomes of SDG budget tagging are increased policy coherence between the state budgetary programs and executing entities and SDG costing analysis that would identify the current financing gaps and facilitate the dialogue between the developing countries and international donors currently operating within the SDG framework.

Most importantly, this research calls for constant improvements in the national development frameworks of implementing countries. Those countries that have already developed their capacity in SDG budget tagging are encouraged to update their methodologies further to facilitate SDG-based M&E that would broaden the scope of potential outcomes of their SDG-based budget tools. The SDG-based M&E can further be improved to model the potential effects of the planned policies through the developed recommendations, thus ensuring the preventative measures towards balanced policies that would be directed towards economic, social, and environmental dimensions of sustainable development.

This study serves as a solid background for more in-depth research into the ways of localizing the Agenda 2030 through the budgetary frameworks and its potential implications. First of all, while SDG-based budgeting tools are now gaining popularity, there is no existing research on whether the SDGs are the right tool to guide public expenditures. Further research should focus on whether the public budgets guided by SDGs are performing better than the traditional ones. SDG-based public budgeting can also be compared to other budgeting tools, such as Participatory Budgeting. Second, it is also yet to be determined whether the integration of SDGs into the public budgets actually accelerates the SDG progress of a country. Third, what is also yet to be determined is the potential effect of SDG-based state budgeting on fiscal decentralization processes in the countries. Overall, this study encourages academia to further in-depth research into the potential effects and trade-offs of SDG-based state budgeting, facilitating the development practitioners to build evidence-based policies toward reaching a sustainable future for all.

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Appendices

Appendix A: Selected countries during the first and second stages of content analysis

Table 6: Selected countries during the first stage of content analysis

#	Country name	2016 VNR	2017 VNR	2018 VNR	2019 VNR	2020 VNR	2021 VNR	2022 VNR	Total VNRs	Reporting language
1	Afghanistan								2	English
2	Albania								1	English
3	Angola								1	English
4	Antigua and Barbuda								1	English
5	Argentina								3	Spanish
6	Armenia								2	English
7	Australia								1	English
8	Austria								1	English
9	Azerbaijan								3	English
10	Bahamas								2	English
11	Bahrain								1	English
12	Bangladesh								2	English
13	Barbados								1	English
14	Belarus								2	English
15	Belgium								1	English
16	Belize								1	English
17	Benin								3	French
18	Bhutan								2	English
19	Bolivia (Plurinational State of)								1	Spanish
20	Bosnia and Herzegovina								1	English
21	Botswana								2	English
22	Brazil								1	English
23	Brunei Darussalam								1	English
24	Bulgaria								1	English
25	Burkina Faso								1	French
26	Burundi								1	French

27	Cabo Verde							2	English
28	Cambodia							1	English
29	Cameroon							2	French
30	Canada							1	English
31	Central African Republic							1	French
32	Chad							2	French
33	Chile							2	Spanish
34	China							2	English
35	Colombia							3	Spanish
36	Comoros							1	French
37	Congo (Republic of the)							1	French
38	Costa Rica							2	Spanish
39	Côte d'Ivoire							2	French
40	Croatia							1	English
41	Cuba							1	Spanish
42	Cyprus							2	English
43	Czech Republic							2	English
44	Democratic People's Republic of Korea							1	English
45	Democratic Republic of the Congo							1	French
46	Denmark							2	English
47	Djibouti							1	French
48	Dominica							1	English
49	Dominican Republic							2	Spanish
50	Ecuador							2	Spanish
51	Egypt							3	English
52	El Salvador							2	Spanish
53	Equatorial Guinea							1	French
54	Eritrea							1	English
55	Estonia							2	English
56	Eswatini							2	English

57	Ethiopia								2	English
58	Fiji								1	English
59	Finland								2	English
60	France								1	English
61	Gabon								1	French
62	Gambia								2	English
63	Georgia								2	English
64	Germany								2	English
65	Ghana								2	English
66	Greece								2	English
67	Grenada								1	English
68	Guatemala								3	Spanish
69	Guinea								1	French
70	Guinea-Bissau								1	French
71	Guyana								1	English
72	Honduras								2	Spanish
73	Hungary								1	English
74	Iceland								1	English
75	India								2	English
76	Indonesia								3	English
77	Iraq								2	English
78	Ireland								1	English
79	Israel								1	English
80	Italy								2	English
81	Jamaica								2	English
82	Japan								2	English
83	Jordan								2	English
84	Kazakhstan								2	English
85	Kenya								2	English
86	Kiribati								1	English
87	Kuwait								1	English
88	Kyrgyz Republic								1	English
89	Lao People's Democratic Republic								2	English
90	Latvia								2	English
91	Lebanon								1	English
92	Lesotho								2	English
93	Liberia								2	English

