Workshop:
SDG costing and financing frameworks and simulators

Summary

Costing and financing lie at the heart of integrated national financing frameworks. They also lie at the center of the global debate to achieve the Sustainable Development Goals (SDGs). Yet, global cost aggregations mask significant disparities in the scale of SDG-related financing needs across countries. There is wide consensus across the political spectrum on the need to advance granular SDG cost assessments at the national level. This political expression has been echoed during consecutive sessions of the high-level political forum, the Economic and Social Council (ECOSOC) Forum on Financing for Development and within the ambit of the Initiative on Financing for Development in the Era of COVID-19 and Beyond. Estimating the costs of the SDGs and assessing SDG financing gaps at the national level has been an arduous task for many countries. Many United Nations specialized agencies, programmes, funds, offices and regional commissions have been working towards moving away from global aggregations to the granular level, cross-fertilizing experiences, practices and tools, especially within the concerted drive to promote integrated national financing frameworks as a primary tool to finance national sustainable development strategies and priorities.

In this context, the Committee on Financing for Development in States Members of the Economic and Social Commission for Western Asia (ESCWA) is holding a workshop on the building blocks of integrated financing frameworks, notably the tools and analysis developed by the ESCWA secretariat to cost national sustainable development goals, sectoral development plans and macroeconomic frameworks. The workshop will also discuss the SDG financing simulator being developed for Arab States to assess SDG financing gaps, propensities, densities and their potentials to mobilize additional resources to achieve national sustainable development priorities with due account given to optimize SDG interlinkages and harness the financing gains accruing from synergizing SDG costing, implementation, financing to support the transition to SDG budgeting and tagging.

The Committee on Financing for Development in the States Members of the Economic and Social Commission for Western Asia is invited to participate actively in the workshop.
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Introduction

1. With the conclusion of the first quadrennial review of the 2030 Agenda for Sustainable Development (2030 Agenda), several recommendations have been put forth, chief among to:

   (a) Improve the evaluation and analysis of evidence-based assessments to provide a holistic, yet detailed, appreciation of the cost of achieving a country’s sustainable development priorities;

   (b) Exploit SDG interlinkages and harness lost opportunities;

   (c) Canvass the outcome of these efforts into actionable reform agendas through Integrated National Financing Frameworks (INFFs).

2. Six years after the adoption of the 2030 Agenda, Governments have yet to produce needs-based financial plans to match nationally defined SDG targets. While much progress has been made in mainstreaming the global SDG framework into national sustainable development strategies, estimations of the cost of these strategies and their financial implications remain largely elusive.

3. Estimating the cost of the SDGs and assigning a price tag to 169 targets remains an arduous task. This data-driven and technically rigorous exercise can nonetheless provide insights into the use of available SDG fiscal space and the scale of additional resources required to implement national priorities. Costing exercises can also guide spending decisions, influence the design of resource mobilization strategies and validate the instruments and modes of financing most suitable for distinct goals and targets. Costing the SDGs at the national level is a key consideration for budgeting and a basis for articulating medium-term revenue and expenditure frameworks that support the transition to SDG-centric budgeting.

4. The present document aims to highlight: (a) why Governments should consider costing the SDGs at the granular level in lieu of generic or descriptive global aggregations; (b) what should be costed; (c) the broad features of costing offers and methodologies; and (d) the interlinkages that need to be factored in any SDG cost estimation. The second part of the report introduces the SDG costing framework and the SDG financing simulators developed by ESCWA. These tools aim to enhance financial management and SDG tagging by providing policymakers interactive modules that furnish a host of analysis and 2030 projections to support the implementation of national sustainable development strategies.

5. The Committee on Financing for Development in the States Members of the Economic and Social Commission for Western Asia is invited to review the content of the present document and provide comments thereon, in the context of the workshop that it is holding as part of the proceedings of its second session.

I. Advancing granular SDG cost assessments

6. Global estimates mask significant disparities in the level of SDG spending taking place across countries. By the end of 2019, global Government spending on SDG-related sectors reached $21 trillion. Nearly all of this figure came from developed economies, leaving the developing world with an SDG financing gap of $3.3-$7 trillion per year. In 2020, the COVID-19 pandemic added an estimated $2.5 trillion to the SDG financing gap. Yet, these aggregations conceal vast disparities among countries in terms of the resources needed to support COVID-19 recovery and achieve sustainable development. In fact, global cost aggregations tell us very little about asymmetric access to finance and the instruments that different countries maintain. Here, the SDG Costing and Financing Task Force argues that more detailed estimates of the revenue-raising potential of the various policy options is required at the national level.

