Innovative approaches to policymaking: evidence-based dynamic financing solutions

Summary

Considerable attention has been given to the pursuit of the Sustainable Development Goals (SDGs). However, in an era of polycrises, the relentless pursuit of financing for development remains imperative. Failure to reconcile the two would result in a dire situation where the “great finance divide” risks being translated into a lasting sustainable development divide. Such a contingency would represent a missed opportunity to transform the Arab region from an imperilled mosaic into an arc of prosperity.

As the world passes the halfway mark to the 2030 deadline, there are several pressing questions that demand timely and accurate assessments, including how to finance the SDGs; how to rebuild financing resilience in the face of cascading socio-economic shocks; how to secure adequate financing to overcome development deficits and environmental infractions; how to enhance public spending efficiency under prevalent fiscal space limitations; how to optimize the return on public resources; and how to leverage additional financing from all available sources (public, private, domestic, international, multilateral, bilateral, traditional and innovative) under increased risk exposures and debt-overhangs that further aggravate the SDG financing gap.

The present document provides a synthesis of the dynamic tools developed by the Economic and Social Commission for Western Asia (ESCWA), which include empirical-based and artificial intelligence-powered tools. They have been developed to address five major financing rifts, namely financing insolvencies, funding shortfalls, fiscal space constraints, debt-financing overhangs, and financing inequalities. By serving as a repository for analytical knowledge, ESCWA signature tools related to financing sustainable development provide evidence-based assessments and data analytics to support policymakers and enable them to make timely responses to address financing needs, shortfalls and shocks with a high degree of certainty. The tools rely on cutting-edge quantitative assessments and are pre-disposed to enhance the mobilization of domestic public resources and incentivize private investments, offering an array of solutions to ensure that Arab economies are placed on a sustainable financing trajectory to meet national sustainable development ambitions.
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Introduction

1. The fallout from the COVID-19 pandemic, the war in Ukraine and the ensuing food, fuel and climate crises, as well as the fourth wave of debt accumulation, have exacerbated financing challenges in the Arab region. Domestic public resources are contending with multiple priorities under severe fiscal space limitations. The widening current account and fiscal deficits and rising public debt are breeding a cycle of unemployment, inequality and poverty regeneration. The polycrises have brought to the forefront the need for timely and evidence-based financing solutions to mitigate their effects on societies, economies and the environment.

2. Under these conditions, the gap in financing the Sustainable Development Goals (SDG) in the Arab region has widened, and the prospects of realizing sustainable development ambitions by 2030 are becoming frail. The scale and scope of mobilizing all kinds of investments remain insufficient to reverse the major setbacks witnessed in SDG progress on many fronts, including poverty alleviation, health, education, gender equality, and inequality. Attending to these financing rifts is crucial to ensuring the achievement of the SDGs and the delivery of the new social contract they promote.

3. Policymakers are expected to prioritize and sequence their financing interventions to maximize multiplier effects and harness the synergies associated with the pursuit of the SDGs. They are also required to enhance the transparency and efficiency of public financial management to reduce financing opportunity costs, and ensure the fairness and progressivity of the enacted instruments and policies to mobilize domestic public resources. Policymakers should exercise prudence in managing public expenditures, create the fiscal space necessary to support social protection - even in contexts with large informality - and promote human and physical infrastructure. Additionally, policymakers are required to swiftly respond to socio-economic and environmental infractions.

4. In this context, policymakers need evidence-based data-driven analytical backstopping to support decision-making, be it to mobilize additional financing, or to anticipate, simulate, analyse, forecast and present alternative financing solutions to mitigate the adverse effects of unexpected shocks and maintain socio-economic stability and inclusive long-term growth. Achieving sustainable development in the Arab region requires a comprehensive approach to evidence-based financing for development.

5. The present report provides a synopsis of the digital solutions and interactive modelling tools developed by the Economic and Social Commission for Western Asia (ESCWA) to support policymakers in financing national sustainable development strategies. Each tool has been developed in conscious emulation of the need to tailor its features to national contexts and capture distinct national socio-economic idiosyncrasies. The tools presented through this document have been developed in partnership with national authorities. Others have been developed in consultation with international and regional partners, and have been tailored to support financing decisions for nationally determined Sustainable Development Goals.