94	Libya								1	Arabic
95	Liechtenstein								1	English
96	Lithuania								1	English
97	Luxembourg								2	French
98	Madagascar								2	French
99	Malawi								2	English
100	Malaysia								2	English
101	Maldives								1	English
102	Mali								2	French
103	Malta								1	English
104	Marshall Islands								1	English
105	Mauritania								1	French
106	Mauritius								1	English
107	Mexico								3	English
108	Micronesia								1	English
109	Monaco								1	French
110	Mongolia								1	English
111	Montenegro								2	English
112	Morocco								2	French
113	Mozambique								1	English
114	Namibia								2	English
115	Nauru								1	English
116	Nepal								2	English
117	Netherlands								2	English
118	New Zealand								1	English
119	Nicaragua								1	Spanish
120	Niger								3	French
121	Nigeria								2	English
122	North Macedonia								1	English
123	Norway								2	English
124	Oman								1	English
125	Pakistan								2	English
126	Palau								1	English
127	Panama								2	Spanish
128	Papua New Guinea								1	English
129	Paraguay								2	Spanish
130	Peru								2	Spanish

131	Philippines								3	English
132	Poland								1	English
133	Portugal								1	English
134	Qatar								3	English
135	Republic of Korea								1	English
136	Republic of Moldova								1	English
137	Romania								1	English
138	Russian Federation								1	English
139	Rwanda								1	English
140	Saint Lucia								1	English
141	Saint Vincent and the Grenadines								1	English
142	Samoa								2	English
143	San Marino								1	English
144	Sao Tome and Principe								1	English
145	Saudi Arabia								1	English
146	Senegal								2	French
147	Serbia								1	English
148	Seychelles								1	English
149	Sierra Leone								3	English
150	Singapore								1	English
151	Slovakia								1	English
152	Slovenia								2	English
153	Solomon Islands								1	English
154	Somalia								1	English
155	South Africa								1	English
156	Spain								2	English
157	Sri Lanka								2	English
158	State of Palestine								1	English
159	Sudan								2	English
160	Suriname								1	English
161	Sweden								2	English
162	Switzerland								3	English

163	Syrian Arab Republic								1	Arabic
164	Tajikistan								1	English
165	Thailand								2	English
166	Timor-Leste								1	English
167	Togo								4	French
168	Tonga								1	English
169	Trinidad and Tobago								1	English
170	Tunisia								2	French
171	Turkiye								2	English
172	Turkmenistan								1	English
173	Tuvalu								1	English
174	Uganda								2	English
175	Ukraine								1	English
176	United Arab Emirates								2	English
177	United Kingdom								1	English
178	Tanzania								1	English
179	Uruguay								4	Spanish
180	Uzbekistan								1	English
181	Vanuatu								1	English
182	Venezuela								1	Spanish
183	Vietnam								1	English
184	Zambia								1	English
185	Zimbabwe								2	English
	Total VNRs	22	43	45	46	47	42	43	288	
	Total VNRs (English)								210	
	Total VNRs (French)								41	
	Total VNRs (Spanish)								35	
	Total VNRs (Arabic)								2	

Source: author, based on [UN HLPE](#) (2016-2022).

Note. Countries that submitted their VNRs during the corresponding year are marked Green, while the Red belongs to the years when a country was absent on HLPE. The Yellow highlight in the “language” column corresponds to the countries that were not considered in the analysis due to unavailability of English translation of the VNR.

Table 7: Selected countries during the second stage of content analysis

#	Country name	2016 HLPF	2017 HLPF	2018 HLPF	2019 HLPF	2020 HLPF	2021 HLPF	2022 HLPF	Total VNRs
1	Afghanistan								2
2	Austria								1
3	Cabo Verde								2
4	Cambodia								1
5	Costa Rica								2
6	Egypt								3
7	Finland								2
8	Gambia								2
9	Ghana								2
10	Guyana								1
11	Iceland								1
12	India								2
13	Kenya								2
14	Malawi								2
15	Malaysia								2
16	Mauritius								1
17	Nepal								2
18	Norway								2
19	Pakistan								2
20	Philippines								3
21	Sierra Leone								3
22	South Africa								1
23	Sri Lanka								2
24	State of Palestine								1
25	Sudan								2
26	Sweden								2
27	Switzerland								3
28	Tanzania								1
29	Thailand								2
30	Timor-Leste								1

31	Trinidad and Tobago								1
32	Uganda								2
33	Uruguay								4
	Total VNRs								62

Source: author, based on [UN HLPE](#), (2016-2022).

Note. Countries that submitted their VNRs during the corresponding year are marked green, while the red belongs to the years when a country was absent on HLPF.

Appendix B: SDG targets and indicators

Table 8: Complete list of SDG targets and indicators mentioned in the thesis

SDG target / indicator	Description
1.3.1	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable
4.1	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
4.2	By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education
4.3	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
4.4	By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship
4.5	By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
4.6	By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy
4.a	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all
4.c	By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States
8.5	By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

9.5	Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending
9.b	Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities
10.2	By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status
11.5	By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
11.7.1	Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities
13.1	Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
16.6	Develop effective, accountable and transparent institutions at all levels
17.4	Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress

Source: author, based on [UN DESA](#), (2023).