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1 UN Development Cooperation Office, Unlocking SDG Financing.
7. In a seminal report on SDG costing and financing, the Sustainable Development Solutions Network, led by Nobel laureate Jeffrey D. Sachs, concludes that SDG cost estimates cannot in any way substitute for much needed country-level costing and fiscal planning exercises to meet the SDGs. Similarly, the 2019 high-level political forum recognized that aggregate SDG cost figures need to be complemented by granular examinations at the regional and national levels. Similarly, the World Bank cautioned against cross-country costing exercises which can be misleading, for a variety of reasons, including downplaying the role of policy and institutions in implementing national goals.2

8. To frustrate matters further, ‘The State of Financing Development in the Arab region’ finds that the cost of achieving the SDGs in the Arab region is higher than initially estimated, given that the region was suffering from a ‘financing reflux’ that remains unaccounted for in global SDG cost assessments. On this point, the 2019 Arab Economic and Social Development Summit echoed the report’s findings where the Arab region, on average, was found to be losing $2.5 on every dollar gained in cross-border financing.

9. Global SDG cost estimates carry significant limitations, not least as Governments cannot act upon them to design their national SDG financing strategies as in the case of granular SDG costing assessments. Without costing national sustainable development priorities, countries can neither assess their future expenditure requirements nor establish their budgets purposefully or establish the additional resources that need to be mobilized to expand fiscal space to achieve the SDGs. In the absence of a granular understanding of such costs, any assessment of SDG financing gaps and long-term investment requirements remains elusive.

10. Costing the SDGs at the national level therefore fills a much-needed knowledge gap in terms of scalability, financial management, budgetary planning and tagging. The costing exercise itself can provide a means to monitor financial management and guide the design of resource mobilization strategies. Costing the SDGs also facilitates financing decisions in so far as prioritizing the spending of public resources, and more importantly to appreciate the cost savings and the value of current spending on national priorities as opposed to the costs that may be incurred to achieve the same national priorities in the future.

II. Considerations for the identification of national SDG priorities

11. Several goals within the global SDG framework do not have clear numerical targets. While this leaves policymakers with room for subjective judgement, it is still the case that costing national sustainable development priorities requires predefined thresholds or quantifiable indicators of achievement that can be measured within specified timeframes. In other words, the choice of indicators and their targets are two central points for defining SDG costing and performance metric.

12. The targets themselves should be specific, measurable and achievable if Governments are to act on realistic costing figures. The choice of targets that can be costed is, nonetheless, contingent on the availability of consistent high-frequency data to measure specific SDG-related interventions (unit costs), establish comparative needs assessments (frontier analysis), project financing requirements (econometric models) and detect any cost deviations that may arise between the costs incurred and the outcomes realized.

13. Country experiences show that any SDG costing exercise is heavily reliant on the underlying assumptions. As a result, the accuracy of the cost estimates for any national priority depends on the viability of the underlying assumptions and the parametric restrictions imposed to project the cost of the SDGs. Thus, different national priorities require different costing methods and assumptions. According to the 2017 World Economic Situation and Prospects report, relying on a single measure or methodology to assess SDG costs

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and financing gaps renders distorted results. Instead, it advances that SDG costing should be assessed nationally on the basis of a mix of methodologies based on a scorecard of measures.

14. The official list of indicators in the global indicator framework can serve a baseline to cost SDG targets, particularly when lacking national targets and their corresponding indicators. In contrast, Governments may opt for alternate national thresholds/indicators than those provided by the global framework. In this regard, many acknowledge that the use of different case-sensitive indicators may be more appropriate to capture national contexts and can better inform the costing exercise as they are predisposed to capture the priorities assigned, be they at the national or sub-national levels.

15. In some cases, the costing exercise may not necessarily render or involve a money-metric figure. Rather, a change in public policies, incentives or use of new technologies, for example, can generate cost savings that were initially unaccounted for in the SDG costing exercise. Equally, maximizing financing decisions may also accrue financial savings that alter the cost implications associated with pursuing national priorities. These dynamics – at both ends of the cost and revenue cycles – as well as the uncertainties surrounding the macroeconomic situation (inflation, exchange rate, capital controls) place SDG cost estimates in a state of flux and change. SDG costing should not be administered as a one-off endeavour; instead, it should maintain sufficient flexibility to capture new contexts and factor emerging cost realities.

16. The diverse range of national priorities brings into the costing equation the issue of aggregating costs across the SDG spectrum and sectors. These aggregations may involve overlaps and possible double counting. As national sustainable development priorities are being financed, several multiplier effects and positive externalities can trigger ripple effects across other national priorities. The synergies arising from the implementation of different SDGs need to be factored in the costing exercise.