I. New modalities: digital transformation policy responses and tools

6. International financial institutions and multilateral organizations have undergone a significant shift in their modus operandi. As part of the digital transformation and the United Nations “Quintet of Change”, digital tools are rapidly being developed to replace the traditional form of knowledge dissemination through research or scholarly publications. Digital platforms have emerged to harness these dynamic tools, provide interactive, extensive and real-time assistance to policymakers, and offer client-oriented, practical and actionable guidance.

7. The United Nations developed a range of dynamic tools to monitor the implementation and progress of the SDGs. Digital tools offer interactive experiences and simplify complex concepts that allow policymakers to undertake data-driven assessments and calculations at the touch of a button. The interactive tools that are being advanced are scalable and maintain higher penetration capacity while being easily adaptable to country-specific contexts.
Figure 1. United Nations Quintet of Change

ESCWA has undergone a transformative change to become more efficient, impactful and responsive to the needs of its member States. The new ESCWA vision is prompted by the growing need to keep pace with rapidly changing national, regional and global landscapes. By becoming an innovative catalyst for positive change, ESCWA interventions are shifting from the traditional supply of research and scholar products towards the development of more agile, dynamic and interactive tools leveraging a wide range of sciences that employ evidence-based artificial intelligence and machine learning techniques to address new challenges and emerging needs. The shift towards responses based on clients’ needs offers greater and sustained potentials for improving both the impact and pace of the policy choices that can prompt appropriate responses to emerging risks and shocks.

Figure 2. Report of the Secretary-General on the ESCWA interactive tool


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The developed financing tools serve multiple purposes, including guiding and aiding policymakers in assessing the impact of financing decisions, and predicting – with a high degree of certainty – their outcomes and potential SDG landing zones (figure 3). The tools also provide a reliable premise to identify national financing needs; estimate financing potentials; simulate financing trajectories under various scenarios; assess the costs of national sustainable development visions, plans and targets; estimate the gains from sequencing investment decisions; prioritize financing decisions, and assess SDG progress and implementation gaps. The tools also offer pathways to support public financial management and pave the way for the transition to SDG-credible budgets that optimize the use of available public revenues to maximize SDG impact.

Figure 3. Functions of national SDG-costing simulators

Note: INFFs refers to integrated national financing frameworks; GDP refers to gross domestic product.
10. ESCWA dynamic financing tools have been developed with the purpose of piloting integrated national financing frameworks in selected Arab countries, and should be seen as part of a process to underwrite effective transformation in the way SDGs are pursued at the national and regional levels ahead of the 2030 SDG Summit, the High-level Dialogue on Financing for Development (September 2023), and the Summit of the Future in 2024, eventually culminating to feed into the Fourth International Conference on Financing for Development in 2025.

A. National SDG costing calculators

11. Costing national SDGs, benchmarks, targets and plans is essential to achieving the 2030 Agenda for Sustainable Development. SDG cost estimates provide insights into how domestic resources should be mobilized, which spending decisions should be prioritized, and which modes of financing hold higher SDG impacts. Without adequate assessments of costs, financing needs and investment requirements can remain elusive, and Governments may encounter difficulties in assigning a price tag to their nationally defined SDG priorities.

12. ESCWA national SDG costing calculators offer dynamic means to estimate the cost associated with achieving national sustainable development priorities. These calculators leverage on the ESCWA SDG costing framework, which employs a range of methodologies and empirical methods to project and simulate cost trajectories until 2030. The calculators use rigorous analytical techniques to estimate SDG costs and are complemented by computing mirror estimates drawn from a variety of tools developed by United Nations specialized agencies, funds, programmes, SDG custodians, and international institutions.

13. The calculators provide cost estimates for up to three targets per Goal where high-frequency data is available to justify trend analysis capitalizing on the SDG trend dashboard developed by Jeffrey Sachs. The calculators have embedded features that factor in gross domestic product (GDP) projections and can be adjusted to account for changes in inflation, population and currency depreciation/appreciation, leveraging on the United Nations World Economic Forecasting Model.