Appendix C: Action plan for SDGs integration into the budgetary frameworks of Kyrgyzstan

Table 9: SDG budget tagging implementation plan in the Kyrgyz Republic

Timeframe	Activity	Activity description	Output	Deliverables	Responsible entity
01.06.2023-30.06.2023	1. SDG budget tagging working group setup.	<ol style="list-style-type: none"> 1. Setting up of a multistakeholder working group chaired by the MoF, including the relevant national and sub-national public entities, representatives of UNDP, NGOs, CSOs, academia and think-tanks. 2. Defining the roles and deliverables of working group members. 3. Recruitment of relevant local and international consultants specialized in SDG financing. 	Working group created, consultants hired.	<ol style="list-style-type: none"> 1. Decree of the CoM on the creation of the working group issued. 2. Interview protocols. 3. Evaluation of offers. 4. Consultancy contracts. 	MoF.
01.07.23-31.07.23	2. Available data gathering.	<ol style="list-style-type: none"> 1. Detailed data on Public Investment Programs (PIPs). 2. Descriptions for each budgetary program, which contains the overall information, implementing bodies, targets and outcomes of the programs. 3. Information on all the budgetary commitments (obligatory part of the national budget that is not subject to change during the national budgetary discussions, therefore representing long-term commitments of the CoM). 4. Complete list of national SDGs, targets, and goals. 	Disaggregated and detailed data is available for subsequent analysis.	<ol style="list-style-type: none"> 1. Complete list of data sources to be used during the tagging exercise. 2. Disaggregated data on each PIP, budgetary commitment and budget programs including goals, targets, indicators, executing entities and overall description. 	Consultants under the guidance of the MoF and data provision from the NSC and other relevant stakeholders.

01.08.23-30.09.23	3. Organization of a national seminar with relevant development actors for the identification of appropriate methodological approach.	Organization of a national seminar with the involvement of representatives from public and private sectors, local authorities, academia, NGOs, CSOs, the NSC, UN system in Kyrgyzstan and other relevant actors in order to discuss and identify the appropriate methodology for SDG budget tagging.	Inputs for the development of methodology for SDG budget tagging exercise collected.	<ol style="list-style-type: none"> 1. Recruitment of short-term consultants/using the existing capacities of working group members for logistic provision and organization of the national seminar. 2. National stakeholders mapping. 3. Materials on ongoing progress and available data, scoping study on lessons learned from the implementation of similar exercises in other countries. 4. List of comments and suggestions from the participants of the national seminar. 	Consultants, the MoF, and other relevant members of the working group.
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01.10.23-31.10.23	4. SDG budget tagging methodology for Kyrgyzstan.	Based on the feedback received, development of an appropriate and feasible methodology that is adopted to a local context and budgetary frameworks of Kyrgyzstan.	Methodology for tagging exercise developed.	<ol style="list-style-type: none"> 1. Draft of the methodology developed, including the number of secondary SDG targets/indicators, and weights attached. 2. Communication with participants of the national seminar to receive second-round feedback on the drafted methodology. 3. Incorporation of the recommendations received during the second round of feedback gathering. 4. The final version of methodology developed and approved by the working group members. 	Consultants under the guidance of the working group members.
01.11.23-31.12.23	5. Budget tagging exercise.	Assigning the SDG targets/indicators to each budgetary program and PIP vis-à-vis the agreed methodology.	All budgetary programs and PIPs of Kyrgyzstan are assigned relevant SDG targets/indicators.	<ol style="list-style-type: none"> 1. Drafted report on the current governmental expenditures toward SDGs. 2. Communications between working group members to receive feedback. 3. Finalization of the report according to received feedback. 	Consultants under the guidance and overall support of the working group members.

01.01.24-15.02.24	6. Final validation with national stakeholders.	Organization of communications with relevant national and international stakeholders that were previously engaged in the process of methodology development to present the results of tagging exercise and receive the final round of feedback gathering.	The results of SDG budget tagging exercise are validated with national stakeholders, final round of comments is incorporated into the report on current governmental expenditures towards SDGs.	Finalization of the report on the governmental expenditures toward SDG achievement.	Consultants.
16.02.24-31.03.24	7. Ensuring the institutionalization of the achieved results.	1. Final report on the implementation of SDG budget tagging in Kyrgyzstan 2. Institutionalization of SDG budget tagging for annual perspective.	1. Report on lessons learned and best practices from the implementation of SDG budget tagging developed. 2. Decree issued by MoF/CoM on institutionalization of SDG budget tagging issued.	1. Documentation of lessons learned and best practices for further incorporation into Kyrgyzstan's future VNR. 2. Decree of the CoM/MoF on the procedures toward regulating the mechanism of annual SDG budget tagging established, including the methodology, executing entities and deadlines.	Consultants, the CoM/MoF.

01.04.24-31.12.24	8. On-going support to the MoF in the preparation of the 2025 SDG-based program budget, including communications, ad-hoc meetings, and other relevant consultations.	On-going support to the MoF in the preparation of the 2025 SDG-based program budget.	MoF prepares the 2025 SDG-based program budget relying mainly on its own capacity.	Communications, ad-hoc meetings, and other relevant consultations upon requests from the MoF.	Working group members and the possibility to extend the contract of one local consultant to provide overall expertise to the MoF
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