17. Accounting for SDG synergies may, in fact, render lower cost estimates than otherwise considered. The 2020 high-level political forum therefore stressed the need for integrated approaches to SDG costing that factor in and leverage interlinkages and minimize trade-offs across all SDG targets at the national level. In tandem, an understanding of how various investments and modes of financing interact to harness financing synergies and limit the trade-offs can potentially reduce the overall SDG financing gap. The lack of fiscal space in many developing countries to sustain SDG implementation provides an added impetus as to why interlinkages must be part of both the costing and financing equations.

III. SDG costing methods and methodologies

18. There is no single correct methodology to cost the SDGs. Several methodologies have been employed to cost the SDGs, including back-of-the-envelope methods that estimate incremental capital-output ratios (ICORs) that link a certain level of investments to the achievement of certain target variables; input-output elasticities that furnish cost estimates based on trend analysis; frontier analysis that derives the costs of pursuing SDG targets based on similar actions taken by comparable income economies or geographical areas (the Organization for Economic Cooperation and Development distance approach). Other methods involve sector-wide analysis based on econometric models. Some adopt a unit-cost approach that disaggregates the cost of the SDGs by country or income categories to provide ballpark SDG costing estimates. The latter have been used to provide an account of the cost of delivering public goods such as closing poverty gaps, eliminating hunger and putting an end to out of pocket health and education expenditures.

19. Typically, the methodologies that rely on cross-sectional costing render asymmetric cost estimates that vary in scope, baselines, targets and other assumptions. None of these methodologies are comparable when employed to cost national sustainable development priorities. In some instances, countries seek to establish upper and lower-bound SDG cost estimates and qualify their possible landing zones to avert shortcomings of the methodologies that are heavily geared towards econometric analysis. These methods, however, remain useful to the extent that their assumptions are validated at the national level and account for important costing determinants, including behavioural economic dynamics at play in the pursuit of different national targets
particularly in relation to costing SDGs 5 (gender equality), 9 (changing consumptions patterns), SDG 13 (the cost of climate action) and SDG 16 (quantifying the so-called windfall gains from corruption and illicit finance).

20. According to the United Nations, there is no consensus on which methodology works best, partly because there are trade-offs between the ease and rigour of different methodologies. Intuitively, the methods that are considered easier to implement (such as intervention-based needs assessments and unit costs) cannot capture some desirable technical aspects of integrated models, whereas the methods that can potentially capture spillover effects are relatively difficult to calculate and interpret. Some studies are goal-based (they work backwards from quantified, time-bound goals), while others extrapolate current trends into the future without regard to whether this will be sufficient to achieve quantified and time-bound goals. Some consider economy-wide effects or the impact of climate change while others do not.

IV. SDG costing and financing simulators

21. The SDG costing framework developed by ESCWA takes cue from the above findings to advance an intuitive multi-disciplinary approach (figure 1) that relies on a series of methodologies and empirical tools, drawn from a range of sciences and disciplines, to project and simulate the costs associated with achieving national sustainable development priority targets by 2030.

22. The framework is based on a detailed mapping of national sustainable development strategies, sector development plans and financing-related macroeconomic frameworks devised at the country level. The framework posits a set of rigorous techniques to estimate these national priorities and is complemented by mirror estimates derived from the methodologies established by the United Nations SDG custodian agencies, funds and programmes and the methods employed by international financial institutions, including the International Monetary Fund and the World Bank.

23. Data sets are built using official national statistics to project two scenarios into the future, a business-as-usual scenario and an SDG optimizing scenario that assumes attainment of the targets and/or indicators of achievement defined at the national level. Projections of business-as-usual scenarios up to 2030 are run using
the United Nations World Economic Forecasting Model, with multiple simultaneous equations employed to capture elasticities among several variables influencing the cost of targets following the methods of the SDG index and dashboard. The gap between the business-as-usual and SDG optimizing scenarios is then quantified to render an estimate of the associated cost of pursuing national priorities. The SDG costing framework is supported by a simulator developed by ESCWA that displays these cost assessments for each country and leverages an empirically based SDG optimization tool to capture the efficiency gains that can be accrued from harnessing SDG synergies based on an input-output analysis.