14. Costing the SDGs at the national level fills an essential knowledge gap in scalability, financial management, budget planning and execution (box). 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 by prioritizing the spending of public resources, and provides an appreciation of the cost savings and value of current spending on national priorities as opposed to the costs that may be incurred to achieve the same priorities in the future.

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<td>Below are excerpts from different sources about SDG costing:</td>
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<td>“Aggregate SDG costing figures mask significant disparities and need to undergo granular examinations at the regional and national levels.” – High Level Political Forum on Sustainable Development (HLPF), 2019</td>
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<td>“Relying on a single measure or methodology to assess financing gaps renders distorted results.” – United Nations Department of Economic and Social Affairs (UNDESA), 2019; World Economic Situation and Prospects (WESP), 2018</td>
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<td>“Countries should conduct their own SDG financing needs assessment.” – Financial Needs Assessment (FNA) Sustainable Development Solutions Network</td>
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<td>“We cannot in any way substitute for much-needed country-level costing and financing planning.” – United Nations Task Force on Costing and Financing</td>
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<tr>
<td>“Without regional and national financing, joint action will fall short of implementing the SDGs.” – League of Arab States (LAS), 2019</td>
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<td>“Without costing, Governments will be unable to prioritize financing.” – First SDG Quadrennial Review</td>
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15. The SDG costing calculators offer a dynamic medium to estimate the cost of national sustainable development priorities, track SDG progress, and delineate future trajectories and landing zones, capturing the plausible efficiency gains to be accrued by optimizing financing decisions and accounting for SDG interlinkages.

B. SDG interlinkage optimization

16. The complex nature of SDG interactions presents challenges for policymakers who must prioritize and allocate resources across multiple sectors and priorities with limited public resources on hand. One of the key challenges is aggregating costs across the SDG spectrum and sectors, which can lead to overlaps and potential double-counting, thus complicating the costing exercise. Implementing one SDG can have positive ripple effects on others, giving rise to synergies that can reduce overall costs.

17. To address these challenges, the 2020 High-Level Political Forum stressed the need for integrated approaches to SDG costing that factor and leverage interlinkages and minimize trade-offs across all SDG targets at the national level. This is where the ESCWA SDG optimization tool can be put to good use. The tool leverages on an econometric model to help policymakers better understand the interlinkages between the SDGs and develop integrated solutions that maximize progress towards multiple SDGs simultaneously. By factoring the efficiency gains rendered by sequencing financing interventions, policy interventions can be more targeted and reap the gains from harnessing SDG interlinkages. In addition to optimizing SDG costs, the tool also estimates efficiencies accrued from optimizing investment decisions. This feature enables policymakers to capture under-defined SDG costing and financing options, allowing them to make informed decisions that align with their national sustainable development priorities.

C. Evidence-based financing tools

18. While extensive work has been undertaken to identify the main sources of financing available for an economy, projecting the availability of these financing resources under different scenarios remains a relatively unexplored subject, especially at the country level. This has created a gap in understanding the potential financing options available to Governments, making it challenging for policymakers to direct policies effectively. However, there are few instances where country-specific tools were built to establish the aggregate measure of resources available to finance the SDGs in a holistic manner - beyond the measure of the Total Official Support for Sustainable Development (TOSSD) - to direct financing decisions.

1. National SDG financing simulators

19. ESCWA national financing simulators capture and analyse the financing flows available to countries, which allows policymakers to assess the impacts of different growth levels on the different financing channels. On this basis, the simulator renders a determination of the magnitude of resources available to finance the SDGs (public, private, domestic, international, and debt leveraging capacities) while identifying the potential sources of additional financing that can be tapped to increase the financing flows channelled towards the economy.