24. While the framework follows a defined sequence to render assessments and 2030 projections to estimate the cost of achieving national sustainable development priorities, it remains cognizant that terms such as “spending”, “expenditures”, “investment needs” and “financing” are often used interchangeably, even though each has a distinct technical meaning. The projections undertaken are as good as the time series available at the country level and the efficiency of any nowcasts that factor the effect of COVID-19 on economies. Cost estimates do not necessarily capture crucial questions of resource efficiency or quality of design in governance, policy and programmes or are intended to divert attention from those questions. The ESCWA national SDG costing framework is the product of deliberations among United Nations Sustainable Development Group entities and the members of the Inter-Agency Task Force on Financing for Development (FiD), including the United Nations Conference for Trade and Development (UNCTAD) and the United Nations Development Programme (UNDP), and has been shared with Resident Coordinator Offices (RCOs) as part of the United Nations costing offer made to Arab countries within the context of advancing pilot INFFs.

25. While extensive work has been undertaken to identify the main sources of financing available for sustainable development, projecting the availability of these financing resources remains a relatively unexplored subject, especially at the country level. Although country-specific studies have been hailed as an integral component of financing strategies for sustainable development in the Addis Ababa Action Agenda, there are few instances where country-specific models were built to establish the level of available financing for Governments to direct policies.

26. The SDG financing simulator developed by ESCWA is an interactive tool that employs a set of econometric models to assess financing needs, gaps and financing for Arab economies. The simulator provides an overview of a country’s FiD idiosyncrasies by linking the SDG costing estimations for national sustainable development priorities with measures of the aggregate mix of financing (which typically extend beyond the notions of funding or calculating fiscal space and budgetary outlays and expenditures). On this basis, the simulator further assesses SDG-related financing gaps and renders a determination of the sources of financing (public, private, domestic and international and debt leveraging capacities) and identifies the potential sources of additional financing that can be tapped to implement national sustainable development strategies.

27. Different channels of financing available to a country are then tested to provide a benchmark/baseline mapping of the FiD landscape while quantifying the untapped potential sources of financing as identified through the Addis Ababa Action Agenda. A clear understanding of this baseline is critical to calculate needs estimates. Accordingly, an aggregate measure of the resources to finance a baseline of national SDG targets is developed to determine its buoyancy and responsiveness to output growth and other macroeconomic variables. The aggregate measure of resources builds on and expands the concept established by the OECD’s measure of Total Official Support for Sustainable Development (TOSSD) beyond the scope of public official support, and factors the prime financing channels that can be tapped by a country, while analysing the magnitude of these flows (in terms of intensity and direction) under different growth scenarios and policy configurations.

28. The aim of compounding and aggregating financing flows and measures of the official support for sustainable development is to provide an integral framework that can both identify and quantify the total amount of resources available to a country to finance the SDGs or any national adaptation thereof. This measure not only helps policymakers identify key areas of interest in their financing strategies, but also allows them to forecast future progress with regards to financing the 2030 Agenda for Sustainable Development. This process provides an important normative foundation to anchor SDG financing strategies. The aggregate
measure of available resources serves as the basis for measuring the total financing available for the SDGs at the national level, and is employed to assess the progress path of countries within their INFFs and their financing strategies.

29. The SDG financing simulator (figure 2) is a normative interactive tool to support policymakers in the following:

- Establishing the growth rate required to generate sufficient levels of financing, as measured through the aggregate measure of SDG support, to finance country-specific SDG financing gaps, be they rendered on the basis of the ESCWA costing framework or other user input SDG cost estimates.
- Estimating the incidence of different policy decisions on the SDG-related financing gap by allowing for the redistribution of financial resources to attend to different national priorities, be it in pursuit of a socially conscious or economically biased financing approaches.
- Determining the magnitude of the prime channels of financing that can be mobilized to finance national sustainable development priorities for any projected levels of growth through 2030, including an embedded feature that can capture medium-term debt reduction strategies.
- Establishing a dynamic relationship to assess the impact of actual growth levels on SDG-related financing (the same functionality can be employed to capture the implications of shocks to the Gross domestic product (GDP) and their financing propensities to inform the SDG budgeting process).
- Simulating and projecting the behaviour of the prime financing channels in available countries at the national level up to the year 2030; and comparing actual versus simulated financing potentials.
- Estimating the opportunity lost in financing associated with forgone revenues corresponding to a given level of projected output or user input GDP growth forecasts.
- Estimating the rate of growth that needs to be achieved or targeted to bridge user pre-defined SDG cost estimates.
- Simulating the efficiency gains that can be achieved by improving public investment efficiency on particular SDG-related sectors, notably in infrastructure, health and education on the basis of a partial free disposal hull methodology.
- Serving as a useful component in devising national SDG financing strategies within the ambit of developing INFFs.