20. In other words, the ESCWA financing tool simulates the behaviour of the prime financing channels available to countries and estimates the opportunity lost in financing in relation to forgone revenues. The tool also embeds a feature that captures medium-term debt reduction strategies. By providing policymakers with a comprehensive understanding of available financing channels, the tool helps countries make informed decisions on financing and investment strategies, moving them closer to achieving the SDGs. Overall, SDG-financing tools play a crucial role in supporting Governments, organizations and investors in understanding the financial dimensions of SDG implementation, facilitating informed decision-making, and promoting sustainable development (figure 4).
21. The Arab region is challenged by an anomaly of financing vulnerabilities that continue to manifest themselves asymmetrically across economies, adding to existing inequalities and the price tag of achieving the SDGs. To date, policymakers have not been able to capture the amount of financing that is being channelled towards each of the SDGs or how much has been invested in them to determine with a high degree of confidence the financing gap corresponding to the realization of each identified national target.

22. ESCWA SDG financing simulators are an invaluable resource for policymakers who are committed to advancing their country's sustainable development goals. Powered by advanced econometric models, the tools provide a comprehensive overview of a country's financing for development needs, bridging the gap between SDG costing estimates and measures of the aggregate financing mix. Policymakers can leverage on this tool to determine the magnitude of financing that is being channelled to national sustainable development priorities, including debt financing, while taking into account the Government's debt to GDP threshold. In doing so, the tool empowers policymakers to make well-informed decisions on financing and investment strategies, driving the country towards the realization of its SDGs.

23. The financing simulators have embedded features that allow policymakers to establish and simulate the effects of macro-economic shocks on a country’s financing propensities. As such, the simulators provide a means to reduce risks associated with the volatility of SDG financing and align financing decisions with long-term sustainability horizons. The simulators also allow policymakers to monitor and evaluate SDG financing gaps annually and up until 2030, and to determine how far they have come in achieving national targets, thereby providing a means to enhance public finance accountability.

24. The simulators provide insights to understand the behaviour and financial implications of pursuing SDG targets and identifying strategies to mobilize the necessary funds. They also offer a dynamic means to estimate the financial requirements associated with achieving specific SDG targets over a given timeframe. They consider various factors such as investment needs, resource allocation, and the costs of implementing specific projects or programmes related to the SDGs. The simulators enable users to explore different scenarios and assess the financial implications of different policy choices or investment strategies. This allows decision-makers to understand the potential outcomes and trade-offs associated with different approaches to SDG financing. They have also proven to be useful in identifying financial gaps between the available funding and
the required resources for achieving the SDGs. By quantifying these gaps, decision-makers can develop strategies to bridge them, such as attracting private investments, securing grants, or leveraging innovative financing mechanisms. The simulators also incorporate risk analysis capabilities to evaluate the potential risks and uncertainties associated with SDG financing and can assess factors like market volatility, policy changes, project delays, or other external risks that may impact the financial feasibility of SDG initiatives.

2. SDG financing gap estimator

25. There is a significant gap between the amount of financing being channelled to achieve the nationally determined SDGs and the amount needed to achieve these priorities. Policymakers and stakeholders are able to establish their aims and long-term objectives, but are not equally able to estimate the additional resources needed to pursue their national development strategies, macro-economic frameworks and sectoral development plans, whether through increasing government spending, attracting private domestic or private international investments, or accessing international development finance.

26. The ESCWA SDG financing gap estimator provides policymakers with the means to track the financing needs of their country's sustainable development priorities. By employing advanced econometric models, this tool determines the remaining financing resources required to achieve progress on the national SDGs based on user-inputted levels of growth. It also allows policymakers to input projected GDP growth levels and observe their impact on the various financial flows accessible to bridge SDG financing gaps by 2030, and enables them to see how the gap is distributed among all SDGs. The tool's ability to estimate the financing gap and identify potential sources of additional financing is essential for policymakers to develop effective financing and investment strategies, ultimately advancing progress towards achieving the nationally determined SDGs.

3. SDG financing solver

27. There is no one-size-fits-all answer to the question of what level of GDP growth is needed for countries to achieve the SDGs by 2030, as each country's steady-state equilibrium, starting points, national priorities, development trajectory, and challenges are unique.

28. The ESCWA SDG financing solver uses a statistically driven optimization function to help policymakers estimate 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, which are rendered based on the ESCWA costing framework or other user-inputted SDG cost estimates. Policymakers can also prioritize economic, social or environmental strategies and estimate the rate of growth needed to finance them while ensuring that Government-imposed debt thresholds are not exceeded. This approach allows countries to identify the most effective and feasible path towards achieving their sustainable development priorities.

4. SDG-PCA barometer

29. The United Nations SDG framework captures diverse common public global priorities. The global indicator framework for the SDGs includes 231 different indicators. With only seven years left to achieve the SDGs, there is an urgent need to employ a method that reduces the large data but still captures critical information to monitor SDG progress in each country, and that targets demanding issues hindering progress at the national or granular level as opposed to generic worldwide aggregations.

30. The ESCWA SDG-Principal Component Analysis (SDG-PCA) barometer addresses this complexity. It is able to identify which indicators have the most significant impact on the overall success of sustainability goals and objectives and the magnitude of the relationship. Thus, it improves measurability in the analysis.

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3 The total number of indicators listed in the global indicator framework of SDG indicators is 247. Twelve indicators are repeated under two or three different targets.
The tool provides valuable insights to help understand the dynamic interaction between the indicators under each SDG, i.e. to determine the relative weight of each indicator in driving progress in the overall goal.

5. FFD data analytics

31. The data analytics database is a valuable tool for monitoring progress and tracking the means of implementation of the 2030 Agenda in the Arab region, which is considered critical at the global, regional and national levels. The database employs over 25 empirical models, algorithms and quantitative regression analyses to provide a comprehensive view of the financing landscape, while covering more than 22 prime channels of financing available to a country, as prescribed by the Addis Ababa Action Agenda. The data analytics database supports the development of integrated national financing frameworks as it provides the necessary evidence-based tools to undertake development finance assessments, identify the diagnostic of the financing landscape, and put in place a national financing strategy.

Figure 5. Integrated national financing frameworks

32. The database offers detailed analyses and measures of financing for development in the Arab region, and documents progress across the different channels of financing for development therein, including public, private, domestic and international traditional and innovative financing. The database also showcases the national scorecard for Arab countries, which serves as a national measurement tool and analytical compendium. It tests the malleability of the global framework against the context and conditions at the country level, taking into account various factors such as net changes in financial flows, external debt stocks, innovative financing, international trade and humanitarian financing, debt and the Bank of International Settlements (BIS) reporting claims of Arab countries. Additionally, it captures corresponding outflow channels such as remittance inflows and outflows, illicit hot money narrow outflows and trade mis invoicing, profits repatriated by foreign investors, official development assistance, the principal on public and publicly guaranteed long-term debt, International Monetary Fund credits, interest payments on foreign debt, humanitarian aid, excessive military expenditure, the cost of remittances, and total bank liabilities as declared by the BIS.

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In summary, the data analytics database provides policymakers and stakeholders with a robust tool for monitoring progress toward the SDGs and developing effective financing strategies. By providing a comprehensive overview of the financing landscape, it enables policymakers to identify gaps and opportunities and make informed decisions to move closer to achieving their SDGs.

II. Conclusion

The utilization of evidence-based tools holds significant promise in guiding and enhancing decision-making processes across various domains. The presented set of evidence-based tools represents valuable resources that can empower policymakers, practitioners and stakeholders to make informed choices and achieve desired outcomes. By leveraging these tools, decision-makers gain access to robust data, analysis and insights, enabling them to better understand complex challenges, identify effective interventions, and allocate resources efficiently. The adoption of evidence-based tools fosters transparency, accountability and efficiency in decision-making processes. By grounding decisions in rigorous evidence, policymakers can demonstrate the rationale behind their choices and promote public trust in the decision-making process. This, in turn, encourages greater stakeholder engagement, collaboration and consensus-building, leading to more effective and sustainable solutions.

However, it is equally important to recognize that evidence-based tools are not standalone solutions. Their successful implementation requires a supportive ecosystem that includes strong data systems, research capacities, and an enabling policy environment. Additionally, ongoing evaluation and feedback loops are crucial for continuous adaptation and improvement. ESCWA can support Governments with the adaptation and rollout of these tools to support the financing of national sustainable development imperatives and priorities.